

**Changes to the Protected
Payments System (PPS)**
Currency holiday processing
& Day 1 Currencies

March 2016

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Table of Contents

Table of Contents	3
1. Introduction	6
1.1. About this Document	6
1.2. Contacts	6
1.3. Clearing House Rules and Regulations	6
2. Executive Summary	7
3. Key Points	9
4. Glossary	10
5. The PPS System: an overview	11
6. Impact for Clearing Members of EquityClear, EnClear and LSEDM	13
6.1. Changes to Credit Variation Margin Processing	13
6.2. Changes to Debit Variation Margin Processing	13
6.3. Current Process – Clearing Member Preferences for End of Day (EOD) and Intraday (ITD) Margin Calls	14
6.4. Changes to Clearing Member Preferences for EOD/ITD Margin Calls	15
6.5. Changes to End of Day Margin Processing	15
6.6. The Day After The Currency Holiday	16
6.7. Margin Call Reporting	17
6.8. Banking Reports	17
6.9. Settlement Date Change	17
7. RepoClear Specific Changes	18
7.1. Changes to Credit Variation Margin Processing	18
7.2. Changes to Debit Variation Margin Processing	18
7.3. Current Process – Clearing Member Preferences for End of Day (EOD) and Intraday (ITD) Margin Calls	19
7.4. Changes to Clearing Member Preferences for EOD/ITD Margin Calls	20
7.5. Changes to End of Day Margin Processing	20
7.6. The Day After The Currency Holiday	21

Table of Contents

7.7.	Margin Call Reporting	22
7.8.	Banking Reports	22
7.9.	FX Cash Haircut	22
8.	SwapClear Specific Changes	23
8.1.	Changes described apply to all SwapClear SCM and FCM clearing members	23
8.2.	Current Process – Clearing Member Preferences for End of Day (EOD) and Intraday (ITD) Margin Calls	23
8.3.	Changes to Clearing Member Preferences for EOD/ITD Margin Calls	23
8.4.	Changes to Initial Margin Processing	24
8.5.	The Day After The Currency Holiday	24
8.6.	SwapClear House Account VM Impact Of Currency Holiday	25
8.6.1.	Members with Debit Variation Margin	25
8.6.2.	Members with Credit Variation Margin	25
8.7.	SwapClear Client Account VM Impact of Currency Holiday	26
8.7.1.	Client Funds with Debit Variation Margin	26
8.7.2.	Client Funds with Credit Variation Margin	26
8.8.	Other Considerations	27
8.9.	Reporting Changes at a Glance	28
8.10.	NOK & CHF PPS Reform	28
8.10.1.	Change Approach/Impact to Members	28
9.	Listed Rates Specific Changes	29
9.1.	Current Process – Clearing Member Preferences for End of Day (EOD) and Intraday (ITD) Margin Calls	29
9.2.	Changes to Clearing Member Preferences for EOD/ITD Margin Calls	29
9.3.	Changes to Initial Margin Processing	29
9.4.	The Day After The Currency Holiday	30
9.5.	Changes to Credit Variation Margin Processing	30
9.6.	Changes to Debit Variation Margin Processing	31

Table of Contents

9.7.	Other Considerations	32
9.8.	Margin Call Reporting	32
9.9.	Member IM Reports	32
9.10.	Banking Reports	32
10.	ForexClear Specific Changes	33
10.1.	Current Process – Clearing Member Preferences for End of Day (EOD) and Intraday (ITD) Margin Calls	33
10.2.	Changes to Clearing Member Preferences for EOD/ITD Margin Calls	33
10.3.	Changes to Initial Margin Processing	34
10.4.	Member Impact on a US Currency BankHoliday	34
10.4.1.	Members With Debit Variation Margin	34
10.4.2.	Members With Credit Variation Margin	35
10.5.	Maintaining Client Segregation of Assets	35
10.5.1	Client Funds With Debit Variation Margin	35
10.5.2	Client Funds With Credit Variation Margin	36
10.6.	The Day After The Currency Holiday	36
10.7.	Reporting	37
11.	Appendix A – Cover Distribution: Description of Collateral application	38

1. Introduction

1.1. About this document

This document provides a detailed description of changes to the Protected Payments System (PPS) with regards to:

- Processing of margin calls on currency holidays; and
- Changes relating to the settlement of CHF and NOK.

The changes described in this document only relates to the business of LCH.Clearnet Ltd (hereafter referred to as LCH) and not LCH.Clearnet SA or LCH.Clearnet LLC.

The document describes the changes and the potential impact on Clearing Members including:

- How the changes will impact margin calls on Currency Settlement Holidays;
- Margin call currency configuration rules;
- Changes to clearing services report; and
- Changes to Banking reports.

1.2. Contacts

Questions about the changes to currency settlement holiday processing should be emailed to:

collateralqueries@lchclearnet.com

membershipsales@lchclearnet.com

1.3. Clearing House Rules and Regulations

This document is to be read in conjunction with the General Regulations, Default Rules and Procedures. Where there is any conflict between these documents, the General Regulations, Default Rules and Procedures will prevail.

LCH will determine the rule changes required in order to implement the services described.

2. Executive Summary

At the request of PPS banks, LCH is making changes to the way in which margin calls are processed on currency holidays. These changes will mean that LCH will not seek irrevocable commitment (margin call confirmation) in advance of the value date for any same day currencies on currency holidays. Currently PPS banks provide LCH with an irrevocable commitment to pay a margin call on a currency holiday. For example, LCH will call GBP on a GBP holiday for value the next good settlement day. PPS banks provide confirmation of the call despite the currency being on holiday.

This applies a level of risk to the PPS Bank, since they must ensure that their client (Clearing Member of LCH) has either a sufficient balance in place or a pre-agreed credit line.

The change described in this document will impact margin calls in the following currencies:

- GBP;
- EUR;
- USD;
- CAD;
- NOK¹;
- CHF¹

To address the concern of the PPS banks, LCH will;

- I. Treat Variation Margin (VM) losses as an additional IM liability for days on which the VM currency is on Holiday
- II. Instruct all IM Margin calls in an open PPS currency

For example if it is a GBP currency holiday, and a member has a GBP VM loss, their margin requirement will be increased to reflect the loss. Should the member hold insufficient assets to cover their liability, LCH will call either USD or EUR assuming that it is a valid business day for those currencies (note where there is a holiday for all 3 of the major call currencies, LCH is closed).

Members are currently able to apply preferences to the currency they wish to be called to cover overnight initial margin calls. These preferences will be used first where possible. Where it is not possible to use these preferences, due to the preferred currency also being on holiday, LCH will use a set of rules to determine the currency to be called.

