

Anticipated joint venture between IHS Markit Ltd's MarkitSERV Business and CME Global Inc.'s Optimization Business

Decision on relevant merger situation and substantial lessening of competition

ME/6925/21

The CMA's decision on reference under section 33(1) of the Enterprise Act 2002 given on 27 July 2021. Full text of the decision published on 2 September 2021.

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

1. On 12 January 2021 IHS Markit Ltd. (**IHSM**) and CME Group Inc. (**CME**) entered into an agreement to establish a 50:50 joint venture to combine IHSM's over-the-counter (**OTC**) derivatives and foreign exchange (**FX**) trade processing business (ie, MarkitSERV) and CME's optimisation businesses (ie, TriOptima, Reset and Traiana; or "**CME Optimization Business**", and together with MarkitSERV, the **JV businesses**).¹ IHSM and CME are together referred to as the **Parties**. The transaction will be further referred to as the **Merger**.
2. The Competition and Markets Authority (**CMA**) believes that it is or may be the case that each of IHSM, CME and the JV businesses are an enterprise; that these enterprises will cease to be distinct as a result of the Merger and that the turnover test is satisfied. Accordingly, arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation.

¹ Annex 3 to the Final Merger Notice submitted to the CMA by IHSM and CME on 3 June 2021 (**FMN**).

3. The CMA believes that the Merger gives rise to minimal overlaps in the supply of post trade processing services.² Post trade processing services include a broad range of services such as trading, notifications, allocations and confirmations. Based on the Parties' submissions, internal documents, and third-party views gathered during the market investigation, the CMA found that MarkitSERV and the CME Optimization Business are not close competitors and do not exert a competitive constraint on each other. Furthermore, the increment brought by the Merger is [0-5]% for each of the areas of overlap. The CMA therefore believes the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in relation to the supply of post trade processing services.
4. The CMA also considered whether post-Merger the joint venture could foreclose clearing houses or central counterparties (**CCPs**) that compete with the CCP owned by CME, CME Clearing. MarkitSERV has a strong position in the provision of CCP connectivity services for foreign exchange (**FX**) trades. CCP connectivity services send (i) trades executed on an electronic trading venue and (ii) bilateral trades that have been confirmed to a CCP.
5. Third-party customers responding the CMA's market investigation did not consider the foreclosure of CCPs plausible. The most important consideration for trading counterparties is the size of the liquidity pool at a CCP. Other criteria including price, portfolio margin benefits, the primary clearing currency, and any ancillary services offered by the CCP are also taken into account. The CMA therefore believes the joint venture would not have the ability to foreclose the CCPs competing with CME Clearing by degrading its CCP connectivity services for FX trades. 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 CCP connectivity services.
6. The CMA also considered whether the Merger could result in the joint venture foreclosing rivals, through:
 - (a) a bundling or tying strategy that includes MarkitSERV's connectivity and TriOptima's margin optimisation and compression services;
 - (b) MarkitSERV discriminating against TriOptima's competitors by preventing or degrading the provision of connectivity services;
 - (c) MarkitSERV sharing its trade data on a preferential basis with TriOptima.

² The Parties mainly overlap in the provision of prime brokerage give-up messaging services for trilateral foreign exchange trades, notice of execution messaging services for bilateral foreign exchange trades and clearing house connectivity services for bilateral foreign exchange trades. See the 'Frame of reference' section below.

7. In relation to (a) and (b), based on third-party feedback and internal documents, the CMA found that the joint venture lacks the ability to engage in such practices. Customers explained that compression and margin optimisation providers are chosen primarily based on cost, service quality and the number of banks that are using the service. Furthermore, the services of TriOptima and MarkitSERV are not economic complements (ie a price increase of one service will not reduce demand for another service) and customers are large financial institutions that are likely to have significant bargaining power across multiple services provided by the Parties and the joint venture. Finally, the CMA believes the joint venture would not have the incentive to engage in bundling or discriminatory practices based on a cost and benefits assessment.
8. In relation to (c), the available evidence indicates customers are generally able and willing to provide this data to potential service providers themselves to help them develop new or improved products. Furthermore, the trade data that MarkitSERV generates does not appear to help TriOptima or Reset improve their offering or develop new products. The CMA therefore believes that the joint venture would not have the ability to foreclose compression and margin optimisation service providers through MarkitSERV sharing its trade data on a preferential basis with TriOptima.
9. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of conglomerate effects.
10. The Merger will therefore **not be referred** under section 33(1) of the Enterprise Act 2002 (the **Act**).

ASSESSMENT

Parties

IHSM and MarkitSERV

11. IHSM is an international UK-based provider of information, analytics and solutions to customers in business, finance and government. IHSM has four core industry-focused segments: (i) financial services; (ii) transportation; (iii) resources; and (iv) consolidated markets and solutions. The joint venture only impacts IHSM's financial services segment.
12. IHSM's financial services segment provides pricing and reference data, indices, valuation and trading services, trade processing, enterprise software, and managed services.

13. IHSM's turnover in the financial year ending 30 November 2020 was approximately £3,211 million worldwide and approximately £[REDACTED] in the UK.
14. MarkitSERV is a provider of trade processing services for OTC trading of credit, equity, FX and interest rate derivatives through the following product lines:
 - (a) Centralised Platforms, which provides trade processing and connectivity for OTC derivatives (including FX derivatives);
 - (b) FX Enterprise, which provides trading and post trade workflows for FX products.
15. MarkitSERV's turnover in the financial year ending 30 November 2020 was approximately £[REDACTED] worldwide and approximately £[REDACTED] in the UK.

CME and CME's Optimization Business

16. CME is a derivatives marketplace headquartered in the US. CME operates four US exchanges (Chicago Mercantile Exchange, the Chicago Board of Trade, the New York Mercantile Exchange and Commodity Exchange), all of which clear through CME Clearing, a US-regulated clearing house. CME's electronic trading platform, Globex, allows users worldwide to access CME's derivative products. CME also owns BrokerTec and EBS, two platforms that are used for fixed income and foreign exchange trading.
17. The turnover of CME was approximately £3,803 million worldwide in 2020 and approximately £[REDACTED] in the UK in 2019.³
18. The CME Optimization Business consist of (i) TriOptima; (ii) Traiana,⁴ and (iii) Reset. The three companies provide trade processing and risk mitigation services and operate at different stages of the trading lifecycle.
 - (a) TriOptima provides compression, portfolio reconciliation, and margin optimisation services.
 - (b) Reset is a multilateral basis risk mitigation service based on LIBOR for interest rates, FX Non-deliverable Forwards, FX options, and inflation derivatives.

³ CME submitted that its turnover in the financial year ending 31 December 2019 was the most accurate readily available consolidated turnover for the UK. CME also submitted that to the best of its knowledge its consolidated UK revenue in 2020 should not be materially different from its consolidated UK revenue in 2019. (CME's response to the CMA's section 109 notice dated 21 June 2021).

⁴ As of 2 July 2021, [REDACTED]. [REDACTED]. [REDACTED]. [REDACTED].

(c) Traiana is a market infrastructure technology provider that offers pre-trade risk monitoring and automated post trade processing.

19. The turnover of the CME Optimization Business in 2020 was approximately £[REDACTED] worldwide, of which approximately £[REDACTED] was generated in the UK.⁵

Transaction

20. Pursuant to the Transaction Agreement,⁶ CME (through its wholly owned subsidiary NEX Optimisation Limited, or **CME NEX**) and IHSM (through its indirectly wholly owned subsidiary IHS Markit Equity Investments Limited, or **IHSM Equity**ⁱ) will [REDACTED]⁷ [REDACTED]. [REDACTED],⁸ such that each will therefore hold 50% of JVCo's issued share capital.

21. The combined value of the JV businesses is \$[REDACTED].

22. The Merger is also the subject of review by competition authorities in the EU and the US.

Jurisdiction

23. Two or more enterprises will cease to be distinct if they are brought under common ownership or control.⁹ Control is not limited to the acquisition of outright voting control but may include the ability to exercise material influence over the target's policy without necessarily being able to block votes at shareholders' meetings (such as through the ability of influence the board of the target and/or through other arrangements).¹⁰

24. Each of CME Optimization Business and MarkitSERV is an 'enterprise' within section 129 of the Act.¹¹ As a result of the Merger, CME (via CME NEX) and IHSM (via IHSM Equityⁱⁱ) will respectively own 50% in JVCo and will contribute the CME Optimization Business and MarkitSERV to JVCo, respectively. IHSM and CME will each appoint [REDACTED] directors to JVCo's board¹² and will each

⁵ The audit process has not yet completed for all of the CME Optimization Business, but CME does not expect that audited revenues will be materially different from these figures (CME's response to the CMA's section 109 notice dated 21 June 2021).

⁶ Annex 3 to the FMN.

⁷ The contribution of the JV businesses to JVCo will be put into effect by IHSM Equity and CME NEX transferring to JVCo the shares of a number of entities that together comprise and operate the JV businesses. FMN, paragraph 2.34-2.35.⁸ FMN, paragraphs 2.36-2.37. [REDACTED].

⁸ FMN, paragraphs 2.36-2.37. [REDACTED].

⁹ Section 26(1) of the Act.

¹⁰ Section 26(3) of the Act; [Mergers: Guidance on the CMA's jurisdiction and procedure](#) (CMA2 revised), paragraphs 4.20-4.21.

¹¹ 'Enterprise' is defined in section 129 of the Act as the activities, or part of the activities, of a business. See also [Mergers: Guidance on the CMA's jurisdiction and procedure](#) (CMA2 revised), paragraphs 4.9-4.19

¹² The board of JVCo shall consist of [REDACTED] directors. Annex 3 to the FMN, Exhibit E, clause 5.1(b),

acquire a veto right over certain reserved matters of the board of JVCo,¹³ which confers on each of them the ability to materially influence JVCo's policy, and therefore the policy of the JV businesses. The CMA therefore considers that as a result of the Merger, the CME Optimization Business and MarkitSERV will cease to be distinct from one another, and will cease to be distinct from IHSM and CME, respectively.¹⁴

25. MarkitSERV's 2020 UK turnover was approximately £[X], whilst the UK turnover of the CME Optimization Business in 2020 was approximately £[X], which together exceeds £70 million. Accordingly, the turnover threshold in section 23(1)(b)(i) of the Act is satisfied.

Counterfactual

26. The CMA assesses a merger's impact relative to the situation that would prevail without the merger (ie, the counterfactual).¹⁵ In an anticipated merger, the counterfactual may consist of the prevailing conditions of competition, or conditions of competition that involve stronger or weaker competition between the merger firms than under the prevailing conditions of competition.¹⁶
27. In determining the appropriate counterfactual, the CMA will generally focus only on potential changes to the prevailing conditions of competition where there are reasons to believe that those changes would make a material difference to its competitive assessment.¹⁷
28. The Parties submitted that the relevant counterfactual is the present competitive situation. The CMA has not received any evidence from the Parties or third parties that indicates a different counterfactual is more appropriate. Therefore, the CMA considers the prevailing conditions of competition to be the relevant counterfactual.
29. On 30 November 2020, S&P Global announced it has agreed to merge with IHSM.¹⁸ The completion of this transaction is subject to regulatory approvals and will take place independently of the Merger. The CMA considers that the prevailing conditions of competition include IHSM's planned merger with S&P Global. Based on the evidence gathered by the CMA in the course of its

¹³ Pursuant to a shareholders' agreement that will be executed on completion, [X].

¹⁴ *Mergers: Guidance on the CMA's jurisdiction and procedure* (CMA2), December 2020, paragraph 4.29 and 4.58(b).

¹⁵ *Merger Assessment Guidelines* (CMA129), 18 March 2021 (**Merger Assessment Guidelines**), paragraph 3.1.

¹⁶ *Merger Assessment Guidelines*, paragraph 3.2.

¹⁷ *Merger Assessment Guidelines*, paragraph 3.9.

