

**Collateral Operations**  
Frequently Asked Questions

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## Intro

### 1. Who are Collateral Operations and what are their key responsibilities?

Collateral Operations are a team consisting of Cash and Non-Cash Collateral Management, SwapAgent Operations, Collateral Client Services, Reconciliations and Change Management teams. The department spans three time zones, with teams in Sydney, London and New York.

#### The key responsibilities of Collateral Operations are:

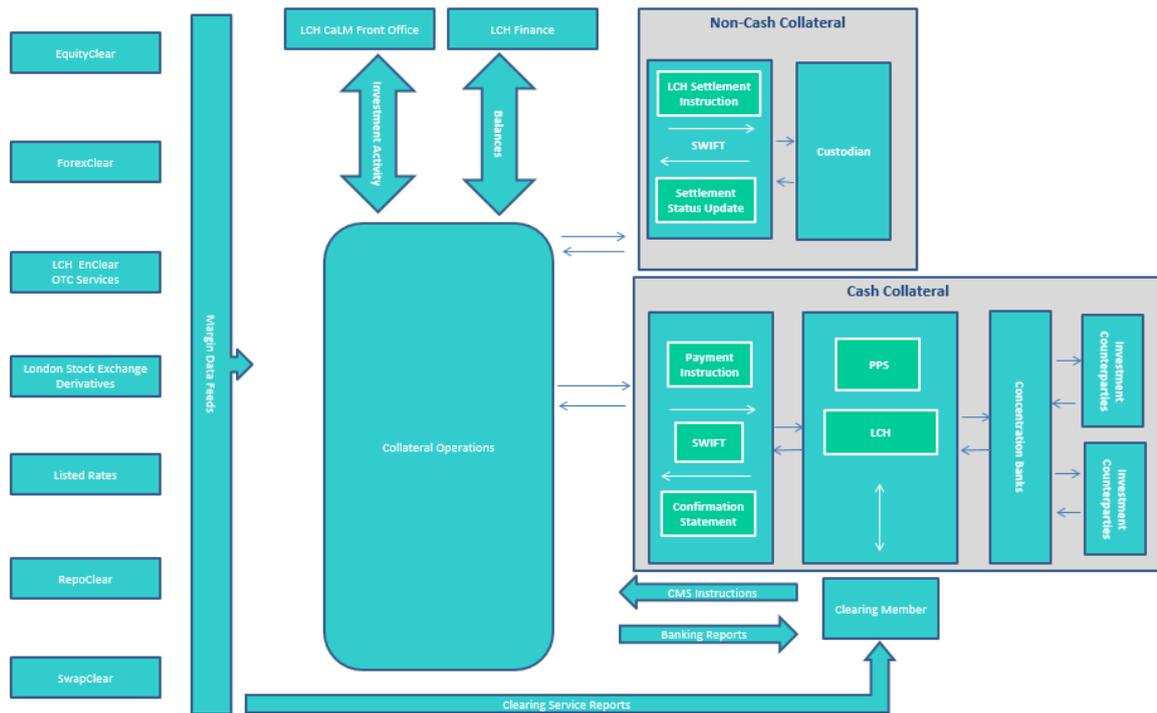
- Ensuring that Clearing Members liabilities across all services are covered in line with service expectation
- Settlement of Front Office activity
- Provide best in class Collateral Client Service
- Reconciliation of LCH accounts

### 2. What are Collateral Operations hours of support and contact details?

Collateral Operations' hours of support are from 07:00 – 22:00 London time (02:00-17:00 New York time). SwapAgent Operations' hours of support are from 08:00 – 17:00 London time.

