SOFR Discounting

Auction Process Technical Specification

LCH The Markets' Partner

SwapClear

LCH plans to switch discounting on all SwapClear USD-discounted products, including non-deliverable currencies and MXN, from Fed Funds to SOFR.

DISCLAIMER — PLEASE NOTE THAT THIS DOCUMENT IS NOT INTENDED TO BE LEGALLY BINDING

The contents of this paper are for informational purposes only. The legally binding terms of the auction process and LCH Limited's transition to SOFR discounting, and which is described herein, are set out in the rulebook of LCH Limited and any ancillary materials published pursuant thereto. Clearing Members and their clients should not rely on anything stated in this document and LCH Limited expressly disclaims, to the extent permitted by law, any liability in connection with this document and its contents. Clearing Members and their clients should take their own legal and other advice regarding the transition to SOFR discounting and ancillary matters connected therewith. The LCH rulebooks are publicly available at www.lch.com. Further information is also available at: https://www.lch.com/risk-management/risk-management-ltd/ltd-risk-notices/lchs-transition-fed-funds-sofr-discounting-its.

Executive Summary

As previously announced in July 2019, LCH plans to switch discounting (and PAI/PAA[1]) on all SwapClear USD-discounted products, including non-deliverable currencies and MXN, from Fed Funds to SOFR. The conversion is planned to take place starting on Friday 16th October 2020.

As part of the conversion process, LCH plans to provide 'risk compensation' in the form of Fed Funds versus SOFR basis swaps. The purpose of these *compensating swaps* is to reverse the change in discounting risk that will happen as a result of the update to the discounting curve, and to prevent any short-term distortions in market levels being permanently crystallised as cash in customer accounts.

Client accounts will be able to opt-out of the risk compensating swaps. All swaps that are opted-out of by clients will be subject to a close-out process using an auction, to be run by LCH. **The purpose of this document is to provide members and clients with a detailed description of this close-out process.**[2]

This version of the document (published in July 2020) has been updated from the original version (April 2020) to address further feedback received regarding the design of the auction, including from the CFTC's MRAC (Market Risk Advisory Committee) 'Tabletop Exercise'. The main updates consist of refinements to the bidding process (one-way bidding and a separate mid-setting auction) and the process for communicating the indicative auction portfolio and results of the auction to the market. Further detail has also been included on contingency planning and on how the auction proceeds caps and maximum cost allocation for clients (now called the 'gross client cap') will be set.

Please note that detailed plans in this document will be reflected in the rulebook of LCH Limited and are subject to legal and regulatory approval and may therefore be subject to further change.

THE PROCESS STEPS DESCRIBED IN THIS DOCUMENT ARE AS FOLLOWS:

01. **Specifying the compensating swaps**
    Calculating the compensating swap notionals; compensating swap trade details;

02. **Client opt-outs**
    Communicating opt-out decisions; calculating the opted-out portfolio;

03. **Auction logistics**
    Participation; timing; bidding logistics; determining the auction winner(s); auction winner allocations;

04. **Auction mid price**
    Calculation of auction mid price; use of auction mids in end of day pricing;

05. **Auction proceeds**
    Calculating the auction proceeds; allocating to individual accounts; auction proceeds cap, gross client cap and partial fill scenario;

06. **Post-auction events**
    Trade repository reporting; creating the compensating swaps; processing the auction proceeds; auction bid reporting;

07. **Contingency planning**
    Factors determining go/no-go decisions; technology failure impacting auctions; discounting transition playbook;

08. **Further information**
    Where to find other resources; contact details.

01. Specifying the Compensating Swaps

CALCULATING THE COMPENSATING SWAP NOTIONALS

The first step of the process is to evaluate the change in discounting risk as a result of the switch from Fed Funds to SOFR discounting. LCH will calculate the overall SOFR risk ladder under both regimes.[3] The difference between these risk ladders is then the change in discounting risk which we would plan to compensate for: The SOFR risk has increased, with an offsetting decrease in the Fed Funds risk, or vice versa.

The second step is to aggregate the required compensating risk into the compensating swap tenors: 2Y, 5Y, 10Y, 15Y, 20Y and 30Y. In this calculation any granular bucket containing risk between these main pillar points will be allocated to the nearest two pillars in proportion to the time difference between the relevant pillar points (for example 12Y risk will be allocated 60% to 10Y and 40% to 15Y; exact day counts will be used).