¹⁸ <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/update-s-p-global-merging-with-ihs-markit-in-all-stock-deal-61499171>.

inquiry and as further set out in the competitive assessment,¹⁹ the CMA does not consider the transaction between S&P Global and IHSM to have a material impact on the CMA's competitive assessment of the Merger.

Background

30. The Merger relates to the provision of trade processing and risk mitigation services for OTC FX and derivative trades.
31. FX trading involves the exchange of national currencies whereas derivatives are financial products designed to transfer various types of economic risk between the parties to a trade. 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. The most common types, or 'classes', of underlying assets are FX, interest rates, credit, commodities, and equities.²⁰ An FX derivative is a type of derivative whose payoff depends on the exchange rates of two or more currencies.

OTC trading

32. 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.²¹ There are various ways in which financial products can be traded, including (i) OTC or on an exchange;²² (ii) bilaterally or multilaterally; and (iii) electronically or via voice.²³
33. The OTC market is a decentralised market in which the market participants trade directly with each other without the use of a centralised exchange or broker. The market participants negotiate and agree on the price and other terms of the trade, which can be tailored to each party's needs. These trades

¹⁹ See footnotes 53 and 80.

²⁰ A credit derivative is a financial contract that allows parties to minimize their exposure to credit risk. An equity derivative is a financial instrument whose value is derived from price movements of the underlying asset. An interest rate derivative is a financial contract whose value is based on some underlying interest rate or interest-bearing asset. A commodity derivative is a financial instrument whose value is based on underlying commodities, such as oil, gas, metals, agricultural products and minerals.

²¹ European Commission decision of 29 March 2017 in Case M.7995 – *Deutsche Börse/London Stock Exchange Group*, paragraph 33.

²² Exchange-traded derivatives (**ETD**), or 'listed' derivatives, are structured and standardised contracts in which the underlying assets, the quantity of underlying assets, and the settlement terms are specified by the exchange and are subject to greater regulation. MarkitSERV does not provide any services in relation to ETD (FMN, paragraph 18).

²³ 'Voice' comprises phone conversations, chats/messengers and other ways of bilateral exchange.

may occur on an electronic trading venue or may be organised directly between the market participants (ie off-venue trading).²⁴

34. OTC financial products can either be traded on a bilateral or trilateral basis. Bilateral trades are made between two market participants. The trade is executed (ie, the market participants reach an agreement) and then the trade is submitted for post trade processing by the electronic trading venue or the market participants, as applicable. This post trade processing includes the transmission of messages between different parties to the trade, affirmation²⁵/confirmation²⁶ of the trade, and sending the trade to the relevant central counterparty or clearing house (**CCP**) if applicable. Finally, the trade can be reported to the relevant trade repositories/regulatory bodies.
35. Trilateral or 'tri-party' trades involve three market participants. As with bilateral trades, initially the trade is executed between two market participants, however, instead of the buy-side firm managing many bilateral trades, they can purchase a bundle of services provided by a prime broker (**PB**) (most commonly a bank) who 'sits between' the buy-side firm and the dealer. Once the trade is submitted to the PB (through a process called the 'give-up') the PB enters into two offsetting trades: one between the buy-side firm and the PB and one between the executing broker and the PB. Prime brokerage is most prevalent in FX markets.

OTC clearing

36. 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" (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). The main function of clearing is to insure each party to a trade 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

²⁴ Trades executed on a trading venue are more likely to be executed electronically, but there are also voice trades and hybrid trades (one side electronic, one side voice) executed on venue. A higher proportion of trades executed off venue are voice trades, but (particularly in FX) there are a substantial proportion of off venue trades executed electronically.

²⁵ Affirmation (without confirmation) is the process by which two counterparties agree the primary economics of a trade.

²⁶ Confirmation is a service provided in conjunction with the allocations service to confirm that each individual allocation has been booked by the executing broker in their respective internal systems. Both counterparties receive notification of the confirmation once the individual allocation booking message is matched with the original client allocation.

counterparties, and the transmission of the details of the trade to the relevant settlement body.²⁷

37. Clearing is not mandatory for all OTC products.²⁸ 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. However, there are advantages in having the trade cleared through a CCP, in particular the elimination of counterparty risk.ⁱⁱⁱ
38. In terms of the regulatory framework, the Basel Committee of Banking Supervision and the International Organization of Securities Commission have introduced a global margin policy framework requiring the exchange of both variation margin and initial margin (the **Uncleared Margin Rules**).²⁹ The Uncleared Margin Rules include an obligation that eligible traders who do not submit their OTC (including FX) trade to be cleared on a CCP must deposit margin to the other trading party and a third party custodian³⁰, and the number of companies to whom this rule applies will increase in September 2021 and 2022. The lowering of the threshold for the Uncleared Margin Rules may lead to a small increase in the volume of FX derivatives that will be cleared, thereby reducing the volume of uncleared FX derivatives.³¹

Other trade optimisation services

39. Compression is a risk-reduction technique by which market participants replace multiple offsetting derivatives contracts with fewer deals of the same

²⁷ European Commission decision of 29 March 2017 in Case M.7995 – *Deutsche Börse/London Stock Exchange Group*, paragraph 34.

²⁸ Customers cannot necessarily clear their trade at all the 17 clearing houses. A market participant's ability to choose a clearing house is dependent on a number of factors. Market participants (ie banks/dealers) must be a member and their counterparty must be a member (or have a client clearing relationship with a member) of a clearing house in order to clear their trades with that CCP. Additionally, bids/offers are exchanged on the basis of clearing with a particular CCP. Market participants are also limited in their choice of CCP provider by reference to the product being traded.

²⁹ The G20 initiated a reform programme in 2009 to reduce the systemic risk from OTC derivatives. This was done in response to the global financial crisis. The G20 called upon the Basel Committee of Banking Supervision (BCBS) and International Organization of Securities Commission (IOSCO) to develop global standards for margin requirements. The BCBS and IOSCO introduced a global margin policy framework by requiring the exchange of both variation margin and initial margin. These margin rules are meant to protect market participants against counterparty credit risk by exchanging collateral. Initial margin is designed to protect counterparties at the outset against potential future losses, and variation margin is designed to protect counterparties on an ongoing basis against exposure to the current market value of their OTC derivative contracts.

³⁰ The initial margin is deposited to a third party custodian whilst the variation margin is deposited to the other trading party.

³¹ The implementation of the Uncleared Margin Rules is taking place in phases and the first four have already been completed. MarkitSERV explained the although the implementation of the next phases of the Uncleared Margin Rules will further increase the relative cost of uncleared trades for smaller trades, the number of clients deciding to clear FX has not significantly increased. Traiana estimates that it has [X] customers that will be affected by the next phase of the Uncleared Margin Rules, and that [X] of these customers have so far approached Traiana with the suggestion to clear its FX trades. Parties' submission of 4 June 2021 (Q27), submitted in response to the CMA section 109 notice dated 21 June 2021. Most third parties indicated that they do not see any material change in the number of uncleared trades, as clients that would come into scope for the next phases of the Uncleared Margin Rules are low volume clients.

net risk to reduce the notional value of their portfolio. There is a benefit for market participants in using compression services as regulatory capital requirements depend on the notional value of a portfolio.

40. Margin optimisation involves financial institutions such as banks and hedge funds replicating the margin model that they and their trading partners and CCPs use across product lines.
41. Compression and margin optimisation services involve terminating trades as part of generating a new portfolio of trades. Cleared trades will be terminated with the CCP directly. Both cleared and uncleared trades can be sent to MarkitSERV for further processing, but this is an optional step which depends on client requirements. CCPs usually send the cleared trades to MarkitSERV while the termination instructions for uncleared trades are sent to MarkitSERV via email or secure file transfer protocol by the compression and margin optimisation providers.
42. Further background is provided in the competition assessment section below, as appropriate.

Frame of reference

43. The JV businesses overlap in the supply of post trade processing services. There are also vertical relationships between the Parties and JVCo; in particular, CME operates CME Clearing, a CCP that MarkitSERV connects to, to enable trades to clear. The CME Optimization Business also provide other trade optimisation services such as margin optimisation and compression.³²
44. The CMA therefore assessed whether the Merger may give rise to: (i) horizontal unilateral effects in relation to the supply of post trade processing services; (ii) vertical effects in relation to the supply of post trade processing services; and (iii) conglomerate effects resulting in the foreclosure of the joint venture's competitors in certain other trade optimisation services, specifically margin optimisation and compression services.³³
45. In assessing an anticipated merger the CMA is required to consider whether it 'may be expected to result in a substantial lessening of competition within any market or markets in the United Kingdom for goods or services'. Market definition involves identifying the most significant competitive alternatives

³² The CMA does not consider any other trade optimisation services in this section, as there is no overlap or other competitive link between the JV businesses in this regard.

³³ As noted in paragraph 6 above, the CMA assessed three possible foreclosure mechanisms: (a) a bundling or tying strategy that includes MarkitSERV's connectivity and TriOptima's margin optimisation and compression services; (b) MarkitSERV discriminating against TriOptima's competitors by preventing or degrading the provision of connectivity services; and (c) MarkitSERV sharing its trade data on a preferential basis with TriOptima.

available to customers of the merger firms and includes the sources of competition to the merger firms that are the immediate determinants of the effects of the merger.³⁴ However, the assessment of the relevant market is an analytical tool that forms part of the analysis of the competitive effects of the merger and should not be viewed as a separate exercise or an end in itself.³⁵ The CMA may therefore take a simple approach to defining the market – for example by describing the market as comprising the most important constraints on the merger firms that have been identified in the CMA’s assessment of competitive effects.³⁶

46. In this case, the CMA has assessed the competitive dynamics relevant to the activities of the JV businesses in relation to the supply of post trade processing services and certain other trade optimisation services, specifically margin optimisation and compression. The CMA considers that in this case the analysis of evidence gathered for the purposes of the competitive assessment, which assesses the potentially significant constraints on the Parties’ behaviour, captures the competitive dynamics more fully than a formal market definition analysis or highly specific description of market definition.³⁷ The CMA notes that its assessment of the evidence for the purpose of its consideration of whether the Merger may be expected to result in an SLC does not depend on the precise definition of the relevant market.³⁸
47. However, the CMA considered that its competitive assessment of the horizontal unilateral effects and vertical effects of the Merger in particular may vary across different product segments. Accordingly, the remainder of this section specifically focuses on market definition in relation to post trade processing services.

Product scope

48. The CMA has considered whether the product market for post trade processing services should be segmented by asset class, type of trade, and type of service.

Post trade processing: Segmentation by asset class

49. The Parties submitted that trade processing services for different asset classes are likely to constitute separate markets because both the functionality provided by trade processing suppliers and regulatory

³⁴ [Merger Assessment Guidelines](#), paragraph 9.2.

³⁵ [Merger Assessment Guidelines](#), paragraph 9.1 and 9.4.

³⁶ [Merger Assessment Guidelines](#), paragraph 9.5.

³⁷ [Merger Assessment Guidelines](#), paragraph 9.2 and 9.5.

³⁸ [Merger Assessment Guidelines](#), paragraph 9.5.

requirements vary by asset class. The Parties further submitted that the individuals responsible for different asset classes within an organisation typically vary.

50. Many customers compartmentalize their trading services across different asset classes.³⁹ Furthermore, third parties indicated that the underlying mechanics of trade processing services differ across asset classes and clarified that there are differences in regulation across different asset classes.⁴⁰ As discussed in paragraph 85, the majority of third parties noted that the JV businesses do not currently overlap in terms of the asset classes for which they provide trade processing services.
51. Several internal documents provided by the Parties note that Traiana and MarkitSERV have different focuses in terms of the asset classes processed.⁴¹
52. For the reasons set out above, on a cautious basis, the CMA has considered different asset classes as constituting separate frames of reference. The CMA has focused its assessment on the FX asset class as this is the only segment where there is a meaningful overlap between the JV businesses.⁴²

Post trade processing: Segmentation by type of trade

53. The Parties submitted that bilateral and trilateral trades constitute separate markets. They submitted that typically PB customers, who engage in trilateral trades, do not have the credit required to engage in bilateral trades and would therefore not consider bilateral trades to be a substitute.⁴³ An example of these customers are hedge funds. Further, they stated that the suite of trade processing services involved in supporting trilateral trades are different from those involved in a bilateral trade.
54. Third parties confirmed that different customer groups engage in trilateral and bilateral trades, with hedge funds as the core customer for PB services.⁴⁴

³⁹ Some customers indicated that their trading services are compartmentalised across different classes, while some stated that trade processing services are centrally procured across asset classes

⁴⁰ A customer stated that the underlying PB give-up messaging mechanics are different across asset classes, and that these differences also apply when considering CCP connectivity. Another customer stated that for certain asset classes there are fewer trade processing service providers.

