

ANTICIPATED ACQUISITION BY LONDON STOCK EXCHANGE GROUP PLC OF QUANTILE GROUP LIMITED

Decision on relevant merger situation and substantial lessening of competition

ME/6973/21

The CMA's decision on reference under section 33(1) of the Enterprise Act 2002 given on 3 May 2022. Full text of the decision published on 27 May 2022.

Please note that [X] indicates figures or text which have been deleted or replaced in ranges at the request of the parties or third parties for reasons of commercial confidentiality.

SUMMARY

Introduction

1. On 6 December 2021 London Stock Exchange Group plc (**LSEG**) entered into a share purchase agreement to buy the entire and to be issued capital of Quantile Group Limited (**Quantile**) (the **Merger**). LSEG and Quantile are together referred to as the **Parties**, and, for statements referring to the future, as the **Merged Entity**.
2. The Competition and Markets Authority (**CMA**) believes that it is or may be the case that each of LSEG and Quantile is an enterprise; that these enterprises will cease to be distinct as a result of the Merger; and that the share of supply test is met. Accordingly, arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation.

Competition assessment

3. LSEG mainly offers centralised risk management. It operates a business, LCH, that acts as a clearing house for various types of trades. Trades are first agreed and then are 'cleared' (so that each party can be sure the trade will go ahead – removing the risk that the other party to the trade might fail (ie the counterparty risk)).

4. LCH's business states that it operates on an 'open access' model, which means that 'market participants should be able to clear all eligible trades, regardless of the venue traded on'. The practical implication is that LCH will clear transactions on any exchange, including those owned by LSEG's competitors.
5. Both Parties are active in the provision of post trade services, ie services that are offered to parties using the clearing house and that are performed after a trade is executed. The key stages of a trade after execution may include (1) trade matching/affirmation; (2) clearing; (3) settlement; (4) custody and asset servicing; and (5) related activities such as collateralisation. Other post trade services reduce risk or capital requirements (such as portfolio compression and margin optimisation) or provide the transparency required by regulation (such as reporting).
6. Quantile provides (1) portfolio compression services for cleared trades; and (2) margin optimisation services for cleared and uncleared trades.
7. The CMA's investigation focused on whether the Merged Entity might be able to use its control of certain inputs to harm Quantile's rivals in relation to two products: multilateral compression and margin optimisation.

Input foreclosure in multilateral compression of over-the-counter interest rate derivatives (OTC IRDs)

8. Multilateral compression is a risk-reduction technique by which a group of market participants contract with a multilateral compression provider to identify and replace multiple offsetting derivative contracts with fewer deals of the same net risk to reduce the notional value of their portfolio. By reducing the notional value of the portfolio, a customer reduces the capital that needs to be held, lowering the cost of engaging in those trades.
9. Multilateral compression providers for OTC IRDs rely on cooperation by LSEG's clearing house, LCH, to implement their multilateral compression proposals for trades cleared at LCH. As Quantile's multilateral compression services at LCH relate to cleared OTC IRDs only, the CMA investigated whether the Merged Entity could foreclose current and future multilateral compression providers for OTC IRDs that compete with Quantile. If the Merged Entity foreclosed competitors to Quantile, those rivals would be less effective competitors.
10. A multilateral compression provider that wants to offer compression of LCH cleared OTC IRDs must be approved by LCH as an Approved Compression Service Provider (**ACSP**). There are only two ACSPs for LCH in relation to OTC IRDs: Quantile and TriOptima.

11. The CMA considered whether the Merged Entity could harm Quantile's rivals by (1) ceasing to approve rival providers as ACSPs (total foreclosure), and/or (2) engaging in strategies that worsen the ACSP terms or otherwise harming Quantile's competitors (an example of this type of strategy would be LCH changing the order of compression files so that Quantile files are always processed first (partial foreclosure)).
12. In relation to the Merged Entity's ability to engage in foreclosure:
 - (a) the CMA found that LCH has significant market power in the provision of clearing services for OTC IRDs with a stable share of supply of around 90% (by notional cleared) between 2018-2021.
 - (b) Feedback from clearing house customers confirmed that switching from one clearing house to another is difficult. Around 75% of OTC IRDs are cleared and the CMA considers that LCH has significant market power in the provision of clearing services for OTC IRDs.
 - (c) The CMA, therefore, believes that multilateral compression providers who wish to offer their services in relation to OTC IRDs need the ability to offer to compress trades cleared at LCH.
 - (d) Based on third-party feedback, the CMA found that LCH retains a margin of discretion in granting the ACSP status to a multilateral compression provider and that LCH could engage in other mechanisms of foreclosure strategies such as those described in paragraph 11.
 - (e) Finally, the CMA found there is no legal impediment for LCH to deviate from its current (open access) governance model. That model enables trades from any trading venue to be cleared at LCH. It is not clear that the open access principle would fully secure the protection that the Parties claimed it would in relation to competition between multilateral compression providers as the CMA considers there would still be scope for foreclosure while applying the principle. The mechanisms the Parties argued as giving effect to that model (for example, enforcement by the Bank of England, who have a primary concern to secure financial stability, not to protect or promote competition) were not sufficient to make it likely that enforcement of open access principles would be effective and robust to the extent that it would address the risks of foreclosure. The CMA therefore placed limited weight on LSEG's commitment to open access in relation to the assessment of vertical effects in multilateral compression.

13. In relation to the Merged Entity's incentive to engage in foreclosure, the CMA has considered the costs and benefits of a vertical foreclosure strategy:
- (a) The CMA believes that partial foreclosure strategies aimed at Quantile's rivals in multilateral compression would be unlikely to significantly harm the Merged Entity, especially those that are less detectable or that could be justified by LCH. For instance, the Merged Entity could favour Quantile in terms of multilateral compression runs and access to data by manipulating the automated nature of the process while carrying out routine updates. Experience across a range of sectors suggests that such discrimination in favour of a related business may be very difficult to detect or prevent.
 - (b) The CMA found that any costs of engaging in total or partial foreclosure for the Merged Entity are likely to be limited. One cost is the risk of retaliation by customers, which the Parties argued would constrain their conduct. Based on the available evidence, including third-party feedback, the CMA believes that, although customers would disapprove of the Merged Entity's behaviour, they would not be able to move a significant number of trades from LCH to another clearing house, given switching is difficult. Furthermore, the available evidence does not show that customers would switch part of their spend on other LSEG services to alternative providers of those services. Based on the available evidence, the CMA believes customer switching would be limited and would not be enough to offset the benefits from foreclosure.
 - (c) The CMA further believes that the foreclosure strategies aimed at Quantile's rivals in multilateral compression would benefit the Merged Entity substantially, allowing it to gain market power in multilateral compression.
14. With regard to the effect of any foreclosure strategy, the CMA found that multilateral compression for OTC IRDs is already concentrated, with TriOptima and Quantile being the main providers. The CMA therefore found that foreclosure may raise significant barriers to entry for new providers and is likely to have a negative impact for customers as a loss of choice and competition may increase prices and reduce quality and innovation.
15. The CMA therefore believes that the Merger gives rise to a realistic prospect of a substantial lessening of competition (**SLC**) as a result of vertical effects in multilateral compression services for OTC IRDs in the United Kingdom.

Input foreclosure in margin optimisation

16. Margin optimisation services seek to reduce initial margin and therefore aim to reduce counterparty risk and the costs associated with funding the initial margin. Margin optimisation providers do not need to engage directly with clearing houses in order to be 'approved' and clearing houses do not need to provide them with data for the optimisation run or to register the trades following the run.
17. Quantile offers margin optimisation services in relation to derivative portfolios, including FX, OTC IRDs and equities.
18. LSEG has two services that are being used by margin optimisation providers. First, the SMART data and analytics tool is a product that is used to estimate the margin impact of adding new cleared trades at LCH. Second, SwapAgent is an LCH service that offers standardized infrastructure for non-cleared derivatives. The CMA, therefore, investigated whether the Merged Entity could use its control of these inputs to harm Quantile's rivals in margin optimisation services.
19. Based on third-party feedback and the Parties' submissions, the CMA found that (1) there are no current margin optimisation providers apart from Quantile that rely on the SMART data and analytics tool and (2) SwapAgent has no visibility of who creates the trades or if the trades are the result of an optimisation run, and therefore is not able to discriminate against Quantile's rivals.
20. Finally, the CMA investigated whether the Merged Entity could grant Quantile preferential or exclusive access to customer data necessary to offer or improve optimisation services (eg data on customers trade positions at LCH). The CMA found that LCH does not have an active role in the margin optimisation process. The CMA considers that this aspect, and the fact that margin optimisation largely relates to uncleared trades, makes any preferential access to data in margin optimisation by itself unlikely to provide LCH the ability to foreclose.
21. For the reasons set out above, the CMA believes that the Merged Entity would not have the ability to foreclose Quantile's rivals in margin optimisation.

Decision

22. The CMA therefore believes that the Merger gives rise to a realistic prospect of an SLC as a result of vertical effects in multilateral compression services for OTC IRDs in the United Kingdom.
23. The CMA is therefore considering whether to accept undertakings under section 73 of the Enterprise Act 2002 (the Act). The Parties have until 10 May 2022 to offer an

undertaking to the CMA that might be accepted by the CMA. If no such undertaking is offered, then the CMA will refer the Merger pursuant to sections 33(1) and 34ZA(2) of the Act.

ASSESSMENT

PARTIES

24. LSEG is an international financial markets infrastructure and data business headquartered in London. LSEG has three main business activities in Europe:
- (a) capital markets: LSEG offers access to capital for domestic and international participants, and electronic platforms for secondary market trading of equities, exchange-traded funds, fixed income and FX.¹
 - (b) data & analytics: LSEG offers information and data products such as real-time and non-real-time data, pricing and reference services, indices, analytics and risk management services.²
 - (c) post trade: LSEG provides clearing and bilateral services as well as financial resource optimisation and reporting solutions. Amongst others, LSEG holds a majority shareholding in LCH Group, a multi-asset class global clearing house.³
25. The turnover of LSEG in the financial year 2021 was £7,120 million worldwide, of which, approximately [X] million was generated in the UK.ⁱ
26. Quantile is a provider of portfolio compression and margin optimisation services for financial institutions dealing with derivatives instruments. Quantile was founded in 2015 and is headquartered in London. The turnover of Quantile in the financial year 2021 was [X] worldwide, of which, approximately [X] was generated in the UK.

TRANSACTION

27. On 6 December 2021 LSEG entered into a share purchase agreement to buy the entire and to be issued capital of Quantile.⁴

¹ LSEG operates trading venues such as LSE, Turquoise and Tradeweb.

² LSEG owns FTSE Russell (a provider of financial indexing, benchmarking and analytic services) and Refinitiv (a financial markets data and infrastructure provider, which provides data and insights, trading platforms, and open data and technology platforms that enable customers to execute critical investing, trading and risk decisions).

³ LSEG also operates UnaVista, a regulated technology platform that helps firms to reduce operational and regulatory risk through a range of regulatory reporting, reference data and analytics solutions.

⁴ The sellers are [X].

28. The Parties informed the CMA that the Merger is not subject to review by any other competition authority.

PROCEDURE

29. The Merger was considered at a Case Review Meeting.⁵

JURISDICTION

30. The CMA believes that the Merger (as described in paragraph 27) is sufficient to constitute arrangements in progress or contemplation for the purposes of the Act.⁶
31. Each of LSEG and Quantile is an enterprise. As a result of the Merger, these enterprises will cease to be distinct.
32. The Parties overlap in the provision of portfolio compression services. The Parties had a combined share of supply in 2021 in the provision of portfolio compression services of [60-70]% on a worldwide basis⁷ with an increment of [10-20]% brought about by the Merger.⁸ The CMA therefore believes that the share of supply test in section 23 of the Act is met.
33. In light of the above, the CMA therefore believes that it is or may be the case that arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation.
34. The initial period for consideration of the Merger under section 34ZA(3) of the Act started on 4 March 2022 and the statutory 40 working day deadline for a decision is therefore 3 May 2022.

⁵ See [Mergers: Guidance on the CMA's jurisdiction and procedure \(CMA2revised\)](#), January 2021 (as amended on 4 January 2022), from page 43.

⁶ Section 33(1)(a) of the Act.

⁷ The Parties provided shares of supply estimates on a worldwide basis. The Parties submitted that they are unable to identify what counts as 'UK' activity as: (1) the customers of portfolio compression services operate on a global basis in multiple financial centres, including in London; (2) many of the multilateral compression runs that Quantile and its competitors operate simultaneously serve a diverse group of financial institutions with headquarters in many parts of the world due to the inherently global nature of the relevant market; and (3) the Parties do not have visibility of the breakdown of the sales of rival compression service providers at the individual customer level and are therefore unable to identify what proportion of this activity comes from "UK" customers. The Parties further submitted that, to their knowledge, there are no reasons why the worldwide share of supply estimates would be materially different for a hypothetical geographical market for the UK only.

⁸ Parties' response to CMA request for information dated 28 March 2022 (**RFI 5**).

COUNTERFACTUAL

35. The CMA assesses a merger's impact relative to the situation that would prevail absent the merger (ie the counterfactual). The CMA will generally conclude on the counterfactual conditions of competition broadly – that is, prevailing or pre-merger conditions of competition, conditions of stronger competition or conditions of weaker competition.⁹ The CMA seeks to avoid predicting the precise details or circumstances that would have arisen absent the merger.¹⁰
36. The Parties submitted that the relevant counterfactual against which to assess the Merger is the prevailing conditions of competition.¹¹ The CMA has not received any evidence from the Parties or third parties that indicates a different counterfactual is more appropriate.
37. Therefore, the CMA believes the prevailing conditions of competition to be the relevant counterfactual.