	Contact	Telephone	Email
Global Group Contact	Collateral Operations and Client Services	+44 20 7426 7505	collateral.clientservices@LCH.com
Escalation	Nick McMillan UK Head of Collateral Operations	+44 20 7426 7283	Nick.McMillan@LCH.com
	Charles Barthelemy US Head of Collateral Operations	+1 212 513 5620	Charles.Barthelemy@LCH.com
	Joe Young Manager – SwapAgent Operations and Collateral Client Services	+44 20 7426 7224	Joseph.Young@LCH.com
	Ashley Miles Manager – Cash Collateral	+44 20 7426 7923	Ashley.Miles@LCH.com
	Stephen Woodley Manager – Non Cash Collateral	+44 20 7426 7576	Stephen.Woodley@LCH.com

### 3. Is there a diagram that explains the Collateral Operations flow?



Please see above an illustration of the Collateral Operations flow. It is possible to see all the Clearing Services to the left side of the diagram. The Clearing Services are responsible for the calculation of Clearing Members liabilities resulting from trading activity. In the centre of the diagram sits Collateral Operations – this is where all Clearing Members assets are held and valued. This can be in the form of cash and non-cash collateral. The key process which Collateral Operation undertakes is known as 'Cover Distribution' which is in affect distributing Clearing Members cover (held in the form of cash and non-cash collateral) against their liabilities calculated by the trading activity within the Clearing Services.

Following the completion of the Cover Distribution process – Collateral Operations will know whether the Clearing Member had sufficient assets to cover their liabilities or there were insufficient assets to cover the liabilities calculated. In the latter scenario, a shortfall would be calculated and a margin call would be sent equaling the shortfall. Following the completion of this process, a suite of Banking reports are published capturing the calculation and resulting instructions.

The mechanism with which Collateral Operations instruct cash movements is called the Protected Payment System (PPS). This can be seen to the right of the diagram.

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PPS requires Clearing Members to setup cash accounts at designated PPS banks for each currency in which physical settlement of margin calls will occur. LCH will also have cash accounts setup at each currency at all of the PPS banks. When LCH issues a margin call, it sends SWIFT messages to the Clearing Members PPS bank to debit their PPS account and credit the LCH account held at the same PPS bank. The key element of this process is that LCH has debit authority on all the Clearing Members PPS accounts. The PPS bank therefore automatically debits the Clearing Members account and credits the LCH account held at the same PPS bank.

Equally, if following the Cover Distribution process the Clearing Member has greater assets than liabilities, then providing it is before 09:30 London time (New York time for FCMs), it can be paid back. In this scenario, LCH follows the same process but sends a credit instruction to the Clearing Members PPS account debiting the LCH PPS account at the same PPS bank.

The Cover Distribution process is run as part of the end of day (EOD) process, which reflects the previous day's trading activity. Cover Distribution is also run at scheduled and ad-hoc times throughout the business day as part of the intraday (ITD) process.

Each time the Cover Distribution process is run, LCH has to then re-balance all the LCH PPS accounts to zero by crediting any deficit balances (resulting from PPS payments) and sweeping any surplus balances (resulting from PPS calls). This process is called the Concentration Process. LCH has a concentration account in each currency which facilitates the re-balancing process. It is the concentration accounts which the LCH Front Office use to understand the cash balances which need to be invested.

Clearing Members can also lodge non-cash collateral with LCH to cover their margin requirement. Please note however that realised variation margin cannot be covered by non-cash collateral as it has to be met in cash, in the currency of the underlying contract. The non-cash collateral process can be seen to the upper right of the diagram. Clearing Members need to inform LCH of what they intend to lodge in the Collateral Management System (CMS). Following approval from LCH, Clearing Members then need to enter the instruction at the relevant Custodian. Non-cash collateral cannot be called on demand and therefore all non-cash collateral must have settled at the relevant custodian for it to be used during Cover Distribution.

The flow located within the top middle of the diagram reflect the Front Office investment activity from the Concentration Accounts (new deals and maturities). The LCH Finance team also consume all the account balances held within the incumbent LCH Banking System to reconcile with external applications.