⁴¹ An internal document from CME states that [redacted] (Annex 9 to the FMN, slide 3), and another shows that [redacted] (Annex 8 to the FMN, slide 13). An internal document from IHSM showed that that MarkitSERV has coverage across rates, credit, equities and FX whereas Traiana only has coverage across equities and FX (Annex 4 to the FMN, slide 11).

⁴² See footnotes 70 and 72 and paragraph 80.

⁴³ The Parties submitted that the use of a PB allows for clients to place collateral with a single entity, rather than with many entities as part of many bilateral trades.

⁴⁴ A customer confirmed that hedge funds are the core customers of FX PB services. It further stated that although PB clients may be able to engage in many bilateral trades and not use the services of a PB, clients using a PB would have a higher degree of collateral and operating efficiency. It stated that a PB client would

Third parties have also indicated that there are differences between the trade processing services supporting trilateral and bilateral trades, driven by the need to transmit information between three trading parties for trilateral trades and differences in terms of the range of services needed for trilateral trades.

55. As discussed in paragraph 85, the majority of third parties stated that the JV businesses do not currently overlap in terms of the type of trade that they provide trade processing services for.
56. A customer confirmed that although it would be possible for PB clients to engage in many bilateral trades and not use the services of a PB, clients using a PB would have a higher degree of collateral and operating efficiency.
57. Several internal documents noted that Traiana and MarkitSERV have different focuses in terms of type of trade processed.⁴⁵
58. For the reasons set out above the CMA has considered the processing of bilateral and trilateral trades as constituting separate frames of reference.

Post trade processing: Segmentation by service type

59. The Parties submitted that post trade processing services can be segmented by the service type, including bilateral Notice of Execution (**NOE**) messaging; CCP connectivity, and prime brokerage give-up management (**PB give-up management**).
60. The JV businesses sell these services as stand-alone services, and many customers choose to purchase only some of these services. As discussed in paragraph 85, the majority of third parties have noted that broadly the JV businesses do not currently overlap in terms of the services provided.
61. Several internal documents have noted that Traiana and MarkitSERV have different focuses in terms of services provided.⁴⁶

typically only not use the services of a PB for trades that are particularly complex or sit outside the risk parameters that PBs are willing to take on. A competitor noted that clients would typically use FX PB services to gain access to certain credit lines and that its clients, mainly comprising of asset managers, do not require the use of these services.

⁴⁵ An internal document from IHS Markit states [REDACTED] (Annex 4 to the FMN, slide 3); another [REDACTED] (Annex 25 to the FMN, slide 5); and another refers to PB & bilateral customers as different market segments (Annex 18 to the FMN, slide 21).

⁴⁶ An internal document from IHS Markit distinguishes between the trade messaging and clearing connectivity services provided by the JV businesses (Annex 4 to the FMN, slide 14). An internal document from CME segments JVCo's services according to the service type provided, and identifies Traiana as the only CME Optimization business entity that overlaps with MarkitSERV (Annex 9 to the FMN, slide 5).

62. For the reasons set out above the CMA has considered different services as constituting separate frames of reference.

Post trade processing: Conclusion on product scope

63. For the reasons set out above, the CMA has considered the impact of the Merger in the following frames of reference for the purposes of the horizontal unilateral effects assessment:
- (a) the supply of PB give-up messaging services for trilateral FX trades;
 - (b) the supply of NOE messaging services for bilateral FX trades; and
 - (c) the supply of CCP connectivity services for bilateral FX trades.
64. The CMA has also considered the impact of the Merger in the supply of CCP connectivity services for bilateral FX trades for the purposes of the vertical effects assessment.⁴⁷

Geographic scope

65. The Parties submitted that the relevant geographic frame of reference is global on the basis that Parties and their competitors supply services to customers across the world, and that this would be consistent with precedents in similar markets.⁴⁸
66. The Parties submitted that Traiana's trade processing products do not need to be tailored to meet the requirements of local regulatory regimes, and that the core functionality of MarkitSERV's products is the same across all jurisdictions, although the specific information recorded against each trade varies across jurisdictions depending on local regulatory requirements.

⁴⁷ In relation to conglomerate effects, as noted above the CMA considered of the impact of the Merger on the foreclosure of the joint venture's competitors in margin optimisation and compression services.

⁴⁸ FMN, paragraph 13.89. The Parties referred to the CMA's decisions in the completed acquisition of ION Investment Group Limited / Broadway Technology Holdings LLC (ME/6888/20) and the acquisition by ION Investment Group Limited of Fidessa Group plc (ME/6745/18), which concern the market for derivative trading software systems. The CMA's decision in completed acquisition by Intercontinental Exchange Inc. (ICE) of Trayport Limited (Final report 17 October 2016), which considered energy derivatives trading activity across the European Union and used this as a proxy for trading activity in the UK. However, for this merger, the CMA did not find it necessary to conclude whether the appropriate geographic reference is national or EU-wide (or EEA-wide) because it considers it would not result in a materially different outcome of its assessment in this case.

67. Several internal documents note the Parties' global customer base, and do not make any reference to differences in asset classes, trade types or service type between different geographies.⁴⁹
68. The CMA has not seen any evidence that market conditions differ significantly between the UK and the rest of the world and in light of that, and the reasons set out above, the CMA has considered the impact of the Merger globally.

Conclusion on frame of reference

69. For the reasons set out above, the CMA has considered the impact of the Merger in the following frames of reference for the purposes of the horizontal unilateral effects assessment:
- (a) the global supply of PB give-up messaging services for trilateral FX trades;
 - (b) the global supply of NOE messaging services for bilateral FX trades; and
 - (c) the global supply of CCP connectivity services for bilateral FX trades.
70. The CMA has also considered the impact of the Merger in the global supply of CCP connectivity services for bilateral FX trades for the purposes of the vertical effects assessment.⁵⁰

Competitive assessment

Horizontal unilateral effects

71. Unilateral effects can arise in a horizontal merger when one firm merges with a competitor that previously provided a competitive constraint, allowing the merged firm profitably to raise prices or to degrade non-price aspects of its competitive offering (such as quality, range, service and innovation) on its own and without needing to coordinate with its rivals.⁵¹ Horizontal unilateral effects are more likely when the merging parties are close competitors.⁵² The

⁴⁹ An internal document from IHSM notes that Traiana has 'global reach' with a 'well develop[ed] global presence for PB', and that MarkitSERV serves 7 countries (Annex 4 to the FMN, slide 11 and 15). Another notes that IHS Markit's Centralized Platforms service is global (Annex 18 to the FMN, slide 6). An internal document from CME notes that CME Optimization's business has [X] % of revenue from EMEA, [X] % from Americas, and [X] % from Asia Pacific' (Annex 7 to the FMN, slide 3).

⁵⁰ In relation to conglomerate effects, the CMA also considered of the impact of the Merger on a global basis.

⁵¹ [Merger Assessment Guidelines](#), paragraph 4.1.

⁵² [Merger Assessment Guidelines](#), paragraph 4.8.

CMA assessed whether it is or may be the case that the Merger may be expected to result in an SLC in relation to horizontal unilateral effects in:

- (a) the supply of PB give-up messaging services for trilateral FX trades;
- (b) the supply of NOE messaging services for bilateral FX trades; and
- (c) the supply of CCP connectivity services for bilateral FX trades.⁵³

Background

72. The functionality of the services contributed to JVCo is summarised in Table 1.

Table 1: The OTC trade processing and reconciliation services provided by the Parties

| | <i>MarkitSERV</i> | <i>Traiana</i> | <i>TriOptima</i> | <i>Reset</i> |
|--------------------------------------|-------------------|----------------|------------------|--------------|
| Trade Processing | x | x | | |
| Credit Risk Management | | x | | |
| FX Retail Aggregation | | x | | |
| Payment and Settlement Optimisation | | x | | |
| Portfolio compression | | | x | |
| Reconciliation and Margin Management | | | x | |
| Portfolio rebalancing | | | | x |

Source: FMN, Table 13.1.

73. As shown in Table 1, the only services being contributed to JVCo which give rise to a direct horizontal overlap in terms of service functionality are MarkitSERV and Traiana. For the purpose of the analysis of horizontal unilateral effects, these services are described below.

MarkitSERV

74. MarkitSERV's core service sends and receives details of executed trades to the trading parties, the electronic trading venue, the CCP, and the trade repository. MarkitSERV provides its services through two main product lines: Centralised Platforms and FX Enterprise. These products are supplied as standalone products.

- *Centralised Platforms*

75. Centralised Platforms ([X]%) of MarkitSERV's revenue) provides trade processing and connectivity for OTC derivatives for around 2,500 customers, including 17 clearing houses.

⁵³ For completeness, S&P Global's proposed acquisition of IHSM does not give rise to any overlaps between S&P Global and the JV businesses.

76. Centralised Platforms includes two main products:
- (a) Trade Confirmation and Connectivity services offer trading venue and CCP connectivity,⁵⁴ trade confirmation and reporting⁵⁵ through MarkitSERV's MarkitWire,⁵⁶ DSMatch, and TradeServ services.⁵⁷
 - (b) Trade Manager offers buy-side participants electronic confirmation, clearing and paper trade processing services.
77. MarkitSERV also offers FX Broker Affirmation (**FXBA**), a service that centralises FX trade affirmations and NOE messaging, and enables participants to accept or reject trades which have been executed by brokers.
- *FX Enterprise*
78. FX Enterprise ([X] % of MarkitSERV's revenue) consists of two services for FX trading and post trade workflows.
- (a) DealHub Trading Technology enables customers to combine broad market connectivity with tailored execution workflows, messaging formats and pricing, that are integrated into clients' existing systems.
 - (b) Enterprise Post Trade services provides a platform for the provision of Straight-Through Processing (**STP**⁵⁸) and post trade automation.⁵⁹ Its Trade STP service supports [X] customers that use the NOE Messaging services for both PB and bilateral trades and provides PB give-up messaging services for fewer than [X] customers.

Traiana

79. Traiana offers credit risk management services⁶⁰ and trade processing services. Traiana's trade processing services are provided through:

⁵⁴ MarkitSERV provides CCP Connectivity for credit, FX and rates. Services that send (i) trades executed on a venue and (ii) bilateral trades that have been confirmed, to a CCP are called CCP Connectivity services.

⁵⁵ MarkitSERV fulfils regulatory reporting obligations for cleared and noncleared OTC transactions, including EMIR and Dodd-Frank reporting requirements.

⁵⁶ MarkitWire provides confirmation, reporting and clearing services in respect of rates and equities.

⁵⁷ DSMatch and TradeServ provide FX and credit trade confirmation, clearing and regulatory reporting services. Services provided via DSMatch are being progressively transferred to TradeSERV.

⁵⁸ STP processing is an automated process done purely through electronic transfers with no manual intervention involved.

⁵⁹ This includes bespoke post trade solutions, business intelligence, real-time overviews, trade archives, rules and automated processing, downstream integration and client trade publishing.

⁶⁰ Through its Harmony LimitHub, Harmony CreditLink, and Designation Notice Manager products. These are not described further due to the lack of horizontal overlap with MarkitSERV.