Finally, the required notional size for each compensating swap is calculated to match the required risk sensitivity (i.e. the delta) in each of the compensating swap tenors.

These calculations will be performed at the clearing account with USD discounting risk with reference to the cleared trade population as at close of business on Wednesday 14th October 2020. Any trades cleared after this point will not be included in the compensating swap calculations, though they will be included in the value compensation calculations up to close of business on Friday 16th October 2020. LCH will not accept any backloads or portfolio transfers during 15th-16th October. All trades subject to USD-linked discounting are included in this calculation: USD LIBOR, Fed Funds, SOFR, USD Inflation, MXN and non-deliverable swaps in THB, KRW, CNY, INR, TWD, BRL, CLP and COP interest rates. The risk compensation results are calculated on a fully netted basis.

[1] *Price Alignment Interest / Price Alignment Amount.*

[2] *For detail please see disclaimer note on cover sheet.*

[3] *Equally LCH could look at this calculation with reference to Fed Funds risk, but the calculation with respect to SOFR is more straightforward this way due to the relatively much smaller number of existing SOFR trades in the clearing service.*

COMPENSATING SWAP TRADE DETAILS

The swaps will set to be 'at market' and hence have zero NPV at inception (cash/value compensation being provided separately). The compensating swap is referred to in this document as a SOFR versus Fed Funds basis swap. However, for operational reasons the swap will be provided as a pair of fixed versus floating swaps:

01. Firstly, a Fed Funds OIS in which the floating leg will reference the Floating Rate Option *"USD-Federal Funds-H.15-OIS-COMPOUND"*, payable annually on an ACT/360 basis, versus an annual fixed rate leg payable on the same basis.

02. Secondly, a SOFR OIS in which the floating leg will reference the Floating Rate Option *"USD-SOFR-COMPOUND"*, payable annually on an ACT/360 basis, versus an annual fixed rate on the same basis.

03. Both trades will be spot starting with a natural maturity date linked to the associated tenor.

04. The annual fixed rate on the Fed Funds OIS will be the SwapClear closing price for 'at market' Fed Funds swaps at the close of business on 16th October (the annual fixed rate on the SOFR leg is then this rate minus the market spread for SOFR/Fed Funds swaps determined from the auction mid); see Section 4 for details.

Notionals will be rounded to discrete quantities using the rounding convention below. All computed notionals will therefore be an integer multiple of the quantities below. Any notionals falling below half these figures will be rounded to zero, i.e. no compensating swaps will be created in those tenors for the relevant account.

Rounding	2Y	5Y	10Y	15Y	20Y	30Y
Notional	5,000,000	2,500,000	1,250,000	500,000	500,000	500,000

02. Client Opt-outs

COMMUNICATING OPT-OUT DECISIONS

Opt-out decisions must be communicated to LCH by clearing brokers **no later than Friday 4th September 2020 using the LCH Portal.** Clients may view the elections made on their behalf directly in the LCH Portal. Please contact **SwapClear.ClientServices@lch.com** for further information on accessing the LCH Portal.

Opt-out decisions are made at the clearing account level. Clients with multiple accounts may choose which accounts they intend to opt-out. Clients may not opt in or out of specific tenors. **Any accounts for which LCH does not receive an election by 4th September will receive the compensating swaps.**

LCH will attempt to close out all opted-out compensating swaps by running an auction process described in the next sections. **Note that if there are insufficient bids for the opted-out portfolio within a predetermined range (the 'auction proceeds cap'), opted-out clients will, notwithstanding their election to receive cash only, still receive part or all of their compensating swap allocation** (see section 5 for details).