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## **Banking Reports**

### **4. How do I access Banking Reports?**

Banking reports are available via the LCH Portal which can be accessed via the following link <https://clearingservices.lchclearnet.com/portal/group/lch/home>

### **5. How long are my Banking reports stored for?**

Banking reports are stored for thirty business days.

### **6. Can you please provide historical Banking reports?**

Please be advised that it is the Clearing Members responsibility to save down their Banking reports each day. As a result, Collateral Ops charge for the retrieval of any Banking report outside of the previous thirty business days stored in the LCH Portal. The current fee is £120.00+ VAT per hour (min charge £240.00 + VAT).

Please contact [collateral.clientservices@lch.com](mailto:collateral.clientservices@lch.com) if you would like an archived Banking report retrieved.

### **7. What is the difference between a 'posting' and a 'PPS Call/Pay?'**

A posting is an entry against your cash balance with LCH. A PPS Call/Pay is also a posting as it affects your cash balance held with LCH although a PPS call/pay results also results in a physical debit/ credit at your PPS bank.

### **8. Is there a reporting pack which explains the Banking Reports?**

Within the Collateral Management section of the LCH website, a Banking Reports Reference Guide is provided. This provides annotated examples of the Banking Reports per Clearing Service.

[https://www.lch.com/system/files/media\\_root/Banking%20Reports%20Reference%20Guide.pdf](https://www.lch.com/system/files/media_root/Banking%20Reports%20Reference%20Guide.pdf)

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## 9. Where can I find a snapshot of my liabilities?

Collateral Operations only report liabilities calculated in the EOD process.

- Report 21/31/19 reports Initial Margin
- Report 22 reports Variation Margin

All ITD liabilities are reported within the respective Clearing Service reports

## 10. Where can I see how a margin call was calculated?

Collateral Operations only report how EOD calls are calculated. The calculation of EOD margin calls are reported in Report 19.

All ITD margin can be calculated using the respective Clearing Services reports. Please contact the relevant clearing service for further details.

<https://www.lch.com/services>

## 11. Where can I see margin calls sent by LCH?

All margin calls sent by LCH are displayed in Report 33a. Clearing Members need to check Report 33a ITD as it is updated periodically throughout the business day.

A courtesy email can also be generated for all ITD margin calls. Please refer to Collateral Preferences section for further details.

## 12. Which Banking reports are run ITD?

The following Banking reports are run ITD:

- Report 22a – reports all non-cover cash posting
- Report 33a – reports all margin calls initiated
- Report 33b – reports ITD PPS Aggregation
- Report 36 – reports non-cash collateral holdings

## 13. When are the Banking Reports published?

All EOD Banking reports (Rep19/20/21/22/29/31/32/36a/46) are made available by 07:00 Londontime.

ITD Banking reports (Rep33a/33b/22a/36) are run periodically throughout the business day.

#### 14. Is there a matrix explaining what all the collateral accounts/subaccounts represent?

Collateral Account	Description
B	House Buffer (additional margin)
C	Client
E	Client Buffer (additional margin)
F	Default Fund
H	House
I	House AUD VM (SwapClear only)
L	SwapClear Client VM
O	Omnibus Client
P	Client Excess Buffer (house funds)
Q	Warehouse Cash on FX Options
R	Resource Fund for Sponsored Clearing
S	Segregated Client
V	Indirect Client

### Collateral Preferences

#### 15. What are Collateral Preferences?

LCH provides clearing members with the opportunity to configure a number of collateral preferences. These preferences allow members to tailor their collateral setup supporting individual collateral business models.

These preferences consist of three categories of configuration:

##### 1. Banking Preferences

- Currency Utilisation

The order with which end of day (EOD) cash balances held with LCH are used when covering the EOD margin.

- End of Day Margin Call Currency

The currency in which EOD IM margin calls are generated.

- Auto-repay

Whether any excess cash balances calculated as part of the EOD are automatically repaid.