¹NOK and CHF are currently settled on a next day basis by LCH. LCH plans to move the settlement of these currencies to a same day basis.

Alongside LCH making calls in an alternative currency on a bank holiday, PPS banks also advised that where possible LCH should aim to settle currencies on a same day basis. CHF and NOK are currencies for which it is now possible to settle on a same day basis. LCH will therefore move settlement to a same day basis for these currencies.

No changes will be made to settlement of other next day currencies.

In addition to the changes above Repoclear and Swapclear will be adding an additional element to their initial margin calculation to account for FX exposure. Details can be found in the service specific section.

3. Key Points

- All LCH Limited Clearing Services and Clearing Members including FCMs are impacted.
- All sub-accounts are impacted apart from F (Default fund) accounts. Default funds are not called on Bank Holidays.
- Currencies CHF and NOK will move from next day currencies to same day currencies.
- Members will see an impact on all same day currency holidays (CAD, CHF, EUR, GBP, NOK and USD).
- The settlements of margin in next day currencies (JPY, AUD, CZK, DKK, HKD, HUF, NZD, PLN, SEK, SGD, and ZAR) are not impacted by this change.
- All Clearing Members will require EUR, GBP and USD PPS accounts in UK PPS.
- Existing call preferences will continue to apply, however where the IM call preference is a holiday currency, margin calls will be instructed in the alternative currencies indicated in the currency tables.
- Auto-repay will be switched off for the CCY on holiday.
- There will be no Variation Margin settled in the holiday currency.
- Interest, Collateral Fees and Default fund contributions will not be posted on currency holidays.
- Alternative cash called will be paid interest in line with a member's current account setting.
- If securities are used to cover the debit liability normal accommodation charges will apply.

4. Glossary

CMS	The Clearing House's online Collateral Management System.
EOD	End of day: differences between processes conducted as part of an overnight margin cycle and those occurring ITD.
ITD	Intraday: differences between processes conducted as part of an ITD margin cycle and those occurring EOD.
Margin Requirement	The Initial Margin determined by the Clearing House prevailing at a given time.
PPS	Protected Payments System: the Clearing House's cash settlement system supervised by the Bank of England.
Call Preference Currency	For each sub account, members can specify their call currency. For an account, a currency can be specified for intraday call and EOD calls independently.
Collateral Application	A sub process of Cover Distribution that seeks to cover all liabilities with eligible cash and collateral and is driven by Member preferences and System specified behaviours. See section 3 Financial Transactions (LCH website).
Cover Distribution	The process that offsets liabilities and then utilises collateral and cash as cover.
Cover Preferences	Member choices that influence the behaviour of the Collateral Application process. See Appendix A.
Eligible IM Currency	GBP, USD, CHF, EUR, JPY, SEK, CAD, NOK and DKK.
Reporting Currency	Each Service sends their IM liabilities consolidated by portfolio to the LCH Banking system in the following reporting currencies: GBP, EUR, NOK or USD.

5. The PPS system: an overview

LCH issues PPS margin calls for two purposes;

- I. To cover any currency specific short balances on a clearing member's collateral account resulting from settlement debit postings. I.e. to cover variation margin (VM)
- II. To increase clearing members total assets where they are lower than margin requirement. I.e. to cover initial margin (IM)

VM Calls

LCH clearing services calculate and settle VM daily in the currency of the underlying cleared asset, which results in a number of, currency specific, credit or debit postings being made to clearing members house or client collateral accounts during the EOD batch process. These positing will have the effect of either increasing or decreasing a clearing members account balance in each of the currencies for which they settle VM.

Where VM postings result in a positive account balance in a currency that positive balance can be repaid to the clearing member via PPS or, where the currency is eligible, can be used to cover the liability associated with the same account.

Where VM postings result in a negative account balance in any currency, those negative balances must be covered in the correct currency cash and a PPS call will be issued as part of the EOD PPS calls process.

Clearing members are required to maintain PPS arrangements in any currencies for which VM can be posted. These PPS arrangements must be with a London PPS bank as all calls relating to VM are to be covered at the start of the UK day.

IM Cover Calls

A clearing member's margin obligations are recorded against their house or client collateral accounts in the books and records of the Clearing House. Against these same accounts, LCH records cover in the form of cash (in eligible currencies) and collateral in the form of securities. LCH performs asset versus liability offsetting for these accounts with any collateral shortfall generating a margin call.

The order in which cash or securities are used to cover a liability at LCH is driven by member specific preferences which are recorded at a collateral account level. If, at any time, a member's assets are insufficient to cover their liability, LCH may issue a PPS call for cash to cover the shortfall.

A PPS call for IM can be made in the following currencies which are considered acceptable cash assets.

- GBP;
- EUR;
- USD.

The currency in which the call is made will depend upon on member's specific preference which is recorded at their collateral account level. Where no call preference is recorded on an account, LCH will issue a PPS call in the currency of the liability.

Today when a margin call is generated LCH will instruct the Clearing Member's designated PPS bank to debit the Member's account and credit its own account at the same bank. The call is considered met when the PPS bank confirms the credit.

Each Clearing Member is required to maintain at least one USD PPS account with a bank that participates in the US PPS system. This is used to meet ITD calls made outside of the London PPS system hours.

For the implementation of the changes to currency holiday processing, it will be a requirement for all clearing members to maintain a GBP, EUR and USD PPS account in the London PPS.

6. Impact for clearing members of EquityClear, EnClear and LSEDM

6.1. Changes to Credit Variation Margin processing

The changes to credit variation margin will only impact same day settlement currencies. Credit variation margin in next day settlement currencies will not be impacted and will continue working as they do today.

Payments of credit variation margin in the currency which is on holiday will be deferred to the next good settlement day of that currency. The amount of the deferred credit variation margin will be converted into a credit liability, where the currency is an existing eligible initial margin currency. This liability will be called a Currency Settlement Holiday liability 'CSH Liability'. The credit CSH liability will be treated as an asset and will offset a member's Initial margin requirement on the currency settlement holiday within the exchange to which it belongs.

For example:

- EUR currency settlement holiday.
- The clearing service calculates its initial margin requirement in GBP.
- There is a credit variation margin payment due in EUR.

In the above scenario the credit variation margin payment will be deferred to the next good working day for EUR. The value of the deferred credit variation margin is posted to the clearing member's collateral account as a credit liability. The credit liability will be converted to a GBP amount and offset against the GBP initial margin requirement.

6.2. Changes to Debit Variation Margin processing

The changes to debit variation margin will only impact same day settlement currencies. Debit variation margin in next day settlement currencies will not be impacted and will continue working as they do today.