- (a) the Message Centre, a centralised trade management tool which enables trading participants to manage FX and derivative transactions and give-up activity in relation to PB trades.
- (b) Trade execution notifications, which allow clients to book trades accurately by receiving trade execution notifications.
- (c) Harmony ClientLink provides matching, allocations and confirmations to trading participants.
- (d) CCP Connect provides clearing connectivity for clearing houses, swap execution facilities and multilateral trading facilities mainly with respect to FX and exchange-traded derivatives.⁶¹
- (e) Trade Relationship Manager targets PBs and provides an STP solution for managing the various stages of FX PB activities: deal capture, matching, tri-party limits management, allocations processing, status reporting, billing and back-to-back booking.

Horizontal unilateral effects in the supply of PB give-up messaging services for trilateral FX trades

80. The FX PB give-up messaging service comprises notifications provided to customers once a trade is executed. The messaging service represents one part of the PB give-up management process.⁶² The PB give-up messages include details of a trade executed between a client and an executing broker which are subsequently given-up to the PB. MarkitSERV provides PB give-up messaging services through its TradeSTP product, and Traiana provides these services through its Message Centre product. As explained in paragraph 78, MarkitSERV provides PB give-up messaging services for fewer than [X] customers. The JV businesses overlap only with respect to PB give-up messaging for the FX asset class.

⁶¹ Traiana also provides CCP connectivity for rates and CDS, generating revenues of only around [X] annually (ie, approximately [0-5]% of its total revenue). Traiana's CCP connectivity services are provided in two use cases. The first use case is for the submission of bunched order allocations to CCPs. Use of this service is [X]. The second use case is to process and perform client limit checking of voice trades post CCP submission. As these do not relate to sending executed trades to a clearing house to be cleared, they have not been considered as part of the analysis of horizontal effects of the supply of CCP connectivity services. FMN, paragraph 23(c).

⁶² The PB give-up management services include processing give-up agreements, tri-party documentation management, credit limit management and aggregation.

Shares of Supply

81. The Parties submitted that JVCo's combined share of supply⁶³ in PB give-up management services for trilateral FX trades in 2019 was [80-90]%, with an increment of [0-10]%.⁶⁴ The estimated shares of supply of the JV businesses are shown in Table 2.

Table 2: Share of PB give-up management services globally per day in 2019

| Competitor | # of trades | % of trades |
|--|----------------------|--------------------|
| MarkitSERV | c. [REDACTED] | c. [0-5]% |
| Traiana | c. [REDACTED] | c. [80-90]% |
| Combined | c. [REDACTED] | c. [80-90]% |
| Trading platforms (incl. EBS, Refinitiv Matching, Hotspot, FX All, Currenex) | | [10-15]% |
| Others (incl. Access, FinTech, Cobalt, TransFICC) | | [0-5]% |
| Total | c. 400,000 | 100% |

Source: FMN, Table 14.2.

Note: The data derives from BIS OTC Derivatives Data. Traiana's market share is based on its share of the BIS 2019 daily average notional value of FX PB trades. This value market share is used to estimate the market size in terms of number of trades (this assumes Traiana's market share in terms of value of PB trades is equal to its market share in terms of number of PB trades) which is used to estimate MarkitSERV's market share (BIS does not report data on the volume or average value of PB trades). Competitor market shares have been sourced from management estimates.

82. Although the CMA was unable to fully verify these shares of supply with third parties, as described below third parties have confirmed that Traiana is one of the only options for PB give-up messaging services and that they do not consider MarkitSERV to be a competitor in this market. The CMA has given limited weight to the shares of supply presented by the Parties for the purpose of its assessment as it has not been able to confirm these shares and, in any event, considers that the evidence below on closeness of competition is more relevant to its assessment. While the CMA has not placed significant weight on these market shares, it is clear from the Parties' submissions and from the CMA's market testing that Traiana has a substantial share of PB give-up services.

⁶³ The Parties have submitted shares of supply on the basis of the estimated number of trades executed in 2019. The Parties have confirmed that the market share estimates would not have differed significantly in respect of the years 2018, 2019, or 2020. (Parties' submission of 4 June 2021 (Q5) submitted in response to the CMA section 109 notice dated 21 June 2021). The Parties submit that the provision of share of supply estimates based on volume is appropriate because (i) they are not aware of any estimates of the revenues generated from the supply of specific trade processing services (ie segmented by asset class or type of service) (ii) it may be possible to estimate share of supply based on the notional value of trades, but this would not reflect the Parties' market positions. (Annex 103 to the FMN, paragraphs 2.1 (c) and 2.1 (d)).

⁶⁴ The JV businesses' combined shares of supply in the wider market for all messaging services (including both bilateral NOE messaging services and PB give-up management services for trilateral FX trades) is [10-20]%, with an increment of [0-10]% (FMN, Table 14.3). The Parties submitted that across all asset classes and types of services, in 2019 MarkitSERV's revenue was \$[REDACTED] and Traiana's was \$[REDACTED], which was very likely to be less than [20-30]% of the trade processing market overall (FMN, paragraph 14.27).

Closeness of competition

83. The Parties submitted that Traiana provides the full suite of FX PB give-up management services, which includes give-up messaging alongside a number of other services. The Parties clarified that MarkitSERV only provides PB give-up messaging in relation to a small volume of trades for fewer than 13 customers who either (i) use MarkitSERV's messaging services for both PB and bilateral trades, or (ii) use a legacy PB give-up messaging service by MarkitSERV that is no longer actively marketed, or (iii) use MarkitSERV to avoid the give-up process.
84. When considering Traiana's and MarkitSERV's revenues, the two overlap with respect to trade processing for interest rate, FX, and equity trades. The main overlap between the Parties is with respect to bilateral FX trades. Considering only trilateral FX trades, in 2019 Traiana's worldwide revenue was approximately £[] compared to MarkitSERV's £[].
85. Evidence from third parties supported the Parties' submission that the JV businesses are differentiated. The majority of customers and competitors stated that the JV businesses do not currently overlap in terms of services offered and customer groups served and that they do not have concerns with respect to the horizontal overlap between the JV businesses. Furthermore, no third party identified concerns with respect to PB give-up messaging services.
86. While the CMA identified some CME internal documents that referred to IHS Markit as a competitor, these documents addressed a broader range of services, not FX PB give-up messaging specifically, and also identified other competitors such as Refinitiv, FIS Sungard, Cobalt and Omgeo. The CMA does not consider that these documents suggest that there is any significant competition between the Parties with respect to FX PB give-up messaging services.⁶⁵
87. On the basis of the above evidence, the CMA considers that the JV businesses are not close competitors, and there is in fact no material competitive interaction between the Parties with respect to FX PB give-up services.

⁶⁵ Annex 34 to the FMN, slide 6. Another internal document indicates that IHS Markit is an alternative to Traiana with respect to the provision affirmation services for interest rates and CDS (Annex 30 to the FMN, slide 10). This does not refer, however, to FX.

Competitive constraints

88. The Parties identified a number of competitors in the supply of PB give-up messaging services including Refinitiv, ION, and TransFICC.⁶⁶ The Parties further submitted that self-supply is an alternative to Traiana.
89. The CMA's market investigation found that there are few alternatives to Traiana. Most competitors identified by the Parties stated that they do not consider themselves to be competing with the JV businesses in relation to PB give-up messaging services.⁶⁷
90. A number of customers stated that there are few alternatives to Traiana for the provision of PB give-up messaging services, as no other competitors have the same network of connections that Traiana has built up. No third-party respondents to the CMA's market investigation identified MarkitSERV as an alternative to Traiana and, as above, the CMA has not identified evidence suggesting that MarkitSERV exerts any material constraint in this market.
91. To the extent customers identified alternatives to Traiana, Cobalt was the most frequently mentioned alternative. Some customers use Cobalt as an alternative to Traiana, and some noted [REDACTED]. One third party also described Cobalt as a "reasonably credible new entrant" in the PB give-up managing segment (including messaging).
92. Some customers also told the CMA that they self-supplied some of the services that could otherwise be purchased from Traiana.⁶⁸
93. On the basis of the above evidence, the CMA believes Traiana faces limited competition in the supply of PB give-up messaging services for trilateral FX trades. To the extent Traiana does face competition in this area, that competition comes from third parties such as Cobalt, or self-supply by customers and not at least to any material extent from MarkitServ.

Conclusion for horizontal unilateral effects in the supply of PB give-up messaging services for trilateral FX trades

94. For the reasons set out above, the CMA believes that MarkitSERV is not a competitive constraint on Traiana for the supply of PB give-up messaging

⁶⁶ FMN, Tables 14.2 and 15.2.

⁶⁷ [REDACTED] stated that it does not provide any PB give-up related services. [REDACTED] and [REDACTED] stated that they do not compete with the JV businesses. Finally, [REDACTED].

⁶⁸ A customer stated that they have built bespoke connections for a small number of high-volume clients instead of using Traiana, and stated it believes [REDACTED]. It stated that the benefits of establishing direct connections are cost savings and the flexibility to add more trade features between the clients and the PB. Three customers stated that they undertake some services that could otherwise be purchased from Traiana.

services for trilateral FX trades.⁶⁹ Accordingly, the CMA believes that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in relation to the supply of supply of PB give-up messaging services for trilateral FX trades.

Horizontal unilateral effects in the supply of NOE messaging services for bilateral FX trades

95. NOE messaging services for bilateral FX trades represent the notices of execution from brokers, electronic trading venues and liquidity providers to customers, and in some cases the return acknowledgement of these messages that are taking place prior to the trade entering the customer’s risk management system (ie a system used to manage the customer’s exposure to losses or risk and to ensure that regulatory requirements are satisfied). The bilateral NOE messages contain details of a trade executed between two counterparties.
96. MarkitSERV provides NOE messaging services for bilateral FX trades through its TradeSTP, FXBA and DealHub products⁷⁰ whilst Traiana does so through ClientLink.

Shares of Supply

97. The Parties submitted that the JV businesses’ combined share of supply in NOE messaging for bilateral FX trades in 2019 was approximately [0-10]%, with an increment of [0-10]%.⁷¹ The estimated shares of supply of the JV businesses are shown in Table 3.

Table 3: Share of FX NOE messaging services globally per day in 2019

| <i>Competitor</i> | <i># of trades</i> | <i>% of trades</i> |
|---|--------------------|--------------------|
| MarkitSERV | c. [✂] | c. [5-10]% |
| Traiana | c. [✂] | c. [0-5]% |
| Combined | c. [✂] | c. [5-10]% |
| Refinitiv | | [40-50]% |
| Trading platforms (incl. EBS, Refinitiv Matching, Hotspot, FX All, Currenex) | | [20-30]% |
| Aggregators/OMS providers (incl. FlexTrade, SmartTrade, Charles River, Broadridge, ION) | | [10-20]% |
| Risk Management Systems (incl. Murex, Openlink, Finastra) | | [0-10]% |
| Total | c. 6m | 100% |

⁶⁹ Additionally, they face some limited competitive constraints from new start-ups and the possibility for customers to self-supply.

⁷⁰ MarkitSERV provides bilateral NOE messaging across credit, equities, FX and rates whilst Traiana provides NOE messaging for FX, Cash Equities and ETD. The JV businesses therefore overlap only in the provision of NOE messaging for FX trades.

⁷¹ If NOE messaging for FX was considered to include both bilateral and trilateral trades, the Parties estimated that the JV businesses’ combined shares of supply in 2019 were [10-20]%, with an increment of [0-10]%. (FMN, Table 14.3).

Source: FMN, Table 14.1. The data derives from BIS OTC Derivatives Data; Bank of England Foreign exchange and OTC derivatives markets turnover survey; and Euromoney Foreign Exchange Survey. The market size is estimated based on the BIS 2019 daily average notional value of FX trades divided by the average size of a trade (as reported by the Bank of England). Competitor market shares have been sourced from management estimates.