Opt-out decisions are communicated by clearing brokers using the LCH Portal.
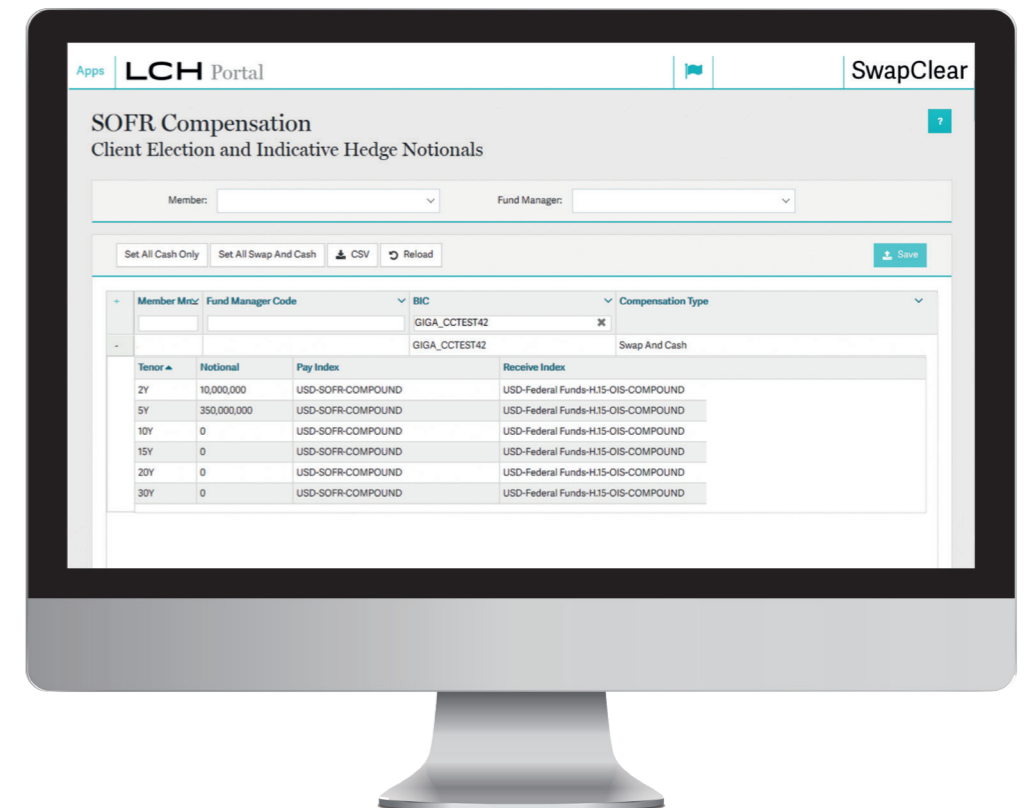
CALCULATING AND PUBLISHING THE OPTED-OUT PORTFOLIO

After the window for elections has closed on 4th September, LCH will relay the completed population to clearing brokers. Thereafter, for the client accounts opting out, the indicative compensating swap positions will be aggregated and netted into six single compensating swaps across all such client portfolios, to become the indicative auction portfolio. **LCH plans to publish this indicative portfolio (i.e. the notional size and direction of each of the six tenors) on its website (www.lch.com) at 9.30am EST on Friday 18th September 2020.**

Note that, although client opt-out decisions are scheduled to be fixed from 4th September, the final auction positions will not be known until close of business on 14th October, when the compensating swap notionals are finalised. Due to the dynamic nature of the discounting risk and potential position changes, there may be material changes to the expected auction positions during the interim period.

The rationale for publishing the indicative and final portfolios to the whole market is:

01. to ensure transparency such that the auction participants are not restricted from providing liquidity to this market before, during and after the auction;

02. to enable a process of price discovery to take place, whereby the market is able to absorb the information regarding the auction portfolio gradually over a period of a few weeks, rather than solely on the day of the auction itself; and

03. to allow auction participants sufficient time to prepare, e.g. by ensuring they have sufficient risk limits in place.

The final auction portfolio, gross/net ratios, auction proceeds caps and any further final bidding logistics (including exact timing and any grouping of individual auctions) will be published by LCH on its website at EST 9.30am on Thursday 15th October 2020.

Given the dynamic nature of the auction positions, LCH believes it may also be beneficial for the market to receive an interim update between the initial and final publications, which is scheduled to be made available on Thursday 1st October 2020 at EST 9:30am.

03. Auction Logistics

PARTICIPATION

Members who are large, active participants in the USD swaps market will be required to use all reasonable efforts to bid in the auction. LCH has defined the threshold for requiring auction participation as those member groups having cleared at least $1 trillion notional of USD-denominated swaps at LCH in Q1 2020. There are 16 member groups above this threshold who have been contacted by LCH.

