Anticipated acquisition by CME Group of NEX Group plc

Decision on relevant merger situation and substantial lessening of competition

ME/6751-18

The CMA's decision on reference under section 33(1) of the Enterprise Act 2002 given on 31 October 2018. Full text of the decision published on 19 November 2018.

Please note that [✂] 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. CME Group (**CME**) has agreed to acquire NEX Group plc (**NEX**) (the **Merger**). CME and NEX are together referred to as the **Parties**.

2. The Competition and Markets Authority (**CMA**) believes that it is or may be the case that each of CME and NEX is an enterprise; that these enterprises will cease to be distinct as a result of the Merger; and that the turnover test is met. Accordingly, arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation.

3. The Parties primarily overlap in the provision of electronic platforms for trading fixed income financial instruments. CME owns and operates CME Globex (**Globex**), an electronic platform on which customers can trade US Treasury securities (**USTs**) futures. NEX owns and operates BrokerTec, an electronic platform on which customers can trade cash USTs.

4. The CMA has assessed whether the Merger may lead to competition concerns as a result of horizontal unilateral effects in the provision of electronic trading platforms for trading UST products (both cash and futures) on a global basis.

5. The CMA assessed whether cash and futures USTs may, in certain situations, be demand substitutes. The CMA sought evidence from a range of market

participants, reviewed over 30,000 of the Parties' internal documents, assessed third-party studies of USTs trading, and conducted quantitative analyses of data submitted by the Parties in relation to price rises on Globex and outages on BrokerTec.

6. The CMA found that there is limited substitutability between trading cash and futures USTs. The Parties do not constrain each other in terms of their competitive behaviour or fees. Moreover, the Parties cannot price discriminate at the level of individual trades, so even if there were some trades where cash and futures USTs were substitutes, they would not be able to increase fees solely for those trades.

7. The CMA believes that these factors, taken together, are sufficient to ensure that the Merger does not give rise to a realistic prospect of a substantial lessening of competition (**SLC**) as a result of horizontal unilateral effects.

8. The US Department of Justice (**DoJ**) conducted a parallel review of the Merger. On 12 October 2018, the DoJ informed the Parties that it had closed its investigation without taking any action. The CMA liaised closely with the DoJ during its investigation.

9. The CMA also considered whether the Merger could give rise to (i) vertical effects in the provision of clearing services for cash USTs, and (ii) conglomerate effects in the provision of electronic trading platforms for cash USTs. In both instances, the CMA found that the merged entity would not have the ability to foreclose competition in the relevant segment. The CMA therefore believes that the Merger does not give rise to a realistic prospect of an SLC in relation to vertical or conglomerate effects.

10. The Merger will therefore **not be referred** under section 33(1) of the Enterprise Act 2002 (the **Act**).

ASSESSMENT

Parties

CME

11. CME is the world's leading derivatives marketplace. It operates four US exchanges (CME, CBOT, NYMEX, and COMEX), all of which clear through CME Clearing, a US regulated clearing house. Most trading on CME's exchanges occurs via Globex. Globex is CME's electronic trading platform. It allows users worldwide to access CME's derivative products nearly 24 hours a day over the trading week.

12. CME offers a wide range of exchange-traded derivatives (**ETDs**) across all major asset classes. This includes futures and options on futures[1] based on fixed income securities (eg USTs), equity indices, foreign exchange (**FX**), energy, agricultural products, and commodities. CME holds a near-monopoly on the trading of UST futures. However, as a derivatives-focused platform, CME does not offer the ability to trade underlying assets (eg cash USTs).

13. CME's turnover in 2017 was approximately £2.9bn worldwide, of which approximately £[✂] was generated in the UK. Most of CME's revenue is derived from transaction fees to trade on its exchanges. CME generated revenues of US$[✂] from UST derivatives trading in the UK in 2017.

NEX

14. NEX was formed after the sale of ICAP's voice broking business to Tullett Prebon in December 2016,[2] when the remaining ICAP business was renamed NEX. NEX provides electronic trading platforms and post-trade services to a range of market participants.

15. NEX operates the following electronic trading platforms:

    a) *BrokerTec*, an electronic platform for trading fixed income cash products, including cash USTs (ie the Treasuries themselves) and European government bonds.

    b) *EBS*, an electronic platform for trading FX, including all major and many emerging market currencies.

16. NEX also provides pre- and post-trade services, including market data services. NEX sells proprietary data from its electronic trading platforms to both trading and non-trading participants.

17. NEX's turnover in 2018 was approximately £591m worldwide, of which £[✂] was generated in the UK. Most of NEX's revenue is generated through fees for trading on BrokerTec and EBS. BrokerTec generated £[✂] in the UK in the last financial year.

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[1] A *future* is a standardized contract to purchase an asset (eg a US Treasury) at a predetermined future date and price. An *option on a future* is the right, but not the obligation, to buy or sell a futures contract at a particular date and price. For convenience, this Decision refers to futures and options on futures collectively as futures.
[2] Tullett Prebon plc of ICAP plc's voice and hybrid broking and information business*es*, M/6579/15.