98. The CMA was unable to fully verify these shares of supply with third parties and, as a result, the CMA has given limited weight to the shares of supply presented by the Parties for the purposes of its assessment. The CMA considers, in any event, that the evidence below on closeness of competition is more relevant to its assessment.

Closeness of competition

99. The Parties submitted that in relation to NOE messaging for bilateral FX trades the JV businesses do not compete for the same customers. Most of Traiana's bilateral NOE messaging customers are [REDACTED]. Therefore, Traiana's client base for bilateral services is predominantly [REDACTED] served by MarkitSERV. The Parties also submitted that Traiana has very limited activities in relation to bilateral NOE messaging, with the total volume and revenue from these services accounting for a small proportion of Traiana's overall volume and revenues ([REDACTED] of total Traiana revenues; see Table 3 for the volume estimates).
100. The lack of overlap between the JV businesses in the supply of NOE messaging services for bilateral FX trades has been confirmed by third parties. As explained in paragraph 85, the majority of third parties considered there is no overlap between the JV businesses and did not raise any horizontal concerns. Further, a competitor that responded to the CMA clarified that it did not believe the CME Optimization Business competed in the supply of NOE messaging services.

Competitive constraints

101. The Parties identified a number of competitors for FX NOE messaging, the largest being LSEG (Refinitiv). One such third party stated that the messaging services offered by MarkitSERV and LSEG (Refinitiv) are very similar, and that they service the same asset classes. The evidence gathered by the CMA suggests that LSEG (Refinitiv) is the largest provider of such services and is the key competitive constraint on MarkitSERV. The CMA found that competitive constraints in this market are more limited than was suggested by the Parties: five third parties identified by the Parties as competitors in the provision of NOE messaging services indicated that they either do not provide NOE messaging services, or they do not believe that they compete with MarkitSERV.

Conclusion for horizontal unilateral effects in the supply of NOE messaging services for bilateral FX trades

102. Based on the available evidence, the CMA believes that, due to Traiana's limited activity with respect to the supply of NOE messaging services, and the differences in the Parties' offerings, Traiana is not a competitive constraint on MarkitSERV in this market. Accordingly, although the CMA has found that there are fewer competitive constraints in this market than were suggested by the Parties, the CMA believes that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in relation to the supply of NOE messaging services for bilateral FX trades.

Horizontal unilateral effects in the supply of CCP connectivity services for bilateral FX trades

103. CCP connectivity services send (i) trades executed on an electronic trading venue and (ii) bilateral trades that have been confirmed to a CCP. The JV businesses overlap only in the provision of CCP connectivity services for FX.⁷² Traiana provides CCP connectivity services for bilateral FX trades through CCP Connect whilst MarkitSERV does so through TradeSERV.

Shares of Supply

104. The Parties submitted that the JV businesses' combined share of supply for OTC FX CCP connectivity in 2019 was [90-100]% but that this consisted almost entirely of MarkitSERV's volume with a very small increment. The estimated shares of supply of the JV businesses are shown in Table 4.

Table 4: Parties' estimated share of OTC FX CCP connectivity in 2019

| <i>Company</i> | <i># of trades</i> | <i>% of trades</i> |
|---------------------------|--------------------|--------------------|
| MarkitSERV | c. [✂] | [90-100]% |
| Traiana | <[✂] | [0-5] % |
| Combined | c. [✂] | [90-100]% |
| Bloomberg | | [0-5]% |
| State Street (FX Connect) | | [0-5]% |
| Total | c. 1.3 million | 100% |

Source: FMN, Table 14.3.

⁷² MarkitSERV provides CCP connectivity for FX, rates, and credit derivatives. Traiana provides CCP connectivity for FX, rates, credit default swaps, and cash equities. There is no overlap between the JV businesses in relation to CCP connectivity for cash equity trades. Traiana's CCP connectivity services for rates and credit default swaps are provided in two use cases that do not relate to sending executed trades to a clearing house to be cleared, therefore do not overlap with MarkitSERV's services in relation to these asset classes.

105. Although the CMA was unable to fully verify these shares of supply with third parties, as described in paragraphs 109 and 111 these estimates broadly align with third-party submissions that Bloomberg and State Street (FX Connect) are relatively small competitors.

Closeness of competition

106. The Parties submitted that the only area of overlap in relation to the supply of CCP connectivity services is for FX non-deliverable forwards. The Parties submitted that MarkitSERV provides CCP connectivity only in relation to FX bilateral trades for three categories of FX derivatives: non-deliverable forwards, vanilla foreign exchange options, and non-deliverable options. Traiana provides bilateral FX CCP connectivity for non-deliverable forwards, deliverable forwards and deliverable swaps.
107. As explained in paragraph 85, the majority of third parties considered there is no overlap between the JV businesses and did not raise any horizontal concerns. Third parties told the CMA that Traiana is focused on the PB segment of the market, ie trilateral trades.

Competitive constraints

108. The Parties submitted that there are a number of other providers of FX CCP connectivity services, including Bloomberg and State Street (FXConnect). The Parties also argued the connectivity services provided by FX trading venues could be used instead of MarkitSERV.
109. Third parties confirmed that Bloomberg and FX trading venues can be used instead of MarkitSERV's CCP connectivity services.⁷³
110. Bloomberg offers the Bloomberg VCON service, and provides CCP connectivity to a number of CCPs for trades which are not executed on a trading venue. Bloomberg also owns an electronic trading venue that can send derivative trades directly to the CCP.⁷⁴ Some third parties told the CMA that Bloomberg's products are substitutes for MarkitSERV's CCP connectivity service.
111. State Street (FXConnect) operates the FXConnect platform, which is a platform for FX trading, and TradeNeXus, which is the post trade processing platform that predominantly processes trades executed on the FX Connect

⁷³ A customer stated that an alternative to MarkitWire's CCP clearing service is the direct clearing service offered by Bloomberg and Tradeweb.

⁷⁴ This was confirmed by a competitor.

platform. TradeNeXus offers CCP connectivity to LCH only, [§]. A third party explained that LCH has the widest offering and clears 99% of the FX cleared flow and that State Street does not compete with MarkitSERV, as the two companies focus on different participants in the FX market. TradeNeXus focuses on asset manager-to-bank FX flow while MarkitSERV focuses on dealer-to-dealer flow.

Conclusion for horizontal unilateral effects in the supply of CCP connectivity services for bilateral FX trades

112. Based on the available evidence, the CMA believes that, due to the small increment brought by Traiana, the JV businesses do not exert a competitive constraint on each other in the supply of CCP connectivity services. Furthermore, Bloomberg and FX trading venues exert a remaining competitive constraint on MarkitSERV. Accordingly, the CMA believes that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in relation to the supply of supply of CCP connectivity services for bilateral FX trades.

Vertical effects

113. Vertical effects may arise when a merger involves firms at different levels of the supply chain, for example, a merger between an upstream supplier and a downstream customer or a downstream competitor of the supplier's customers.⁷⁵
114. If a trade is executed on an electronic trading venue, it could be submitted directly to the CCP by the electronic trading venue,⁷⁶ or submitted to the CCP by a CCP connectivity provider. Trades not executed on an electronic trading venue could only be sent to a CCP using a CCP connectivity provider.⁷⁷
115. CME operates CME Clearing, which offers clearing services for interest rate and FX OTC derivative trades.⁷⁸ MarkitSERV offers CCP connectivity for

⁷⁵ [Merger Assessment Guidelines](#), paragraph 7.1

⁷⁶ Such as the electronic trading venue provided by Bloomberg. Electronic trading venues ensure interoperability with CCP connectivity providers to accommodate customer preferences. Bloomberg's electronic trading venue is compatible with MarkitWire [§].

⁷⁷ Parties' submission of 4 June 2021 (Q11), submitted in response to the CMA section 109 notice dated 21 June 2021.

⁷⁸ In particular, it clears OTC interest rate swaps and OTC cash-settled FX, 11 non-deliverable forwards, 26 cash-settled forwards and 7 cash-settled options.

three OTC FX derivatives⁷⁹ and currently connects to three CCPs in this regard: CME Clearing, HKEx, and LCH ForexClear (**LCH**).⁸⁰

116. The CMA has investigated whether the Merger could result in the foreclosure of rival CCPs, as a result of MarkitSERV favouring CME Clearing when providing CCP connectivity services for FX trades.⁸¹ The CMA first considered the ability of JVCo to foreclose rivals.⁸²

Ability

117. A small number of third parties told the CMA that MarkitSERV may foreclose CCPs by engaging in foreclosure practices such as price discrimination or a periodic degradation of connectivity quality.
118. In order to assess whether, post-Merger, JVCo would have the ability to foreclose rival CCPs, the CMA has considered whether there are alternatives to MarkitSERV's CCP connectivity services for FX trades and the extent to which CCP connectivity services are a relevant factor considered by market participants when selecting a CCP.
- *Alternative CCP connectivity providers*
119. The Parties submitted that there are a number of other providers of FX CCP Connectivity solutions, including Bloomberg VCON, and that the connectivity

⁷⁹ Namely, NDFs, FXOs, and NDOs.

⁸⁰ MarkitSERV also provides CCP connectivity for interest rates. The CMA has not considered whether the Merger gives rise to vertical effects as a result of foreclosure of CCPs through the supply of CCP connectivity services for interest rates trades. This is because for all assets except FX, clients choose a CCP when they quote prices (ie, the market participants quote bids and offer prices by reference to settlement at particular CCP). Accordingly, the decision as to which CCP to use is made at the point of execution, before the trade is submitted to MarkitSERV or any alternative trade processing service, and the CMA considers there to be no significant ability for the Parties to engage in foreclosure.

⁸¹ The CMA has also assessed the possibility of vertical effects arising from certain other vertical links between the Parties and the JV businesses. First, MarkitSERV provides connectivity to CME's FX OTC trading platform EBS. However, the link is de minimis as only around [X] MarkitSERV customers use this service. Second, IHSM provides reference data services for market participants of credit derivative transactions in the form of RED identifiers, which are used by TriOptima and Traiana to support their respective CDS post trade services. The CMA considers that there is no risk of input foreclosure as Traiana currently has no competitors in credit risk management services. Furthermore, IHSM distributes RED identifiers across the CDS market participants and it would have no incentives to change this strategy (Traiana represents [X]% of all RED customers). In relation to the portfolio compression and portfolio reconciliation services, RED identifiers are not an essential input because many market participants do not use them. In terms of margin management and optimisation services, foreclosure is unlikely given CME has shares below [25-30]% (FMN, para 20.92, Parties' submission of 21 June 2021 (Q3) submitted in response to the CMA section 109 dated 21 June 2021). For completeness, S&P Global's proposed acquisition of IHSM creates vertical links between S&P Global and the JV businesses. There are [X] contracts in place between S&P and CME Optimization Business: [X]. [X] and as such they are not considered further in the competitive assessment.

