

Completed acquisition by Intercontinental Exchange Inc. of Trayport Limited

Decision on relevant merger situation and substantial lessening of competition

ME/6584/15

The CMA's decision on reference under section 22(1) of the Enterprise Act 2002 given on 27 April 2016. Full text of the decision published on 26 May 2016.

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

SUMMARY

1. On 11 December 2015, Intercontinental Exchange Inc. (**ICE**) acquired the entire issued share capital of Trayport Limited (**Trayport**) (the **Merger**). ICE and Trayport are together referred to as the **Parties**.
2. The Competition and Markets Authority (**CMA**) believes that it is or may be the case that the Parties' enterprises have ceased to be distinct and that the share of supply test is met. The four-month period for a decision, as extended, has not yet expired. The CMA therefore believes that it is or may be the case that a relevant merger situation has been created.
3. ICE is a global operator of exchanges and clearinghouses, and it has its own proprietary software which facilitates trading of energy commodities and utilities derivatives on its exchanges.
4. Trayport is a provider of software which facilitates the trading of energy market derivatives. Its core products include: GlobalVision Trading Gateway (**Trading Gateway**), GlobalVision Broker Trading System (**BTS**), GlobalVision Exchange Trading System (**ETS**) and GlobalVision Portal (**GV Portal**).

Trayport also provides a straight through processing (**STP**) solution which submits trades conducted off-exchange via a broker for central clearing.¹

5. Trayport's Trading Gateway, configured with its desktop screen 'Joule', enables access to trading across multiple energy and commodity markets on a single screen, and it is the most widely used price discovery and trade initiation tool for the trading of European and UK energy derivative products. Trayport's BTS and ETS products are back-end systems that enable brokers and exchanges, respectively, to host an electronic marketplace whose prices are communicated to the Trading Gateway/Joule front-end screen via an access programming interface (**API**). Trading Gateway can also be directly connected to an exchange that utilises a proprietary back-end solution, via its GV Portal and this enables traders to initiate trading directly on these exchanges.
6. Trading Gateway/Joule enables traders to discover prices and initiate trades across multiple electronic marketplaces for trading via brokers (ie over-the-counter (**OTC**)),² and via exchanges. Trading Gateway/Joule is currently the only software available that enables traders to access all three modalities of trading across European and UK energy derivative products, that is:
 - (a) bi-lateral trading (counterpart to counterpart) via an OTC broker;
 - (b) trading off-exchange via an OTC broker; and
 - (c) trading directly on exchange.
7. The CMA has considered the impact of the Merger across the trading life-cycle facilitated by Trayport products, and specifically in the following product frames of reference:
 - the provision of energy trading front-end access services;
 - the supply of back-end technology to OTC brokers and exchanges, respectively; and
 - the supply of STP link to clearinghouses.
8. Downstream to the above, there are the following services: the execution of trades and the clearing of trades. Therefore, the CMA has also considered whether a foreclosure strategy may adversely affect ICE's rivals from competing in the supply of these downstream services.

¹ See 'Trading Channels' in Background.

² See 'Trading Channels' in Background.

9. For its geographic frame of reference, the CMA has considered energy derivatives trading activity across the European Union (**EU**) and used this as a proxy for trading activity in the UK.³
10. The CMA considered three vertical theories of harm and one horizontal. For the vertical theories of harm, the CMA considered whether the Merger gave rise to vertical effects as result of which the merged entity could increase the price it charges for its software products, or degrade the quality of its service, to rival exchanges, OTC brokers and clearinghouses, increasing their costs and making them less competitive as compared with ICE's exchanges and clearinghouse.
11. As set out above, Trayport supplies the leading software products for the aggregation and initiation of OTC energy trading in the UK, and in Europe, and for which there are no significant rivals or alternatives. Many exchanges and OTC brokers are currently dependent on Trayport for access to traders, and for the supply of back-ends, in order to create pools of liquidity for the trading of energy market derivatives. A number of clearinghouses are also reliant on access to Trayport's software products in order to supply clearing services for off-exchange energy trades. ICE is the leading exchange operator and clearinghouse provider for energy trading in the UK, and in Europe, and it competes with other exchanges, OTC brokers and clearinghouses. Based on the evidence it has gathered, and taking into account extensive third party concern received from ICE's rivals and customers, the CMA found that the merged entity may have the ability and incentive to (partially) foreclose competing exchanges, OTC brokers and clearinghouses from using Trayport's technology with the aim of diverting their trades, and the clearing of off-exchange trades, to ICE's exchanges and clearinghouse, and/or to defend its current market position from competition in asset classes where its position is already very strong.
12. The CMA therefore believes that the Merger gives rise to a realistic prospect of a substantial lessening of competition (**SLC**) as a result of vertical effects arising from the foreclosure of exchanges, OTC brokers and clearinghouses.
13. The CMA has also considered whether the Parties directly competed in the supply of energy trading front-end access services, and more specifically whether Trayport's Trading Gateway/Joule trading screen currently competes with ICE's equivalent 'WebICE' front-end screen which provides access to trading on ICE's own exchanges. The CMA considered whether post-Merger