BACKGROUND

38. The Merger relates to the provision of post trade services, ie services that are performed after a trade is executed. The key stages of a trade after execution may include (1) trade matching/affirmation; (2) clearing; (3) settlement; (4) custody and asset servicing; and (5) related activities such as collateralisation. Other post trade services reduce risk or capital requirements (such as portfolio compression and margin optimisation) or provide the transparency required by regulation (such as reporting).
39. LSEG mainly offers centralised risk management (ie insuring each party to a trade against counterparty risk and, in the case of LCH, as a central counterparty (**CCP**)).¹² Quantile provides (1) portfolio compression services for cleared and uncleared tradesⁱⁱ; and (2) margin optimisation services for cleared and uncleared trades.

⁹ [Merger Assessment Guidelines](#), paragraph 3.2.

¹⁰ [Merger Assessment Guidelines](#), paragraph 3.11.

¹¹ Final Merger Notice submitted by the Parties on 2 March 2022 (**FMN**), paragraph 48.

¹² LSEG is also active in (1) trade processing of trades resulting from compression/optimisation services; (2) regulatory reporting by compression/optimisation providers; and (3) consolidated non-real time data as an input to compression/optimisation services.

40. This section provides some background into the products and services that the CMA focused on during its investigation.^{13, 14, 15}

Clearing of OTC derivatives

41. A derivative is a contract between market participants (ie banks/dealers), which derives its value from the value of an underlying asset or group of assets.¹⁶ Derivatives are financial products designed to transfer various types of economic risk between the parties to a trade. There are various ways in which derivatives can be traded¹⁷, including OTC¹⁸ or on an exchange. The vast majority of OTC derivatives traded are IRDs.
42. Clearing occurs between the time of trading (ie when a trade has been agreed between the buyer and the seller) and the moment in which commitments are fulfilled, or “settled”.¹⁹ The main function of clearing is to insure each party to a trade

¹³ The Parties submitted that there is a vertical relationship between LSEG and Quantile in trade processing of trades resulting from compression/optimisation services. The CMA understands that for Quantile’s OTC IRDs optimisation runs, which lead to new IRD trades, [3<] of new trades are processed via MarkitWire (a service owned by Osttra). As to FX trades, only [3<] of the new FX Non-Deliverable Forwards that result from Quantile’s optimisation services are booked via RTN (LSEG’s middleware that enables straight-through-processing). The rest are processed directly by participants. Furthermore, Osttra provides services that are an alternative to RTN and it would be possible for customers to switch to use these services. Furthermore, the choice of processing option or vendor is selected by the participants rather than by Quantile. The CMA further notes that no third party raised a concern in relation to this vertical relationship. The CMA, therefore, considered at an early stage in its investigation that there are no plausible competition concerns in respect of this vertical relationship as a result of the Merger and this is therefore not discussed further in this Decision.

¹⁴ The Parties submitted that there is a vertical relationship between LSEG and Quantile in regulatory reporting by compression/optimisation providers. The CMA understands there are other credible alternatives to LSEG in regulatory reporting, namely Wolters Kluwer, DTCC, Adenza, IHS Markit (now owned by S&P Global) (see FMN, paragraphs 217-240; and 447-463). The CMA further notes that no third party raised a concern in relation to this vertical relationship. The CMA, therefore, considered at an early stage in its investigation that there are no plausible competition concerns in respect of the provision of vertical relationship as a result of the Merger and this is therefore not discussed further in this Decision.

¹⁵ The Parties submitted that there is a vertical relationship between LSEG and Quantile in consolidated non-real time data as an input to compression/optimisation services. The CMA understands there are other credible alternatives to LSEG in the provision of consolidated non-real time data, namely Bloomberg, S&P Global, ICE, FactSet, ACTIV Financial, Morningstar, SIX Financial (see FMN, paragraphs 217-240; and 447-463). The CMA further notes that no third party raised a concern in relation to this vertical relationship. The CMA, therefore, considered at an early stage in its investigation that there are no plausible competition concerns in respect of the provision of this vertical relationship as a result of the Merger and this is therefore not discussed further in this Decision.

¹⁶ Derivatives can be based on other financial instruments and other assets such as commodities or energy derivatives where the underlying is a real product.

¹⁷ Trading in the context of financial markets relates to the mutual commitment between two market participants to enter into an agreement to buy or sell a financial asset.

¹⁸ The OTC (over-the-counter) market is a decentralised market in which the market participants trade directly with each other without the use of a centralised exchange or broker.

¹⁹ Ie the seller has delivered the rights to the financial asset to the buyer and the buyer has paid the agreed amount to the seller.

against non-fulfilment of the commitments agreed to by the other party. This is commonly referred to as insuring against “counterparty risk.” A provider of clearing services is referred to as the CCP. In addition to its principal function of managing counterparty risk, the CCP can also perform other ancillary activities such as the registration and verification of the trade and its counterparties, and the transmission of the details of the trade to the relevant settlement body.

43. EMIR²⁰ and UK EMIR²¹ impose a clearing obligation for certain types of OTC derivatives, for instance, for IRDsⁱⁱⁱ denominated in EUR, GBP, USD and JPY. However, clearing is not mandatory for all OTC derivatives. For instance, market participants are under no regulatory requirement or obligation to have OTC FX trades cleared at a CCP and they can simply rely on the contractual terms of the trade.²²
44. LSEG, through LCH, offers clearing services, for instance, for (1) IRD products through SwapClear; and (2) FX products through ForexClear.
45. Other CCPs include Eurex, CME, Nasdaq Clearing, Japan Securities Clearing Corp, ASX and OTC Hong Kong.

Portfolio compression services

46. Portfolio compression is a risk-reduction technique by which market participants replace multiple offsetting derivative contracts with fewer deals of the same net risk to reduce the notional value of their portfolio. Only the trades that share economically compatible characteristics and that can be ‘netted off’ against each other are compressible. The trades need at least to be in the same currency and use the same benchmark (floating rate option). Furthermore, the trades need to be with the same CCP. There is a benefit for market participants in using compression

²⁰ Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories.

²¹ Retained EU law by virtue of the European Union (Withdrawal) Act 2018 (as amended by the European Union (Withdrawal Agreement) Act 2020) (the **Withdrawal Act**) and amended under Regulation 14 of The Over the Counter Derivatives, Central Counterparties and Trade Repositories (Amendment, etc., and Transitional Provision) (EU Exit) Regulations 2019. Under the UK EMIR, all OTC derivative contracts (entered into or novated on or after the relevant clearing obligation start date) that are subject to mandatory clearing must be cleared in an FCA authorised CCP, either established in the UK or a recognised third country.

²² However, there are advantages in having the trade cleared through a CCP, in particular the elimination of counterparty risk. The CMA further notes that uncleared margin rules (**UMRs**) have been introduced under EMIR, requiring firms that do not centrally clear their trades to post initial margin. This has therefore increased market participants’ incentive to clear trades via a CCP. The UK EMIR includes similar provisions on uncleared margin rules.

services as regulatory capital requirements depend on the notional value of a portfolio.²³

47. Portfolio compression can be:

- (a) Unilateral between a single market participant and a CCP (this service is offered by a CCP and usually takes place on a daily basis);
- (b) Multilateral, across the portfolio held by multiple market participants (this service is usually offered by a third-party and typically takes place once per week per currency).²⁴

48. The pool of eligible trades differs, depending on the type of compression. The trades have to be a perfect match in almost all trade parameters for the purposes of unilateral compression. In contrast, under a multilateral compression exercise participants can decide to accept non-zero tolerances and therefore allow differences to be generated between input and output risk profiles.^{25, 26}

49. LSEG offers unilateral compression for customers of SwapClear (in relation to cleared OTC IRDs) and ForexClear (in relation to FX).²⁷ Quantile provides multilateral compression services for cleared and uncleared OTC IRDs.

50. The main other providers of multilateral compression services are TriOptima²⁸, ClearCompress, Capitolis (LMRKTS)²⁹ and Capitalab. TriOptima provides multilateral compression services for both cleared and uncleared OTC derivatives portfolios, including for IRDs. ClearCompress and Capitalab focus on the provision

²³ FMN, paragraphs 123-130.

²⁴ FMN, paragraphs 131-138.

²⁵ FMN, paragraph 133.

²⁶ The CMA notes there are future legislative changes in the optimisation space. SA-CCR is a new standardised approach for measuring counterparty credit risk exposures introduced by the Basel Committee in 2017 and is in the process of being implemented across global jurisdictions including the UK. SA-CCR is intended to replace the existing notional-based current exposure method (**CEM**). SA-CCR is expected to lessen banks' focus on gross notional reduction via compression, which was critical under the outgoing CEM. The CMA understands, however, that reducing gross notional, and therefore compression, will continue to be important for global systemically important banks (**GSIB**) as they seek to meet the G-SIB indicators. By way of background, the GSIBs are required to hold additional capital under the G-SIB framework (to increase stability of the system), the level of which depends on their score across a series of indicators (one factor being the notional amount of OTC derivatives). See note of call with a competitor; note of a call with a customer; note of a call with a competitor.

²⁷ FMN, paragraphs 142-143. LCH has also offered a bilateral compression service called Duo in the past but it no longer supports this functionality.

²⁸ TriOptima is owned by Osttra (ie a joint venture between IHSM's OTC derivatives and foreign exchange (FX) trade processing business (ie, MarkitSERV) and CME's optimisation businesses (ie, TriOptima, Reset and Traiana)). TriOptima collaborates with six CCPs: LCH, CME, JSCC, Eurex, ASX and NASDAQ.

²⁹ Capitolis acquired LMRKTS in August 2021.

of multilateral compression services for uncleared trades, including for IRDs, whereas Capitolis (LMRKTS) provides FX-focused multilateral compression services.

Margin optimisation services

51. One of the reforms adopted in response to the 2008 global financial crisis was to impose minimum margin requirements for uncleared derivatives.³⁰ Margin is collateral that a holder of a financial instrument has to deposit with a counterparty to cover some or all of the credit and market risk the holder poses for the counterparty. It generally consists of the initial margin, the amount of collateral required by the CCP or trade counterparty to initiate a position³¹, and variation margin, the amount of collateral that must be maintained at the CCP or trade counterparty to cover current exposure.
52. Margin optimisation services seek to reduce initial margin and therefore aim to reduce counterparty risk and the costs associated with funding the initial margin.³²
53. Quantile offers margin optimisation services in relation to derivative portfolios, including FX, OTC IRDs and equities.^{33, 34} Quantile offers margin optimisation services on a multilateral basis across uncleared and cleared portfolios.^{35, 36}
54. Other providers of margin optimisation include TriOptima, Capitalab, ClearCompress and Capitolis (LMRKTS). All of these players provide margin optimisation services for OTC IRDs and FX. TriOptima also provides margin

³⁰ FMN, paragraph 177.

³¹ This covers potential future exposure for the expected time between the last variation margin exchange and the liquidation of positions on the default of a counterparty (FMN, paragraph 179).

³² The UMRs have introduced an initial margin threshold for aggregated exposure. Exceeding this threshold will incur significant costs and involve cumbersome legal and custodian requirements (see <https://www.bis.org/press/p190305a.htm>). Margin optimisation therefore enables counterparties to net down risk in an automated way, playing a significant role for global banks.

³³ Although it is possible to include trades of different asset classes in the same margin optimisation run, this can be challenging from an operational perspective and, therefore, it is not done (FMN, paragraph 204).

³⁴ It is possible to include trades denominated in different currencies in the same margin optimisation run. This is done very frequently (FMN, paragraph 205).

³⁵ Quantile plans to launch [X]. It is not expected that these services [X]. See FMN, paragraphs 200-201.

³⁶ It is possible to include both cleared and uncleared trades in the same margin optimisation run (FMN, paragraph 203).

optimisation services for equities and commodities.³⁷ LSEG does not offer margin optimisation services.^{38, 39}

55. Further background is provided in the competition assessment section below, as appropriate.

COMPETITIVE ASSESSMENT

56. As set out below, the CMA has assessed whether the Merger gives rise to (1) horizontal unilateral effects in portfolio compression services, (2) input foreclosure in multilateral compression of OTC IRDs, and (3) input foreclosure in margin optimisation.
57. The Parties and their competitors supply services to customers across the world. In line with previous precedents⁴⁰, the CMA has not seen any evidence that market conditions differ significantly between the UK and the rest of the world. The CMA has, therefore, considered the impact of the Merger globally.

Horizontal unilateral effects in portfolio compression services

58. Horizontal unilateral effects may arise when one firm merges with a competitor that previously provided a competitive constraint, allowing the merged firm profitably to raise prices or to degrade quality on its own and without needing to coordinate with

³⁷ FMN, Table 11.

³⁸ LCH has developed a margin optimisation functionality for one of its products, SMART (ie a data and analytics tool). This margin optimisation functionality enables clients with multiple broker accounts to review their portfolio of trades cleared through SwapClear for the purposes of finding more efficient trade allocations to achieve lower margin requirements. The CMA understands, however, the service provided by LCH is different from the margin optimisation services provided by Quantile. First, the service provided by LCH reviews only one client's trades for the purposes of ensuring optimal allocation (of LCH cleared trades) as between clearing brokers whereas Quantile's service works on a multilateral basis. Second, SMART's margin optimisation functionality is a software tool that offers simulation of margin requirements, displaying potential margin savings across a client's portfolio, whilst Quantile's margin optimisation service also ensures the execution of new trades. Third, LCH's service is available only for OTC IRDs whereas Quantile offers margin optimisation across uncleared and cleared trades (including FX, IRDs and equities). The CMA has received no third-party comments indicating that LCH and Quantile compete in relation to the provision of margin optimisation services.