Debit variation margin in the currency which is on holiday will be deferred to the next good settlement day of that currency. The amount of the deferred debit variation margin will be converted into a debit liability. This liability will be called the 'CSH Liability'. The debit CSH liability will be posted in its original currency and subject to a clearing members cover preferences.

The new liability can be covered with securities or cash.

For example:

- EUR currency settlement holiday.
- The clearing service calculates its initial margin requirement in GBP.
- There is a debit variation margin call due in EUR.

In the above scenario the debit variation margin call will be deferred to the next good working day for EUR. The value of the deferred debit variation margin is applied to the clearing member's collateral account in its original currency as a debit liability for the service the debit is associated too. The new EUR debit liability will then be covered with either cash or securities according to the member's initial margin cover preferences.

In the absence of a preference currency the system will default to call in the currency of the liability. Please refer to the table in 6.5. For PPS call currency order.

6.3. Current process – Clearing member preferences for End of Day (EOD) and Intraday (ITD) margin calls

The current currency application process is described in the Clearing House's procedures: specifically 'Section 3 Financial Transactions' which describes the sequence in which cash and collateral is utilised. It also describes the choices available to Clearing Members to influence this sequence and importantly whether only same-currency cash and collateral can be utilised or whether cross-currency cash and collateral can be used to cover liabilities (further conditions apply).

Members must nominate the currency in which they wish to cover IM liabilities as LCH allows cross-currency cover for initial margin.

For example, a clearing member who has a GBP initial margin liability can opt to cover this liability first using EUR cash balances and then USD and GBP cash balances and then finally to be called in EUR for any deficits.

6.4. Changes to clearing member preferences for EOD/ITD margin calls

Currently if a clearing member has (for example) opted to be called in EUR for EOD and ITD margin calls², LCH will send a margin call their PPS bank regardless of whether there is a EUR holiday.

The call will be sent for the next good EUR settlement date but the PPS bank is required to confirm the margin call on the currency holiday.

Going forward LCH will not call EUR on a EUR currency holiday. Instead, LCH will determine another currency to call that is open for settlement i.e. GBP or USD.

The scenario where EUR, GBP and USD are on holiday is not relevant since LCH will not be open.

6.5. Changes to End of Day Margin processing

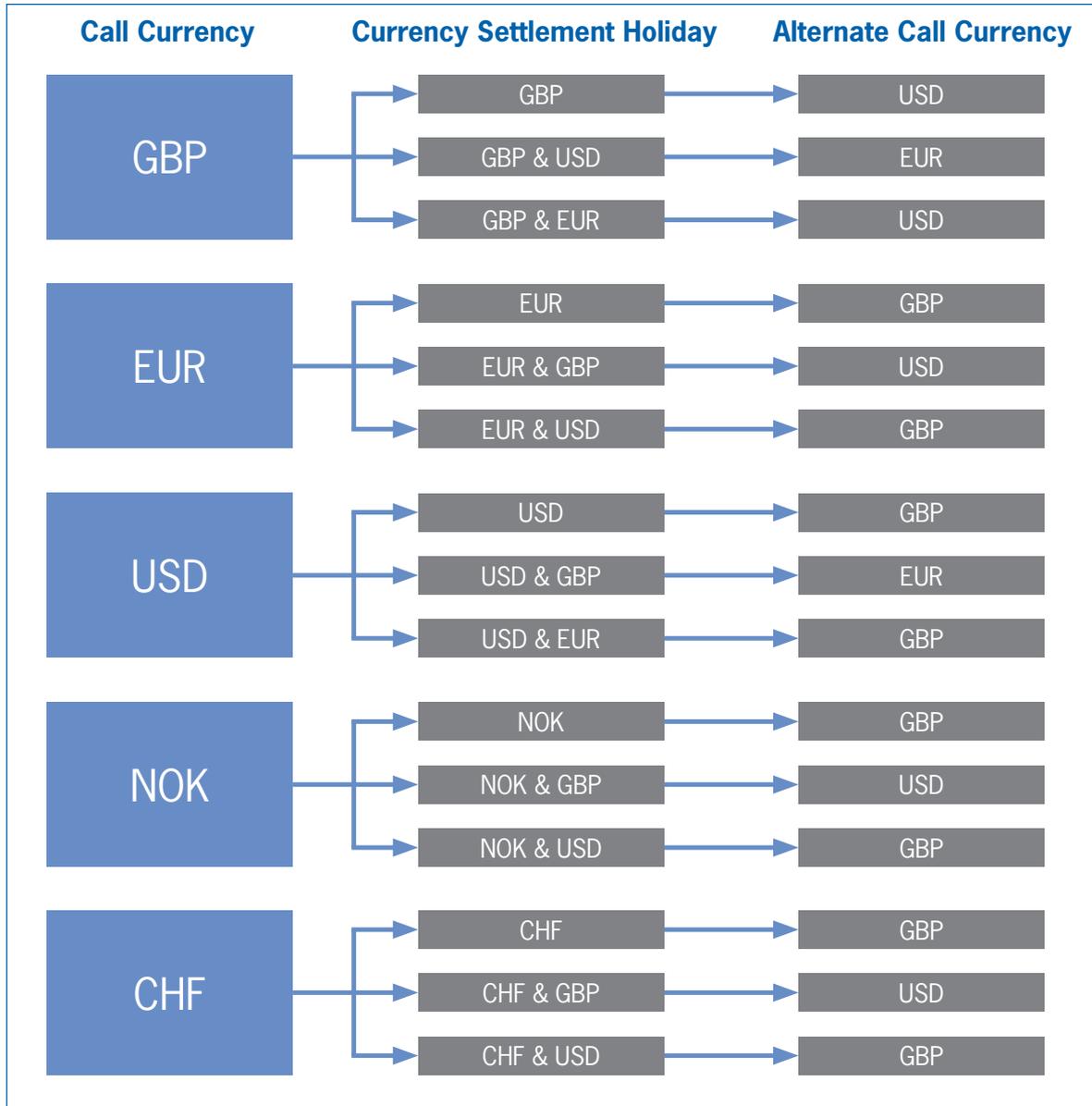
A clearing member whose chosen currency for EOD margin calls is on holiday will instead be called an alternative currency that is not on holiday. In this way, the PPS Bank will be providing confirmation for that currency on the same day; this removes their exposure over the holiday period.

Please see appendix A

The following currency order rules will apply.

- Please note the default call currency is the same as the liability currency
- liabilities are delivered in EUR, CHF, GBP, NOK and USD

²Different currencies may be specified for EOD and ITD margin calls.



6.6. The day after the currency holiday

Following the currency holiday LCH systems will apply the usual call currency settings to Clearing Member accounts:

Depending on the account's settings the alternative currency previously called will either be:

- Automatically repaid and replaced with the usual call currency; or
- Will remain on the Clearing Member's account as part of the cash balances and can be withdrawn through CMS, as required.