- PPS Aggregation

Whether swift messages are aggregated reducing swift traffic costs.

For further information [click here](#)

The Banking Preferences can all be configured by populating and returning the Banking Preferences Form from the downloads section of the below–

<https://www.lch.com/risk-collateral-management/ltd-collateral-management/ltd-acceptable-collateral>

## 2. ITD Preferred Call Currency

Allows clearing members to choose the currency in which ITD margin calls are generated.

[Click here](#) for the 'LTD Preferred Currency' online form available within the LTD Acceptable Cash area of the website.

## 3. ITD Email Notification

Allows clearing members to add a group email address, which is notified in the event of an ITD margin call.

The ITD Email Notification address can be added/updated by populating and returning the ITD Email Nomination Notification Form from the downloads section of the below –

<https://www.lch.com/risk-collateral-management/ltd-collateral-management/ltd-acceptable-collateral>

## The Collateral Management System (CMS)

### 16. What is CMS?

CMS is LCH's on-line collateral management solution, which enables efficient management of your collateral.

CMS enables Clearing Members to:

- Instruct movements of securities to/from the Clearing House or transfer securities between mnemonics and sub accounts
- Instruct movements of cash to/from the Clearing House or transfer cash between mnemonics and sub accounts
- Instruct and update Triparty collateral transactions
- View on-line security, cash and Triparty balances and headroom
- See on-line liabilities by account and market and collateral valuations for cash, securities and Triparty
- Receive email notifications of instructions and instruction status updates
- Export instruction and balance data to .csv files

For further details please refer to The Collateral Management System LCH webpage:

<https://www.lch.com/risk-collateral-management/ltd-collateral-management/ltd-collateral-management-system>

**17. How do I gain access to CMS?**

CMS access can be granted by your company's Portal super users. Should you require confirmation of your super users please email servicedesk@lch.com

**18. Do you offer CMS training?**

CMS is designed to look and feel like an online high street banking application. It is therefore not anticipated that User training is required outside what is provided as part of member on-boarding and detailed in the Reference Guide.

Please note The CMS Reference Guide is located within CMS section of the Portal within the downloads section.

<https://clearingservices.lchclearnet.com/portal/group/lch/cms-welcome>

**19. Can you confirm the transfer rules in CMS?**

These are detailed within Transfer Restrictions section of the CMS Reference Guide available within the Collateral Management System area of the webpage

<https://clearingservices.lchclearnet.com/portal/group/lch/cms-welcome>

**20. What Haircuts are applied to non-cash collateral lodged to cover Initial Margin requirement?**

Please refer to the Collateral and Liquidity Risk Management area of the Secure Area

[https://secure-area.lchclearnet.com/secure\\_area/login.asp](https://secure-area.lchclearnet.com/secure_area/login.asp)

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## PPS Setup and Testing

### 21. How do I update my PPS accounts?

If you wish to change your PPS accounts then please provide an updated PPS mandate. Please be advised that LCH only retain one PPS mandate per time zone/PPS bank. LCH therefore requires you to include any existing PPS accounts held at the same PPS bank when submitting updated PPS mandates.

PPS mandates are located within the Collateral Management/Protected Payments System section of the website.

<https://www.lch.com/risk-collateral-management/ltd-collateral-management/ltd-acceptable-collateral/ltd-acceptable-cash>

### 22. What are the minimum PPS currency accounts required?

Clearing Members need to setup a minimum of GBP/EUR/USD currency accounts however all Variation Margin has to be settled in cash in the currency of the underlying contract. For this reason Clearing Members need to have a PPS account in each currency which they will incur Variation Margin.

### 23. How long does it take to test my PPS accounts?

All new PPS accounts need to be tested prior to use. This can take up to four weeks, although it can be much sooner if your PPS bank has completed their setup at the point LCH reaches out to test.

### 24. How many units will the PPS test be conducted in?

Collateral.clientservices@lch.com will liaise with each Clearing Member to run through the test steps, although units of 10.00 are normally sent.