⁸² The CMA has also investigated the possibility of CME Clearing foreclosing other connectivity providers. The CMA has received two third-party concerns. The Parties estimate that CME Clearing accounts for less than [0-5]% of global OTC FX clearing and around [5-10]% of global OTC rates clearing, and as such the CMA believes that CME Clearing would not does not have market power in these segments and there is therefore no realistic prospect of foreclosure.

services provided by electronic trading venues such as Bloomberg or State Street (FXConnect) could be used instead of MarkitSERV.⁸³

120. Table 4 above shows the JV businesses' estimated share of supply in OTC FX CCP connectivity. It estimates that MarkitSERV has a share of supply greater than [90-100]%, followed by Bloomberg with between 0 - 5%, State Street (FXConnect) with between 0 - 5%, and Traiana with a share of less than [0-5]%.
 121. Some customers identified the submission of trades to CCPs through electronic trading venues and Bloomberg's VCON service as alternatives to MarkitSERV's CCP connectivity service. However, some third parties have noted that the choice about how to connect to a CCP is 'sticky' in that once a particular method is chosen, then it would take an 'event' to change that.⁸⁴
 122. Based on the available evidence, the CMA believes that there is some substitutability between Bloomberg VCON and MarkitSERV's CCP connectivity services for off-venue cleared trades, and that Bloomberg and State Street (FXConnect)'s trade venue connectivity are alternatives to MarkitSERV's CCP connectivity services for trades executed on an electronic trading venue.
 - *Relative importance of CCP connectivity provider in the choice of CCP*
123. The Parties submitted that JVCo would have no ability to foreclose rival CCPs because customers do not base decisions about where to clear trades upon what post trade processing services they are using. The Parties further indicated that, instead, customers clear trades at the CCP that provides the optimal venue at which to clear their trades.
124. Third parties submitted that customers have to choose a CCP that offers clearing services for the asset class and type of derivative that they want to clear but that beyond this requirement, the most important consideration is the size of the liquidity pool at a CCP. Other criteria include price, portfolio margin benefits, the primary clearing currency, and any ancillary services offered by the CCP.⁸⁵ No third parties indicated that the CCP connectivity provider is a

⁸³ FMN, paragraph 20.70 (a). In the Parties' submission of 21 June 2021 (Q7) submitted in response to the CMA section 109 dated 21 June 2021. The Parties explained CCP connectivity competitors include (i) trading venues which only provide connectivity in relation to trades executed on their electronic trading venue; (ii) Bloomberg, which provides connectivity in relation to trades executed on its electronic trading venue; Bloomberg's VCON and (iii) ICE Link that provides connectivity in relation to ICE clearing only.

⁸⁴ The Parties submitted there have been customers that switched from MarkitSERV to Bloomberg VCON. (Parties' submission of 4 June 2021 (Q11) submitted in response to the CMA section 109 notice dated 21 June 2021).

⁸⁵ Such as compression services.

relevant factor, and a number explicitly stated that the choice of CCP is not significantly influenced by the provider of CCP connectivity services.⁸⁶

125. These submissions are supported by market commentary which indicates that the clearing market is characterised by significant network effects, as the more participants clear the same product in the same CCP, the greater the liquidity of the products cleared.⁸⁷ In 2020, [X] % of the FX trades processed by MarkitSERV were sent to LCH, [X] % to CME Clearing, and [X] HkEx.⁸⁸

Conclusion on foreclosure of CCPs through the supply of CCP connectivity services for bilateral FX trades

126. For the reasons set out above, the CMA believes that MarkitSERV would not have the ability to foreclose rival CCPs through a degradation of its CCP connectivity services. Bloomberg VCON is an alternative to MarkitSERV's CCP connectivity services for off-venue cleared trades, and Bloomberg and State Street (FXConnect) are alternatives to on-venue cleared trades. Further, the choice of a CCP is significantly more important than the choice of the CCP connectivity provider, which would make it difficult for a CCP connectivity provider to drive customer switching, and LCH has a significant advantage in being able to provide liquidity for FX trades. 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 CCP connectivity services.
127. Given the lack of ability for the Parties to pursue a foreclosure strategy, the CMA has not considered the incentives of the Parties to do so or the effect that any foreclosure could have on competition.

⁸⁶ A third party stated that fundamentally, a client's decision about which CCP to use is driven more by the 'economics' of clearing as opposed to the experience of using a CCP connectivity provider. A customer confirmed that the CCP connectivity service has never come up as a consideration when a client makes its decision about which CCP to use. However the customer could not categorically confirm it was not a client consideration. Another customer clarified that their clients would not select a CCP based on the CCP connectivity provider.

⁸⁷ There are other network effects, because the more participants clear the same product in the same CCP, the greater the compression opportunities and the greater the opportunity for common counterparties to remove counterparty risk (BIS (2019), The evolution of OTC interest rate derivatives markets, 8 December 2019, page 77). This was supported by a customer, who noted that, although it is possible to switch between CCPs can happen, large-scale liquidity shifts are not common – e.g. Eurex has sought to attract liquidity from LCH for certain asset classes with a CCP-switching service. However the customer believes this was not particularly successful.

⁸⁸ LCH together with Bank of America, Barclays, BNP Paribas, Citigroup Global Markets, Credit Suisse AG, DB UK Limited, Goldman Sachs, HSBC, JP Morgan, Morgan Stanley, RBS, Société Générale, UBS and Nomura approached MarkitSERV in 2010 to help to build a solution for the FX market. LCH appears therefore to have been responsible for increasing MarkitSERV's capabilities in FX CCP connectivity. This explains why MarkitSERV now processes [X] % of the trades cleared by [X] (Parties' submission of 4 June 2021 (Q13) submitted in response to the CMA section 109 notice dated 21 June 2021).

Conglomerate Effects

128. Conglomerate effects may arise in mergers of firms that are active in the supply of goods or services that do not form part of the same market but which are nevertheless related in some way. For example, this may be because their products target similar customers or may be purchased alongside each other. These mergers raise the possibility that competition in one market may be indirectly affected by actions in the other.⁸⁹
129. A common concern is that conglomerate mergers may result in the foreclosure of current or potential rivals – that the merged entity will be able to use its position in one market to harm the competitiveness of its rivals in the other. This would weaken the constraints that the merged entity faces and as a result, harm competition and therefore customers.⁹⁰
130. In the present case, the CMA has considered whether the Merger could result in JVCo foreclosing rivals, through:
- (a) a bundling or tying strategy that includes MarkitSERV’s connectivity and TriOptima’s margin optimisation and compression services;
 - (b) MarkitSERV discriminating against TriOptima’s competitors by preventing or degrading the provision of connectivity services;
 - (c) MarkitSERV sharing its trade data on a preferential basis with TriOptima.
131. The CMA has assessed the theories of harm listed above by analysing (a) the ability of the merged entity to foreclose competitors, (b) the incentive of it to do so, and (c) the overall effect of the strategy on competition.⁹¹ These are discussed below.⁹²

⁸⁹ [Merger Assessment Guidelines](#), paragraph 7.1(b).

⁹⁰ [Merger Assessment Guidelines](#), paragraph 7.2.

⁹¹ [Merger Assessment Guidelines](#), paragraph 7.32.

⁹² The Parties submitted that the markets they operate in are characterized by ‘open access requirements’ and an expectation that all service providers work in an open ecosystem. The Parties further argued that the JV businesses generate revenue based on the ability to connect broadly to market participants such as trading venues, CCPs and trade processors (Parties’ response to RFI 10 dated 25 June 2021). Some of the Parties’ internal documents have broadly confirmed the Parties’ submissions. An IHSM internal document indicates that the company adopted an open access model, and that this would not change post-Merger. MarkitSERV’s competitive advantages reside among other in [§§] and [§§] (Annex 65 to the FMN). Another IHSM internal document that discusses synergies indicates: [§§] (Annex 52 to the FMN). Furthermore, [Principle 8 of the FCA Handbook](#) requires a firm to manage conflicts of interest fairly, both between itself and its customers and between a customer and another client. The CMA recognizes that the ‘open access requirement’ may act as a deterrent for JVCo engaging in any conglomerate strategy aimed at foreclosure. However, in the absence of any formal obligation to provide open access, the CMA has assessed each theory of harm on the assumption that JVCo would not feel compelled to maintain the status quo of the ecosystem.

Background

132. Apart from Traiana, the CME Optimization Business also consist of TriOptima and Reset. TriOptima and Reset do not overlap with MarkiSERV.⁹³

TriOptima

133. TriOptima consists of three core services: compression (through triReduce), portfolio reconciliation (through triResolve) and margin optimisation (through triResolve, triBalance, triCalculate, as well as Initial Margin Exposure Manager (**IMEM**)).
- *triReduce*
134. triReduce is a web-based service that provides multilateral compression services for cleared and uncleared interest rate swaps in 28 currencies, cross currency swaps, credit default swaps, FX forwards and commodity swaps.
135. triReduce schedules specific compression events by product (eg US dollar denominated interest rate derivatives cleared at CME). Participants submit an existing portfolio of trades including the mark-to-market and risk values that they wish to compress together within a set of tolerances. triReduce then calculates a market risk neutral unwind proposal that reduces overall notional exposure within the risk tolerances provided. The proposal must be accepted by all parties before it becomes legally binding.⁹⁴
136. triReduce involves terminating existing trades as part of generating a new portfolio of trades. For cleared trades, triReduce terminates trades with the CCP directly. The CCP may then send the trade to MarkitSERV for processing or, in a small number of cases, triReduce may send the trade directly to MarkitSERV for termination. Customers can choose not to send the trade to MarkitSERV at all. For uncleared rates trades, triReduce sends the termination to MarkitSERV. Customers can opt for the trade not to be sent to MarkitSERV.

⁹³ Traiana also provides certain services that do not overlap with MarkitSERV such as FX retail aggregation services (NetLink), payment and settlement optimisation services (ClientLink) and credit risk management services (Harmony LimitHub, Designation Notice Manager and Harmony CreditLink).

⁹⁴ Parties' response to RFI 6 dated 2 June 2021.

- *triResolve*

137. triResolve is a platform which provides portfolio reconciliation services⁹⁵ for OTC derivatives across all asset classes. Market participants submit data on their end of day portfolios in a specified format, and triResolve identifies differences in population, valuation and trade attributes across participants, which allows margin variations, incorrect trade bookings and valuation errors to be identified. This service is mainly utilised for the agreement of collateral postings and the resolution of disputes in collaterals.

138. There is no connectivity between triResolve and MarkitSERV.

- *triBalance, triCalculate, triResolve margin and Initial Margin Exposure Manager*

139. triBalance⁹⁶, triCalculate⁹⁷, triResolve margin⁹⁸ and IMEM⁹⁹ provide services for the management and optimisation of initial margin, variation margin and collateral management. The customers of these services are banks and hedge funds replicating the margin model that they and their trading partners and CCPs use across product lines.

Reset

140. Reset is a multilateral basis risk mitigation service based on LIBOR for interest rates, FX NDFs, FX options and inflation derivatives. Customers submit a portfolio of trades to Reset. Reset then analyses the portfolio and suggests trades to reduce exposure against daily fluctuations in benchmark rates within pre-defined risk constraints.

141. Trades recommended by Reset are executed on CME platforms or off-venue, depending on the customer's location and applicable regulatory requirements.¹⁰⁰ After execution, they may be passed to MarkitSERV for trade processing.

⁹⁵ Portfolio reconciliation involves a comparison of a market participant's portfolio details (as set out in its own books) with those of its counterparties.

⁹⁶ triBalance sits within the triReduce service. triBalance is an initial margin optimisation service for bilateral and cleared exposure covering interest rates, FX and equity asset classes.

⁹⁷ triCalculate reports and validates a number of different "valuation adjustments" that banks must make when assessing the value of derivative contracts that they have entered into. It covers all asset classes.

⁹⁸ triResolve margin calculates margin calls from exposure, credit agreement and collateral balance data, communicates margin calls with counterparties electronically, and provides a dashboard for managing the daily workflow and exceptions in the margin process.

⁹⁹ IMEM calculates and reconciles uncleared initial margin from International Swaps and Derivatives Association sensitivities data.

¹⁰⁰ Reset is contractually linked with CME's trading platform, Broker Tec, to execute interest rates trades to meet applicable trading mandates. Once executed, these interest rates transactions are processed through MarkitSERV's MarkitWire.

Foreclosure of compression and margin optimisation services providers through a bundling or tying strategy of TriOptima's and MarkitSERV's services

142. The CMA considered whether JVCo could use the strong position of MarkitSERV in the supply of trade processing services to weaken its rivals in compression and margin optimisation services, by bundling MarkitSERV with its compression and margin optimisation services (TriOptima), thereby affecting competitors' ability to compete in the supply of compression or margin optimisation services. The CMA has considered whether the JV businesses could engage in both pure and mixed bundling practices.¹⁰¹

Ability

143. The Parties submitted that MarkitSERV would have no ability to favour TriOptima¹⁰² as:¹⁰³

- (a) the market segments for portfolio compression services and initial margin optimisation services are highly differentiated, as different providers tend to process different types of trades and offer different algorithms;
- (b) customers choose portfolio compression and margin optimisation providers based on their preference for certain algorithms and the types of trades they optimise and compress. Therefore, customers may be less willing to switch to TriOptima as their current choice of provider may be particularly well suited to their requirements; and
- (c) although most of the customers of TriOptima's compression services are also MarkitSERV customers, the services are procured by different divisions, desks, and individuals within the same organisation. As such, the Parties' ability to use bundling or tying strategies is significantly reduced as they would face the added challenge of trying to negotiate sales across multiple individuals/divisions.