Auction participants are expected to be US primary dealers with the required operational experience and connectivity, and to be subject to the relevant supervisory oversight. Clients wishing to provide liquidity into the auction should contact a bank which can intermediate. Other dealers wishing to participate as auction bidders should contact LCH by emailing SwapClearRisk@lch.com prior to Wednesday 15th July 2020.

All auction participants will be expected to demonstrate connectivity to LCH's auction platform which is based on the existing LCH Portal.

The list of auction participants is expected to be finalized and published by Friday 31st July 2020.

TIMING

Auctions for the opted-out swaps will be held during the morning of 16th October 2020 (in New York business hours). The bidding for each of the six compensating swaps will be separate (i.e. LCH will not support bids for packages of trades[4]), though for logistical reasons LCH may decide to run multiple auctions at the same time, depending on the composition of the overall auction portfolio.

The precise timing and ordering of individual tenor auctions will be discussed with the group of auction participants in advance. We also expect to discuss feedback on the auction logistics and any testing exercises with this group.

LCH expects that each auction will have a bidding window of approximately 10 minutes. Each participant may amend or remove their bids during this time. The open bids present in the platform at the close of the auction window will be considered as final, executable bids. There will be a break between the end of one auction and the start of the next to complete and validate the selection of the winning bids. LCH will notify all auction participants when each auction closes and will aim to inform the auction winner(s) of their percentage share and the price paid within 20 minutes of the auction closing.

Auctions will be held during the morning of Friday, 16th October 2020.

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[4] *Bids must be kept separate in order to preserve the integrity of pricing for individual swaps. This is important as costs will later be allocated to client accounts based on their share of each individual tenor.*

BIDDING LOGISTICS

For each auction, LCH will ask for a series of one-way tradeable quotes from the auction participants, who will have been provided with details of the final auction portfolio on the preceding day (October 15th).

The quotes provided will represent the levels at which auction participants are willing to enter into a Fed Funds versus SOFR basis swap with LCH in the specified size, maturity and direction, and are quoted in terms of **basis points spread on the SOFR leg of the trade.**

Bids will be submitted via the LCH auction platform. Auction participants will access the auction platform via a web portal which displays a schedule of auctions for the day. During the auction window, members may use the portal to submit, change or withdraw their bids. This platform has been developed and tested externally for use in LCH's default management auction processes. There will be an additional test with auction participants in advance of the event via at least one 'dress rehearsal' exercise.

Auction participants will be permitted to provide prices in two formats: an 'order book', or an 'all or nothing' price. Auction participants may supply quotes in one or both formats, as below. The minimum requirement is to bid for 10% of each auction swap.

Bank	Bank1

Order Book	
	Bid/Offer
Up to 10%	X bp
10-25%	X bp
25-50%	X bp
50-75%	X bp
75-100%	X bp

All Or Nothing	
	Bid/Offer
100% Only	X bp

In the *order book* approach, auction participants provide differentiated pricing for a defined proportion of the compensating swap being offered. With the *all or nothing bid,* an auction participant shows a price which is valid if and only if they are allocated the full size. The rationale for this type of quote is that auction participants may prefer to take the swap knowing that they own the full size and therefore may be prepared to offer better pricing if this condition is met, resulting in a better outcome for the opting out clients.

All winners will be allocated their swap using the same market clearing price.

DETERMINING THE AUCTION WINNER(S)

Initially, all bids in the *order book* format will be aggregated and arranged in descending order (or offers in ascending order, depending on the direction of the swap being auctioned). Matching bids will be treated based on the time received by LCH, such that the bid received first will be given precedence over later bids. LCH will work down this list until enough bids have been accumulated to cover the full size of the auction. The last bid (or offer) is then the *market clearing price,* i.e. the best price at which there are enough partial bids to cover the full auction size in aggregate.

The *market clearing price* from the order book bids is then compared with the best *all or nothing bid*. If there is a better all or nothing bid, that bidder will be the sole auction winner. Otherwise, the order book bidders will be declared the winners and the auction swap will be allocated to them. Note that **all winners will be allocated the swap using the same market clearing price,** which will be the same or lower than the price they bid (or higher than their offer). This feature is in the interests of fairness to all bidders and to encourage competitive bidding: there is no 'winners curse' for individual high bidders.