³ However, the CMA has not found it necessary to conclude whether the appropriate geographic frame of reference is national or EU-wide (or EEA-wide) because it considers it would not result in a materially different outcome of its assessment of the competitive effects of the Merger.

the Parties may be able to increase the prices and/or reduce the quality of the provision of these services to traders as a result of horizontal unilateral effects. Overall, the CMA cannot exclude that the Merger may result in a realistic prospect of a horizontal SLC in the supply of front-end access and ancillary services to traders. In any event, the vertical theories of harm are themselves each sufficient to justify making a reference.

14. The CMA is therefore considering whether to accept undertakings under section 73 of the Enterprise Act 2002 (**the Act**). ICE has until 5 May 2016 to offer undertakings in lieu of reference to the CMA that might be accepted by the CMA. If no such undertakings are offered, then the CMA will refer the Merger pursuant to sections 22(1) and 34ZA(2) of the Act.

ASSESSMENT

Parties

15. ICE is a global operator of exchanges and clearinghouses, and as part of its activities facilitates trading of energy commodities and utilities derivatives. In Europe, its exchanges include ICE Futures Europe and ICE Endex, where trades in natural gas, electricity (power), coal and emissions and related derivatives takes place. ICE Endex is a host to the UK, Dutch and Belgian natural gas spot markets. ICE Clear Europe is the clearinghouse for the above mentioned exchanges. The turnover of ICE for the year to the end of December 2015 was approximately \$4.68 billion worldwide and [X] million in the UK.
16. Trayport licenses software products to participants (traders, brokers, exchanges and clearinghouses) in the wholesale markets for European utility derivatives and commodities (in particular, natural gas, power (electricity), oil, coal and emissions). Through its products and services, Trayport facilitates electronic and hybrid trading and operates the primary gateway for trading of energy commodity derivatives over the counter (**OTC**) and some exchange-based trading. The turnover of Trayport in the financial year ending 31 December 2014 was approximately £47.7 million worldwide and [X] million in the UK.

Transaction

17. On 11 December 2015, ICE completed its acquisition of Trayport from BGC Partners and GFI. The Merger was an acquisition of sole control of Trayport by ICE for approximately \$650 million, comprising approximately 2.5 million ICE common shares as consideration.

18. The CMA opened an own-initiative investigation into the Merger by sending an Enquiry Letter to ICE on 5 January 2016.⁴
19. Notifications under the Hart-Scott-Rodino Antitrust Improvements Act of 1976 (as amended) were made to the US Federal Trade Commission on 23 November 2015 with respect to the receipt by BGC Partners, Inc. of a non-controlling stake in ICE, and early termination was granted effective as of 8 December 2015. The Merger was not notified in any other jurisdiction.

Jurisdiction

20. As a result of the Merger, the enterprises of ICE and Trayport have ceased to be distinct.
21. The UK turnover of Trayport is less than £70 million and, so, the turnover test in section 23(1)(b) of the Act is not satisfied.
22. The Parties overlap in the supply of front-end access services⁵ to enable energy trading in the UK, and in 2015 held a combined share of supply of [70-100]%, by volume of electronic trading of energy derivatives contracts (ie gas and power) in Europe, with an increment of [20-30]%.⁶ In this case, Europe is used as a proxy for trading activity in the UK because ICE was unable to provide UK specific data. However, ICE submitted that Europe-wide data represented a reasonable indication of the basic pattern of relative trading for UK-wide customer sets.⁷ Therefore, the CMA considers that the share of supply test is met for the supply of front-end access services to enable energy trading in the UK. The CMA therefore believes that the share of supply test in section 23 of the Act is met.
23. The Parties submitted that the share of supply test under section 23(2)(b) of the Act is not met in this case. Specifically, the Parties submitted that there is no horizontal overlap because ICE does not have a standalone technology business that competes with 'multi-exchange' independent software vendors (ISVs) such as Trayport, Exxeta and Trading Technologies or with firms such