³⁹ LCH also offers LCH Spider, an automated tool, to reduce margin requirements by identifying eligible offsetting OTC and exchange-traded IRD positions that are being held by that same member in SwapClear. The CMA understands this service is available only for OTC IRDs cleared at LCH and that [§<]. The CMA has received no third-party comments indicating that LCH and Quantile compete in relation to the provision of margin optimisation services.

⁴⁰ ME/6925/21 [IHSM/CME/JV](#) (27 July 2021).

its rivals.⁴¹ Horizontal unilateral effects are more likely when the merging parties are close competitors or face few rivals.

59. The Parties overlap in the supply of portfolio compression services. LSEG offers unilateral compression for customers of SwapClear (in relation to cleared OTC IRDs) and ForexClear (in relation to FX).⁴² Quantile provides multilateral compression services for cleared and uncleared OTC IRDs.
60. For the purposes of its competition assessment, the CMA found that although the Parties' portfolio compression services provide the same function (to reduce capital costs by setting off trades, leaving risk broadly unchanged), their products differ. LSEG offers unilateral compression services whereas Quantile offers multilateral compression services. As set out in paragraphs 47-48, the CMA believes unilateral and multilateral compression services mainly differ in terms of eligible trades. For the purposes of unilateral compression the trades have to be a perfect match in all relevant trade parameters (eg trades need to have identical cashflow dates⁴³). In contrast, under a multilateral compression exercise participants can decide to accept non-zero tolerances and therefore allow differences to be generated between input and output risk profiles.
61. Unilateral compression usually takes place on a daily basis whereas multilateral compression is typically offered once per week per currency.⁴⁴
62. Accordingly, for the purposes of its substantive assessment of the Merger, the CMA understands that the two types of compression services are not interchangeable.
63. On the basis of this evidence, the CMA considered at an early stage in its investigation that there are no plausible horizontal competition concerns in respect of the provision of portfolio compression services as a result of the Merger and this is therefore not discussed further in this Decision.

Vertical effects

64. Vertical effects may arise when a merger involves firms at different levels of the supply chain, ie an upstream firm and a downstream firm.⁴⁵ The concern with an input foreclosure theory of harm is that the merged entity may use its control of an

⁴¹ [Merger Assessment Guidelines](#), paragraph 4.1.

⁴² FMN, paragraph 142-143. LCH has also offered a bilateral compression service called Duo in the past but it no longer supports this functionality.

⁴³ FMN, paragraph 132.

⁴⁴ For instance, some customers told the CMA that the two services are complementary.

⁴⁵ [Merger Assessment Guidelines](#), paragraphs 7.1 and 7.2.

important input to harm its downstream rivals' competitiveness, for example by refusing to supply the input (total foreclosure) or by increasing the price or worsening the quality of the input supplied to them (partial foreclosure). This might then harm overall competition in the downstream market, to the detriment of customers. This may occur irrespective of whether the merger firms have a pre-existing commercial relationship.⁴⁶

65. The CMA has considered whether the Merger gives rise to:
- (a) Input foreclosure in multilateral compression of OTC IRDs;
 - (b) Input foreclosure in margin optimisation.

TOH1: Input foreclosure in multilateral compression of OTC IRDs

66. As Quantile's multilateral compression services at LCH⁴⁷ relate to cleared OTC IRDs only, the CMA has focused its assessment of the effects of the Merger on multilateral compression services in relation to this type of derivative.
67. A multilateral compression provider can offer compression of LCH cleared OTC IRDs only if it is approved by LCH as an ACSP. As set out in more detail below, a multilateral compression provider needs to interact with the CCP in order to provide its services to customers.⁴⁸ Furthermore, the approval of a multilateral compression provider by LCH is important for LCH because this protects the CCP against risks that different ACSPs may present to LCH. The approval mechanism also provides quality assurance to customers. There are currently only two ACSPs for LCH in relation to OTC IRDs: Quantile and TriOptima.⁴⁹ As shown in the stylised diagram (below) and explained in more detail in paragraph 68, LCH provides services that are an input into multilateral compression services provided by ACSPs. Under TOH1, the CMA has considered whether, post-Merger, LCH has the ability and incentive to foreclose TriOptima, a rival multilateral compression provider, in order to favour Quantile.

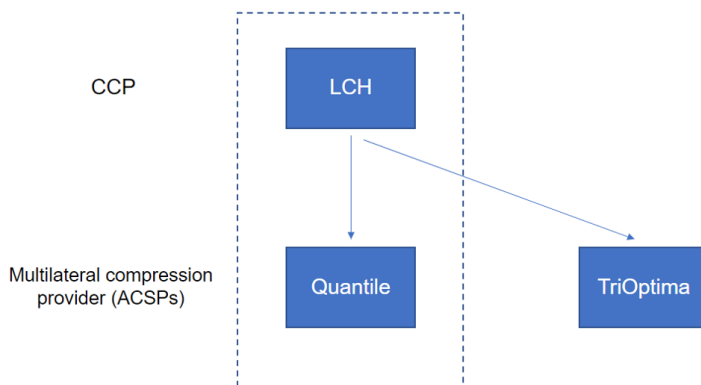
Figure 1: Interaction between LCH and ACSPs

⁴⁶ [Merger Assessment Guidelines](#), paragraph 7.9.

⁴⁷ LCH facilitates third-party multilateral compression services for cleared IRDs through SwapClear. SwapClear was launched in September 1999 by LCH in partnership with key OTC banking customers (the **SwapClear Banks**).

⁴⁸ Note of a call with a competitor.

⁴⁹ Capitalab was previously an ACSP at LCH. Note of a call with a competitor.



Source: CMA

68. Multilateral compression providers are dependent on LCH to implement their multilateral compression proposals for OTC IRDs cleared at LCH. During a run:
- (a) First, the ACSP informs the CCP which participants will join a particular compression run and the CCP sends the eligible trades of such participants to the ACSP.
 - (b) The CCP also provides the present value and cashflow files for the eligible trades for the compression run and reviews the proposal to ensure that the trades are eligible.
 - (c) Finally, the CCP determines and calls any required margin that may result from the proposal and implements the compression run.⁵⁰
69. The CMA has considered whether the Merged Entity could harm Quantile's rivals in multilateral compression of OTC IRDs by (1) ceasing to approve rival providers as ACSP (total foreclosure), and/or (2) engaging in strategies that worsen the ACSP terms or otherwise harming Quantile's competitors (partial foreclosure). The CMA has considered a range of partial foreclosure mechanisms such as (1) LCH arranging for compression runs to be scheduled in Quantile's favour, (2) LCH providing data or information to Quantile that gives it an advantage over rival multilateral compression providers, (3) LCH changing the order of compression files so that Quantile's files are always processed first, or (4) LCH increasing ACSP fees or changing the fee structure in a way that disadvantages Quantile's rivals. The CMA's focus has been on understanding if these mechanisms or any similar

⁵⁰ FMN, paragraph 253.

mechanisms would allow the Merged Entity to foreclose, not on predicting the precise actions it would take.⁵¹

70. Both existing rival providers (ie TriOptima) and future rival providers could be targeted.
71. The CMA has considered: (1) the ability of the Merged Entity to harm Quantile's rivals through total or partial foreclosure; (2) its incentive to do so; and (3) the effect of such strategies on competition.

Ability

72. The CMA has considered the following factors to assess the Merged Entity's ability to harm Quantile's rivals: (1) LCH's market power in relation to the provision of clearing services for OTC IRDs; (2) the impact of foreclosure on the ability of Quantile's rivals' to compete in the provision of multilateral compression services for OTC IRDs; and (3) possible foreclosure mechanisms and the impact of LSEG's customer partnership and open access model on LCH's ability to engage in these foreclosure mechanisms.

LCH's market power in relation to the provision of clearing services for OTC IRDs

73. Tables 1 and 2 set out LCH's and its competitors' estimated shares of supply for the clearing of OTC IRDs by volume of notional cleared and outstanding notional for 2018-2021.⁵² These estimates are in line with third-party estimates.⁵³

Table 1 1: Shares of supply: clearing of all OTC IRDs (global level, all currencies) – notional cleared volumes

Clearing house	2018		2019		2020		2021	
	GBP bn	Share (%)	GBP bn	Share (%)	GBP bn	Share (%)	GBP Bn	Share (%)
LCH	[>]	[90-100]%	[>]	[90-100]%	[>]	[90-100]%	[>]	[90-100]%
CME	[>]	[0-5]%	[>]	[0-5]%	[>]	[0-5]%	[>]	[0-5]%
Eurex	[>]	[0-5]%	[>]	[0-5]%	[>]	[0-5]%	[>]	[0-5]%

⁵¹ [Mergers Assessment Guidelines](#), paragraph 7.13.

⁵² These shares have been calculated on the basis of LCH's internal data (on LCH's own clearing volumes) and data on CCP clearing volumes sourced from external sources, most importantly an external subscription-based service ClarusFT.

⁵³ Competitor's response to CMA RFI.

Others	[<]	[0-5]%	[<]	[0-5]%	[<]	[0-5]%	[<]	[0-5]%
Total	[<]	100%	[<]	100%	[<]	100%	[<]	100%

Source: FMN, Table 5; Parties' response to RFI 5, Table 1.

Table 22: Shares of supply: clearing of all OTC IRDs (global level, all currencies) – notional outstanding volumes

Clearing house	2018		2019		2020		2021	
	GBP bn	Share (%)	GBP bn	Share (%)	GBP bn	Share (%)	GBP bn	Share (%)
LCH	[<]	[70-80]%	[<]	[70-80]%	[<]	[70-80]%	[<]	[70-80]%
CME	[<]	[5-10]%	[<]	[5-10]%	[<]	[5-10]%	[<]	[5-10]%
Eurex	[<]	[0-5]%	[<]	[0-5]%	[<]	[0-5]%	[<]	[5-10]%
Others	[<]	[10-20]%	[<]	[10-20]%	[<]	[10-20]%	[<]	[10-20]%
Total	[<]	100%	[<]	100%	[<]	100%	[<]	100%

Source: FMN, Table 6; Parties' response to RFI 5, Table 2.

74. Tables 1 and 2 show that LCH has a stable share of over 90% (by notional cleared) and over [70-80]% (by notional outstanding) in clearing of OTC IRDs across the period 2018-2021.
75. There are strong network effects in the provision of clearing services. All the competitors active in clearing services that responded to the CMA's market investigation indicated that market liquidity is a very important factor that informs the customers' choice of a CCP for clearing of OTC IRDs.⁵⁴ One of these competitors further explained that a wider member base can maximize clearing opportunities and lower the cost on margining.⁵⁵ This conclusion is supported by market commentary which notes there is an inherent network effect of clearing. According to the market commentary, this is because traders are incentivised to move to a CCP once liquidity shifts to it. These network effects enable compression opportunities, as market participants seek CCP liquidity so that they have more opportunities to remove counterparty risk.⁵⁶
76. Tables 1 and 2 also show that LCH's shares have been stable over time, indicating that switching away from LCH does not take place regularly. This is consistent with

⁵⁴ Competitors' response to the CMA questionnaire, Q9(d).

⁵⁵ Competitor's response to the CMA questionnaire, Q9(d).

⁵⁶ (BIS (2019), The evolution of OTC interest rate derivatives markets, 8 December 2019, page 77. See also [IHSM/CME/JV](#) (ME/6925/21), paragraph 125.

the presence of strong network effects in the provision of clearing services of OTC IRDs (as discussed above) and third-party feedback received so far (as discussed in paragraphs 131-140 below) which has confirmed that switching away from LCH is difficult.

77. Accordingly, the CMA considers that, based on the share of supply estimates and third-party responses, the provision of clearing services for OTC IRDs is a concentrated market and LCH has significant market power in relation to these services.

Impact of foreclosure on Quantile's rivals' ability to compete

- *Parties' submission*

78. The Parties submitted that rival multilateral compression providers would not be foreclosed even if LCH refused to allow them to compress trades at LCH. The Parties submitted that:
- (a) rival multilateral compression providers could supply their services in relation to OTC IRDs at other CCPs such as CME and Eurex. The Parties submitted that LCH's rival CCPs have sizeable and growing pools of liquidity that provide a growing source of potential business for multilateral compression providers.⁵⁷
 - (b) there are providers such as TriOptima, Capitalab, Capitolis (LMRKTS) and ClearCompress that provide multilateral compression services for uncleared trades.
79. The Parties also made submissions in relation to the impact of the Merger on TriOptima, the other ACSP at LCH apart from Quantile. The Parties submitted that TriOptima would continue to be a viable business in the hypothetical scenario where it would no longer be able to compress trades cleared with LCH. The Parties submitted that TriOptima offers multilateral compression of IRDs with six CCPs (LCH, CME, JSCC, Eurex, ASX and NASDAQ) and it could scale down its business to provide multilateral compression runs for the remaining CCPs if LCH engaged in foreclosure. The Parties further submitted that TriOptima has a broad offering and is able to spread its fixed costs across a broad base of activities. Furthermore, according to the Parties, TriOptima offers multilateral compression services not only for IRDs, but also for FX, commodities, credit default swaps and equities.

⁵⁷ Parties' response to the Issues Letter of 11 April 2022 (**Issues Letter**), paragraphs 10 and 96-99.