Note that the swaps themselves will be 'at market', i.e. the rates used will be the auction mid price, not the market clearing price paid by the auction winners (see next section for more detail).

ALLOCATION OF SWAPS TO THE AUCTION WINNERS

All successful bidders except the lowest bidder will be allocated the full share that they bid for. The lowest bidder may be allocated a smaller share if the remainder of the position (after the higher bids are accounted for) is smaller than the size of their bid.

The auction winner(s) will be notified within 20 minutes of each individual auction close of any share of the auction portfolio they have won and the price paid. Other market participants (including the other auction participants) will be notified of the overall outcomes at the end of the day, after the market has closed (see Section 6 for details).

04. The Auction Mid Price

CALCULATING THE AUCTION MID PRICE

One of the important features of the auction is to generate robust prices from which to derive the cash compensation. To ensure the quality of this information, a separate two-way 'mid setting' auction will be held before the main auctions described above. The purpose of using an auction rather than, say, a broker screen for setting prices is to ensure, to the extent possible, that the levels are based on tradeable rather than indicative quotes, sourced via a transparent liquidity-concentrating process. This is especially relevant for the SOFR swaps market which is relatively new and has only very limited trading volumes for longer dated contracts on an average day. Note that none of the auction portfolio will be sold off during this part of the process.

In the mid-setting auction, LCH will request two-way prices (bids and offers) for a defined size, which will be communicated to the auction participants in advance of the auction. Any *crossing bids,* i.e. individual participant bids that are higher than another participant's offer (and vice versa) will give rise to a requirement for the relevant auction participants to execute real trades (Fed Funds/SOFR basis swaps) with each other. The spread on these trades will be the average of the bid and offer, meaning that both banks will obtain a 'better' (from their perspective) price than they were willing to transact at. Any crossed bid/offers are then removed from subsequent stages of the auction mid calculation.

USE OF AUCTION MIDS IN END-OF-DAY PRICING

The auction mid prices will be used to construct the LCH end of day SOFR curve on the day of the auction. The auction will produce the SOFR-Fed Funds spreads at 2Y, 5Y, 10Y, 15Y, 20Y and 30Y, which will be applied to the regular Fed Funds curve (consensus market level sourced from broker quotes) to create the SOFR curve. For points between these pillars, the spreads will be calculated using linear interpolation. For points beyond 30Y, the 30Y spread will be extrapolated out flat. The short end of the SOFR curve (maturities less than 2 years) will be sourced from broker quotes in line with LCH's usual daily process.

This SOFR curve will be the official SwapClear close of business curve for the day. It will be used to calculate all cash compensation amounts for members and clients, irrespective of whether they opt-out of the compensating swaps. For opting out clients, the auction mid also serves as a reference for calculating the auction proceeds, as described in the next section.

At all other times, and for all other curves, the usual SwapClear processes will apply to mark closing curves and call and pay variation margin, i.e. using consensus market levels based on broker sources.

> Auction mid prices will be used to build the reference curve for cash compensation.

Auction Mid Example

REMOVAL OF CROSSING BIDS

In this example, the bid from Bank 5 is higher than the offer from Bank 4. Banks 4 and 5 would then be required to enter into a Fed Funds versus SOFR basis swaps. The spread on this trade will be 10.5bp. Both data points would then be removed from subsequent stages of the auction mid calculation.

Participant	Best Bid	Best Offer
Bank1	10	13
Bank2	9	12
Bank3	10	12
Bank4	8	10
Bank5	11	13
Bank6	10	14
Best	11	10

SELECTING BEST BIDS AND OFFERS

With five quotes remaining, the number of quotes selected is two (one quarter of five, rounded up).

Crossed	Bid	Offer
Removed	11	10
Best	10	12
	10	12
	10	13
	9	13
Worst	8	14

CALCULATING THE AUCTION MID

The average of the best bids and best offers (two bids at 10bp and two offers at 12bp), meaning the **auction mid is 11bp.**

05. Auction Proceeds

CALCULATING THE AUCTION PROCEEDS

Auction winners will be provided with their compensating swaps 'at market' with reference to the auction mid as the market level. This means that the fixed spread on the SOFR leg of their trade will be equal to the auction mid price for the relevant tenor.