⁴ See [Mergers: Guidance on the CMA's jurisdiction and procedure](#) (CMA2), January 2014, paragraphs 6.9-6.19 and 6.59-60.

⁵ Supplying energy traders with a front-end screen that enables them to enter quotes and initiate the execution of trades on electronic trading venues (exchanges and OTC/broker venues).

⁶ Market shares are calculated using 2014 volume data of all customer activity in European gas and power – ICE executed contracts and European gas and power – other contracts as provided by ICE in Annex A of the responses submitted to the CMA on 2nd February 2016. The Parties submit that the data, while not filtered for customer location, is a reasonable indication of Europe-wide trade. ICE shares are the sum of ICE executed contracts and other contracts (through both WebICE and direct access to ICE) over the sum of total electronic trading (excluding voice). Trayport shares are calculated as the shares of ICE executed contracts and other contracts via Trayport's front-end (including ETS/BTS direct access screen and TGW) over the sum of total electronic trading (excluding voice).

⁷ Response to CMA Questions on share of supply of 24 February 2016 (dated 3 March).

as Nasdaq OMX, LSE, Deutsche Börse and others who supply their exchange software and services to third party exchanges on a standalone basis effectively as an ISV. Whereas Trayport software is licensed to exchanges, OTC brokers and traders.⁸ ICE also submitted that ICE does not provide an aggregator screen that allows customers to view real-time prices or execute trades on multiple OTC marketplaces or on any exchange other than ICE's regulated marketplaces. In contrast, Trayport's software facilitates trading on multiple exchanges and OTC brokers but the software is not an exchange itself; the execution of the trades occurs on the marketplace/exchange it provides access to, or is completed bi-laterally as between trading counterparties, or is carried out at the wholesale level by OTC brokers acting on behalf of buying and selling counterparties OTC.

24. The Parties also submitted that WebICE is ancillary to ICE's primary activity of operating exchanges and central counterparties (clearinghouse), whereas Trayport provides an inherently different access service aggregating multiple OTC broker and exchange venues. The Parties submitted that this is evident from the fact that the provision of WebICE is not monetised and WebICE only provides access to ICE's exchanges; it cannot be used to access any other marketplaces, including those served by Trayport. The Parties submitted that to argue otherwise is to construct a wholly artificial 'overlap', akin to arguing that a hotel group that issues a quotation to a would-be guest, or an insurance company that issues a quote to a homeowner, is competing with a specialist price comparison website. To extend the analogy further, the Parties submitted it would be equally wrong to argue that any business with an online sales presence competes with search engines which have a 'shopping' function allowing users to compare prices from multiple sellers online.⁹
25. The evidence the CMA received from its market testing shows that most third parties (including OTC brokers, traders, exchanges and ISVs) that responded consider that the Parties broadly compete in the provision of front-end access services to enable energy derivatives trading. This evidence is explained in more detail in the competitive assessment in paragraphs 116-137.
26. The CMA notes that the fact that WebICE only provides front-end access services to ICE exchanges, and is not sold or licensed as a standalone product, does not in itself exclude a relevant overlap. The CMA notes that for the purposes of the share of supply test under section 23 of the Act it is not a necessary element that the relevant goods or services be supplied for

⁸ Response to CMA Questions on Jurisdiction of 13 January 2016 (dated 19 January).

⁹ Response to CMA Questions on Jurisdiction of 13 January 2016 (dated 19 January).

commercial gain or reward.¹⁰ Nonetheless, the CMA notes that ICE derives revenue from its WebICE front-end access services as part of a wider subscription charge that it charges for the supply of its vertically integrated trading facilitation services (eg execution and clearing) to which WebICE provides access to.