### 25. What does the PPS test consist of?

All new PPS accounts are subject to testing. The PPS test will consist of successfully debiting a nominal amount from your PPS account. Once LCH receives an MT910 confirmation of credit from your PPS bank, LCH will refund the amount same day ensuring the account is flat.

### 26. How can I add another email address to my intraday email notifications?

Only one email address can be recorded with regard to ITD email notifications. Clearing Members can setup a single group email address supporting multiple linked emails addresses if multiple email addresses are required.

## **Default/Guarantee Fund**

### **27. Where is the Default Fund reported?**

The Default Fund is reported in Banking Report 32

### **28. How is the Default Fund calculated?**

The Default Fund is calculated by the risk team of the relevant Clearing Service.

Please therefore liaise with the relevant Clearing Service with regard to calculation methodology.

<https://www.lch.com/services>

### **29. What interest rate is applied to the Default Fund?**

Please be advised that interest rates are not floored at zero. Please refer to our website for the latest rates –

<https://www.lch.com/risk-collateral-management/ltd-collateral-management/ltd-fees-collateral>

### **30. Can non-cash collateral be used to cover the Default Fund?**

Only cash collateral can be used to cover the Default Fund in the currency specified by the Clearing Service.

### **31. When is the Default Fund recalculated and corresponding interest paid?**

The interest period and Default Fund period are unrelated. Interest is calculated on a calendar basis from the first to the last day of the month with the resulting interest paid/called to/from your PPS account on the third business day of the month. The Default Fund is re-calculated on a monthly basis effective on the fourth business day of the month.

## Cut Off times

### 32. What are the Collateral deposit/withdrawal deadlines?

General Clearing Member – Cash Deadlines		
Instruction	Deadline (London time)	Currency
Cash Withdrawal	09:30	GBP/EUR/USD
Cash Deposit	14:30	EUR
	16:00	GBP
	19:00	USD

FCM Clearing Member – Cash Deadlines		
Instruction	Deadline (New York time)	Currency
Cash Withdrawal	09:30	USD
Cash Deposit	14:00	USD

Bilateral Non-Cash Collateral Deadlines	
CSD/Custodian	Deadline for instructions (London time)
EuroClear UK/IE (CREST)	17:30
EuroClear internal	17:30
Fedwire – Citi and BNYMellon	19:30

Triparty Non-Cash Collateral Deadlines		
	EuroClear Bank	Clearstream
Same Day Settlement	17:00	17:30
Next Day Settlement	17:00 (S-1)	17:30 (S-1)

## Interest

### 33. How is interest calculated at LCH?

Interest is calculated on a calendar basis from the first to the last calendar day of the month, with the resulting interest posted at approximately 23:00 London time on the second business day of the following month. Where the start/end of the month begins on a weekend, the previous month's period is extended to include the weekend. LCH uses the close of business (COB) cash balance which is multiplied by the applicable interest rate for that day.

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The previous day's COB cash balance is reported in Report 22 under 'Yesterday's I&D Balance'. The applicable interest rates are published daily within the Public/Banking folder of the LCH Portal.

Please refer to the link below for further details.

<https://www.lch.com/risk-collateral-management/ltd-collateral-management/ltd-fees-collateral>

**34. Is it possible to view a daily breakdown of my interest accrual/charge?**

Yes, please refer to banking report 40 for a breakdown of your interest accrual. Report 40 is published to the Banking folder itself, not the daily folders as it is a monthly report published at the beginning of each month detailing the previous month's interest.

**35. Are all of my accounts interest bearing?**

Yes, although different interest are applied according to Clearing Service. The Default Fund also attracts a different rate of interest.

Please refer to the link below for further details.

<https://www.lch.com/risk-collateral-management/ltd-collateral-management/ltd-fees-collateral>

## **Fees**

**36. Is there a list of all fees that LCH can administer?**

Please refer to the link below.