- *Alternatives to LCH for providers of OTC IRD multilateral compression services*

80. The CMA understands that around 75% of OTC IRDs are cleared.⁵⁸ Furthermore, as set out above, EMIR and UK EMIR have imposed a clearing obligation for certain OTC IRDs.⁵⁹
81. As set out above in paragraph 74, LCH has a share of over 90% (by notional cleared) and over 75% (by notional outstanding) in clearing of OTC IRDs across the period 2018-2021. This is supported by the third-party feedback received from customers (see paragraphs 131-140 below) and multilateral compression providers (see paragraph 89). The CMA further notes LCH's dominant market position is reinforced and protected by the strong network effects in the clearing of OTC IRDs (see paragraph 76).
82. The CMA considers that even if Quantile's rivals in multilateral compression of OTC IRDs were able to scale down their business and start providing their services in relation to uncleared trades only, they would be excluded from providing multilateral compression in relation to the vast majority of OTC IRDs. Additionally, the CMA understands that a significant proportion of a multilateral compression provider's revenues and business derives from compressing trades cleared at LCH.⁶⁰ For instance, one third party submitted that the ability to compress cleared OTC IRDs at LCH is essential to the provision of innovative and competitive multilateral compression services because LCH is the primary CCP for the clearing of OTC IRDs.⁶¹
83. Finally, the Parties' argument that TriOptima has a broad offering and is able to spread its fixed costs across a broad base of activities is irrelevant for the purposes of the CMA's assessment. As set out in its Guidance, when assessing input foreclosure, the CMA will consider whether the Merged Entity may restrict the

⁵⁸ FMN, paragraph 102. As set out above, EMIR and UK EMIR have imposed a clearing obligation for certain OTC IRDs.

⁵⁹ In particular, UK EMIR mandates clearing for IRDs denominated in the G4 currencies (EUR, GBP, USD and JPY).

⁶⁰ Competitor's response to CMA RFI. [38]. The CMA notes that a small number of multilateral compression providers do not compress any trades cleared at LCH. However, as set out in footnote 95, the overall shares of such providers based on volume are very limited.

⁶¹ Competitor's response to the CMA questionnaire. The competitor submitted it is not an ACSP because LCH's ACSP fee structure is prohibitive. The remaining providers of multilateral compression for OTC IRDs told the CMA that, as their business focusses on uncleared trades, they do not consider it is important to be able to compress OTC IRDs cleared at LCH (see competitor's response to the CMA questionnaire; competitor's response to the CMA questionnaire). As discussed below, the CMA has found that the presence of these competitors in multilateral compression for OTC IRDs is very limited and do not plan to expand their business in the provision of multilateral compression services for cleared OTC IRDs in the foreseeable future. See also paragraph 155.

access of one of the Parties' rivals to a particular input or offer it on worse terms, directly harming the rival's competitiveness and therefore competition in the downstream market.⁶² Accordingly, in this case the CMA is interested in assessing the impact of any foreclosure on rivals' competitiveness in the provision of multilateral compression of OTC IRDs (and, in turn, on competition in the downstream market).⁶³

84. The CMA therefore considers that for a provider of multilateral compression services, there are very limited alternatives to obtaining the ability to compress OTC IRDs cleared at LCH and such alternatives are unlikely to be effective.

Foreclosure mechanisms

- *Refusal to provide ACSP status for providers of multilateral compression of OTC IRDs at LCH*

85. The Parties submitted that it is possible to offer multilateral compression for cleared OTC IRDs without being an ACSP.⁶⁴
86. The CMA has found that being an LCH approved provider is fundamental to be able to compress OTC IRDs cleared at LCH.⁶⁵ Most multilateral compression providers explained that it is impossible for a provider to offer multilateral compression services in relation to OTC IRDs cleared at LCH without being an ACSP because the provider needs the portfolio data from the CCP and permission to early terminate the trades.⁶⁶

⁶² [Mergers Assessment Guidelines](#), paragraph 7.8.

⁶³ [Mergers Assessment Guidelines](#), paragraph 7.10 (a).

⁶⁴ Instead of the CCP implementing the compression runs (by terminating or replacing the trades), the multilateral compression providers are able to use the standard infrastructure to identify offsetting trades which the counterparties can enter into and clear and which can then be offset and terminated by the CCP using unilateral compression. In particular, (1) trade data is sourced from customers directly; (2) terminations of existing cleared trades can be achieved by entering new equal and offsetting trades into LCH followed by submission of the original and offsetting trades into a unilateral compression cycle; and (3) partial terminations or risk replacement trades can be entered as new cleared trades via standard booking processes.

⁶⁵ Competitor's response to CMA RFI; note of call with a competitor; note of call with a competitor.

⁶⁶ Note of call with a competitor; note of call with a competitor; competitor's response to CMA RFI. One of these providers further explained that whilst in theory it is possible to provide multilateral compression services by registering opposing new trades (rather than terminating existing trades), the registering of new trades is logistically challenging and cost prohibitive, as each new trade would incur clearing costs. Creating mirror versions of legacy trades is also operationally more challenging and less efficient than terminating existing trades (see Competitor's response to CMA RFI.) The fourth multilateral compression provider has not made any submissions on the ACSP status.

87. For the reasons set out above, the CMA considers that it is essential for a multilateral compression provider to be approved as an ACSP in order to compress OTC IRDs at LCH.
88. The Parties further submitted that, in any event:
- (a) LCH approves multilateral compression providers based on objective criteria, namely that LCH can operationally support the proposed compression service and that the provider: (1) is able to provide multilateral compression in accordance with the LCH Rulebook; (2) operates under a robust legal framework and can demonstrate robust controls and operational capability; (3) has written confirmation of commitment from at least six SwapClear members to use their services and (4) can demonstrate successful testing of its services with a number of potential participants. The Parties further submitted the criteria are in place to protect the systemic nature of LCH against risks that different ACSPs may present to LCH.⁶⁷
 - (b) Refusal to approve an ACSP would be visible to external stakeholders (eg in order to request access, the potential ACSP would already need to show support of six SwapClear clearing members).⁶⁸ According to the Parties, [X] needs to approve the ACSP. The Parties also submitted that decisions regarding open access and membership are made public on the LCH website.⁶⁹
89. The CMA has found that being an LCH approved provider is fundamental to be able to compress OTC IRDs cleared at LCH. Most multilateral compression providers explained that it is impossible for a provider to offer multilateral compression services in relation to OTC IRDs cleared at LCH without being an ACSP because the provider needs the portfolio data from the CCP and permission to early terminate the trades.⁷⁰
90. In relation to the Parties' submission that a third party can be approved as an ACSP provided that it meets objective and transparent criteria, the CMA notes that LCH has a degree of discretion as to whether it approves a multilateral compression provider or not. For instance, criteria such as robust controls and operational capability are not defined. Furthermore, the CMA understands that the duration of

⁶⁷ <https://www.lch.com/services/swapclear/enhancements/compression>.

⁶⁸ Parties' response to the Issues Letter, paragraph 24.

⁶⁹ Parties' response to the Issues Letter, paragraphs 27- 28.

⁷⁰ Note of call with a competitor; note of call with a competitor; competitor's response to CMA RFI.

the process is not clearly set out and therefore LCH could delay or postpone approving one of Quantile's rivals as an ACSP.⁷¹

91. The CMA also believes that LCH is not prevented by any legislative or regulatory requirements from changing the criteria for ACSP approval so that other multilateral compression providers are not able to successfully apply (or remain approved). Finally, the CMA notes that for the purposes of assessing whether LCH would have the ability to engage in this foreclosure mechanism, it is irrelevant that external stakeholders become aware of this. The CMA has assessed the Parties' argument as set out in paragraph 86b) in the 'Incentives' section below.
92. For the reasons set out above, the CMA considers that it is essential for a multilateral compression provider to be approved as an ACSP in order to compress OTC IRDs at LCH. The CMA further believes that LCH retains a margin of discretion in granting the ACSP status to a multilateral compression provider.
93. The CMA therefore considers that in the event LCH refuses to approve Quantile's rivals as ACSP, this would exclude these third parties from the vast majority of the business of multilateral compression for OTC IRDs.
 - *Other mechanisms of foreclosure*
94. The CMA considers that, apart from LSEG's refusal to allow third-party providers to compress OTC IRDs at LCH, the Merged Entity could engage in other foreclosure mechanisms of current and future ACSPs for OTC IRDs such as increasing LCH's fees for Quantile's rivals and manipulating the schedules of multilateral compression runs.⁷² Furthermore, LCH could grant Quantile preferential access to data or disclose detailed trade data generated by its rivals to harm the competitiveness of competing multilateral compression providers.⁷³
95. The Parties submitted that LSEG could not successfully engage in any mechanisms of foreclosure. The Parties submitted that in certain instances the process is automated such that LCH is not able to manipulate the processing of files or the data flow. Additionally, the Parties submitted Art 33(5) EMIR prevents LCH from providing trade data to ACSPs without seeking clearing member/client consent.⁷⁴

⁷¹ Note of call with a competitor; competitor's response to CMA RFI.

⁷² Competitor's response to CMA RFI.

⁷³ Competitor's response to CMA RFI; competitor's response to the CMA questionnaire; competitor's response to the CMA questionnaire.

⁷⁴ Parties' response to the Issues Letter, paragraphs 48-51.

96. In line with its Guidance, the CMA has focused on understanding if these strategies would allow the Merged Entity to foreclose its rivals, not on predicting the precise actions it would take.⁷⁵ The CMA notes that the necessity for interaction and/or exchange of information between LCH and ACSPs at several stages in the multilateral compression process means that there are a wide range of mechanisms through which the Merged Entity could potentially harm Quantile's rivals in multilateral compression for OTC IRDs. For instance, the CMA notes that the Parties could change the automated nature of the process or manipulate this while carrying out routine updates to the process that would favour Quantile in terms of multilateral compression runs and access to data.⁷⁶ The CMA further notes that LCH could include standard non-negotiable provisions in its contracts with customers to ensure that it is able to share customer trade data with Quantile without breaching Art 33(5) EMIR.
97. For the reasons set out above, the CMA considers that the Merged Entity could successfully engage in mechanisms of foreclosure, therefore harming Quantile's rivals in multilateral compression of OTC IRDs. The CMA has further assessed whether LSEG's and LCH's commitment to the open access model would have an impact on the Merged Entity's ability to foreclose multilateral compression rivals.

Impact of customer partnership and open access model on LCH's ability to engage in foreclosure mechanisms

- *Parties' submissions*

98. The Parties submitted that post-Merger Quantile will not be part of LCH Group Holdings Ltd, but of [S&K].⁷⁷ The Parties therefore submitted that the independent board members of LCH would not be considering any benefits to Quantile when acting in the interests of LCH.⁷⁸
99. The Parties submitted that LSEG (including LCH) is committed to the open access model, ie LSEG provides access to multiple markets and products and distributes proprietary and third-party content, whilst offering customers flexibility to receive and distribute content across a wide range of applications and platforms on an open access basis. According to the Parties, the transparent criteria for ACSP approval,

⁷⁵ [Mergers Assessment Guidelines](#), paragraph 7.13.

⁷⁶ The Parties did not contest that when it comes to the processing of files it is possible to introduce manual elements or create a separate workflow that would favour Quantile, but noted this may lead to reduction, deterioration or breakdown of services provided by LCH (Parties' response to the Issues Letter, paragraph 45).

⁷⁷ Annex 008.02 to the FMN.

⁷⁸ FMN, paragraph 277.

the publicity of compression fees to both ACSPs and clients, as well as the compression process set out by LCH's Rulebook (publicly available) show LCH's commitment to open access in relation to compression.

100. The Parties further submitted that open access is the cornerstone of LCH/LSEG's business model and that a change in governance would need to be approved by the Bank of England. The Parties further submitted that the Principles for Financial Market Infrastructures set out that a financial market infrastructure such as LCH should have objective, risk-based and publicly disclosed criteria for participation, which permit fair and open access.⁷⁹
101. The Parties also submitted that LCH is obliged to consult with the SwapClear Banks on certain business decisions [§]. The Parties acknowledged, however, that consultation with the SwapClear Banks is non-binding, but explained that the SwapClear Banks are LSEG's main customers and are, therefore, influential.
102. The Parties further submitted that a proposal impacting LCH (SwapClear)'s open access model would most likely require both [§]. According to the Parties, clearing members are represented at both the Board and Risk Committee level of LCH Limited⁸⁰:
 - (a) Out of the 12 directors sitting on the LCH Limited Board, five are independent non-executive directors (including the chairman) who act in the best interests of LCH. The LCH Limited Board also includes three directors that represent LCH's customer community. There are only four LCH/LSEG executives;
 - (b) LCH's Risk Committee (ie a Board Committee that addresses matters concerning significant risks faced by LCH) includes only representatives of the CCP's users and their clients, and other independent non-executive directors.
 - *CMA's assessment*
103. The CMA, first, notes that post-Merger LCH and Quantile will be owned by LSEG. The CMA therefore believes that it is irrelevant that LCH and Quantile are not part of the same legal structure for the purposes of its competition assessment. Furthermore, an LSEG internal document⁸¹ indicates that one of the guiding

⁷⁹ Parties' response to the Issues Letter, paragraphs 21-25.

⁸⁰ LSEG offers clearing services through its subsidiaries LCH Limited and LCH SA, which are subsidiaries of LCH Group Holdings Limited. LCH Limited runs SwapClear, ForexClear and the Digital Products Group (which is responsible for SMART).