27. The CMA also considers that contrary to ICE's submission this is consistent with the Office of Fair Trading's decision in *GFI/Trayport* ME/3592/08 (2008), which was found not to qualify. In that case, GFI did not supply front-end access services so there was no horizontal overlap for the purpose of establishing jurisdiction: the relationship between Trayport and GFI was found to be purely vertical in nature.
28. The CMA therefore considers on the evidence available to it that the share of supply test in section 23 of the Act is met in this case.
29. The Merger completed on 11 December and this was first made public on the same date. The four month deadline for a decision under section 24 of the Act is 6 May 2016, following extensions under section 25(2) of the Act.
30. The CMA therefore believes that it is or may be the case that a relevant merger situation has been created.
31. The initial period for consideration of the Merger under section 34ZA(3) of the Act started on 1 March 2016 and the statutory 40 working day deadline for a decision is therefore 27 April. The Merger was considered at a Case Review Meeting.¹¹

Counterfactual

32. The CMA assesses a merger's impact relative to the situation that would prevail absent the merger (ie the counterfactual). For completed mergers the CMA generally adopts the pre-merger conditions of competition as the counterfactual against which to assess the impact of the merger. However, the CMA will assess the merger against an alternative counterfactual where, based on the evidence available to it, it believes that, in the absence of the merger, the prospect of these conditions continuing is not realistic, or there is

¹⁰ For example, the OFT found in *Montauban/Simon* (ME/2500/06) that self-stevedoring and third party stevedoring could be considered together for s.23 purposes.

¹¹ See [Mergers: Guidance on the CMA's jurisdiction and procedure](#) (CMA2), January 2014, from paragraph 7.34.

a realistic prospect of a counterfactual that is more competitive than these conditions.¹²

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

Background

The industry

34. In the energy sector, companies that produce or import energy also sell their energy in the wholesale market, and companies that consume energy (eg large industrial companies) or have customers that consume energy (eg retail suppliers) buy energy in the wholesale market. A large part of wholesale trading is conducted via financial instruments (derivatives) where the underlying commodity (each described as an '**asset class**') is, among others, natural gas, electricity, emissions, coal and gasoil (petrol). In this context, traders acting on behalf of financial institutions, utility companies and trading houses, use the wholesale markets to optimise assets, manage risk and speculate on market movements.

Trading channels

35. Traders looking to buy or sell energy commodities can do so through several channels: exchange trading, brokered or bilateral trading.
- *Exchange trading.* Trading may take place on regulated exchanges. Products traded on exchanges typically have standardized delivery periods (daily, weekly, quarterly, etc.) and terms and conditions (including settlement, order sizes and units). Exchange-executed trades comprise a post-transaction function designed to mitigate the counterparty risk. Clearinghouses act as a central counterparty (**CCP**), acting as a buyer to every seller and the seller to every buyer and guarantee the transaction against default by either party between execution and delivery of the contract.¹³ Most exchanges mandate the use of their own clearinghouses, if they have one, or a designated clearinghouse if they do not have one.

¹² [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).

¹³ In simple terms, clearing denotes all the activities from the time of commitment is made until it is settled. Clearing of payments is necessary to turn the promise of payment into actual movement of one party to another.

The CMA understands that exchange trading is typically more expensive for market participants, primarily because it is generally fully collateralized – ie traders are required to post collateral equal to their full exposure.¹⁴

- *Brokered trading.* Brokers are third parties that match buyers and sellers to execute trades. Brokered trades may be done as: (i) voiced-brokered trading, where transactions take place over the phone; (ii) electronic trading, where transactions take place via an electronic platform; and (iii) hybrid trading, where voice broking is supported by an electronic platform. Products traded in these ways are said to be traded over-the-counter (**OTC**) and are typically standardised. Brokers trading in these ways are called OTC brokers. Since there is no requirement for OTC trades to be fully collateralised, trading OTC is usually lower cost than trading on an exchange.
- *Bilateral trading.* Traders can also agree non-standard contracts, where typically all details of the contract are negotiated, allowing them to meet bespoke requirements (eg long-term gas import contracts). In this case, there might not be a third party to facilitate trading between the market participants. The CMA understands from its market testing that bilateral trading constitutes a very small proportion of trades.