Transaction

18. The Transaction concerns the proposed acquisition of the entire issued and to be issued share capital of NEX by CME.

19. The Merger was also subject to review by the DoJ. On 12 October 2018, the DoJ informed the Parties that it had closed its investigation into the Merger, without taking any action.[3] The CMA worked closely with the DoJ during its review of the Merger.

Procedure

20. The CMA's mergers intelligence function identified this transaction as warranting an investigation.[4]

Jurisdiction

21. Each of CME and NEX is an enterprise. As a result of the Merger, these enterprises will cease to be distinct.

22. The UK turnover of NEX exceeds £70 million. The turnover test in section 23(1)(b) of the Act is satisfied.

23. The CMA therefore believes that it is or may be the case that arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation.

24. The initial period for consideration of the Merger under section 34ZA(3) of the Act started on 14 September 2018. The statutory 40 working day deadline for a decision is therefore 8 November 2018.

Counterfactual

25. The CMA assesses a merger's impact relative to the situation that would prevail absent the merger (ie the counterfactual). For anticipated mergers, the CMA generally adopts the prevailing conditions of competition as the counterfactual against which to assess the impact of the merger. The CMA will assess the merger against an alternative counterfactual where, based on the evidence available to it, it believes that, absent the merger, the prospect of

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[3] The clearance of the Merger in the US was publicly announced by the Federal Trade Commission on that same date. US DoJ: 20181135: CME Group Inc.; NEX Group plc
[4] See *Mergers: Guidance on the CMA's jurisdiction and procedure* (CMA2), January 2014, paragraphs 6.9-6.19 and 6.59-60.

these conditions continuing is not realistic, or there is a realistic prospect of a counterfactual that is more competitive than these conditions.[5]

26. In this case, there is no evidence supporting a different counterfactual. The Parties and third parties have not put forward arguments in this respect. Therefore, the CMA believes the prevailing conditions of competition to be the relevant counterfactual.

Background

27. The Parties primarily overlap in the provision of electronic trading platforms for trading USTs and FX. NEX focuses on the underlying assets, such as cash USTs. CME focuses on ETDs, such as UST futures. CME also provides downstream clearing services for various derivative products, but it does not clear cash USTs.

28. The Parties also provide post-trade services and data services to their clients. These activities are summarised below.

USTs

Trading of cash USTs

29. A fixed income security is an investment that provides a return of fixed periodic payments and return of the principal amount at the maturity date. This Decision primarily concerns USTs, a type of fixed income security.

30. At regular intervals, the US Department of the Treasury issues cash USTs (also known as US government bonds), and auctions them to authorised market participants (this is known as the primary market).[6] In essence, investors loan money to the US government, which borrows the money for a defined period at a fixed rate of interest.

31. Cash USTs are then traded on the so-called secondary market. Cash USTs are not traded on formal exchanges. They are traded over-the-counter (**OTC**) – on electronic trading platforms or by voice – within a regulatory framework established by the US Government Securities Act. This trading occurs across several secondary market venues. These can broadly be divided into two

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[5] Merger Assessment Guidelines (OFT1254/CC2), September 2010, from paragraph 4.3.5. The *Merger Assessment Guidelines* have been adopted by the CMA (see ***Mergers: Guidance on the CMA's jurisdiction and*** *procedure* (CMA2), January 2014, Annex D).
[6] As of 2017, there was approximately US$14 trillion in total notional marketable US government debt outstanding.

segments: the dealer-to-client (**D2C**) segment, and the interdealer segment (**D2D**).

32. Trading in the D2C segment is conducted either by voice or electronically. Electronic request-for-quote (**RFQ**) platforms, such as Bloomberg and Tradeweb, allow clients to solicit bids and offers from multiple dealers simultaneously. As a result, the D2C segment has become increasingly automated.

33. Trading in the D2D segment takes place between large institutional intermediaries, such as banks and proprietary trading firms. Most institutional investors and end-users of cash USTs, such as mutual funds and pension funds, do not trade in this segment; instead, they trade bilaterally with banks. Banks use the D2D segment to manage inventory and hedge client trading activity.

34. In contrast to banks, proprietary trading firms do not have customers, but trade on their own account. While banks will conduct large trades to service their clients' needs and often hold cash USTs, proprietary trading firms commonly act as short-term liquidity providers – frequently buying and selling, but rarely carrying inventory overnight.

35. Electronic trading platforms intermediate trades through central limit order books (**CLOB**s).[7] Traders can post anonymous bids and offers, and other traders can choose whether to buy or sell. Most trading in D2D cash USTs occurs on one of the electronic D2D platforms, such as NEX's BrokerTec, which is the leader in this segment.[8] The average daily volume (**ADV**) of cash USTs traded D2D is approximately US$200bn (and around US$530 billion including the D2C segment as well).

36. Most trading in the UST D2D segment takes place for recently-issued cash USTs (**on-the-run**). Trading in on-the-run securities tends to take place on electronic platforms, such as BrokerTec. By contrast, D2D trading in older securities (**off-the-run**) takes place primarily through traditional voice brokers.

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[7] A CLOB is a transparent system that matches customer orders (eg bids and offers) centrally. A CLOB can be distinguished from an RFQ system, where a customer queries a finite set of participant market makers who quote a bid/offer to the customer.