The currency holiday credit and debit liabilities will expire and be removed from the relevant account.

6.7. Margin Call Reporting

There are no changes to the Clearing House's existing notification channels when Members are being called. The notification that a margin call has been generated and sent for settlement will continue to be delivered to the email addresses specified in the account preferences for each Collateral Account.

6.8. Banking Reports

The following Member reports will be impacted by the introduction of this service:

REP00021 – Initial and Variation Margin Report

The field titled 'Additional Margin' will now show the individual credit and debit CSH liabilities created by the currency settlement holiday.

All other reports remain unchanged.

Please note there will be two sets of VM cash postings on Report 22 and 29 on the next good working day after a holiday incorporating the deferred currency settlement holiday postings and the postings of that day.

6.9. Settlement Date Change

LCH plans to change the settlement date of currencies Swiss Franc (CHF) and Norwegian Krone (NOK). CHF and NOK are currently processed by LCH on a next day settlement basis. LCH will be changing these currencies into same day settlement currencies.

7. RepoClear Specific Changes

7.1. Changes to Credit Variation Margin processing

The changes to credit variation margin will only impact same day settlement currencies. Credit variation margin in next day settlement currencies will not be impacted and will continue working as they do today.

Payments of credit variation margin in the currency which is on holiday will be deferred to the next good settlement day of that currency. The amount of the deferred credit variation margin will be converted into a credit liability, where the currency is an existing eligible initial margin currency. This liability will be called a Currency Settlement Holiday liability 'CSH Liability'. The credit CSH liability will be treated as an asset and will offset a member's Initial margin requirement on the currency settlement holiday within the exchange to which it belongs.

For example:

- EUR currency settlement holiday.
- The clearing service calculates its initial margin requirement in GBP.
- There is a credit variation margin payment due in EUR.

In the above scenario the credit variation margin payment will be deferred to the next good working day for EUR. The value of the deferred credit variation margin is posted to the clearing member's collateral account as a credit liability. The credit liability will be converted to a GBP amount and offset against the GBP initial margin requirement.

7.2. Changes to Debit Variation Margin processing

The changes to debit variation margin will only impact same day settlement currencies. Debit variation margin in next day settlement currencies will not be impacted and will continue working as they do today.

Debit variation margin in the currency which is on holiday will be deferred to the next good settlement day of that currency. The amount of the deferred debit variation margin will be converted into a debit liability. This liability will be called the 'CSH Liability'. The debit CSH liability will be posted in its original currency and subject to a clearing members cover preferences.

The new liability can be covered with securities or cash.

For example:

- EUR currency settlement holiday
- The clearing service calculates its initial margin requirement in GBP.
- There is a debit variation margin call due in EUR.

In the above scenario the debit variation margin call will be deferred to the next good working day for EUR. The value of the deferred debit variation margin is applied to the clearing member's collateral account in its original currency as a debit liability for the service the debit is associated too. The new EUR debit liability will then be covered with either cash or securities according to the member's initial margin cover preferences.

In the absence of a preference currency the system will default to call in the currency of the liability. Please refer to the table in 6.5. For PPS call currency order.

7.3. Current process – Clearing member preferences for End of Day (EOD) and Intraday (ITD) margin calls

The current currency application process is described in the Clearing House's procedures: specifically 'Section 3 Financial Transactions' which describes the sequence in which cash and collateral is utilised. It also describes the choices available to Clearing Members to influence this sequence and importantly whether only same-currency cash and collateral can be utilised or whether cross-currency cash and collateral can be used to cover liabilities (further conditions apply).

Members must nominate the currency in which they wish to cover IM liabilities as LCH allows cross-currency cover for initial margin.

For example, a clearing member who has a GBP initial margin liability can opt to cover this liability first using EUR cash balances and then USD and GBP cash balances and then finally to be called in EUR for any deficits.

7.4. Changes to clearing member preferences for EOD/ITD margin calls

Currently if a clearing member has (for example) opted to be called in EUR for EOD and ITD margin calls³, LCH will send a margin call their PPS bank regardless of whether there is a EUR holiday.

The call will be sent for the next good EUR settlement date but the PPS bank is required to confirm the margin call on the currency holiday.

Going forward LCH will not call EUR on a EUR currency holiday. Instead, LCH will determine another currency to call that is open for settlement i.e. GBP or USD.

The scenario where EUR, GBP and USD are on holiday is not relevant since LCH will not be open.

7.5. Changes to End of Day Margin processing

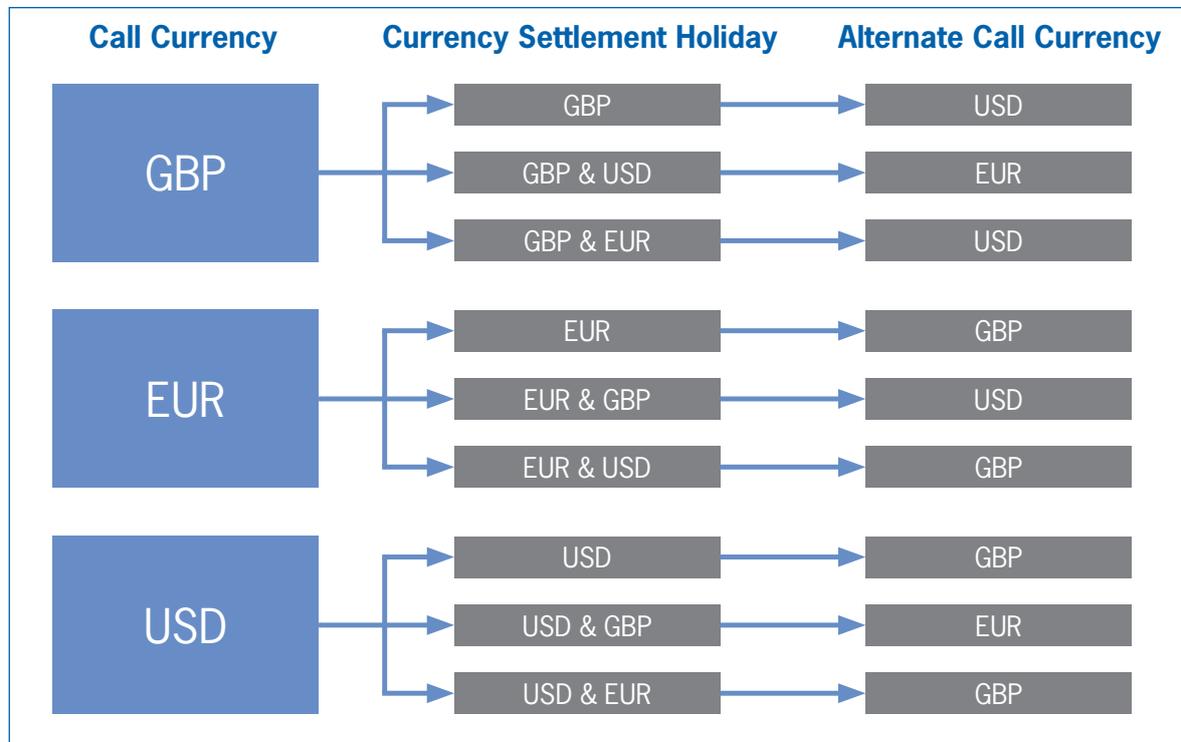
A clearing member whose chosen currency for EOD margin calls is on holiday will instead be called an alternative currency that is not on holiday. In this way, the PPS Bank will be providing confirmation for that currency on the same day; this removes their exposure over the holiday period.