The difference between the *auction mid price* (in basis point terms) and the price agreed with the auction winner(s) *market clearing price* (the best bid or combination of best bids, also in basis point terms) multiplied by the size of the auction position (in dv01 terms) can therefore be thought of as the *auction proceeds*. If the market clearing price is lower than the auction mid, this results in the need for a cash payment to the auction winner from the opting out client accounts.[5]

ALLOCATING TO INDIVIDUAL ACCOUNTS

For each individual tenor auction, the proceeds are allocated to client accounts in proportion to the notional size of compensating swap that they have opted-out of (irrespective of long/short):

$$\text{ClientAllocation}_i = -\text{AuctionProceeds.} \frac{|\text{ClientNotional}_i|}{\sum_{\text{OptOut}}|\text{TotalNotional}|}$$

AUCTION PROCEEDS CAP, GROSS CLIENT CAP AND PARTIAL FILL SCENARIO

In order to prevent the opting out client accounts from incurring unquantifiable costs in the auction process, LCH plans to implement a **gross client cap to limit the allocation of auction costs to client accounts** to a defined number of basis points for each tenor. The auction proceeds cap will then be derived by dividing the gross client cap by the net/gross ratio of the opted-out client positions, i.e.:

$$\text{AuctionProceedsCap (bp)} = \text{GrossClientCap(bp)} / \frac{|\sum_{\text{long+short}}\text{TotalNotional}_i|}{|\sum_{\text{long}}\text{TotalNotional}_i| + |\sum_{\text{short}}\text{TotalNotional}_i|}$$

Note that the gross client cap will be lower than (or, in the case of all opted-out clients having the same directional position, equal to) the auction proceeds cap.

If the auction fails to produce sufficient bids to cover the entire auction size within this level, this will result in a *partial fill scenario*. If there are no bids within the auction proceeds cap, all clients will receive their full allocation of compensating swaps.

In the partial fill scenario, each opting out account will be allocated both cash and swaps. The cash represents their share of the auction proceeds payable to the successful bidder(s) whose bids were within the agreed range. The swaps will represent their share of the compensating swap notional for which there were insufficient bids (bids outside the range or no bids at all). Both calculations will be performed as a percentage of notional, as per the auction proceeds calculations above. Note that the rounding convention described in section 1 is not reapplied in this calculation.

[5] *Note that it is possible for the winning auction bid(s) to be higher than the auction mid price. In this case a payment is due from the auction winner to the opting out client accounts.*

> Allocation of auction costs to client accounts will be capped at a predetermined number of basis points.

If clients subsequently require an unwind of their remaining compensating swap positions it will be their own responsibility to achieve this in the open market with the help of their clearing broker (as the intermediating counterparty). Note that unwinding the compensating swaps in the open market will clearly be an option for any clients who may prefer not to put their compensating swaps into the auction process.

LCH does not plan to hold any further rounds of LCH-organised auctions after the initial scheduled round, even in the partial or no fill scenarios.

AUCTION PROCEEDS CAP WORKED EXAMPLE

In the following example, 7 clients are assumed to have opted-out with the following notional values for a single tenor:

Opt-outs Received (notional $m)	
Shorts	Longs
-10.00	25.00
-15.00	20.00
-5.00	15.00
	10.00
-30.00	70.00

Net Opt-out	40.00
Gross Opt-out	100.00

Net/Gross Ratio	0.4

The auction process will be used to clear the net amount, with $40m being sold to participants. However, the proceeds from the process will be allocated on a pro-rata basis between the full $100m gross notional. If the gross client cap were set to 5bp, dividing this by the net/gross ratio results in an auction proceed cap of 12.5bp.

AUCTION PROCEEDS CAP CALIBRATION AND GROSS CLIENT CAP PUBLICATION

To set the gross client caps, LCH will:

01. Conduct a survey of auction participants to obtain indications of the likely close-out cost in each tenor in a range of hypothetical sizes.

02. Examine the portfolio of client discounting risk at the time of calibration and determine plausible ranges of potential sizes for the auction portfolio.

03. Combine this information to infer indicative levels for the auction proceeds cap(s) by tenor and net auction portfolio. LCH will provide for adverse market conditions in this estimate.