Liquidity and network effects

36. Energy market participants have a strong incentive to trade (buy and sell) in the wholesale market to balance the gas and electricity networks which are characterised by volatile and uncertain demand and by challenges and costs associated with storing energy (electricity in particular). Trading helps market participants (buyers and sellers) to manage volatility and uncertainty.
37. An important characteristic of the energy market is liquidity, that is, the availability of volumes or opportunity to buy and sell in a large market. With more opportunities to trade buyers and sellers are more likely to achieve the best possible deal or price for each side, respectively. Trading venues offer this opportunity as they aggregate liquidity by bringing together buyers and sellers of various size that need to trade with each other.
38. As buyers and sellers value the opportunity to trade in large, liquid markets, an important characteristic of the energy trading market is that the value of the services offered by trading venues increases with the number of market participants that use these venues (these are called network effects). These

¹⁴ A collateral is a property or other asset that a borrower offers a lender to secure a loan.

network effects can translate into significant switching costs and barriers to entry for competing trading venues which are discussed in further detail below.

The Parties' activities

ICE

39. ICE operates a number of exchanges. ICE exchanges are supported by a back-end (matching engine) and a front-end technology¹⁵ (ie WebICE) which ICE has developed and operates itself. ICE supplies 'WebICE' which is a front-end screen giving traders access to ICE's exchanges only. ICE's exchanges can also be accessed via 'conformed' third parties (ie ISVs) or ICE customers who have developed their own in-house software that allow traders to view ICE's real time market data and execute trades on ICE's exchanges.
40. Trades executed on ICE's exchanges are cleared through ICE's clearinghouse. Trades executed OTC (ie via brokers) can also be cleared through ICE's clearinghouse, using ICE Block, a trade registration facility which allows trades that are matched off-screen to be registered with ICE.
41. Traders pay ICE data fees, trade execution fees (per transaction) and clearing fees (per transaction) to execute and/or clear trades through ICE exchanges and ICE clearinghouse.

Trayport

42. Trayport provides technology/software and certain related ancillary services to traders, trading venues (ie OTC brokers and exchanges) and clearinghouses active in the trading of energy products.¹⁶
43. To traders, Trayport supplies 'Joule', a front-end trading screen that connects to Trayport's Trading Gateway, which aggregates real-time market activity and pricing information across multiple trading venues and creates a virtual order book. Trayport charges [X]. In addition to the above, Trayport offers to

¹⁵ A back end is a dynamic IT database operated by a venue (broker or exchange) containing all active price quotations at a given time (product, maturity, quantity, price, trader name) that providers by traders to that venue. The back end system reorders in real time all these prices into an order book (purchase price ("bid") from the lowest to the highest according to time insertion criterion, sales prices ("ask") from the highest to the lowest) and provides matching capabilities between the best available prices provided by the traders. A front-end is the software with which users interact with directly (ie screen).

¹⁶ Providing software for market participants trading natural gas, electricity (power), emissions and coal accounts for over [X]% of Trayport's total revenue in FY2014.

traders a number of ancillary services such as regulatory reporting services and market data services.

44. To trading venues (ie OTC brokers and exchanges), Trayport provides the technology (ie back-end or matching engine) necessary to execute trading in energy products. In the case of OTC brokers, this is the BTS; for exchanges it is ETS. Trading venues pay [✂].
45. In addition, for exchanges which choose not to use ETS – but instead utilise a proprietary solution (such as ICE) or one provided by a third party (ie a competing ISV) – Trayport offers its GV Portal, which allows exchanges to connect into Trading Gateway.
46. To clearinghouses, Trayport provides Straight-Through-Process (STP) access to OTC brokers that use Trayport’s back-end. This clearing connectivity is [✂] to OTC brokers, but clearinghouses may pay [✂].
47. ICE told us that in practice, the OTC brokers and exchanges that use Trayport infrastructure (ie back-ends) are available to traders only via Trayport, in part due to the functional integration of these back-ends with Trading Gateway. This was confirmed by all third parties, although they stated that the reason for this is Trayport’s stringent contractual clauses. This means that Trayport is a closed system because, on the one hand, traders cannot trade on venues hosted on Trayport without using Trayport’s software and, on the other hand, the venues hosted on Trayport cannot be accessed by alternative front-end screens without paying for Trayport’s software.