⁸¹ Annex 008.36 to the draft merger notice submitted by the Parties on 18 November 2021 (**DMN**), slide 10.

principles that informs LCH's strategy is to ensure that its strategy '[>]', suggesting that LCH/LSEG is actually operated and managed as a single business.

104. The CMA further understands that the Principles for Financial Market Infrastructures are not legally binding and that there is no regulatory or legal framework that imposes an open access model on LCH.⁸² The CMA further notes that the Bank of England supervises LCH as a financial market infrastructure for the statutory purpose of protecting and enhancing the stability of the UK financial system.⁸³ The Bank of England does not have a duty, nor the appropriate powers, to promote competition in services provided to parties clearing trades at LCH, or to ensure that the treatment of ACSPs is not discriminatory or harmful to competition.⁸⁴
105. Additionally, although the SwapClear banks are represented in LCH Limited's governance structure, they do not have [X].⁸⁵
106. The third-party feedback received during the CMA's investigation confirmed that, notwithstanding LSEG's open access model, LCH could engage in foreclosure mechanisms that target Quantile's rivals in multilateral compression. One third party told the CMA that LCH could engage in foreclosure strategies without breaching its open access model by, for instance, increasing its fees for ACSPs.⁸⁶
107. In relation to the Parties' argument about the reputational damage that stems from any deviation from the open access commitment, some third parties submitted that there are partial foreclosure strategies such as granting Quantile with preferential access to data that would not be obvious for external stakeholders.⁸⁷ In such scenarios, the CMA understands that Quantile's rivals could be disadvantaged without LSEG publicly moving away from the open access model.
108. The CMA notes that, regardless of whether certain foreclosure mechanisms would be in breach of LCH's current open access model, there is no legal requirement for

⁸² Competitor's response to CMA RFI. No third party submitted to the CMA that there is a legislation that prevents CCPs from discriminating against compression and initial margin optimisation providers; Note of call with a competitor. This competitor noted that "While LCH's open access commitment should generally alleviate these concerns, given varying levels of interpretation of open access, [X] believes LCH's commitment is difficult to interpret."

⁸³ Section 2A of the Bank of England Act 1998.

⁸⁴ See ['The Bank of England's approach to the supervision of financial market infrastructure'](#), April 2013.

⁸⁵ Parties' response to CMA's request for information dated 16 March 2022, Q1 and 2.

⁸⁶ Competitor's response to CMA RFI. The Parties submitted that in order to increase the costs of an ACSP by 5-10% LCH would need to increase the fees by [X]. The CMA notes however the Parties have not provided any evidence that LCH is prevented from increasing its fees. Furthermore, as the fees are volume based, the CMA notes that any strategy which reduces TriOptima's volumes may also as a consequence increase its fees, even within the existing published fee bands.

⁸⁷ Competitor's response to CMA RFI; competitor's response to CMA Questionnaire.

LCH to maintain open access in relation to third-party providers of multilateral compression services.⁸⁸ The CMA has, therefore, placed limited weight on LSEG's commitment to the open access model when assessing LSEG's ability to engage in foreclosure mechanisms that target Quantile's rivals in multilateral compression services.

Conclusion on ability

109. For the reasons set out above, the CMA believes that LCH has significant market power in the provision of clearing services for OTC IRDs. The CMA further considers that there are very limited alternatives to LCH in relation to multilateral compression for cleared OTC IRDs and such alternatives are unlikely to be effective. The CMA also believes that it is essential to be an approved ACSP in order to provide multilateral compression for OTC IRDs at LCH and that LCH has a margin of discretion in granting the ACSP status. Finally, the CMA found there is no legal impediment for LCH to deviate from its current governance model and has therefore placed limited weight on LSEG's commitment to open access in its assessment of the ability of the of the Merged Entity to engage in foreclosure strategies (as in paragraphs 85-97) in the provision of multilateral compression services.
110. For these reasons, the CMA considers that the Merged Entity would have the ability to harm Quantile's rivals in multilateral compression for OTC IRDs. The CMA has, therefore, considered whether the Merged Entity would have the incentive to pursue any foreclosure strategy.

Incentive

111. The CMA has considered whether the Merged Entity would have the incentive to engage in any of the total or partial foreclosure strategies discussed above. In particular, the CMA is considering: (1) the Parties' submissions, (2) the benefits of foreclosure; and (3) the costs of foreclosure.

Parties' submissions

112. The Parties submitted that LCH would have no incentive to foreclose because:
- (a) The financial benefits in case of a hypothetical foreclosure strategy would be limited, because Quantile [X].⁸⁹

⁸⁸ See paragraph 104.

⁸⁹ Parties' response to the Issues Letter, paragraphs 71 and 72.

- (b) Quantile's operating profit in 2020 was [£<] whereas LSEG's was £775m. Accordingly, LSEG would not harm the reputation of the group for a de minimis potential gain.⁹⁰
- (c) Any attempted foreclosure strategy would trigger likely customer retaliation (and the potential loss of revenue exceeds any increase in multilateral compression fees) – several of TriOptima and Quantile's customers in multilateral compression are also customers of other LSEG services, including being LCH clearing members (and their spend on Quantile's services is significantly smaller than their spend on LCH or the other LSEG's services overall). These customers also value using more than one provider for multilateral compression and would notice any foreclosure strategy that targets Quantile's rivals. Therefore, these customers would retaliate if LSEG were to engage in any foreclosure strategies by (1) switching trades from LCH to other CCPs; and (2) switching spend from other LSEG's services to alternative providers of those services. These customers would only need to move a small fraction of their OTC IRDs clearing business to a rival CCP to render the foreclosure strategy targeted at Quantile's rivals unprofitable.⁹¹
- (d) LCH would have no incentive to change its long-standing public commitment to open access – any deviation from open access would undermine LCH's business strategy and have far-reaching consequences beyond just multilateral compression services.⁹²
- (e) LCH would not have any incentive to suppress multilateral compression activity – by simultaneously reducing the outstanding notional to which LCH is a counterparty, compression reduces LCH's own operational risk and thus improves its success likelihood in the event of a default.⁹³ LCH therefore has no incentive to engage in a foreclosure strategy which would reduce multilateral compression activity and forego these operational efficiencies.⁹⁴

Benefits of foreclosure

- *Structure of the downstream market*

113. The CMA considers the structure of the market for multilateral compression for OTC IRDs to be a relevant factor in assessing the potential benefits of foreclosure. In

⁹⁰ FMN, paragraph 322 and Table 21.

⁹¹ FMN, paragraph 324-345.

⁹² FMN, paragraph 320.

⁹³ FMN, paragraph 346.

⁹⁴ FMN, paragraph 352.

particular, the CMA has considered evidence in relation to (1) the number of competitors active in the market; (2) their shares of supply; and (3) barriers to entry and expansion.

114. The CMA notes that TriOptima and Quantile are the only significant players in multilateral compression for OTC IRDs.⁹⁵ TriOptima and Quantile are also the only providers that compress cleared OTC IRDs.⁹⁶
115. To assess TriOptima and Quantile's relative competitive strength, the CMA has therefore considered their shares of supply for multilateral compression services for cleared OTC IRDs. The Parties submitted shares of supply estimates for multilateral compression for cleared OTC IRDs by notional compressed.⁹⁷ The CMA updated these shares by using the actual notional compressed as submitted by competitors.⁹⁸ These figures are represented in the table below.

Table 3 3 – shares of supply for multilateral compression services for cleared OTC IRDs, based on notional compressed

Provider	2019		2020		2021	
	GBP bn	Share (%)	GBP bn	Share (%)	GBP Bn	Share (%)
Quantile	[3<]	[20-30]	[3<]	[20-30]	[3<]	[20-30]
TriOptima	[3<]	[70-80]	[3<]	[70-80]	[3<]	[70-80]
Total	[3<]	100	[3<]	100	[3<]	100

Source: CMA analysis.

Notes: Figures in USD converted at the yearly average exchange rate sourced from the Bank of England.

116. Based on these figures, the CMA considers that TriOptima is the largest player in multilateral compression for cleared OTC IRDs with a share of around [70-80]%. On the other hand, Quantile is already a significant player with around [20-30]% share. Feedback from customers confirmed that TriOptima and Quantile are close competitors.⁹⁹

⁹⁵ While Capitalab and ClearCompress do have some activities in multilateral compression of OTC IRDs, these activities relate to uncleared products only and the volumes of these activities accounts for a negligible part (less than [0-5]%) of the total notional compressed of OTC IRDs.

⁹⁶ Note of call with a competitor; competitor's response to the CMA questionnaire.

⁹⁷ FMN, paragraph 174-175; parties' response to RFI 5, Table 3.

⁹⁸ FMN, paragraph 174-175; competitor's response to CMA RFI; competitors' response to the CMA questionnaire.

⁹⁹ Customers' response to the CMA questionnaire.

117. Based on feedback from competitors, the CMA has also found that multilateral compression for OTC IRDs is characterised by significant network effects.¹⁰⁰ The nature of these effects and the CMA's views of the Parties' submissions in relation to them are discussed below at paragraph 123 and following. Drawing on that analysis, the CMA considers that these network effects are likely to constitute a significant barrier to entry or expansion in the provision of multilateral compression services, and to limit the number of players that can compete successfully in the provision of these services.¹⁰¹
118. The CMA therefore considers that any customers that would switch away from TriOptima as a result of a foreclosure strategy are likely to switch to Quantile, as this is the only credible alternative to TriOptima. This in turn makes any gain in downstream sales, and therefore the incentives to foreclose, stronger.
- *Financial benefits*
119. The CMA considers that a foreclosure strategy may harm Quantile's competitors by affecting the quality and cost of their services for their customers, and in turn benefit Quantile, which would face weaker competition. In particular, multilateral compression customers could compress fewer trades with Quantile's rivals or stop using Quantile's rivals altogether if they become too costly (or inefficient). Any switching away from these competitors would most likely be to Quantile, given it is the only other ACSP at LCH and has a significant presence (see paragraph 113 to 118 above).
120. Therefore, the CMA considers that by foreclosing Quantile's rivals, the Merged Entity would be able to capture over time a sizeable proportion of revenues and profits currently achieved by Quantile's rivals in multilateral compression of OTC IRD trades (up to around [X] revenues per year).¹⁰² The CMA notes that the Merged Entity may also be able to raise fees for multilateral compression services following foreclosure as competition would be weakened. This would result in further additional revenues and profits for the Merged Entity.

¹⁰⁰ The value that a customer gets from participating in a multilateral compression run increases as more customers participate in the run (see note of call with a competitor).

¹⁰¹ Note of call with a competitor; note of a call with a competitor.

¹⁰² LSEG response to s109 notice dated 15 February 2022, Q2 and table 1. Competitor's response to CMA RFI. This figure includes revenues from compressing any type of OTC IRDs (cleared at LCH, cleared at other CCPs, and uncleared), the vast majority of which (>[70-80]%) are attributable to OTC IRDs cleared at LCH. The CMA considers that this figure is a reasonable proxy of the revenues that can be achieved by the Merged Entity as a result of foreclosure. This is because Quantile's rivals would unlikely be viable competitors in multilateral compression of OTC IRDs if their ability to compress trades cleared at LCH were hampered post-foreclosure.

121. With respect to the Parties' submission on Quantile's [X] fee model, the CMA considers that this fee model as such does not hamper the Merged Entity's incentive to foreclose. In particular, for customers who currently use both Quantile and TriOptima services, the Merged Entity could change the fee structure or raise the [X] fee(s) post-foreclosure, in addition to gaining revenues from those customers who currently use Quantile's rivals but not Quantile.
122. With respect to the Parties' submission on the difference between Quantile's operating profit ([X]) and LSEG's operating profits (£775m) in 2020, the CMA notes that Quantile is a relatively new company so current profits are not a reliable guide to future profitability. Moreover, as noted above, by foreclosing Quantile's rivals the Merged Entity would be able to capture a sizeable proportion of revenues and profits currently achieved by Quantile's rivals.
123. As discussed in paragraph 117 above, the CMA further considers that multilateral compression for OTC IRDs has significant network effects which means a limited number of players may be able to compete successfully.¹⁰³ The CMA considers that this feature of multilateral compression may reinforce the benefits of foreclosure as any increase in the volume of trades participating in Quantile compression runs would, in turn, reinforce Quantile's position even further vis a vis current and future rivals.
124. The Parties submitted that multilateral compression activities do exhibit certain network effects, but these network effects are present only within a single compression run and not across-runs.¹⁰⁴ According to the Parties, this means that (1) there is no tendency in the market pushing participants towards using a single ACSP and (2) a scenario in which there were only a single ACSP would not be a stable market outcome, since compression customers would have a powerful incentive to restore competition.¹⁰⁵
125. The CMA agrees that there are network effects in multilateral compression within a single compression run. However, the CMA notes the following points:
- (a) Network effects within single runs translate to some extent in network effects across-runs. This is because the number of customers that participate in a single run with a certain multilateral compression provider is related to the number of customers that have commercial relationships in place with that provider and pay a fee for using its services (which in some cases is a fixed

¹⁰³ Note of call with a competitor; note of a call with a competitor.

¹⁰⁴ Parties' response to the Issues Letter, paragraph 67.