04. Estimate plausible net/gross ratios based on overall client discounting risk at the time of calibration.

05. Use this information to set the ranges for the gross client caps by tenor and auction portfolio size.

LCH will publish the gross client cap ranges by 31st July 2020.

Final gross client caps will then be confirmed once the auction portfolio size is known, on 15th October, from within the ranges previously published on 31st July. The auction proceeds caps will thereafter mechanically compute off the gross client caps and with the final net/gross ratios.

Calibration inputs will not be published. Note that LCH calibrations can only be based on indicative estimates given the dynamic nature of the risk, unpredictability of opt-out decisions and portfolio risk changes between now and the opt-out election close date of the 4th September 2020.

LCH will publish the gross client cap ranges by 31st July 2020.

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06. Post-auction Processing

CREATING THE COMPENSATING SWAPS

The compensating swaps assigned to the auction winners will be booked after close of business on 16th October and cleared at the opening of the SwapClear service on Monday 19th October 2020.

The auction winner(s) will receive a two-swap package per tenor, with both trades executed at market, using curves derived from the auction mids as described above (the Fed Funds rates will be from market quotes, with SOFR-FF basis spreads added with reference to the mid-setting auction results).

PROCESSING THE AUCTION PROCEEDS

From an operational perspective only, the individual payments between the auction winner(s) and the relevant opting out client accounts will be facilitated using fees attached to a $1 notional short-dated Fed Funds swap (the same mechanism as will be used to facilitate the cash compensation). These trades will also be booked over the weekend and cleared at the opening of the SwapClear service on Monday 19th October 2020. The cash payments will settle on Tuesday 20th October 2020.

TRADE REPOSITORY REPORTING

Auction winners will need to report their winning trades in accordance with their local regulations for off-facility swap transactions.

All cleared swap transactions associated with this process will be subject to the usual reporting requirements for cleared swaps. SwapClear will report all cleared transactions to the relevant trade repositories on Monday 19th October. All such reporting will be anonymous, i.e. individual counterparties will not be identifiable.

Note that the rates used for the compensating swaps will be the auction mid prices. The market clearing price, i.e. the price paid by auction winners, should not be visible in the trade repositories.

AUCTION RESULTS PUBLICATION

LCH plans to publish the auction fill percentages, auction clearing prices and gross/net ratios at the end of the trading day on 16th October 2020, after the market has closed. This information will be required by all opting out clients to independently calculate their expected share of the auction costs and the notional value of any swaps they should expect to see in their accounts on the morning of 19th October.

AUCTION BID REPORTING

The full schedule of bids will be reported on a confidential basis to the relevant supervisory authorities, i.e. CFTC and the Bank of England.

Auction winners will need to report their winning trades in accordance with their local regulations for off-facility swap transactions.

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07. Contingency Planning

FACTORS DETERMINING GO/NO-GO DECISIONS

LCH will need to make the final go/no-go decision on the discounting conversion process and auctions at the beginning of the day on 16th October at the latest. Considerations for making the go/no-go decision will include:

01. whether testing has been completed and any issues uncovered in testing have been remediated;

02. whether key infrastructure partners (e.g. MarkitWire) are ready for the change;

03. whether key personnel are available to execute the changes;

04. whether there are any live technology issues that may impact on LCH's capabilities (e.g. availability of the auction platform);

05. whether there are any live counterparty risk issues (e.g. a member close to or recently put in default); and