[8] A small share of voice-brokered and manual electronic (as opposed to automated electronic) dealing still exists in the D2D segment. Some proprietary trading firms and banks have also developed the means to stream executable bids and offers to banks and other market participants. These direct streams are targeted at individual firms, rather than available to the market, and the terms of the streams can be negotiated bilaterally between the participants.

Trading of UST futures

37. A future is a contract to buy an underlying asset (eg a cash UST) at a predetermined future date and price. Futures are highly standardised, traded on formal exchanges, transacted within the regulatory framework established by the US Commodity Exchange Act, and regulated by the US Commodity Futures Trading Commission (**CFTC**). CME holds a near-monopoly on the trading of UST futures.

38. CME offers UST futures to cover a wide variety of customer needs. It provides contracts for UST futures with remaining terms to maturity from 21 months to more than 25 years. The UST futures will settle against a basket of cash USTs that meet the specifications of the futures contract and are cheapest-to-deliver, which are typically older securities (ie off-the-run USTs). CME's notional ADV in UST in 2018 was around US$550 billion.

FX

39. FX is the most commonly-traded financial product in the world. The Bank for International Settlements estimates FX trading volume at around US$5.1 trillion per day. NEX allows customers to trade FX spot products[9] through EBS. CME allows customers to trade FX derivatives, such as futures, through Globex.

40. Trading FX and trading USTs or other financial instruments exhibits several differences:

    a) In contrast to the extensive regulations in other financial instruments, most FX trading is largely unregulated. Exchange-traded FX instruments fall under the relevant securities regulation in their respective countries. CME's FX derivatives business is regulated by the US National Futures Association and the CFTC.

    b) FX derivatives represent a much less significant share of total FX trading volume than UST derivatives do of UST trading.

41. Like USTs, FX trading can be divided into segments: a D2D segment, where the largest commercial banks and securities dealers trade large volumes with each other (representing 42% of trading activity in 2016),[10] and a D2C segment.

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[9] An FX spot is an agreement to buy or sell currency for settlement usually two days after the trade.
[10] Bank for International Settlements (2016) *Foreign exchange turnover in April 2016*.

42. The Parties have a combined share of supply of less than [0-5]% of notional ADV of the total trading of FX. They also operate in different segments: CME enables trading of FX derivatives, while NEX enables trading of FX spot products. The CMA's investigation found that customers have a wide range of options for accessing FX products, and the vast majority of third parties told the CMA that the Merger did not raise competition concerns in relation to FX trading.

43. For these reasons, the CMA found no plausible basis for competition concerns relating to FX trading and this overlap is not discussed further in this Decision.

Clearing

44. Clearing refers to all activities in the trading cycle between the commitment to enter a transaction (trade execution) and the fulfilment of that commitment (settlement). The main function of clearing is to manage counterparty risk by ensuring that the transacting parties honour the obligations resulting from the trade.

45. Trades on CME all clear through CME Clearing, which is a US regulated clearing house. CME currently clears several types of derivatives, including interest rate swaps and FX options. CME does not clear cash USTs.

46. As discussed below, there is a vertical relationship between the Parties in relation to CME providing clearing services to NEX products.

Post-trade services

47. The Parties both offer post-trade services. NEX offers post-trade services primarily for OTC-traded products. NEX aims to make trading and portfolio management across platforms more efficient. CME offers services to support trading and clearing of CME products on its exchanges and through its clearing house.

48. The Parties respective offerings in post-trade service perform different functions. The CMA found no meaningful overlap between the Parties activities in post-trade services.[11]

[11] Both Parties operate a compression service (compression is a process through which market participants reduce notional amounts outstanding and line items at a clearinghouse by netting offsetting positions into one trade). However, NEX's compression service (called triReduce) is a multilateral compression service that works across a wide customer base at multiple venues, whereas CME's unilateral compression is specific to each client's portfolio at CME.

Data

49. CME provides market data and information services to its clients derived from the trades that take place on its exchanges. NEX also provides market data and analytics generated from the trading activity through its platforms.

50. The data services that the Parties provide are based on different datasets, reflecting the Parties' different product offerings (eg CME offers data on UST futures, while NEX offers data on cash USTs). To the extent that the Parties have different and largely non-substitutable product offerings in trading (as discussed below in the competitive assessment), the CMA believes that the Merger will not give rise to competitive concerns in the provision of data services.

Frame of reference

51. Market definition provides a framework for assessing the competitive effects of a merger. It involves an element of judgement. The boundaries of the market do not determine the outcome of the analysis of the competitive effects of the merger. There can be constraints on merging parties from outside the relevant market, segmentation within the relevant market, or other ways in which some constraints are more important than others. The CMA will take these factors into account in its competitive assessment.[12]

Product scope

52. The Parties overlap in the provision of electronic trading platforms for trading UST products (cash and futures).

53. The Parties submitted that their businesses do not overlap because they offer different trading environments, and trade different products. CME operates all-to-all exchanges, open to all investors, offering standardised contracts and transparent fees. NEX principally operates electronic OTC trading platforms for D2D trading, typically with bespoke fee arrangements with customers.