¹⁰⁵ Parties' response to the Issues Letter, paragraph 70.

fee, such as an ‘all you can eat’ fee). Therefore, the higher the number of customers that have a commercial relationship with one provider, the greater the number of customers that are likely to participate in each multilateral compression run with that provider. The CMA considers that the existence of such network effects limits the number of providers that can successfully compete in the market, as supported by third-party feedback – for example, the CMA understands that Capitalab was an ACSP at LCH, but that this is no longer the case;¹⁰⁶

- (b) Although some of the largest customers do use both Quantile and TriOptima (and hence ‘multi-home’), they would be willing to do so only as long as the benefits of multi-homing exceed the costs of using multiple providers (eg duplication of fees). These customers’ willingness to multi-home may change if one of the providers they use became more expensive and/or the quality of its services worsened;¹⁰⁷ and
- (c) Many customers of multilateral compression services, mainly mid- and small-sized customers use only one provider.¹⁰⁸

126. For the reasons above, the CMA considers that the presence of such network effects in multilateral compression for OTC IRDs may increase the benefits of foreclosure for the Merged Entity.

- *Other benefits*

127. The CMA has also considered whether the Merged Entity could engage in foreclosure strategies in multilateral compression so as to strengthen or protect its existing market power in clearing of OTC IRDs. In particular, the CMA considers that, in the event that foreclosure was successful and Quantile became a ‘must-have’ multilateral compression provider, the Merged Entity could prevent Quantile from compressing trades at other CCPs. This could weaken other CCPs overall post trade offering, as their customers would have no third-party multilateral compression provider to use, and could in turn strengthen or protect LCH’s market power from any long-term threat from rival CCPs (eg Eurex).

Costs of foreclosure

¹⁰⁶ FMN, paragraph 279; note of call with a competitor.

¹⁰⁷ Note of call with a customer.

¹⁰⁸ Note of call with a customer; note of a call with a competitor.

128. The CMA is considering the following costs that LSEG may incur if it were to engage in foreclosure strategies:
- (a) The lost revenues from fees applied to rival ACSPs;
 - (b) Any lost revenues from multilateral compression customers who are also customers of LCH switching OTC IRDs from LCH to other CCPs;
 - (c) Any lost revenues from multilateral compression customers who are also customers of other LSEG services (ie beyond just LCH clearing services) switching part of their spend on those services to alternative providers of those services;
 - (d) Any broader reputational damage for the LSEG business; and
 - (e) Any lost efficiencies in LCH's clearing business resulting from a reduction in the quality of multilateral compression services associated with a loss of competition.
129. In relation to (a), the CMA considers that these costs would be significantly smaller ([§]in 2020) than the gain in downstream sales that the Merged Entity could attain by engaging in foreclosure, capturing the revenues made by Quantile's rivals, as discussed in paragraph 120 above.
130. Points (b), (c), (d), and (e) are discussed in the sections below.

Customer switching

131. The CMA has considered the likelihood and impact of customer switching in response to a foreclosure strategy by LSEG that would harm Quantile's rivals in multilateral compression for OTC IRDs (see paragraph 112 above). The CMA has considered in particular any switching of multilateral compression customers who are also customers of LCH and potentially other LSEG services, as these customers are the ones who would be impacted by a foreclosure strategy. This switching may take place directly in the services impacted by the foreclosure strategy (ie clearing of OTC IRDs), or may take place in other services as a means of retaliation. The CMA has considered that these customers may react in different ways to foreclosure, including:
- (a) LCH customers may switch clearing of OTC IRDs to other CCPs; and
 - (b) LCH customers may switch part of their spend on other LSEG services to alternative providers of those services.

132. To test the likelihood of customer switching, the CMA has considered third-party feedback in relation to (1) the main factors that drive customers' choice of CCP; (2) the ease of switching trades between CCPs; (3) customers' most likely reactions to a foreclosure strategy, including switching trades from LCH to other CCPs; and (4) examples of past disputes between LSEG's customers and LSEG.
133. All clearing competitors that responded to the CMA's market investigation noted that market liquidity (and a wide network of members) is an essential factor that informs a customer's choice of CCP for clearing OTC IRDs.¹⁰⁹ Some of these competitors also explained that it is important that a CCP offers at least one compression service (which may or may not be the unilateral compression service offered by the CCP itself).¹¹⁰ Similarly, clearing customers submitted that market liquidity is the main factor for choosing a specific CCP, but also noted that the choice is mainly driven by client preference (ie where the client wants to clear). Conversely, customers did not highlight the availability of compression services as a main factor of choice.¹¹¹
134. The CMA also asked clearing competitors how easy it would be for a customer of LCH to switch some or all of its business in clearing OTC IRDs from LCH to another CCP.^{112, 113} Most respondents submitted that switching from LCH to another CCP is difficult and that the process can be onerous.¹¹⁴ Customers tend to concentrate trades in one clearing house (LCH) to maximize margin netting benefits and lower clearing costs, so switching trades away from LCH to other CCPs may lead to lower benefits and higher costs.¹¹⁵
135. To assess customers' most likely reactions to a foreclosure strategy, the CMA asked multilateral compression customers what actions they may consider if they thought LCH was foreclosing Quantile's rivals.¹¹⁶ Generally, customers submitted

¹⁰⁹ Competitors' response to the CMA questionnaire.

¹¹⁰ Competitors' response to the CMA questionnaire.

¹¹¹ Note of a call with a customer; note of call with a customer; note of a call with a customer; note of call with a customer.

¹¹² Competitors' response to the CMA questionnaire.

¹¹³ The Parties submitted that [X] switched [X] threatened to switch. The Parties also submitted that [X] threatened to switch [X] (Parties' response to the Issues Letter, paragraph 112). The CMA notes, however, that according to the Parties' estimates LCH has a market share of roughly [30-40]% in cash equities clearing services. As for fixed income products, the CMA understands these are largely not CCP-cleared (Parties' response to the Issues Letter, paragraph 111). The CMA therefore believes that examples of customers switching to other CCPs in equity or fixed income clearing are not directly relevant to the ability of customers to switch CCP in IRDs clearing.

¹¹⁴ For example, execution and operational costs related to switching (Competitor's response to CMA questionnaire).

¹¹⁵ Competitors' response to the CMA questionnaire.

¹¹⁶ Customers' response to the CMA questionnaire.

that they would encourage LCH to retain open access through a series of actions, such as negotiating fees and other terms of service with LCH/LSEG bilaterally,¹¹⁷ or complaining to a trade association as part of an industry effort with other banks, or through their representatives on the LSEG/LCH board.¹¹⁸ One customer said that it would support the development of another third-party compression service.¹¹⁹ With respect to moving trades or spend from LCH/LSEG:

- (a) Very few customers said they would consider moving OTC IRDs trades to other CCPs as a realistic option but noted that this would be the last resort after all the other possible actions have been considered.¹²⁰ One of these customers also submitted that moving OTC IRD trades would be very difficult to implement because (1) liquidity is important and currently, liquidity is primarily in LCH; and (2) the choice of CCP is largely based on where clients decide to clear their trades;¹²¹ and
- (b) No customer said they would consider moving spend from other LSEG services they use to alternative providers of those services.¹²²

136. The CMA also directly asked customers whether they would consider moving or threatening to move a material volume of trades from LCH to other CCPs in the event of LCH engaging in foreclosure strategies.¹²³ Whilst most customers said that they would consider that in principle as part of their options, their answers varied significantly in terms of how feasible an option they thought it would be.¹²⁴ In particular, most customers submitted that it would be difficult or very difficult to move trades as (1) the choice of CCP mainly depends on the CCP's liquidity and clients' preferences; and (2) moving trades would require, among other things coordination with other customers.¹²⁵

137. Finally, there have been limited instances of disputes with LSEG regarding products or services that led to an 'escalation' outside the business unit directly using that

¹¹⁷ Customers' response to the CMA questionnaire.

¹¹⁸ Customers' response to the CMA questionnaire.

¹¹⁹ Customer's response to the CMA questionnaire. Another customer explained that it could not develop services offered by TriOptima and Quantile in-house as the services rely on network effects and access to confidential information which market participants would not want to share with each other (Customer's response to the CMA questionnaire).

¹²⁰ Customers' response to the CMA questionnaire.

¹²¹ Customer' response to the CMA questionnaire.

¹²² One customer said it would negotiate fees for other LSEG products. However, that customer did not explicitly include moving spend from those LSEG products as parts of its available strategies. Customer's response to CMA questionnaire.

¹²³ Customers' response to the CMA questionnaire.

¹²⁴ Customers' response to the CMA questionnaire.

¹²⁵ Customers' response to the CMA questionnaire.

product or service.^{126, 127} In one of those instances, the customer submitted that escalating the issue outside the business unit did not appear to play a primary role in resolving the dispute.¹²⁸

138. To test the impact of customers switching the clearing of OTC IRDs from LCH to other CCPs specifically, the CMA has complemented the third-party feedback presented above with the Parties' data on LCH revenues obtained from its largest 18 customers.^{129, 130} That analysis suggests that:
- (a) These customers would need to move a significant amount of their OTC IRDs clearing activity, [~~3~~], away from LCH to make foreclosure unprofitable for the Merged Entity (ie to exceed the additional revenues that the Merged Entity could capture from foreclosure as presented in paragraph 120 above). This indicates that the Parties' argument that customers would only need to move a small fraction of their OTC IRDs clearing business to a rival CCP to render the foreclosure strategy targeted at Quantile's rivals unprofitable does not apply.
 - (b) Of those 18 largest customers who also responded to the CMA questionnaire, only one said that it would consider switching trades from LCH without highlighting this as particularly difficult or onerous.¹³¹ Feedback from the remaining customers was mixed: some of them said that they would consider switching trades from LCH but also that it would be difficult or onerous to do so, and others said they would not consider switching at all.¹³²
139. Finally, to further test the likelihood of customers switching part of their spend on other LSEG services to alternative providers of those services, the CMA has assessed a sample of meeting minutes between LSEG and its customers.¹³³ The Parties have presented these meetings to the CMA as relevant examples of the broader relationship and partnership between LSEG and its customers. In these documents, the CMA has sought to find any examples of LSEG's customers using their position in one LSEG service (or their overall position) to negotiate with LSEG in relation to another service, eg fees for that service. The CMA found that while there were instances of customers raising disputes, and switching or threatening to

¹²⁶ Customer's response to the CMA questionnaire.

¹²⁷ Customer's response to the CMA questionnaire.

¹²⁸ Customer's response to the CMA questionnaire.

¹²⁹ FMN, paragraph 39; Parties' response to s109 dated 3 December 2021, Annex 4.

¹³⁰ The CMA has focused on these largest customers as the Parties submitted that any strategy aimed at foreclosing competition between compression service providers would prompt a strong negative reaction from large customers in particular, who would look for ways to punish LSEG (FMN, paragraph 336).

¹³¹ Customer's response to the CMA questionnaire.

¹³² Customers' response to the CMA questionnaire.

¹³³ Parties' response to the Issues Letter, Annexes 1.01 – 1.23.

switch away from LCH, these did not relate to the clearing of OTC IRDs (where the CMA has found that LCH has significant market power¹³⁴). Moreover, these examples did not demonstrate an escalation of a dispute outside the specific business unit.

140. The CMA considers that the evidence above indicates the following:

- (a) The main factors that drive customers choice of CCPs in relation to OTC IRDs are market liquidity and client preference, which makes it difficult and onerous for customers to switch their trades from LCH to other CCPs, given LCH's strong position in clearing of OTC IRDs.
- (b) Although customers said that moving trades from LCH to other CCPs as a reaction to foreclosure is possible in theory, they also said this would be very difficult and costly to implement in practice as per point (a) above. Whilst there may be some threat of switching and/or actual switching of some OTC IRDs from LCH to other CCPs following foreclosure, the CMA considers that this switching would be limited and would not be enough to offset the benefits from foreclosure; and
- (c) Although some multilateral compression customers have multiple touchpoints with LCH and LSEG, moving spend from other LSEG's services to alternative providers of those services as a reaction to foreclosure in multilateral compression of OTC IRDs is not supported by third-party or the Parties' evidence. In particular, in order to adopt such a 'retaliation' against LSEG, the CMA considers that customers would need to escalate the dispute outside the business unit that uses the service (eg clearing), and to negotiate with LSEG based on their business' entire volume of purchases with LSEG. This would involve potentially significant costs and resources for those customers that are likely to be higher than the savings they would obtain if Quantile's rivals were not foreclosed. Furthermore, there is no guarantee that such a strategy would be effective.

Reputational damage

141. The CMA has also considered the broader reputational damage that LSEG may incur if its foreclosure strategies were regarded by customers as breaking LSEG's commitment to open access. The CMA considers that this is difficult to assess in quantitative terms, but notes the following points:

¹³⁴ See paragraph 77.

- (a) LCH may adopt foreclosure strategies that are not immediately detectable to rivals and/or customers (for instance, as set out in paragraph 96, the Parties could change the automated nature of the process or manipulate this while carrying out routine updates to the process that would favour Quantile in terms of multilateral compression runs and access to data); and
 - (b) For foreclosure strategies that are more immediately detectable, such as an increase in ACSP fees, LCH could find justifications, so that they appear to be compliant with open access.¹³⁵
142. In relation to (a), the Parties submitted that LSEG cannot “fly under the radar” and implement a strategy capable of foreclosing rival compression service providers without customers detecting this.¹³⁶
143. The CMA notes that while some of these foreclosure strategies (eg scheduling compression runs to favour Quantile) may lead to a suspicion that the Merged Entity is favouring Quantile, it is likely to be difficult for Quantile’s competitors to determine whether such actions were being deliberately taken by the Merged Entity and to explain this to their customers.¹³⁷
144. In relation to (b), the Parties submitted that customers and rivals are sophisticated organisations and LSEG would not be able to mislead them by disguising foreclosure as an “operational efficiency”.¹³⁸
145. The CMA considers that there are several technical aspects involved in multilateral compression services, including a complex interaction between multilateral compression and LCH clearing, and an asymmetry of information between the Merged Entity and its customers. In light of this, the CMA believes it is not clear that customers, albeit sophisticated, would be able to fully assess whether any difference in terms or performance between TriOptima and Quantile would be as a result of foreclosure or of other reasons.
146. More generally, as discussed above (paragraphs 103-108) the CMA considers that the concept of open access has significant room for interpretation, especially when considered in relation to multilateral compression. The CMA therefore considers that the Merged Entity could engage in foreclosure strategies, despite the publicly stated commitment to open access.