Frame of reference

48. The CMA considers that market definition provides a framework for assessing the competitive effects of a merger and 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, as it is recognised that there can be constraints on merger 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.¹⁷

¹⁷ [Merger Assessment Guidelines](#), paragraph 5.2.2. 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).

Product scope

49. Typically the CMA's approach to market definition is to begin with the overlap products of the Parties in the narrowest plausible candidate market and then to assess whether this can be widened on the basis of demand-side substitution and, under certain circumstances, supply-side factors.
50. ICE and Trayport both supply front-end access services (ICE's WebICE software and Trayport's Joule/Trading Gateway software, respectively) which allow traders to access energy trading venues and initiate trades on those trading venues. These front-end access services facilitate the execution of trades on those trading venues by providing access to real time market data and order books. In the case of WebICE, it provides access to ICE's own exchanges. In the case of Joule/Trading Gateway, it provides access to all trading venues hosted on Trayport (OTC brokers' marketplaces and exchanges' marketplaces) using Trayport's BTS and ETS back-end software, and to those exchanges connected to Trayport via GV Portal. In addition to the services above, Trayport's Trading Gateway aggregates real-time market activity and pricing information across the various trading venues connected via an API. WebICE provides the same service but only for ICE exchanges. The CMA has taken the supply of energy trading front-end access services as a relevant frame of reference.¹⁸
51. Trayport provides OTC brokers and exchanges hosted on Trayport with the technology necessary to execute trading in energy products on their trading venues (ie the back-end or matching engine – BTS for OTC brokers and ETS for exchanges). These Trayport services can be regarded as an input into the business activities of these OTC brokers and exchanges, which in turn compete with ICE exchanges in the execution of trades. The CMA has taken the supply of back-end technology to OTC brokers and exchanges, respectively, as relevant product frames of reference.
52. Trayport also provides services to clearinghouses: the STP link that connects clearinghouses with OTC brokers hosted on Trayport's back-end (ie BTS). The CMA has taken the supply of STP link to clearinghouses as a relevant product frame of reference.
53. Downstream to the above, there are the following services: the execution of trades and the clearing of trades. The former can be done OTC or on-exchange, and we discuss in the competitive assessment below the extent to which they are substitutable to one another. The latter is done by exchanges

¹⁸ This includes also the supply of ancillary services to traders such as regulatory reporting services and market data services.

through their clearinghouses. ICE is active in on-exchange trading and clearing services. The CMA has considered whether a foreclosure strategy may adversely affect ICE's rivals from competing in the supply of these downstream services.

54. The CMA notes that its assessment of the effects of the Merger on competition may vary by asset class (eg power, gas, electricity, etc.) and product (eg spot contracts, forwards, futures, etc.). This is relevant, in particular, in assessing the extent of competition between ICE and its OTC broker, exchange and clearinghouse rivals pre-Merger, which is relevant to the CMA's assessment of vertical effects and horizontal unilateral effects in this case. By way of example, Ofgem told the CMA that the power (electricity) market is much less liquid than the gas market and this means that by its nature most traders trade physical contracts, which lend themselves more to OTC/bilateral trading than on-exchange trading. Ofgem also said that in the gas market spot contracts tend to be traded OTC during 'office hours' and on exchanges predominantly outside 'office hours'. On the basis of these examples, it is possible that the level of pre-Merger competition between exchanges and OTC brokers may vary by asset classes and by products, and that this may, for example, impact on ICE's ability and incentive to foreclose its OTC broker rivals in certain asset classes/products.
55. In any event, the CMA considers that any competition concerns identified are likely to be applicable to more than one asset class, and therefore its assessment can be broadly applied across the energy market where both Trayport and ICE are active in a number of asset classes, including emissions, coal, and UK and EU power and gas. As such, it has not been necessary to segment the frame of reference further.

Conclusion on product scope

56. For the reasons set out above, the CMA has considered the impact of the Merger in the following product frames of reference:
 - (a) the provision of energy trading front-end access services;
 - (b) the supply of back-end technology to OTC brokers and exchanges, respectively; and
 - (c) the supply of STP link to clearinghouses.