54. The Parties submitted that, while their respective UST products offer risk exposure within a common asset class, they are fundamentally different in terms of product features and are not economically substitutable. However, the Parties acknowledged that there may be instances where their respective platforms are used as alternatives by traders.

[12] Merger Assessment Guidelines, paragraph 5.2.2.

55. Based on evidence from the Parties and third parties, the CMA found there are several similarities in the Parties' electronic trading platforms. They are both fully electronic, anonymous CLOBs with deep liquidity. Customers of the Parties told the CMA that CME Globex and NEX's BrokerTec are similar in terms of their functionality.

56. On a cautious basis, the CMA has considered the narrowest plausible overlap as the appropriate frame of reference in which to assess the Merger, which is the provision of electronic trading platforms for trading UST products (both cash and futures). In its competitive assessment, the CMA has specifically assessed the closeness of competition between the Parties' platforms and the extent to which UST futures traded on CME Globex are a substitute for cash USTs traded on BrokerTec.

57. It was not necessary for the CMA to conclude on the product frame of reference because, as set out below, no competition concerns arise on any plausible basis.

Geographic scope

58. The Parties submitted that CME's and NEX's platforms are available to customers around the world and therefore the geographic market is global.

59. The CMA received no evidence to suggest an alternative geographic frame of reference. The CMA's investigation showed that there is no clear distinction between geographic regions as most customers of the Parties are active on a global scale. Many customers, including those headquartered in the UK, operate globally and procure trading services on a global basis.

60. It was not necessary for the CMA to conclude on the geographic frame of reference because, as set out below, no competition concerns arise on any plausible basis.

Conclusion on frame of reference

61. The CMA has assessed the impact of the Merger in the provision of electronic trading platforms for trading UST products (both cash and futures) on a global basis.

Competitive assessment

Horizontal unilateral effects

62. Horizontal unilateral effects may arise when one firm merges with a competitor that previously provided a competitive constraint. This may allow the merged firm profitably to raise prices or to degrade quality on its own and without needing to coordinate with its rivals.[13] Horizontal unilateral effects are more likely when the merging parties are close competitors.

63. The CMA assessed whether it is or may be the case that the Merger has resulted, or may be expected to result, in an SLC in relation to horizontal unilateral effects in the provision of electronic trading platforms for trading UST products (cash and futures) on a global basis. The theory of harm is that by bringing together CME's and NEX's trading platforms, the merged entity would be able profitably to increase the trading fee it charges for trades on its platforms, degrade its service or reduce innovation.

Share of supply

64. All futures contracts, including UST futures, must be traded on a futures exchange regulated by the CFTC. CME holds a near-monopoly on the trading of UST futures.

65. NEX's BrokerTec currently has an [✂]% share of the trading of D2D cash USTs.[14]

66. Combining CME's near-monopoly in the trading of UST futures and NEX's leading position in the D2D trading of cash USTs may cause competition concerns if these products are substitutable. The CMA has therefore assessed the extent to which the UST futures traded on CME's exchange compete with the D2D trading of cash USTs on NEX's BrokerTec.

Closeness of competition

67. The Parties submitted that there is no prospect of horizontal unilateral effects because CME and NEX (i) offer different trading environments, and (ii) enable the trading of different products. The Parties said that there is no economic substitutability between the products traded on their trading platforms. The CMA has considered these points below.

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[13] Merger Assessment Guidelines, from paragraph 5.4.1.
[14] NEX has a D2C platform (called BrokerTec Direct) for trading cash USTs, [✂]

Different trading environments: OTC versus exchange

68. The Parties submitted that CME and NEX operate in different execution environments: NEX's BrokerTec is an OTC platform, while CME operates a formal exchange.

69. Previous decisions by the European Commission (**EC**) have found that ETDs do not compete with derivatives traded OTC.[15] The EC found that ETD contracts are generally standardised, while OTC derivative contracts are bespoke and typically for larger amounts. The EC held that there was a distinguishable group of ETD customers who could not trade OTC. For those customers that could trade both ETDs and OTC derivatives, ETDs and OTC derivatives '*had different and autonomous rationales […] aiming at addressing different customer needs*.'[16]

70. In *ICE/Trayport*, the CMA found that OTC trading was relatively standardised and high volume, and therefore OTC trading quite closely resembled exchange trading. The CMA considered that '*as OTC markets become more liquid, the products concerned become more suitable for exchange-based trading*.'[17]

71. In the present case, the CMA has found that trading cash USTs on BrokerTec is a similar environment to trading UST futures on CME Globex. In both situations, trading is highly liquid;[18] there are numerous participants; the trade is electronic, automated, and anonymous; the platforms both operate CLOBs; contracts are standardised; and similar instruments (of similar size) are traded. There is, moreover, no formal exchange for trading cash USTs and therefore the only potential alternative venues to CME's futures exchange are OTC platforms.

72. The vast majority of third parties contacted by the CMA said that there are no significant differences between OTC platforms and formal exchanges for trading UST products. They said the execution environments are similar on both the Parties' electronic platforms, explaining that: '*The interfaces are similar and both are traded electronically. Their characteristics are effectively the same*.' Customers said that: *'the technology, interface and conditions of exchanges and the other electronic trading platforms are generally similar*.'