¹³⁵ Competitor’s response to CMA RFI.

¹³⁶ Parties’ response to the Issues Letter, paragraph 143(e).

¹³⁷ Competitor’s response to CMA RFI.

¹³⁸ Parties’ response to the Issues Letter, paragraphs 140 to 142.

Lost efficiencies in clearing

147. The Parties submitted that the Merged Entity would not have any incentive to suppress multilateral compression activity as this would mean foregoing operational efficiencies and benefits.¹³⁹ The Parties have estimated the benefits of compression activity to the LCH clearing business.¹⁴⁰ The CMA notes that, as customers would likely simply switch from TriOptima to Quantile in the event of foreclosure, it does not follow that the overall volume of multilateral compression activity would be reduced as the Parties suggest. The CMA further notes that the Parties have not provided any evidence on (1) the extent of any effect on compression volume arising from weakened competition post-foreclosure; and (2) whether any such effect would be sufficient to deter the Parties from engaging in foreclosure.

Conclusion on incentive

148. For the reasons set out above, the CMA considers that the benefits of a foreclosure strategy for the Merged Entity would be likely to outweigh the costs.
149. In particular, the CMA considers that the foreclosure strategies described above would be unlikely to significantly harm the Merged Entity, while they could potentially bring significant benefits. Partial foreclosure strategies may not entail any material cost for the Merged Entity, especially those that are less detectable by rivals or for which a justification could be found. The CMA also considers that any costs of engaging in total foreclosure for the Merged Entity are likely to be limited while possibly benefitting the Merged Entity substantially, allowing it to weaken its rivals and gain market power in multilateral compression.
150. The CMA therefore considers that the Merged Entity has the incentive to engage in either total or partial foreclosure strategies post-Merger.

Effect

151. The Parties submitted that TriOptima would not be foreclosed even if LCH engaged in partial foreclosure mechanisms. According to the Parties, customers would continue to support TriOptima because (1) the multilateral compression services provided by Quantile and TriOptima are differentiated and there is value in using both of them and (2) customers support competition.

¹³⁹ See paragraph 112(d) above and Parties' response to the Issues Letter, paragraphs 132 to 137.

¹⁴⁰ See paragraph 112(d) above and Parties' response to the Issues Letter, paragraphs 132 to 137.

152. Additionally, the Parties submitted that TriOptima would not be foreclosed even if LCH withdrew TriOptima's ACSP status because (1) customers would likely use TriOptima to compress trades on third-party CCPs; (2) TriOptima is being supported by its JV parents; and (3) TriOptima could provide multilateral compression services in relation to uncleared trades. In relation to (3), the Parties submitted Capitalab (LMKRTS) and ClearCompress only offer compression of uncleared trades and have profitable businesses.
153. The CMA notes that:
- (a) multilateral compression for OTC IRDs is already concentrated, with TriOptima and Quantile being the main providers;
 - (b) due to the presence of strong network effects, barriers to entry in multilateral compression for OTC IRDs are high and foreclosure may further raise these barriers to entry;
 - (c) as such, a foreclosure strategy is likely to harm overall competition in the downstream market and have negative impacts for customers – a loss of choice and competition may increase prices and reduce quality and innovation.
154. In relation to the Parties' submissions:
- (a) It is uncertain how customers would react if LCH engages in a foreclosure strategy that degrades the quality of the services provided by TriOptima. As set out above, even if such a strategy could be detected by customers, the CMA believes that customers would not be able to successfully retaliate if LCH engaged in foreclosure strategies targeted at TriOptima.
 - (b) The CMA found that LCH is dominant in the provision of clearing services for OTC IRDs with a share of supply based on notional cleared volumes of around 90% in the last four years. The CMA therefore believes that TriOptima would be a significantly weakened competitor if it were no longer able to provide multilateral compression services in relation to OTC IRDs at LCH. Furthermore, if TriOptima were foreclosed from providing multilateral compression services of trades cleared at LCH, but still operated in OTC IRDs on other CCPs, a substantial part of the market (ie the provision of multilateral compression services of all OTC IRDs cleared at LCH) would be left with no competition.
155. As set out above in paragraph 83, the fact that TriOptima could refocus its multilateral compression activity on uncleared OTC IRDs does not prevent a

reduction in competition as a result of foreclosure in compression for cleared OTC IRDs. The CMA, finally, notes that Capitalab and ClearCompress, who in relation to OCT IRDs only offer multilateral compression of uncleared trades, are very small providers (ie they are [X] of the size of both TriOptima and Quantile combined in terms of notional compressed).

156. For the reasons set out above, the CMA considers that, if the Merged Entity engaged in foreclosure strategies, multilateral compression providers would be weakened, resulting in substantial harm to competition in multilateral compression of OTC IRDs.

Conclusion on input foreclosure in multilateral compression of OTC IRDs

157. For the reasons set out above, the CMA believes that Merged Entity would have the ability and incentive to engage in one or more total or partial foreclosure strategies, and that any reduction in competitive constraints resulting from a foreclosure strategy may give rise to substantial harm to overall competition in multilateral compression for OTC IRDs.
158. Accordingly, the CMA found that the Merger raises significant competition concerns as a result of vertical effects in relation to the supply of multilateral compression services for OTC IRDs in the United Kingdom.

TOH2: Input foreclosure in margin optimisation

159. As set out above, Quantile offers margin optimisation services in relation to derivative portfolios, including FX, OTC IRDs and equities. Quantile offers margin optimisation services on a multilateral basis across uncleared and cleared¹⁴¹ portfolios.
160. Even though optimisation services are offered in relation to trades cleared at LCH, in contrast to multilateral compression, LCH has no direct role in the provision of optimisation.¹⁴²

¹⁴¹ For OTC IRDs since 2020.

¹⁴² Third parties offer optimisation of trades booked at SwapAgent. Optimisation providers may initiate new trades to rebalance risk. Only a very small proportion of these trades are likely to be sent to SwapAgent (FMN, paragraph 400).

161. To facilitate the optimisation process LCH also offers a SMART data and analytics tool¹⁴³ for cleared trades.¹⁴⁴ The product can be used to estimate the margin impact of adding new cleared trades at LCH. This is important because participants must monitor their margin requirements and process payments to and from the CCP/counterparty depending on margin requirements.^{145, 146}
162. LSEG is also planning to launch Project [REDACTED].¹⁴⁷ An optimisation service could potentially (1) use [REDACTED] and (2) use [REDACTED].¹⁴⁸
163. The CMA has considered whether the Merged Entity could harm Quantile's rivals in margin optimisation by:
- (a) Ceasing to provide access to SMART and/or stopping them from using SwapAgent;
 - (b) Engaging in strategies worsening the terms of access to or usage of SMART and/or SwapAgent or otherwise harming Quantile's competitors, eg LCH requiring rival providers to pay higher fees to access its SMART service;
 - (c) Providing data or information to Quantile that gives it an advantage over rival margin optimisation providers; and
 - (d) [REDACTED].
164. Both existing rival providers and future new entrants could be targeted.
165. The CMA has considered the ability of the Merged Entity to harm Quantile's rivals through total or partial foreclosure.

¹⁴³ The existing SMART tool will continue to be available (as SMART Bronze) to members and clients on a free to use basis. A new SMART Silver and Gold will be launched with additional features and benefits for members and clients who wish to subscribe. LCH has developed the margin optimisation functionality as described in footnote 38 as part of the offering of SMART Gold.

¹⁴⁴ This tool is currently only used by Quantile for [REDACTED].

¹⁴⁵ Optimisation runs can impact the cleared initial margin required by the CCP from the participants, where the run results in new cleared trades.

¹⁴⁶ Furthermore, LCH launched a SMART Vendor API for various use cases including margin optimisation. The tool can be used to calculate the impact of CCP initial margin resulting from new offsetting transactions which are cleared. In order to gain access to SMART, third-party providers who wish to use SMART must enter into a SMART Vendor API agreement with LCH which includes the terms of use. LCH offers the SMART vendor product [REDACTED].

¹⁴⁷ [REDACTED].

¹⁴⁸ Parties' response to CMA RFI dated 11 February 2022, Q9.

Ability

166. In order to assess the Merged Entity's ability to harm Quantile's rivals, the CMA has considered (1) the relevance of LCH's clearing services for the provision of margin optimisation in relation to OTC IRDs, FX derivatives and equities; (2) whether SMART¹⁴⁹, SwapAgent, and Project [X] are important inputs for providers of margin optimisation; and (3) foreclosure mechanisms in margin optimisation.

Relevance of LCH's clearing services for the provision of margin optimisation

167. The Parties submitted that margin optimisation providers (1) do not need to engage with CCPs in order to be 'approved' and (2) do not need CCPs to provide them with data for the optimisation run or to register the trades following the run.

168. The third-party feedback has confirmed the Parties' submissions.¹⁵⁰

169. The CMA further notes that margin optimisation services can be provided in relation to cleared and uncleared trades. However, margin optimisation services are particularly useful for uncleared derivatives.¹⁵¹

170. With respect to FX derivatives, the CMA notes that while LCH is by far the largest provider of clearing services for this asset class,¹⁵² there is no regulatory requirement to centrally clear FX trades, as opposed to IRDs.¹⁵³ The Parties submitted that within FX, [X] of Quantile's initial margin reduction relates to uncleared trades. This figure is in line with what other margin optimisation providers submitted.¹⁵⁴ The Parties, therefore, submitted that LCH's clearing services for FX derivatives are competing with other forms of risk management, such as bilateral risk management.¹⁵⁵ This was confirmed by third-party feedback.¹⁵⁶ Therefore, based on the evidence available to it, the CMA considers that LCH does not have significant market power in the provision of clearing services for FX derivatives, as opposed to clearing of OTC IRDs (see paragraph 77 above).

¹⁴⁹ Whilst Quantile's services concern OTC IRD, FX and equity derivatives, Quantile uses SMART only [X].

¹⁵⁰ Note of call with a competitor; note of call with a competitor; note of a call with a competitor; competitor's response to CMA RFI.

¹⁵¹ UK EMIR requires counterparties in scope of the margin requirements to exchange margin on uncleared OTC derivatives contracts. The Parties submitted [X] of Quantile's initial margin reduction took place in FX runs, [X] of which related to uncleared trades (FMN, paragraph 418-419).

¹⁵² FMN, Table 7.

¹⁵³ FMN, paragraph 199.

¹⁵⁴ Note of a call with competitor.

¹⁵⁵ FMN, paragraph 199.

¹⁵⁶ Note of a call with competitor.

171. Finally, according to the Parties' estimates, LCH has a market share of roughly [30-40]% in cash equities clearing services. Furthermore, the CMA received no third-party submission indicating that LCH would have any significant market power in the provision of clearing services for equities through SwapAgent.

Importance of SMART, SwapAgent and Project [X] for margin optimisation providers

172. As set out above, a proportion of margin optimisation relates to cleared trades (for which tools like LCH's SMART may be useful) while LCH's SwapAgent may be an input in margin optimisation for uncleared trades. Moreover, as previously explained, the launch of Project [X] could [X] closer relationship between LCH and optimisation providers [X] in the margin optimisation process. Therefore, the CMA has assessed the importance of each of these services as input for margin optimisation providers.

173. The CMA understands that SMART and SwapAgent are currently used by a limited number of margin optimisation providers. As for Project [X] could be used by all margin optimisation providers. This is set out by Table 4 below.

Table 4: Overview of third-party providers that use LCH/LSEG products for the supply of margin optimisation services

LCH/LSEG product	User	Comments
SMART	Quantile	The SMART tool is currently used by Quantile [X].
SMART vendor	Quantile	LCH offers the SMART vendor product [X].
SwapAgent	Capitalab	[X]
	TriOptima	[X]
Project [X]	[X][X] [X] [X]	Project [X].

Source: CMA analysis of Parties and third parties' submissions.

- *Parties' submissions*

174. The Parties submitted that margin optimisation providers are not reliant on SwapAgent for authorisation or data. The Parties further submitted that any optimisation provider who finds it beneficial to create a trade on SwapAgent needs

only to flag the trade as such to the middleware provider¹⁵⁷, ie to MarkitWire. According to the Parties, SwapAgent does not know the origin of the trade (ie whether the trade is sourced from an optimisation provider) because MarkitWire does not provide such information. Finally, the Parties submitted [REDACTED].

175. Third, the Parties submitted that access to SMART is not necessary to operate a margin optimisation service for reasons such as¹⁵⁸:

- (a) [REDACTED], and that TriOptima, Capitolis (LMRKTS) and Capitalab do not use SMART.
- (b) SMART provides one way to determine the initial and final margin positions of a customer at LCH, but that information can also be provided by the customer directly. Finally, the Parties submitted that the models in SMART can be replicated as the calculation is standard Value at Risk calculation.
- (c) Much of the benefit of margin optimisation services relates to uncleared trades whereas SMART can only be used in relation to trades cleared at LCH. The Parties submitted margin optimisation services were developed as a result of the introduction of the uncleared margin rules which apply to uncleared trades.