144. The Parties submitted that the CME Optimization Business' estimated share of supply within the overall margin optimisation market is between [5-25]%¹⁰⁴ whilst in the compression services market its share of supply is around [60-80]%. The Parties further submitted that the CME Optimization Business'

¹⁰¹ In pure bundling the individual products that make up the bundle can be purchased only as a bundle and not as standalone products. In mixed bundling the products are also available as standalone products, but are priced cheaper when purchased together.

¹⁰² The relevant TriOptima entities are triBalance or triReduce.

¹⁰³ Parties' submission of 18 June 2021 (Q1) submitted in response to the CMA section 109 notice dated 21 June 2021.

¹⁰⁴ CME is not aware of any third-party reports on the size of the overall margin optimisation segment. The estimates are based on the number of vendors and CME's activities in this segment (Parties' response to RFI 6 dated 2 June 2021).

main competitor in the provision of compression services is Quantile. Capitalab and LMKRTS are also active in neighbouring markets.¹⁰⁵

145. One competitor in the provision of compression services told the CMA that customers would be interested in such bundled offers. However, it also explained that compression and connectivity services are typically procured by different divisions within the same organisation. The other respondents to the CMA's merger investigation have not raised bundling concerns.
146. Based on the available evidence, the CMA understands that trade processing, portfolio compression, and margin optimisation services are different products that respond to different customer needs. Trade processing services allow clients to affirm and confirm FX and OTC derivatives trades within an electronic environment so that any disputes about the terms of a transaction can be efficiently discovered and resolved. By contrast, compression is a process of replacing multiple offsetting derivatives contracts with fewer deals of the same net risk to reduce the notional value of the portfolio. Margin management consists of managing and optimising the use of securities or other assets provided as collateral. While many customers do purchase trade processing, portfolio compression, and margin optimisation services, there is no inherent functional complementarity in purchasing the three types of products together.
147. Further, CME does not currently bundle the services offered by TriOptima and Traiana. These products are estimated to have significant shares of supply in some markets but a relatively low share of supply in margin optimisation, and the lack of current bundling may indicate the lack of commercial incentive to do so.¹⁰⁶ In this regard, a CME internal document indicates that the CME Optimization Business is [redacted] and [redacted]. The document then explains that [redacted].¹⁰⁷
148. Based on third-party feedback, customers have their own preferences in terms of compression and margin optimisation providers, which most customers have explained are chosen primarily based on cost, service and

¹⁰⁵ Parties' submission of 5 June 2021 (Q15) submitted in response to the CMA section 109 notice dated 21 June 2021.

¹⁰⁶ TriOptima's services include triReduce (share of supply of [60-70]% in the provision of compression services), triResolve (share of supply of [80-90]% in the portfolio reconciliation services), and margin optimisation services (share of supply of [5-25]%). (Parties' response to Parties' submission of 5 June 2021 (Q15) submitted in response to the CMA section 109 notice dated 21 June 2021, and Parties' response to RFI 6 dated 2 June 2021, Q2). Traiana has an estimated share of supply in FX PB give-up management services of approximately [80-90]%.
¹⁰⁷ Annex 8 to the FMN.

the number of banks that are using the service.¹⁰⁸ Furthermore, this is supported by an IHSM internal document which indicated in relation to open architecture,¹⁰⁹ that [REDACTED].¹¹⁰

149. The evidence above suggests that JVCo would not have the ability to successfully bundle trade processing services with compression and margin optimisation services, in so far as these products have substantially different uses, do not appear to be procured by the same decision makers, and because CME has not bundled TriOptima's and Traiana's services to date. Combined with the lack of any substantiated third-party concern, the CMA therefore considers it unlikely that JVCo would have the ability to foreclose competing compression and margin optimisation providers through bundling.

Incentive

150. Given the CMA's conclusion that the Parties are unlikely to have the ability to foreclose competing compression and margin optimisation providers through bundling, it has not been necessary for the CMA to carry out a detailed analysis of the Parties' incentives to engage in such a strategy.
151. In assessing whether JVCo would have the incentive to pursue a bundling strategy leading to foreclosure, it is necessary to take into account the costs and benefits of such a strategy.
- (a) The costs of any bundling would be any loss of sales by MarkitSERV's trade processing services.
- (b) The benefits to the Parties of any bundling strategy would be any increase in sales of TriOptima's compression and margin optimisation services.
152. The Parties submitted that MarkitSERV would have no incentive to bundle its services with those of TriOptima. They submitted that a significant number of customers would not be interested in purchasing a bundle of services and that it would lose the revenue from processing new trades and trade terminations from rival providers. They submitted that bundling would not lead to

¹⁰⁸ There was only one customer that stressed the importance of MarkitSERV as a factor to be taken into account when selecting the relevant compression service provider as 'it would be largely impossible to use any of these services without MarkitSERV connectivity (certainly in IRS and CDS). This may impact clients choice of optimizer should they wish to use one.' A competitor listed the following factors: product scope of service; size of network – current and expected for new services; efficiency of optimisation algorithm; operational process / efficiency / automation; pricing; collaboration on product / service developments; confidence in on time delivery of new services and enhancements and client service.

¹⁰⁹ The Parties submitted MarkitSERV has a commitment to ensure open access. MarkitSERV connects to over 2,500 buy-side institutions, over 100 dealers and over 70 inter-dealer brokers, representing the vast majority of firms active in these markets. Further, MarkitSERV's standard broker terms [REDACTED]. Moreover, MarkitSERV has never refused to connect to a new provider on request (Parties' response to CMA RFI 10 dated 29 June 2021).

¹¹⁰ Annex 52 to the FMN.

significantly higher revenues as few customers would switch to MarkitSERV, and if existing customers switched more of their trades to triReduce this would not lead to a significant increase in revenue as approximately [X] % of triReduce's revenues arise from customers that are on an [X] tariff.

153. The evidence gathered by the CMA in its investigation largely supported the Parties' submissions. While one competitor raised concerns, the other competitors indicated that customers would react negatively if MarkitSERV were to favour TriOptima, suggesting that JVCo may be punished for engaging in a strategy of foreclosure.¹¹¹ As explained in paragraph 148, customers have their own preferences in terms of compression and margin optimisation providers, which most customers have explained are chosen primarily based on cost, service and the number of banks that are using the service. The Parties are aware of these various customer preferences in terms of compression services providers and internal documents show [X].¹¹²
154. For the reasons set out above, the CMA considers that JVCo would have no incentive to pursue a bundling strategy. The Parties have an active interest to preserve a good relationship with their customers, which seem to be important across a number of products. Any bundling strategy would negatively impact customers in light of their diverse needs for risk mitigation providers, including compression services providers. Furthermore, there is evidence that customers could retaliate should JVCo decide to pursue a bundling strategy and the costs of such retaliation would likely be significant.
155. Given the lack of ability or incentive for JVCo to pursue a bundling strategy which leads to foreclosure, the CMA has not considered the effect that bundling could have on competition.

Conclusion on foreclosure of compression and margin optimisation services providers through a bundling or tying strategy of TriOptima's and MarkitSERV's services

156. For the reasons set out above, the CMA believes that that JVCo would not have the ability or incentive to bundle trade processing services with compression and margin optimisation services. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result

¹¹¹ A competitor stated that its customers would not be happy and added that customers have the expectation that a compression services provider is able to connect to the relevant middleware providers (ie, those that customers use as part of their business as usual trade processing). Another competitor noted that its customers will be very unhappy, as it will impact their reporting to industry bodies. The main complainant indicated that, as the large banks have negotiating powers in the world of FX compression services, for them the compression services are more important than connectivity services. The complaint explained however that if more products required clearing, it will be important to connect to the CCPs.

¹¹² Annex 52 to the FMN.

of conglomerate effects in relation to the provision of compression and margin optimisation services.¹¹³

Foreclosure of compression and margin optimisation services providers through MarkitSERV discriminating against TriOptima's competitors by preventing or degrading the provision of connectivity services

157. The CMA has considered whether JVCo could discriminate against TriOptima's competitors, or potential competitors, by restricting or degrading their connectivity with MarkitSERV. TriOptima's competitors rely on MarkitSERV connectivity to provide their services, and any restriction or degradation of access could affect competitors' ability to compete in the supply of compression and margin optimisation services.

Ability

158. The Parties submitted that MarkitSERV does not have the ability to foreclose TriOptima's competitors in compression and margin optimisation services.¹¹⁴

(a) In relation to cleared trades,¹¹⁵ portfolio compression and margin optimisation providers terminate existing trades and execute new trades directly with the CCP. The CCP via NettingSync¹¹⁶ ([REDACTED]), or the compression or margin optimisation provider ([REDACTED]) would then send the cleared trade to MarkitSERV for further processing. Where a trade is sent to MarkitSERV via NettingSync (as is the case in the substantial majority of all cleared trades), MarkitSERV has no visibility over the reasons why the trade was executed or terminated, including which service provider made the termination order. This means that MarkitSERV is not able to determine whether a trade was executed or terminated by a competing compression and margin optimisation service provider.¹¹⁷

¹¹³ The CMA has also considered whether the Merger can result in JVCo foreclosing rivals, through a bundling or tying strategy of Reset's and MarkitSERV's products. The CMA has concluded that this does not raise concerns. CME estimates that Reset has a share of supply of less than [60-70]% and that tpMATCH, BGC and Dealerweb account for at least [30-40]%, up to [0-5]%, and up to [0-5]%, respectively. Moreover, no third parties raised concerns about this mechanism of foreclosure.

¹¹⁴ Parties' response to RFI10 dated 29 June 2021.

¹¹⁵ The vast majority of trades are cleared, and the number of uncleared trades is declining over time as a result of regulatory initiatives. For example, based on Quarter 1 2021 data, approximately 93% of EUR IRS, 94% of GBP IRS and 96% of USD IRS are cleared.

¹¹⁶ NettingSync is a distinct MarkitSERV service from CCP connectivity services. NettingSync relates to the CCP sending information on netting or compression activity undertaken at the CCP to MarkitSERV (ie if a transaction is terminated or a new transaction is created by the clearing house). If instructed by the customer to do so, this allows MarkitSERV to update customers' risk management systems and/or to update their books and records.

¹¹⁷ In the period 1 January 2021 to 8 June 2021 [REDACTED] terminations of cleared trades were sent to MarkitSERV including [REDACTED] terminations sent via Netting Sync and [REDACTED] trades sent directly (Parties' response to RFI 11 dated 19 July 2021, Q1).

- (b) In relation to uncleared trades, portfolio compression and margin optimisation providers send the trade terminations directly to MarkitSERV.¹¹⁸ The Parties submitted that the service offered by MarkitSERV is not an essential input to portfolio compression or margin optimisation services, and rather the terminations are sent for the purpose of processing the trade. The Parties stated that for uncleared terminations, the providers send trades directly to MarkitSERV and therefore MarkitSERV is able to identify the provider, but if the provider offers multiple services, they would be unable to identify whether an uncleared trade was submitted for the purposes of portfolio compression, margin optimisation services, or another reason.¹¹⁹
- (c) Where a new trade is submitted to MarkitSERV, MarkitSERV is unable to identify the purpose of the trade. Most compression and margin optimisation service providers are part of wider groups that submit trades to MarkitSERV for a variety of reasons. Out of 7 competitors to TriOptima in the provision of compression or other optimisation services listed by the Parties, the new compression or optimisation trades are identifiable only [redacted]; the majority of these competitors are part of wider groups or send trades to MarkitSERV for a variety of reasons.¹²⁰ These unrelated trades are indistinguishable from trades made through their compression and margin optimisation services. MarkitSERV would therefore have no ability to selectively discriminate against trades submitted by TriOptima's competitors without affecting the entire volume of trades submitted by these competitors' wider groups.