Please see appendix A.

The following currency order rules will apply.

- Please note the default call currency is the same as the liability currency
- liabilities are delivered in EUR, GBP and USD

³ **Different currencies may be specified for EOD and ITD margin calls.**



7.6. The day after the currency holiday

Following the currency holiday LCH systems will apply the usual call currency settings to Clearing Member accounts:

Depending on the account's settings the alternative currency previously called will either be:

- Automatically repaid and replaced with the usual call currency; or
- Will remain on the Clearing Member's account as part of the cash balances and can be withdrawn through CMS, as required.

The currency holiday credit and debit liabilities will expire and be removed from the relevant account.

7.7. Margin Call Reporting

There are no changes to the Clearing House's existing notification channels when Members are being called. The notification that a margin call has been generated and sent for settlement will continue to be delivered to the email addresses specified in the account preferences for each Collateral Account.

7.8. Banking Reports

The following Member reports will be impacted by the introduction of this service:

REP00021 – Initial and Variation Margin Report.

The field titled 'Additional Margin' will now show the individual credit and debit CSH liabilities created by the currency settlement holiday.

All other reports remain unchanged.

Please note there will be two sets of VM cash postings on Report 22 and 29 on the next good working day after a holiday incorporating the deferred currency settlement holiday postings and the postings of that day.

7.9. FX Cash Haircut

Repoclear will calculate the haircut based on the previous day's VM and call through the Buffer Margin process.

8. SwapClear Specific Changes

8.1. Changes described apply to all SwapClear SCM and FCM clearing members.

8.2. Current process – Clearing member preferences for End of Day (EOD) and Intraday (ITD) margin calls

The current currency application process is described in the Clearing House's procedures: specifically 'Section 3 Financial Transactions' which describes the sequence in which cash and collateral is utilised. It also describes the choices available to Clearing Members to influence this sequence and importantly whether only same-currency cash and collateral can be utilised or whether cross-currency cash and collateral can be used to cover liabilities (further conditions apply).

Members must nominate the currency in which they wish to cover IM liabilities as LCH allows cross-currency cover for initial margin.

For example, a clearing member who has a USD initial margin liability can opt to cover this liability first using EUR cash balances and then USD and GBP cash balances and then finally to be called in EUR for any deficits.

8.3. Changes to clearing member preferences for EOD/ITD margin calls

Currently if a clearing member has (for example) opted to be called in USD for EOD and ITD margin calls, LCH will send a margin call to their PPS bank regardless of whether there is a USD holiday.

The call will be sent for the next good USD settlement date but the PPS bank is required to confirm the margin call on the currency holiday.

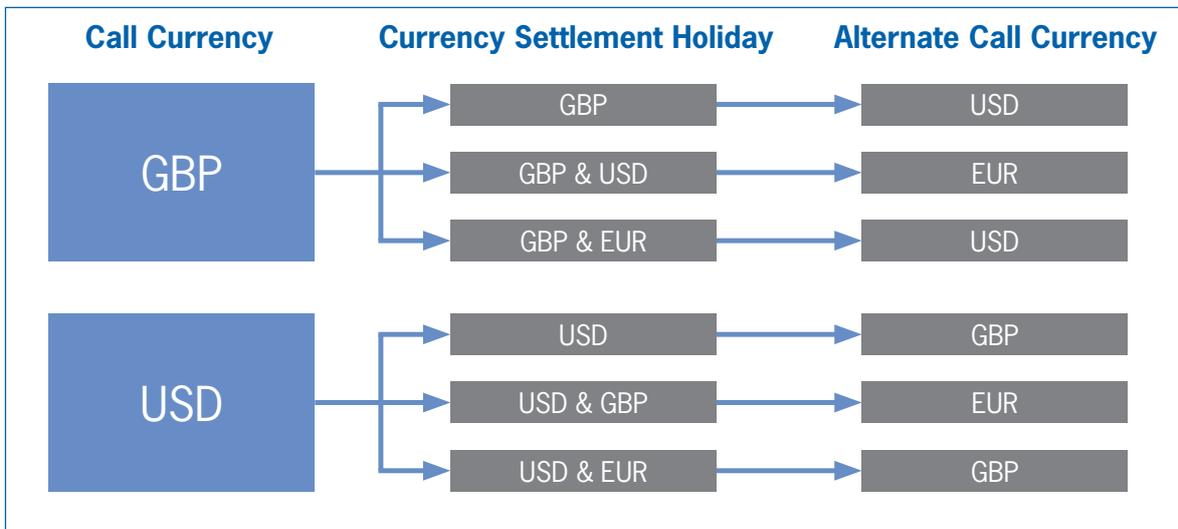
Going forward LCH will not call USD on a USD currency holiday. Instead, LCH will determine another currency to call that is open for settlement i.e. GBP, or EUR (if there is a USD and GBP holiday).

The scenario where EUR, GBP and USD are on holiday is not relevant since LCH will not be open.

8.4. Changes to Initial Margin processing

A clearing member whose chosen currency for EOD margin calls is on holiday will instead be called an alternative currency that is not on holiday. In this way, the PPS Bank will be providing confirmation for that currency on the same day; this removes their exposure over the holiday period.

The following currency order rules will apply.



8.5. The day after the currency holiday

Following the currency holiday LCH.Clearnet systems will apply the usual call currency settings to Clearing Member accounts.

The alternative currency previously called as IM will remain on the Clearing Member's account as part of the cash balances and can be used to cover liabilities or be withdrawn per current processing as necessary.