[15] Deutsche Börse/NYSE Euronext – comp/.6166 01/02/2012; Deutsche Börse/London Stock Exchange Group – comp M.7995 23/03/2017
[16] *Ibid.* paragraph 342
[17] *ICE/Trayport*, ME/6584/15, from paragraph 7.37
[18] The UST market is the largest and most liquid government securities market in the world. Market commentators have observed that liquidity in UST futures '*has become comparable to, if not superior to, liquidity in the cash Treasury securities market.*' *See* CME, The New Treasury Market Paradigm, June 2016.

73. Based on this evidence, the CMA believes that the different trading environments offered by CME and NEX do not preclude substitutability.

Different products: UST futures versus cash USTs

74. The Parties said that '*the type of product, rather than the type of platform, is the primary determinant of substitutability or complementarity in these markets*.' The CMA has therefore assessed the substitutability between UST futures traded on CME Globex and cash USTs traded on NEX's BrokerTec.

75. The Parties submitted that UST futures and cash USTs are not economic substitutes due to four main differences:

a) *Different purpose:* Cash UST trades are used to obtain ownership of the actual cash security. By contrast, futures are used to manage or hedge risk associated with fluctuating pricing in an asset class over time.

b) *Different payment:* Cash USTs must be paid in full at the time of purchase. By contrast, UST futures are leveraged products that require posting only initial and variation margin. Accordingly, cash USTs are an asset on the balance sheet, while UST futures are off-balance-sheet instruments.

c) *Different regulations:* UST futures are regulated by the CFTC, they are required to clear, and must be traded on an exchange. By contrast, cash USTs are regulated by the US Securities and Exchange Commission (**SEC**), they are not subject to mandatory clearing, and may be traded bilaterally between participants. Accordingly, UST futures and cash USTs cannot be combined in the same order book. The Parties confirmed that they do not plan to create a common liquidity pool for these products.

d) *Different delivery:* Cash USTs traded on BrokerTec are on-the-run (ie most recently issued USTs). By contrast, UST futures on CME Globex are based on a delivery basket of cheapest-to-deliver USTs, which are typically off-the-run (ie older securities).[19]

76. In addition, the Parties submitted that many customers trade CME's UST futures and NEX's cash USTs as complementary products. They said that the most typical application of a UST future is to hedge against a position in cash USTs. They also pointed to high frequency traders and a range of other market participants who engage in basis trading, which involves looking for

[19] NEX offers access to 317 different types of cash USTs, all of which are on-the-run. CME offers only 7 UST futures, all of which settle against a basket of cheapest-to-deliver Treasuries that meet the contract specification.

instances where traders can profit from instantaneous price discrepancies between an underlying asset (eg cash USTs) and its related derivative (eg UST futures).

77. However, the Parties also acknowledged that *'there may be specific trading cases for which a trader could, at least hypothetically, trade either cash USTs at BrokerTec or UST futures at CME*.' The CMA has therefore sought to understand the extent to which, for certain trades or certain customers, cash and futures USTs may be substitutes, and whether this may lead to horizontal unilateral effects.

78. The CMA sought evidence from a range of market participants, reviewed the Parties' internal documents, assessed third-party analysis of UST futures and cash trading, and conducted quantitative analyses of data submitted by the Parties in relation to historical fee increases on CME Globex and outages on BrokerTec. This evidence is set out below.

- *Evidence from market participants*

79. The CMA gathered evidence from the Parties' customers and competitors, and other market participants. The CMA asked parties whether there were certain instances where UST futures and cash USTs are traded as substitutes.

80. Overall, most customers told the CMA that cash USTs and UST futures are not substitutes. For example, customers stated:

- '*generally, we view CME and NEX as complementary trading venues*';
- '*from a pure financial instrument point of view, cash and futures are different*';
- '*Treasury futures and Treasury securities are a complement to one another*';
- '*CME and NEX would not be trading to get volumes directly from each other*'; and
- '*while the different product sets can be used to trade or hedge against similar types of risk, there is no overlap between the products themselves*.'

81. A few customers and some competitors stated that there are circumstances in which UST futures traded on CME and cash USTs traded through NEX may

be substitutes. However, customers generally did not quantify these instances or provide specific examples of such circumstances.

- *Internal documents*

82. The CMA requested and reviewed approximately 30,000 internal documents from the Parties. Overall, the CMA found that the documents did not indicate that NEX is a significant competitive constraint on CME, or *vice versa*. In particular, the documents did not indicate that CME's competitive behaviour has influenced NEX's trading fees, or the other way around.

83. CME's documents indicate that CME's decisions regarding its trading fees have been focused on [✂].[20]

84. NEX's documents show that NEX does not consider BrokerTec as a competitor to CME Globex for trading UST products. NEX [✂] evaluates the following firms as competitors: [✂]. NEX's documents do not list or describe CME as a competitor. For example:

a) [✂]

b) [✂]

c) [✂]

d) [✂]

e) [✂]

85. The CMA did identify some documents showing that [✂],[21] and [✂]

a) [✂].[22]

b) [✂]

c) [✂]

86. Overall, the CMA believes that the Parties' internal documents do not indicate that UST futures and cash USTs are substitutes, or that the Parties are constraining each other.