<https://www.lch.com/risk-collateral-management/ltd-collateral-management/ltd-fees-collateral>

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**37. How do I find further details of a 'fee' posting reported across my account?**

All fee postings generate a corresponding invoice which is located in the 'Fees' folder of the Reporting area within the LCH Portal. Report 41 is also available in the Fees folder and details your cash/non cash collateral fee breakdown.

**38. An unrecognised amount has been debited from my PPS account, where can I view further details of my margin calls?**

All cover and non cover related PPS movements are detailed in report 33a. Should you require a further breakdown of these movements you can refer to report 22a which details your NON COV (non cover related) postings or report 22 which details your COV (cover related) postings.

**Acceptable Collateral****39. What collateral can be used to cover my Initial Margin requirement?**

At present, GBP/EUR/USD cash collateral as well as the non-cash collateral detailed on the 'Acceptable Collateral' list can be used to cover your Initial Margin requirement

Further details can be found on the LCH website.

<https://www.lch.com/risk-collateral-management/ltd-collateral-management/ltd-acceptable-collateral>

**Collateral Limits****40. Does LCH Ltd apply limits with regard to lodging non-cash collateral to cover Initial Margin requirement?**

LCH applies concentration limits to securities issued by specific Issuers and in some cases specific Bonds. The concentration limits are set in accordance with our Concentration Risk Framework. Concentration limits apply to each clearing member at an entity level, as well as at a group level across all entities that are clearing members within the same group.

**Government Securities**

LCH LTD members, may lodge Italian and/or Spanish securities for the purposes of margin collateral up to the lower of i) 50% of the value of margin requirement or ii) EUR 500mm, subject to no correlated wrong way risk existing between cleared exposures and the collateral lodged.

Additionally in all cases, a 25 % (10% for Italian and Spanish securities) concentration limit is applied at Group level on the outstanding issuance amount of each ISIN.

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### Agency Securities

Concentration limits on Agency securities are set at Clearing member level as the lower of i) 20% of the value of margin requirement or ii) 500 million – USD for US agencies; EUR for European agencies with separate limits applied to GNMA MBS securities and hard limit of EUR50m equivalent for Kommuninvest.

### Supranational Securities

Concentration limits on Supranationals are set at Clearing member level as the lower of i) 50% of the value of margin requirement (EUR equivalent) or ii) EUR 500 million.

### Currency Holidays

#### 41. How are postings/PPS Calls/Pays treated on a currency holiday?

Please refer to the "member impact analysis" document contained in the below member communication -

[LCH Circular No 3739](#)

Example reports are also available within the "Changes to Protected Payments System (PPS)" document contained in the below member communication -

[LCH Circular No 3768](#)

#### 42. Where can I find the LCH Ltd. Recognised International Currency Holidays?

This is published annually in a Circular at the end of the year for the coming year's holidays.

All Circulars are saved within the Membership/LTD Membership/LTD Member Updates section of the LCH website.

<https://www.lch.com/membership/ltd-membership/ltd-member-updates>

### SSIs

#### 43. What are LCH's Standard Settlement instructions?

Non-cash collateral SSI's are located within the Collateral Management section of the LCH website. See the Standard Settlement Instructions section at the bottom of the page.

<https://www.lch.com/risk-collateral-management/ltd-collateral-management/ltd-acceptable-collateral/ltd-acceptable>

Cash SSIs can be provided on request from [Collateral.ClientServices@lch.com](mailto:Collateral.ClientServices@lch.com)

### Secure Area

#### 44. How do I gain access to the Secure Area?

Please use the below link and click register at the top right hand corner of the page if you require

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access to the secure area. You will need to register for the LTD Collateral and Liquidity Risk Management area to view the latest haircut schedule.

[https://secure-area.lchclearnet.com/secure\\_area/](https://secure-area.lchclearnet.com/secure_area/)