8.6. SwapClear House Account VM Impact of currency holiday

8.6.1. Members with debit variation margin

- Variation margin in this context is the sum of DailyChangeInNPV & PriceAlignInt as displayed on Rep16
- At EOD prior to a currency holiday, debit VM that cannot be settled/called will be :
 - Converted to Members reporting currency (GBP/USD) at the EOD fx rate reported on REP16.
 - Increased by a 1% haircut to factor FX risk
 - Included as an IM add-on, increasing EOD IM
- EOD Rep19 and SwapClear Rep86 will include the debit VM total (for currencies on Holiday) in the <TotalIMRequirement>. Additionally in EOD Rep86 the total will be separated in a new add-on column <CCYHoINPVChange>
- Debit VM total will be included in intraday liabilities throughout the holiday on ITD Rep86 within the <TotalCoveredLiabilities> column. Additionally the total will be displayed in ITDRep86 as a separate item in <CCYHoINPVChange>
- Additional liability factoring debit VM will drop out and settlement will take place in the EOD prior to the next good business day

8.6.2. Members with credit variation margin

- Variation margin in this context is the sum of DailyChangeInNPV & PriceAlignInt as displayed on Rep16
- At EOD prior to a currency holiday, credit VM that cannot be settled/paid will be
 - Converted to Members reporting currency (GBP/USD) at the EOD fx rate reported on REP16.
 - Decreased by 1% haircut to factor FX risk
 - Included as an IM add-on, decreasing EOD IM
- EOD Rep19 and SwapClear Rep86 will include the credit VM total (for currencies on Holiday) in the <TotalIMRequirement>. Additionally the total will be separated in a new add-on column <CCYHoINPVChange>
- Credit VM total will reduce intraday liabilities throughout the holiday shown in <TotalCoveredLiabilities> and will be displayed in ITDRep86 as a separate item in <CCYHoINPVChange>
- Adjustment factoring credit VM will drop out and settlement will take place in the EOD prior to the next good business day

8.7. SwapClear Client Account VM Impact of currency holiday

Where there is a PPS same day currency bank holiday the following rules are applied for client funds with credit or debit variation margin.

8.7.1. Client funds with debit variation margin

- Variation margin in this context is the sum of DailyChangeInNPV & PriceAlignInt as displayed on Rep16c
- At EOD prior to a currency holiday, debit VM that cannot be settled/called will be
 - Converted to Members reporting currency (GBP/USD) at the EOD fx rate reported on REP16.
 - Increased by 1% haircut to factor FX risk
 - Included as an IM add-on, increasing EOD IM
- EOD Rep19 and SwapClear Rep86C will include the debit VM total (for currencies on Holiday) in the <TotalIMRequirement>. Additionally the total will be separated in a new add-on column <CCYHoINPVChange>
- Debit VM total will be included in intraday liabilities throughout the holiday shown in <TotalCoveredLiabilities> and will be displayed in ITDRep86C as a separate item in <CCYHoINPVChange>
- Additional liability factoring debit VM will drop out and settlement will take place in the EOD prior to the next good business day

8.7.2. Client funds with credit variation margin

- Variation margin in this context is the sum of DailyChangeInNPV & PriceAlignInt as displayed on Rep16c
- At EOD prior to a currency holiday, credit VM that cannot be settled/paid will be
 - Converted to Members reporting currency (GBP/USD) at the EOD fx rate reported on REP16.
 - Decreased by 1% haircut to factor FX risk
 - The converted amount will NOT be included with EOD IM however will be applied following SOD reducing intraday liabilities throughout the holiday
- IM liabilities reported in EOD Rep19 and SwapClear EOD Rep86C will be unaffected by the credit VM totals
- Credit VM total will be applied at the SOD in SwapClear, reducing intraday liabilities throughout the holiday shown in ITD Rep86C <TotalCoveredLiabilities> and will be displayed in ITDRep86C as a separate item in <CCYHoINPVChange>
- Adjustment factoring credit VM will drop out and settlement will take place in the EOD prior to the next good business day

8.8. Other Considerations

Multiple Holidays:

- In the event of multiple back to back holidays the unrealised VM amounts will be carried over to the subsequent business day's calculation.
- < CCYHoINPVChange> will be carried from one day to the next and will be converted at the new EOD FX rate.
- <CCYHoINPVChange> will display net total including multiple days values that have been carried
- <CCYHoINPVChange> amount will have a 1% haircut applied to the net total that includes multiple days
- Non IM Currencies:
- Where Credit VM exists in a non IM currency, the amount will not contribute to <CCYHoINPVChange>.
- Report 16: Rep16 and Rep16c will be unaffected by this change
- Report 22: VM settlement postings at EOD preceding a currency holiday will be deferred and reflected on report 22 on the EOD prior to next available value date. Report 22 at EOD prior to next available value date will reflect separate VM settlement postings for each business day.

To calculate < CCYHoINPVChange> :

1. On Rep16 or Rep16c sum all DailyChangeInNPV and PriceAlignInt for currencies observing a holiday.
2. FX to reporting CCY of the member using rates supplied on Rep16
3. Where multiple back to back holidays are observed, use previous days Rep16 to gather unrealised VM.
4. Ensure exclusion of non IM CCY positive amounts.
5. Apply FX Haircut of 1%
 - a. If total is greater than zero multiply by 0.99
 - b. If total is less than zero multiply by 1.01

8.9. Reporting changes at a glance

Margin Call Reporting:

There are no changes to the Clearing House's existing notification channels when Members are being called. The notification that a margin call has been generated and sent for settlement will continue to be delivered to the email addresses specified in the account preferences for each Collateral Account.

Report Changes at a glance:

Report	House	Client
Banking Rep19	No Change to Format	
Banking Rep22	No Change to Format	
SwapClear Rep86 EOD	New Column < CCYHoINPVChange> added	
SwapClear Rep86 ITD	New Column < CCYHoINPVChange> added	
SwapClear Rep16	No Change to Format	

8.10. NOK & CHF PPS Reform

The purpose of this is to move NOK & CHF from a 2 day to a 1 day settlement currency. This change will impact member and client accounts.

8.10.1. Change Approach/Impact to Members

- The change will take place over a weekend after the Friday EOD has completed.
- Friday night EOD settlement postings for CHF and NOK will post for the following Tuesday (2 day settlement) as per current practice.
- SwapClear will adjust all positions and back book trades to reflect the changes made to the settlement lag.
- Monday's ITD Rep86 & 86c reports will include an adjusted NPV figure to reflect the reversal of a reintroduction of NPV change linked to coupon drop in Friday EOD and the new settlement convention.
- This adjustment will be removed prior to Monday's EOD and the NPV change and PAI will be calculated and posted as usual.
- There will be no NOK/CHF coupon/fee settlements posted on Monday night as these will have already posted in the Friday EOD process. The exception to this will be if any new trades in these currencies with settlement value Tuesday are booked on Monday

9. Listed Rates Specific Changes

9.1. Current process – Clearing member preferences for End of Day (EOD) and Intraday (ITD) margin calls

The current currency application process is described in the Clearing House's procedures: specifically 'Section 3 Financial Transactions' which describes the sequence in which cash and collateral is utilised. It also describes the choices available to Clearing Members to influence this sequence and importantly whether only same-currency cash and collateral can be utilised or whether cross-currency cash and collateral can be used to cover liabilities (further conditions apply).