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[20] For example, in relation to CME's fee increase for trading UST futures implemented in February 2018, the following view was expressed: '[✂].'
[21] [✂]
[22] NEX explained this as follows: '[✂]'

- *Third-party analysis*

87. The Parties submitted a study by JP Morgan from July 2016 that assessed the relative performance of UST futures and cash USTs around the time of the UK referendum on membership of the European Union. The referendum was considered a useful event to study because at that time the UST markets were subject to unexpected and extreme volatility, and high trading volumes.

88. The study found that, around the time of the referendum, trading in UST futures outperformed that in cash USTs. In addition, liquidity (ie the speed at which a trade could be executed without affecting the asset's price) improved more rapidly in futures trading compared to cash. The study concluded that '*the relative performance of Treasury futures versus cash during periods of extreme volatility has contributed to the broader shift towards off-balance sheet sources of duration.'*[23] In other words, UST futures and cash were being traded based on different trading strategies, which included consideration of their different liquidity conditions.

89. The CMA believes that this study is consistent with there being a lack of substitutability between UST futures and cash USTs.

- *Quantitative analysis*

90. In *Deutsche Börse/NYSE*, the EC found that ETD and OTC-traded derivatives did not compete because customers '*would not readily switch from ETDs to OTC derivatives should the merged entity exercise market powe*r.'[24]

91. The Parties submitted several econometric analyses that sought to assess the degree of customer switching between CME's and NEX's platforms in response to (i) historical fee increases on CME Globex, and (ii) temporary outages on BrokerTec.

92. ***Fee increase***: The Parties examined the effect of a fee increase on CME's exchanges in February 2018. If the fee increase caused a reduction in UST futures traded on Globex and, at the same time, an increase in cash USTs traded on BrokerTec, this would suggest that the products are substitutes.

93. The Parties' analysis found that [✂]. This analysis therefore does not indicate that the UST futures traded on CME are substitutes for the cash USTs traded on BrokerTec.

[23] JP Morgan Securities LLC "Once more unto the breach" 8 July 2016
[24] Deutsche Börse/NYSE Euronext – comp/.6166 01/02/2012, paragraph 342

94. The CMA conducted its own difference-in-differences analysis on the underlying trading data surrounding the February 2018 fee increase. The CMA looked at the volumes traded by common customers of both Parties following the fee increase on CME. The CMA found that, for common customers trading on CME Globex and BrokerTec between August 2017 and May 2018, the fee increase on CME was associated with a reduction in volume traded on BrokerTec, although not to a degree that was statistically significant. This analysis also does not indicate that UST futures and cash USTs are substitutes.

95. ***Outages*:** The Parties submitted an analysis that considered how UST futures volumes traded on CME Globex were affected by temporary outages of BrokerTec. An increase in volume traded on CME Globex when BrokerTec was unavailable could indicate UST futures and cash USTs are substitutes.[25] The Parties' analysis, however, found that [✂].

96. The CMA conducted its own analysis of three BrokerTec outages. The CMA analysis did not find evidence that NEX outages were associated with an increase in UST futures trading on CME. Therefore, similar to the analysis of the February 2018 fee increase, the outage analysis did not indicate that UST futures were substitutes for cash USTs traded on NEX.

97. Overall, the quantitative analysis does not indicate that UST futures traded on CME Globex and cash USTs traded on BrokerTec are substitutes.

Price discrimination

98. In *Deutsche Börse/NYSE*[26], the EC defined separate markets for ETDs and OTC-traded derivatives partly because the merged entity could identify customers who could not trade OTC derivatives and increase fees to them.

99. In the present case, the evidence set out above indicates that, on aggregate, UST futures and cash USTs are not traded as substitutes. However, there may be some cases where they are traded as substitutes.[27] The CMA therefore considered whether the merged entity would be able to identify customers that trade UST futures and cash USTs as substitutes, and implement a fee increase just for those trades.

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[25] *See, eg,* Stars UK/Sky Betting and Gaming, ME/6758/18, paragraph 61 (decision not yet published)
[26] Deutsche Börse/NYSE Euronext – comp/.6166 01/02/2012
[27] The Parties give two possible examples where, '*as a blunt instrument*', futures may serve as an alternative for cash: (i) where customers do not have liquid access to cash markets, such as during Asian trading hours; and (ii) customers with specific risk management needs where a future may be more appropriate because of its forward-starting and off-balance sheet nature.

100. Customers told the CMA that they implement different trading strategies between different trades. Moreover, employees within the same organisation often have different objectives. For example, a bank has different trading desks with different strategies and objectives: one desk may be hedging interest rate exposure, another may be marking markets, while another may be taking speculative positions for the bank's own proprietary trading book. As a result, the CMA believes that the merged entity would not have the ability to price discriminate by customer based on different trading strategies.