159. The data and information the CMA has reviewed confirms that cleared trades and uncleared trades submitted to MarkitSERV for compression or margin optimisation purposes cannot be separately identified from those submitted to MarkitSERV for other purposes. Therefore the CMA considers it unlikely that JVCo would have the ability to foreclose competing compression or margin optimisation providers from utilising MarkitSERV, as it would not have the means to identify a meaningful volume of competitors' trades against which to discriminate.

160. The only type of trades that JVCo could meaningfully attribute to competing compression and margin optimisation providers and theoretically discriminate

¹¹⁸ In the period December 2019 to November 2020, 68,013 terminations of uncleared trades were sent to MarkitSERV (Parties' response to RFI 11 dated 19 July 2021, Q1).

¹¹⁹ For uncleared terminations, the providers send trades to MarkitSERV directly and therefore MarkitSERV is able to identify the provider. However, if the provider offers multiple services, MarkitSERV is unable to identify whether the purpose of the termination is for compression, margin optimisation or another reason (Parties' response to RFI 11 dated 19 July 2021, Q8).

¹²⁰ Parties' response to RFI 11 dated 19 July 2021, Q9.

against are uncleared trades and a small percentage of cleared trades. Uncleared trades represent a small proportion of all trades (less than 10%).

161. Finally, most of the competitors that were asked how they would react to potential discriminatory prices stated that they would find alternatives to continue competing in the market, indicating that they could switch away from MarkitSERV.
162. Based on the evidence above, the CMA considers that the Parties would not have the ability to engage in a foreclosure strategy. Out of an abundance of caution, the CMA has nonetheless considered whether the Parties may have an incentive to engage in discriminatory practices against competing compression and margin optimisation providers for these types of trade.

Incentive

163. The Parties submitted MarkitSERV would not have the incentive to engage in discriminatory practices against competing compression and margin optimisation services because as described in paragraphs 152, there would be a significant loss of revenue and minimal benefit as a result of a foreclosure strategy.
164. The majority of TriOptima's competitors expressed concerns that post-Merger JVCo could engage in discriminatory practices. However, some competitors, including one of those concerned, also noted that such an approach would not be in the customers' best interest and concluded it is unlikely MarkitSERV would consider such a strategy or that they would 'have to ask their clients to look for alternative providers and escalate on their behalf to IHSM.'
165. The CMA considers that the Parties would only have the ability to prevent or degrade the provision of connectivity services to TriOptima's competitors for uncleared trades and a small percentage of cleared trades. As uncleared trades currently represent a small proportion of all trades, it is unlikely that this would lead to the foreclosure of a significant number of competitors, and evidence reviewed by the CMA indicates the associated increase in revenues from a foreclosure of competitors would likely be small. Competitors also submitted that this would not be in their customers' best interest and the loss of revenue as a result of even a relatively small number of customers or competitors switching from MarkitSERV could be significant.¹²¹ As explained in paragraph 148, the Parties' internal documents support this conclusion.

¹²¹ Given the magnitude of difference between the revenue figures, and the other available evidence, the CMA has not considered it necessary to carry out a detailed analysis of relative profitability across the potential gains and losses.

Therefore, the CMA considers that MarkitSERV would not have the incentive to prevent or degrade the provision of connectivity services for uncleared trades to TriOptima's competitors.

166. As the CMA has found that the Parties have no clear ability or incentive to engage in such a strategy, the CMA has not found it necessary to consider the effects of foreclosing rivals through a strategy of preventing or degrading connectivity services.

Conclusion on foreclosure of compression and margin optimisation services providers through MarkitSERV discriminating against TriOptima's competitors by preventing or degrading the provision of connectivity services

167. For the reasons set out above, the CMA believes that the Parties do not have the ability or incentive to discriminate against TriOptima's competitors by preventing or degrading the provision of connectivity services. The Parties have an active interest to preserve a good relationship with their customers, which seems to be important across a number of products. Any discriminatory strategy appears to negatively impact these customers in light of their diverse needs for risk mitigation providers, including compression services providers. Furthermore, there is evidence that customers could retaliate should the Parties decide to pursue a bundling strategy and the costs of such retaliation would likely be significant. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of conglomerate effects in relation to the provision of compression and margin optimisation services.

Foreclosure of compression and margin optimisation services providers through MarkitSERV sharing its trade data on a preferential basis with TriOptima

168. The CMA has considered whether JVCo may share insights from customer trade data collected by MarkitSERV with TriOptima, while withholding this information from TriOptima's rivals in compression and margin optimisation services. In doing so, JVCo may foreclose competitors by preventing them from using customer trade data to innovate in developing new and improved products and services.¹²²

¹²² 2 compression services providers that responded to the CMA's questionnaires have raised concerns regarding the use of MarkitSERV trade data by TriOptima post-Merger. One concern refers to trade data whilst the second is related to marketing data such as client names, scale of benefit, frequency of services. The CMA has focused its investigation on foreclosure practices linked to trade data. There is a limited number of customers in the compression and margin optimisation markets and most of them are already customers of both TriOptima and MarkitSERV. The CMA therefore believes the Merger does not give rise to a realistic prospect of an SLC as a result of foreclosure practices linked to marketing data.

Ability

169. The CMA considered whether, post-Merger, JVCo would have the ability to share insights from customer trade data collected by MarkitSERV with TriOptima, while withholding this information from TriOptima's rivals in compression and margin optimisation services. In doing so, it has considered both JVCo's ability to share MarkitSERV data with TriOptima, and the ability of compression and margin optimisation services (ie, TriOptima) to use that data to develop new and improved products and services.
170. As regards the ability of MarkitSERV to share data with TriOptima, the Parties' main points were:
- (a) MarkitSERV has a number of protections in place which limit the use of customer data. MarkitSERV's client agreements [REDACTED]. [REDACTED].¹²³ MarkitSERV would therefore be unable to share any details with TriOptima and Reset.¹²⁴
 - (b) MarkitSERV has a number of data policies in place. [REDACTED]. [REDACTED].
171. In light of the Parties' submissions, the CMA understands that MarkitSERV is largely restricted from providing customer data to other CME, IHSM (or in future JVCo) entities due to commercial agreements with its customers and internal data use policies. However, these agreements may be amended, and MarkitSERV's data use policies may be changed post-Merger to remove these restrictions, although the CMA recognizes that any attempt to change MarkitSERV's agreements and internal policies would likely be strongly opposed by customers.
172. Given the sophisticated nature of the Parties' customers and the significant commercial strength of several of them (ie large banks and other financial institutions), however, the CMA considers that significant customer opposition may preclude any attempt to obtain the ability to use MarkitSERV's data to benefit TriOptima. The CMA has nonetheless considered out of an abundance of caution whether JVCo would have the ability to prevent rivals from developing new and improved products and services if it were to share the insights from customer trade data on a preferential basis with TriOptima and withhold this information from TriOptima's rivals.
173. In particular, the CMA has considered whether the insights from customer trade data would have significant value to competitors.

¹²³ Parties' submission dated 28 June 2021.

¹²⁴ Parties response to RFI 8 dated 18 June 2021.

174. The Parties submitted that with regard to the current usage of trade data:
- (a) The data on trades generated by MarkitSERV is currently (i) aggregated and anonymised for the creation of reports for [X] use cases, and (ii) individual customer transaction is shared, solely at that customer's request, to facilitate [X] products.
 - (b) CME does not commercialise any trade data generated from products being contributed to the JVCo business. Further, neither TriOptima nor Reset use any of the trade data generated from Traiana, whether externally with third parties or for internal purposes.¹²⁵
175. The Parties submitted that with regard to the usage of data after the formation of JVCo, MarkitSERV data would not be a valuable input for TriOptima and Reset for business development purposes or for the purpose of improving their services, because:
- (a) TriOptima and Reset's services are predominantly used by a small number of large banking customers. Information available to MarkitSERV would be of very limited, if any, value in making products to these customers more attractive, particular as many of them are already TriOptima and Reset customers; and
 - (b) TriOptima and Reset require a complete record of every trading position made by that customer, whereas MarkitSERV holds transaction data which is not an up-to-date or complete record of a customer's positions and therefore cannot be used by TriOptima or Reset.^{126iv}
176. A third party stated that the data it processes on behalf of its clients is not commercialised. The contracts with its customers include restrictions on the use of data such that the third party can use the data only to provide services to its customers.
177. A competitor submitted that easy access to MarkitSERV's daily trade data could grant a significant advantage to TriOptima as this would enable the company to provide innovative services, although it further explained that customers are generally able and willing to provide this data to potential service providers (including the competitor that made submissions) themselves to help them develop good products.
178. The evidence gathered by the CMA suggests that, even if MarkitSERV could access TriOptima data, this would not put TriOptima's rivals at a significant

¹²⁵ Parties' response to the CMA's section 109 notice dated 16 June 2021.

¹²⁶ Parties' response to RFI 8 dated 2 June

disadvantage. The value of TriOptima data for the development of new or improved products by MarktSERV or its competitors is unclear. Furthermore, if this data is of use, competitors can obtain it directly from customers.

179. As the CMA has found that the Parties are unlikely to have the ability to engage in such a strategy, the CMA has not found it necessary to consider the incentive or effects of foreclosing rivals through a strategy of foreclosure of compression and margin optimisation services providers through MarkitSERV sharing its trade data on a preferential basis with TriOptima.

Conclusion on foreclosure of compression and margin optimisation services providers through MarkitSERV sharing its trade data on a preferential basis with TriOptima

180. Based on the evidence outlined above, the CMA believes that the Parties would not have the ability to foreclose compression and margin optimisation service providers through MarkitSERV sharing its trade data on a preferential basis with TriOptima. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of conglomerate effects in relation to the foreclosure of compression and margin optimisation services providers through MarkitSERV sharing its trade data on a preferential basis with TriOptima .

Conclusion on substantial lessening of competition

181. Consequently, the CMA does not believe that it is or may be the case that the Merger may be expected to result, in an SLC within a market or markets in the United Kingdom.
182. The Merger will therefore **not be referred** under section 33(1) of the Act.

Sorcha O’Carroll
Director, Mergers
Competition and Markets Authority
27 July 2021

ⁱ Paragraph 20 should be read as follows: ‘Pursuant to the Transaction Agreement, CME (through its wholly owned subsidiary NEX Optimisation Limited, or **CME NEX**) and IHSM (through its indirectly wholly owned subsidiary Markit Group Limitedⁱ) will [X] [X]. [X], such that each will therefore hold 50% of JVCo’s issued share capital.’

ii Paragraph 24 should be read as follows: 'Each of CME Optimization Business and MarkitSERV is an 'enterprise' within section 129 of the Act. As a result of the Merger, CME (via CME NEX) and IHSM (via Markit Group Limited) will respectively own 50% in JVCo and will contribute the CME Optimization Business and MarkitSERV to JVCo, respectively. IHSM and CME will each have [X] votes on the JVCo's board and will each acquire a veto right over certain reserved matters of the board of JVCo, which confers on each of them the ability to materially influence JVCo's policy, and therefore the policy of the JV businesses. The CMA therefore considers that as a result of the Merger, the CME Optimization Business and MarkitSERV will cease to be distinct from one another, and will cease to be distinct from IHSM and CME, respectively.'

iii The last sentence of paragraph 37 should be read as follows: 'However, there are advantages in having the trade cleared through a CCP, in particular the reduction of counterparty risk.'

iv Paragraph 175 (b) should be read as follows: 'TriOptima and Reset require a complete record of every relevant trading position made by that customer, whereas MarkitSERV holds transaction data which is not an up-to-date or complete record of a customer's positions and therefore cannot be used by TriOptima or Reset.'