Members must nominate the currency in which they wish to cover IM liabilities as LCH allows cross-currency cover for initial margin.

For example, a clearing member who has a GBP initial margin liability can opt to cover this liability first using EUR cash balances and then USD and GBP cash balances and then finally to be called in EUR for any deficits.

9.2. Changes to clearing member preferences for EOD/ITD margin calls

Currently if a clearing member has (for example) opted to be called in EUR for EOD and ITD margin calls⁴, LCH will send a margin call to their PPS bank regardless of whether there is a EUR holiday.

The call will be sent for the next good EUR settlement date but the PPS bank is required to confirm the margin call on the currency holiday.

Going forward LCH will not call EUR on a EUR currency holiday. Instead, LCH will determine another currency to call that is open for settlement i.e. GBP or USD.

The scenario where EUR, GBP and USD are on holiday is not relevant since LCH will not be open.

9.3. Changes to Initial Margin processing

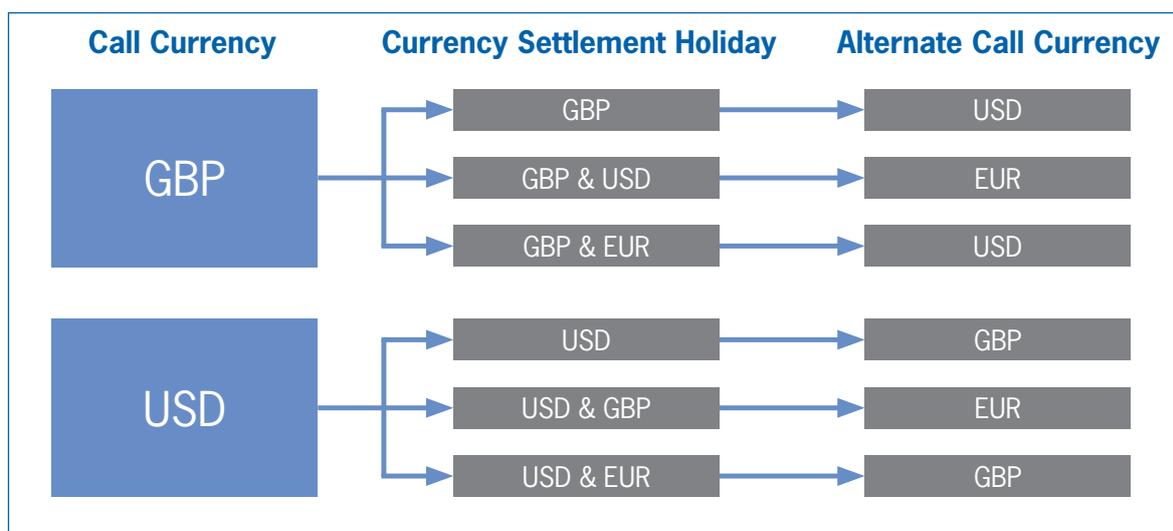
A clearing member whose chosen currency for EOD margin calls is on holiday will instead be called an alternative currency that is not on holiday. In this way, the PPS Bank will be providing confirmation for that currency on the same day; this removes their exposure over the holiday period.

⁴ Different currencies may be specified for EOD and ITD margin calls.

Please see appendix A.

The following currency order rules will apply.

- Please note the default call currency is the same as the liability currency
- IM liabilities are delivered in GBP and USD



9.4. The day after the currency holiday

Following the currency holiday LCH systems will apply the usual call currency settings to Clearing Member accounts:

Depending on the account's settings the alternative currency previously called will either be:

- Automatically repaid and replaced with the usual call currency; or
- Will remain on the Clearing Member's account as part of the cash balances and can be withdrawn through CMS, as required.

9.5. Changes to Credit Variation Margin processing

The changes to credit variation margin will only impact same day settlement currencies.

Payments of credit variation margin in the currency which is on holiday will be deferred to the next good settlement day of that currency.

The amount of the deferred credit variation margin will be converted into base IM currency (GBP), increased by 1% haircut to factor the FX risk and called CCYHoIVM.

If the credit variation margin is for a House margin account, the CCYHoIVM is included and called in EOD IM (reducing the EOD IM liability).

Intraday the next day, the converted deferred credit variation margin is added to intraday variation margin before additional liabilities are calculated.

For example:

- EUR currency settlement holiday.
- There is a credit variation margin payment due in EUR on the House account.

In the above scenario the credit variation margin payment will be deferred to the next good working day for EUR. The value of the deferred credit variation margin will be converted to a GBP amount and added to the GBP EOD initial margin requirement. Intraday the next day that amount is also included in intraday variation margin before additional liabilities are calculated.

9.6. Changes to Debit Variation Margin processing

The changes to debit variation margin will only impact same day settlement currencies.

Debit variation margin in the currency which is on holiday will be deferred to the next good settlement day of that currency.

The amount of the deferred credit variation margin will be converted into base IM currency (GBP), decreased by a 1% haircut to factor FX risk, and called CCYHoVM.

The CCYHoVM is included and called in EOD IM (increasing the EOD IM liability).

Intraday the next day, the converted deferred debit variation margin is added to intraday variation margin before additional liabilities are calculated.

For example:

- EUR currency settlement holiday.
- There is a debit variation margin payment due in EUR.

In the above scenario the debit variation margin payment will be deferred to the next good working day for EUR. The value of the deferred debit variation margin will be converted to a GBP amount and added to the GBP EOD initial margin requirement. Intraday the next day that amount is also included in intraday variation margin before additional liabilities are calculated.

9.7. Other Considerations

Multiple Holidays:

- In the event of multiple back to back holidays the unrealised VM amounts will be carried over to the subsequent business day's calculation.
- < CCYHoVM > will be carried from one day to the next and will be converted at the new EOD FX rate.
- < CCYHoVM > will display net total including multiple days values that have been carried
- < CCYHoVM > amount will have a 1% haircut applied to the net total that includes multiple days
- Non IM Currencies:
- Where Credit VM exists in a non IM currency, the amount will not contribute to < CCYHoVM >.