101. The CMA also found that the Parties would not be able to discriminate at the level of individual trades. This is because:

a) CME applies the same fee to all customers within a specific membership class (due to regulatory requirements) and cannot charge more for different types of trade.

b) Neither CME nor BrokerTec can identify whether a customer is trading USTs according to any defined or specific strategy.

102. Based on the evidence set out above, the CMA believes that the merged entity would not be able to price discriminate by customer based on different trading strategies or between different trades.[28]

Supply-side constraints

103. Demand-side substitution provides the most immediate and effective constraint on suppliers of a given product.[29] However, supply-side factors can mean that different products provide a competitive constraint where: (i) firms can quickly (generally within a year) shift production to the alternative product, and (ii) the same firms compete to supply these different products, and the conditions of competition are the same.[30]

104. In the present case, different firms compete in the UST futures segment (just CME) compared with cash USTs (eg, NEX's BrokerTec, Nasdaq Fixed Income (eSpeed), and others). Moreover, different rules and regulations apply to each segment: US Congress has determined that futures must be traded on a formal exchange, and must be regulated under a specific framework that differs significantly from federal regulation of the trading of cash USTs. There is no requirement for cash USTs to trade on a regulated exchange.

[28] *See* Merger Assessment Guidelines, paragraph 5.2.5(a).
[29] Merger Assessment Guidelines, paragraph 5.2.6.
[30] *Ibid.*, paragraph 5.2.17.

105. The CMA received no evidence to suggest that NEX or its rivals were considering setting up a formal exchange to allow for the trading of UST futures. The CMA also saw no evidence – from CME's internal documents or elsewhere – that, absent the Merger, CME had plans to establish an electronic trading platform for trading cash USTs.

Conclusion on horizontal unilateral effects

106. Evidence from market participants, internal documents, and the quantitative analysis show that there is limited substitutability between UST futures and cash USTs. This indicates that the Parties do not constrain each other in their competitive behaviour. Moreover, the Parties cannot price discriminate by customer based on different trading strategies or between different trades so, even if there were some trades where UST futures and cash USTs were substitutes, the Parties would not be able to increase fees or degrade quality solely for those trades.

107. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in the provision of electronic trading platforms for trading UST products (both cash and futures) on a global basis.

Vertical effects

108. Vertical effects may arise when a merger involves firms at different levels of the supply chain. Vertical mergers may be competitively benign or even efficiency-enhancing. But in certain circumstances, they can weaken rivalry, for example when they result in foreclosure of the merged firm's competitors. Such foreclosure is anticompetitive only where it results in an SLC in the foreclosed market(s), not merely where it disadvantages one or more competitors.[31]

109. In the present case, the CMA considered the impact of the Merger on the provision of clearing services for cash USTs.[32]

110. The clearing of cash USTs is regulated by the SEC. Currently, the only organisation authorised to clear USTs is the Fixed Income Clearing Corporation (**FICC**). If a cash UST trade is placed on BrokerTec between parties who are members of FICC, the trade must be cleared by FICC. UST trades between non-members of FICC are settled bilaterally between the

[31] In relation to this theory of harm 'foreclosure' means either foreclosure of a rival or to substantially competitively weaken a rival.
[32] Previous EC decisions have found that clearing services are a downstream activity to trading, see, eg, Deutsche Börse/NYSE Euronext – comp/.6166 01/02/2012 from paragraph 86.

customer and BrokerTec. The Parties estimate that approximately [✄]% of UST trades on BrokerTec are cleared through FICC.

111. Neither CME nor NEX currently offer clearing services for cash USTs. During the CMA's investigation, a concern was raised regarding the possible foreclosure of FICC in providing clearing services for cash USTs. The CMA has therefore considered an input foreclosure theory of harm in which CME's entry into the clearing of cash USTs, and a subsequent bundling of cash UST trading on BrokerTec with CME's clearing service, would lead to shrinking demand for clearing through FICC and may make FICC less able to compete. This might, in turn, make BrokerTec's rivals, who rely on FICC's clearing services, less able to compete with BrokerTec.

112. The CMA's approach to assessing vertical theories of harm is to analyse (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.[33] This is discussed below.

Ability

113. The CMA does not consider that the Parties would have the ability to foreclose FICC for two main reasons.

114. First, CME currently has neither the authority (from the SEC) nor the ability to clear cash USTs.[34] Evidence from third parties [✄] indicates that it would take at least a year for CME to gain approval to clear cash USTs.

115. Second, even if CME did enter the clearing of cash USTs, it would not be able to direct even the clearing of all trades on BrokerTec to its clearing house. This is because the terms of FICC membership require members of FICC to clear their trades at FICC. FICC is controlled by its member-owners (ie banks). The banks have the means and incentive to maintain FICC as a preferred clearing house and would resist any attempt by CME to force them to clear elsewhere. For these reasons, [✄].

116. For these reasons, the CME believes that the Parties would not have the ability to foreclose FICC. The CMA therefore did not need to consider whether the Parties would have the incentive to foreclose FICC or the possible effect of foreclosure on competition.

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[33] Merger Assessment Guidelines, paragraph 5.6.6.
[34] CME Clearing is currently registered with the CFTC to clear UST futures.