06. whether there are any objections to going ahead from relevant competent authorities or the user community.
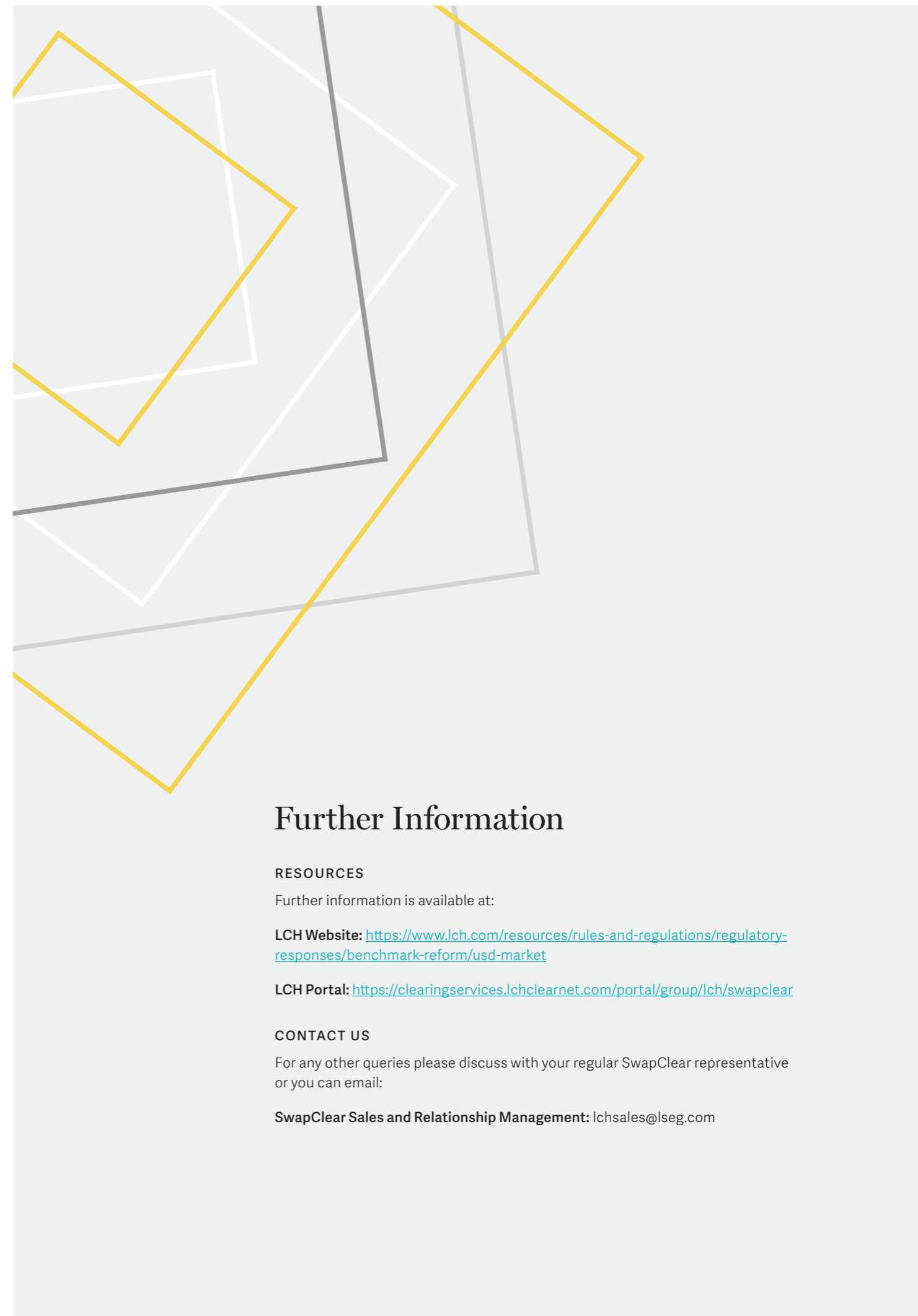
TECHNOLOGY FAILURE IMPACTING AUCTIONS

Once the auctions have started on the morning of 16th October, the process cannot be halted or reversed. If LCH is unable to complete one or more of the auctions due to a technology failure, and there is insufficient time left in the day to re-schedule the auction, that auction will be given a fill percentage of 0% and the swaps will be delivered for that tenor (the same as if the auction was run but with no bids within the auction proceeds cap).

Any serious issues will be communicated live to the auction participants (and, if required, to the broader LCH user community), particularly if any change to the schedule of individual auctions is required.

DISCOUNTING TRANSITION PLAYBOOK

LCH has developed a detailed discounting transition playbook to ensure that all the required steps for a successful transition are documented and can be executed seamlessly on the conversion weekend.

Further Information

RESOURCES

Further information is available at:

LCH Website: https://www.lch.com/resources/rules-and-regulations/regulatory-responses/benchmark-reform/usd-market

LCH Portal: https://clearingservices.lchclearnet.com/portal/group/lch/swapclear

CONTACT US

For any other queries please discuss with your regular SwapClear representative or you can email:

SwapClear Sales and Relationship Management: lchsales@lseg.com