176. Finally, the Parties submitted that the Merged Entity is not able to foreclose margin optimisation providers [REDACTED] Project [REDACTED] Project [REDACTED]. [REDACTED] Project [REDACTED].¹⁵⁹

- *CMA's assessment*

177. The third-party feedback has broadly confirmed the Parties' submissions in relation to SMART and SwapAgent.

178. While some of the downstream competitors¹⁶⁰ told the CMA that SMART is important for their business, they also acknowledged that they do not currently use this service. One of these competitors further noted that it uses an in-house proxy for the estimation of LCH margin impact and clarified that it cannot use a third-party provider as it needs to analyse the derivatives of the margin impact.¹⁶¹ The CMA notes there is no other user of SMART apart from Quantile.

¹⁵⁷ A middleware provider is a system or facility, such as an exchange, a clearing house, a designated contract market, trade confirmation or affirmation system or other similar venue or system, which is able to submit confirmed OTC transactions for clearing to any authorised or recognised CCP.

¹⁵⁸ FMN, paragraphs 406-412.

¹⁵⁹ Parties' response to CMA RFI 5.

¹⁶⁰ Competitor's response to CMA RFI.

¹⁶¹ Competitor's response to CMA Questionnaire.

179. In relation to SwapAgent, one competitor submitted that its business would be affected if LCH stopped it from creating trades on the SwapAgent platform. The same competitor said that it would not be very likely for LCH to pursue this foreclosure strategy.¹⁶² The CMA considers that this statement is consistent with the Parties' submissions, in particular that SwapAgent does not know the origin of the trade (see paragraph 174 above). The CMA therefore understands that although this service is important for some margin optimisation providers, SwapAgent would not be able to discriminate as it has no visibility of who creates the trades or if the trades are new or the result of an optimisation run.
180. As regards Project [X], the CMA understands that while the [X]. The CMA understands that [X].¹⁶³ Given the project's [X], the CMA does not consider that Project [X].

Foreclosure mechanisms in margin optimisation

181. The CMA also considered whether the Merged Entity could grant Quantile preferential or exclusive access to customer data necessary to offer or improve optimisation services (eg data on customers trade positions at LCH). This corresponds to the trade data needed to start the margin optimisation process and which is currently sourced from customers directly. [X].
182. Some downstream competitors raised concerns about this possible foreclosure strategy and noted that depending on the data that is being shared such a practice could encourage customers to switch to Quantile.¹⁶⁴ For example, one competitor submitted that it is not currently reliant on LCH data in order to provide optimisation services. This competitor noted, however, that there are significant potential benefits and efficiencies if customer level data could be sourced from LCH rather than from customers.¹⁶⁵ Finally, this competitor also explained that LCH could share details of new developments with Quantile or delay new product developments that benefit rivals.¹⁶⁶
183. With respect to the concern that LCH could provide data to Quantile in a more efficient way, the CMA considers the following points:

¹⁶² Competitor's response to the CMA questionnaire.

¹⁶³ Parties' response to CMA RFI 5, Q2.

¹⁶⁴ Competitors' response to CMA Questionnaire. Competitor's response to CMA Questionnaire.

¹⁶⁵ Competitor's response to CMA RFI.

¹⁶⁶ Competitor's response to CMA RFI.

- (a) It is difficult to estimate the extent of these efficiencies and the effect that this may have on competition; and
- (b) Unlike in multilateral compression, all data necessary for margin optimisation is currently sourced directly from customers and third-party providers (eg Acadia¹⁶⁷), but not directly from LCH.

184. The CMA further considers that, whilst in multilateral compression the Merged Entity has a range of plausible mechanisms of foreclosure, this is not the case in margin optimisation – mainly because LCH does not have an active role in the margin optimisation process. The CMA considers that this aspect and the fact that margin optimisation largely relates to uncleared trades, makes any preferential access to data in margin optimisation by itself unlikely to provide LCH with the ability to foreclose.

Conclusion on ability

185. For the reasons set out above, the CMA believes that the Merged Entity would not have the ability to foreclose Quantile's rivals in margin optimisation post-Merger. Based on third-party feedback and the Parties' submissions, the CMA found that (1) margin optimisation providers do not rely on SMART and (2) SwapAgent has no visibility as to whether the trades are the result of an optimisation run and therefore is not be able to discriminate against Quantile's rivals.
186. [X] Project [X], the CMA understands that, although [X]. Furthermore, the CMA found that LCH does not have an active role in the margin optimisation process. The CMA considers that this aspect and the fact that margin optimisation largely relates to uncleared trades, makes any preferential access to data in margin optimisation granted to Quantile by itself unlikely to provide LCH with the ability to foreclose Quantile's rivals in margin optimisation. [X] Project [X] Project [X].
187. As the CMA has found that the Merged Entity is unlikely to have the ability to engage in any foreclosure strategies in margin optimisaiton, the CMA has not found it necessary to consider the incentive or effects of engaging in such strategies.

¹⁶⁷ Acadia is a risk management platform for the derivatives industry that replaces manual margin call processing with an electronic service. In order to participate in an optimisation run organised by Quantile, participants must have [X].

Conclusion on foreclosure of margin optimisation services providers

188. Based on the evidence outlined above, the CMA believes that the Merged Entity would not have the ability to foreclose Quantile's rivals in margin optimisation. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of vertical effects in relation to the supply of margin optimisation services.

BARRIERS TO ENTRY AND EXPANSION

189. Entry, or expansion of existing firms can mitigate the initial effect of the acquisition on competition, and in some cases may mean that there is no SLC. In assessing whether entry or expansion might prevent an SLC, the CMA considers whether such entry or expansion would be timely, likely and sufficient.¹⁶⁸

Multilateral compression

190. The Parties submitted that it is relatively common to sponsor or back the entry of a multilateral compression provider. In this regard, the Parties submitted that Capitolis (LMRKTS) was launched in 2017 and has received \$170 million in funding to date from a number of venture capital firms and global banks, including two customers of Quantile. Furthermore, the Parties submitted that multilateral compression is a relatively new market with only TriOptima launching prior to 2015. The Parties also submitted that while customers have no need to sponsor further entry due to the strength of competition between existing ACSPs, they could readily do so if the competition between existing market participants was undermined.¹⁶⁹
191. A limited number of customers submitted that they would strongly encourage the development of another provider if TriOptima was no longer available. However, one of them noted that the process would take several years and be reasonably expensive.¹⁷⁰ Another customer explained that it could not develop services offered by TriOptima and Quantile in-house as the services rely on network effects and access to confidential information, which market participants would not want to share with each other.¹⁷¹

¹⁶⁸ [Merger Assessment Guidelines](#), paragraphs 8.28-8.46.

¹⁶⁹ Parties' response to the Issues Letter, paragraph 151-152.

¹⁷⁰ Note of call with a customer; customer's response to the CMA questionnaire.

¹⁷¹ Note of call with a customer.

192. Furthermore, a clearing competitor submitted that it would be capable of developing a compression algorithm in-house, but the process would be costly and time consuming.¹⁷²
193. Third-party feedback did not indicate that entry or expansion in multilateral compression services for OTC IRDs will be timely, likely or sufficient to mitigate any SLC arising.
194. As set out above, the CMA noted that it is essential for a multilateral compression provider to provide compression services for OTC IRDs cleared at LCH. When considering the likelihood of successful entry by third parties, the CMA has considered the strategic behaviour of the Merged Entity which itself might create or strengthen a barrier to entry. The CMA believes that post-Merger the Merged Entity would have the ability and incentive to foreclose Quantile's rivals in multilateral compression and therefore considers that foreclosure mechanisms such as rendering it difficult for a third party to be approved as an ACSP at LCH would increase the barriers to entry.
195. Furthermore, the CMA has found that the supply of multilateral compression services is characterised by significant network effects (see paragraph 117 above).¹⁷³ The CMA was told these network effects produce efficiencies.¹⁷⁴
196. In this regard, the CMA notes that the third ACSP at LCH for OTC IRDs decided to terminate the relationship with LCH because [X].¹⁷⁵ The CMA also understands that while other players may have the technological capabilities to compress OTC IRDs, those players are unlikely to become an ACSP after the Merger, given the importance of network effects.¹⁷⁶
197. Given the above, the CMA considers that entry or expansion will be not be timely, likely or sufficient to mitigate any SLC arising in multilateral compression.

Margin optimisation

198. The Parties submitted that users of optimisation services have supported the entry and expansion of more than one provider. The Parties submitted that customers

¹⁷² Note of a call with a competitor.

¹⁷³ Note of call with a competitor; note of call with a competitor; note of call with a customer; note of call with a customer; note of call with a customer; note of call with a customer.

¹⁷⁴ Note of call with a customer.

¹⁷⁵ FMN, paragraph 159; note of call with a competitor.

¹⁷⁶ Note of call with a competitor.

value differentiation in the services, both in terms of currencies/asset classes and the output of different methodologies.¹⁷⁷

199. The CMA did not have to conclude on barriers to entry or expansion in margin optimisation as the Merger does not give rise to competition concerns on any basis.

COUNTERVAILING BUYER POWER

200. The Parties submitted that the customers of the Parties are large and sophisticated players and, therefore, are able to exert significant countervailing buyer power.
201. As set out in the competitive assessment, the CMA considers that customers are unable to successfully deter the Merged Entity from engaging in foreclosure mechanisms.¹⁷⁸ In particular, the CMA found that LCH is the dominant provider of clearing services for OTC IRDs and that switching from one CCP to the other is difficult, in particular because customers seek to clear where market liquidity is the highest and according to their client's preferences.¹⁷⁹ The CMA also notes that customers are required to clear the vast majority of OTC IRDs, as discussed in paragraph 43 above. This aspect of OTC IRDs trading, combined with LCH's dominant position further undermines any risk of customers threatening to move to other CCPs.
202. The Parties also submitted that customers may use their broader relationship with LSEG, eg their use of other LSEG services to exert significant buyer power in OTC IRDs clearing. In relation to this, the CMA notes the following: (1) although customers do use multiple LSEG services, there was little evidence that customers may use this broader relationship to exert buyer power in OTC IRDs clearing or compression;¹⁸⁰ (2) customers are less likely to detect or object to foreclosure strategies when the cost of multilateral compression services is small compared to other LSEG services; and (3) the customer partnerships reflected at the level of LCH governance can merely influence (and even then not control) decision-making within LCH.

¹⁷⁷ FMN, paragraphs 472-473.

¹⁷⁸ Customers' response to the CMA questionnaire.

¹⁷⁹ See paragraph 76 above.

¹⁸⁰ See paragraphs 135(b) and 139 above.

THIRD-PARTY VIEWS

203. The CMA contacted customers, clearing and downstream competitors of the Parties. Third-party comments have been taken into account where appropriate in the competitive assessment.
204. In addition to the issues considered in the assessment above, some third parties provided some general submissions.
205. The majority of customers who responded to the CMA's investigation submitted that the Merger did not raise concerns as long as open access to LCH's services is maintained.¹⁸¹ A small number of customers told the CMA that the Merger would not have an impact on LCH's commitment to open access.¹⁸² Finally, a limited number of customers noted that the Merger could produce a positive outcome such as enabling Quantile to benefit from greater scale, bolster its resilience and increase efficiencies.¹⁸³
206. Some margin optimisation and multilateral compression competitors raised concerns that LCH offering Quantile's services for free, at a discount or as part of a bundle would impact their ability to compete.
207. Finally, one margin optimisation and multilateral compression competitor noted that the Merger does not raise concerns, provided there is an appropriate governance and information barriers.¹⁸⁴

¹⁸¹ Customers' response to the CMA questionnaire.

¹⁸² Customers' response to the CMA questionnaire.

¹⁸³ Customers' response to the CMA questionnaire.

¹⁸⁴ Competitor's response to the CMA questionnaire.

DECISION

208. Consequently, the CMA believes that it is or may be the case that (1) arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation; and (2) the creation of that situation may be expected to result in an SLC within a market or markets in the United Kingdom.
209. The CMA therefore believes that it is under a duty to refer under section 33(1) of the Act. However, the duty to refer is not exercised whilst the CMA is considering whether to accept undertakings under section 73 of the Act instead of making such a reference.¹⁸⁵ The Parties have until 10 May 2022¹⁸⁶ to offer an undertaking to the CMA.¹⁸⁷ The CMA will refer the Merger for a phase 2 investigation¹⁸⁸ if the Parties do not offer an undertaking by this date; if the Parties indicate before this date that they do not wish to offer an undertaking; or if the CMA decides¹⁸⁹ by 17 May 2022 that there are no reasonable grounds for believing that it might accept the undertaking offered by the Parties, or a modified version of it.

David Stewart
Executive Director, Markets and Mergers
Competition and Markets Authority
03 May 2022

ⁱ 'The turnover of LSEG in the financial year 2021 was £7,120 million worldwide' should be read as 'The turnover of LSEG in the financial year 2021 was £7,165 million worldwide'.

ⁱⁱ 'Quantile provides (1) portfolio compression services for cleared and uncleared trades' should read 'Quantile provides (1) portfolio compression services for cleared trades'.

ⁱⁱⁱ References to IRDs in paragraphs 43, 50 and footnote 38 should read 'OTC IRDs'.

¹⁸⁵ Section 33(3)(b) of the Act.

¹⁸⁶ Section 73A(1) of the Act.

¹⁸⁷ Section 73(2) of the Act.

¹⁸⁸ Sections 33(1) and 34ZA(2) of the Act.

¹⁸⁹ Section 73A(2) of the Act.