Conclusion on vertical effects

117. For the reasons set out above, the CMA believes that the Merger will not give rise to a realistic prospect of an SLC as a result of vertical effects in the provision of clearing services.

Conglomerate effects

118. 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. This may arise, for example, because their products are complements (so that a fall in the price of one good increases the customer's demand for another) or because there are economies of scale in purchasing them (so that customers buy them together).[35]

119. Most non-horizontal mergers are benign or even efficiency-enhancing and do not raise competition concerns.[36] However, in certain circumstances, a conglomerate merger can result in the merged entity foreclosing rivals, including through a tying or bundling strategy.

120. A concern was raised that, as a result of the Merger, the Parties would be able to bundle their electronic trading platforms for trading cash and futures USTs (BrokerTec and CME Globex). This would allow the merged entity to align features (eg tick increments) on its trading platforms more easily and to reduce trading latency between UST futures and cash.

121. Bundling the cash and futures trading platforms might make the merged entity particularly attractive for basis trading, which involves looking for instant price discrepancies between assets and their underlying derivatives (eg cash USTs and UST futures).[37] This could foreclose BrokerTec's rivals, who would not be able to offer a comparable package for customers looking to carry out basis trades.

122. The CMA's approach to assessing conglomerate theories of harm is to analyse (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.[38] These factors are discussed below.

[35] Merger Assessment Guidelines, paragraph 5.6.2.
[36] Merger Assessment Guidelines, paragraph 5.6.1.
[37] In a basis trade, cash USTs and UST futures are essentially traded as complements.
[38] Merger Assessment Guidelines, paragraph 5.6.6.

Ability

123. The CMA does not consider that the Parties would have the ability to foreclose BrokerTec's rivals for four reasons.

124. First, while the Parties' internal documents make clear that, post-Merger, the Parties may (i) make their trading platforms (BrokerTec and CME Globex) accessible through a single interface and (ii) reduce latency, this would constitute a demand-side efficiency for traders.[39] Rather than degrading the quality of their trading platforms, hindering or obstructing rivals from reaching customers, or raising fees, having the platforms accessible through one screen, and with lower latency, would facilitate more efficient basis trading, which is better for customers.

125. Second, traders can quickly and easily switch trading volumes to BrokerTec's rivals, including [✂] and [✂], which all enable trading of cash USTs. Both customers and the Parties' internal documents referred to these players as credible rivals:

   a) Customers told the CMA that they have trading agreements with these platforms, and that they choose the venue which offers the most attractive opportunity at any given time.

   b) Customers said that, should the merged entity increase fees or degrade its offering, they could switch large volumes of liquidity to a rival easily.[40]

   c) Customers explained this happened when liquidity switched from eSpeed (now Nasdaq Fixed Income) to BrokerTec following a change in eSpeed's pricing strategy.

126. Third, the evidence received by the CMA indicates that basis trading is not sufficiently important such that controlling basis trading would be sufficient to foreclose BrokerTec's rivals. For example, one major customer said that its activity from basis trading represented around [✂]% of its overall activity. While there are other types of trades other than basis trading where UST futures and cash are traded as complements, the CMA found no evidence to suggest that making BrokerTec and CME Globex accessible through a single interface would hinder or obstruct BrokerTec's rivals from competing for those trades.

[39] Merger Assessment Guidelines, paragraph 5.7.18. During the CMA's merger investigation, some customers noted a preference for such one-stop shopping.
[40] In ICE/Trayport, ME/6584/15, the CMA also recognised that liquidity can shift very quickly between platforms (including to new platforms) and this acts as '*important and active competitive constraint*' (from paragraph 7.21).

127. Fourth, having CME Globex and BrokerTec available through a single interface would not prevent customers from basis trading across CME Globex and BrokerTec's rivals – indeed many customers already do so. Basis trading is made easier because (i) tick increments are public; (ii) aggregation services and smart order routing already facilitate trading across different platforms;[41] (iii) CME publishes trading data, which allows rivals to analyse movements in the futures markets; and (iv) latency can already be minimised (eg through microwave networks).

128. For these reasons, the CMA believes that the merged entity does not have the ability to foreclose BrokerTec's rivals. The CMA therefore did not need to consider whether the Parties had the incentive to foreclose, or the possible effect of foreclosure on competition.

Conclusion on conglomerate effects

129. For the reasons set out above, the CMA believes that the Merger does not give rise to a realistic prospect of an SLC as a result of conglomerate effects.

Barriers to entry and expansion

130. Entry, or the expansion of existing firms, can mitigate the initial effect of a merger on competition, and in some cases may mean that there is no SLC.

131. In the present case, the CMA has not had to conclude on barriers to entry or expansion as the Merger does not give rise to competition concerns on any basis.

Decision

132. 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 UK.

133. The Merger will therefore **not be referred** under section 33(1) of the Act.

[41] Aggregation services aggregate prices from multiple sources into one place. They are used by banks, high-frequency proprietary traders and buy-side desks seeking minimal market impact. Smart order routing is a service that helps traders seek out where prices are best across a range of different exchanges and platforms and route their orders accordingly for execution. Aggregators use smart order routing.

Andrew Wright
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Competition and Markets Authority
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