9.8. Margin Call Reporting

There are no changes to the Clearing House's existing notification channels when Members are being called. The notification that a margin call has been generated and sent for settlement will continue to be delivered to the email addresses specified in the account preferences for each Collateral Account.

9.9. Member IM Reports

Member IM pdf and xml reports will be impacted by the introduction of this service. A new margin amount type called CCYHoVM (Currency Holiday VM) will show the converted deferred debit or credit variation margin after haircut.

9.10. Banking Reports

No Banking Member reports will be impacted by the introduction of this service.

10. ForexClear Specific Changes

10.1. Current process – Clearing member preferences for End of Day (EOD) and Intraday (ITD) margin calls

The current currency application process is described in the Clearing House's procedures: specifically 'Section 3 Financial Transactions' which describes the sequence in which cash and collateral is utilised. It also describes the choices available to Clearing Members to influence this sequence and importantly whether only same-currency cash and collateral can be utilised or whether cross-currency cash and collateral can be used to cover liabilities (further conditions apply).

Members must nominate the currency in which they wish to cover IM liabilities as LCH allows cross-currency cover for initial margin.

For example, a clearing member who has a USD initial margin liability can opt to cover this liability first using EUR cash balances and then USD and GBP cash balances and then finally to be called in EUR for any deficits.

10.2. Changes to clearing member preferences for EOD/ITD margin calls

Currently if a clearing member has (for example) opted to be called in USD for EOD and ITD margin calls, LCH will send a margin call their PPS bank regardless of whether there is a USD holiday.

The call will be sent for the next good USD settlement date but the PPS bank is required to confirm the margin call on the currency holiday.

Going forward LCH will not call USD on a USD currency holiday. Instead, LCH will determine another currency to call that is open for settlement i.e. GBP, or EUR (if there is a USD and GBP holiday).

The scenario where EUR, GBP and USD are on holiday is not relevant since LCH will not be open.

10.3. Changes to Initial Margin processing

A clearing member whose chosen currency for EOD margin calls is on holiday will instead be called an alternative currency that is not on holiday. In this way, the PPS Bank will be providing confirmation for that currency on the same day; this removes their exposure over the holiday period.

The following currency order rules will apply for ForexClear:

- Please note the default call currency is the same as the liability currency
- IM liabilities are calculated in USD but calls can be met in USD, GBP and EUR
- VM liabilities are posted in USD

10.4. Member Impact on a US currency bank holiday

Where there is a US currency bank holiday the following rules are applied for members with debit or credit variation margin:

10.4.1. Members with debit variation margin

- At EOD, debit variation margin (i.e. VMeod + PAI + NSA) before a US holiday will be included and called in EOD IM
- Debit variation margin will be included in IM intraday on a US holiday, increasing IM
- Banking reports and the portal excess cover screen will include the variation margin in the IM
- Member reporting will continue to show VMeod + PAI + NSA separately and therefore not in IM
- Settlement of debit variation margin will take place on the next good US business day

10.4.2. Members with credit variation margin

- At EOD, credit variation margin (i.e. VMeod + PAI + NSA) before a US holiday will be included in EOD IM and so reduce EOD IM
- Credit variation margin will be included in IM intraday on the US holiday, reducing IM
- Banking and member reporting impact as above
- Settlement of credit variation margin will take place on the next good US business day

10.5. Maintaining Client Segregation of assets

Where there is a US currency bank holiday the following rules are applied for client funds with debit or credit variation margin:

10.5.1. Client funds with debit variation margin

- At EOD, debit variation margin (i.e. VMeod + PAI + NSA) before a US holiday will be included and called in EOD IM
- ClientCollateralValue amount will reflect the additional margin that has been called
- Debit variation margin will be included in IM intraday on a US holiday, increasing IM
- Banking reports and the portal excess cover screen will include the variation margin in the IM
- CB/FCM and client reporting will continue to show VMeod + PAI + NSA separately and therefore not in IM. ClientCollateralValue amounts will reflect additional margin called on ITD report FREP0045C and EOD report FREP0046C
- Settlement of debit variation margin will take place on the next good US business day

10.5.2. Client funds with credit variation margin

- At EOD, credit variation margin (i.e. VMeod + PAI + NSA) before a US holiday will be included in EOD IM and so reduce EOD IM
- ClientCollateralValue amount will not reflect the adjustment however overall client liability will be reduced
- Credit variation margin will be included in IM intraday on a US holiday, reducing IM
- Banking and member reporting impact as above
- Settlement of credit variation margin will take place on the next good US business day

10.6. The day after the currency holiday

Following the currency holiday LCH.Clearnet systems will apply the usual call currency settings to Clearing Member accounts.

The alternative currency previously called will remain on the Clearing Member's account as part of the cash balances and can be used to cover liabilities or withdrawn per current processing as necessary.

The currency holiday variation margin credit and debit liabilities will expire and be removed from the relevant IM account.

10.7. Reporting

There are no changes to the Clearing House's existing notification channels when Members are being called. The notification that a margin call has been generated and sent for settlement will continue to be delivered to the email addresses specified in the account preferences for each Collateral Account.

As mentioned above for ForexClear's member, CB/FCM client reporting:

- There will be no changes to member reporting
- The only changes to CB/FCM client reporting are to the following reports:
 - FREP0045C: Margin – ITD Margin Split for Client Accounts
ClientCollateralValue amounts will reflect additional margin called on the report
 - FREP0046C: Margin – EOD Margin Split for Client Accounts
ClientCollateralValue amounts will reflect additional margin called on the report

On Banking reports the holiday debit or credit variation margin will show as zero on the US currency bank holiday and then be included as a net figure with the debit or credit variation margin on the next good US business day.

Members will continue to see the IM (also including CRIM, IMM, SRM and MER) and VM (i.e. VMeod, PAI and NSA) on FREP0014 at EOD but will not for a holiday period, be able to reconcile these directly to banking reports REP0021 (for IM) and REP0022 (for VM). Instead it may be necessary to reconcile the sum of IM and VM from FREP0014 at EOD to Total Liability from REP0021 and REP0022 together.

11. Appendix A – Cover Distribution: Description of Collateral application

IM Liabilities are considered in turn: by a system-defined liability currency order and then, within each currency, by the exchange that posted the liability; again a system-defined order is used to rank the exchanges.

For each exchange-liability currency, processed in turn, cover is considered firstly by Cover Type: cash or collateral. This is a Member choice.

For cash cover, cash in the same-currency as the liability is used first.

If selected by the Member, cash in other currencies can be used in the order the Member defines. (AUD is in the pipeline for 2016).

For non-cash cover, collateral with the same denomination as the liability is used first.

If selected by the Member, non-cash in other currencies can be used in a system-defined order and within each denomination currency the collateral is utilised in a Collateral Group system defined order.