Geographic scope

57. In assessing the scope of the geographic frame of reference, the CMA notes that previous European Commission and UK competition authority decisions have found that markets for the facilitation of energy trading are national or EEA-wide in scope. The CMA has considered the competitive effects of the Merger using trading data collected on an EU-wide basis and taken this as a proxy for the activity of UK based customers (as explained above in the section on 'Jurisdiction' and footnote 6). The CMA recognises that the effects of the Merger may be more acutely felt in the UK for specific asset classes, eg UK gas and power, but considers that any such concerns would be captured by the use of EU-wide trading data. As such, and as shown in the competitive assessment, the CMA has not found it necessary to conclude whether the appropriate geographic frame of reference is national or EU-wide (or EEA-wide) because it considers it would not result in a materially different outcome of its assessment of the competitive effects of the Merger.

Summary of geographic scope

58. For the reasons set out above, the CMA has considered the impact of the Merger on an EU-wide basis using relevant trading data as a proxy for energy derivatives trading activity in the UK.

Conclusion on frame of reference

59. For the reasons set out above, the CMA has considered the impact of the Merger on an EU-wide basis, which serves as a proxy for customer activity in the UK, under the following frames of reference:
- (a) the provision of energy trading front-end access services;
 - (b) the supply of back-end technology to OTC brokers and exchanges, respectively; and
 - (c) the supply of STP link to clearinghouses;

Competitive assessment

60. As set out in the next sections, we have assessed the following theories of harm (**TOH**):
- 1. Vertical effects arising through input foreclosure of competing exchanges.

2. Vertical effects arising through input foreclosure of competing OTC brokers.
 3. Vertical effects arising through input foreclosure of competing clearinghouses.
 4. Horizontal unilateral effects arising from the loss of competition in the supply of energy trading front-end access services.
61. Although in theory ICE post-Merger could totally foreclose competing exchanges, OTC brokers and clearinghouses, the CMA considers that a more plausible strategy for ICE would be to partially foreclose its rivals.¹⁹ For this reason, in each of the vertical TOH assessed below the CMA has considered the extent to which ICE would have the ability and incentives to partially foreclose rivals.
62. The CMA analyses each TOH in turn below.

Vertical effects of the Merger

63. Under certain conditions, non-horizontal mergers can weaken rivalry. The theories of harm raised by such mergers typically involve the merged firm harming the ability of its rivals to compete post-merger, for example by raising effective prices to its rivals, or by refusing to supply them completely. Such actions may harm the ability of the merged firm's rivals to provide a competitive constraint into the future.²⁰
64. The CMA will typically frame its analysis of non-horizontal mergers by reference to the following three questions:
- (a) Ability: Would the merged firm have the ability to harm rivals, for example through raising prices or refusing to supply them?
 - (b) Incentive: Would it find it profitable to do so?
 - (c) Effect: Would the effect of any action by the merged firm be sufficient to reduce competition in the affected market to the extent that, in the context of the market in question, it gives rise to an SLC?

¹⁹ Total foreclosure could be implemented by, for example, refusing to continue to connect competing exchanges via Trayport's GV Portal or via Trayport's back-end supplied to both exchanges and OTC brokers or refusing to supply Trayport's STP to competing clearinghouses.

²⁰ [Merger Assessment Guidelines](#), paragraph 5.6.5. 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).

65. The CMA has considered the limbs set out above for each of its vertical theories of harm in this case.

TOH 1: Vertical effects arising through input foreclosure of competing exchanges

Framework and mechanisms

66. The CMA has assessed whether the merged entity may foreclose competing exchanges using its ownership of Trayport's technology, with the aim of diverting their trades to ICE's exchanges and/or protecting its current market position, and thus harming their ability to compete. These theories of harm are also informed by a complaint [redacted] submitted to the CMA in August 2014 when a competing exchange (CME) was in the final stages of purchasing Trayport from GFI. [redacted] alerted the CMA to the risk of vertical foreclosure such an acquisition could give rise to.²¹
67. In particular, the merged entity may foreclose rival exchanges by: (i) increasing the licence fee Trayport charges for its back-end technology, to those exchanges that use Trayport's back-end;²² (ii) increasing the licence fee Trayport charges for the connection to Trading Gateway to those exchanges who use their own back-ends and are connected via GV Portal; (iii) degrading the quality of their offering over time, for example, by slowing the listing of their rivals prices and products on Trayport's front-end access screen; and/or (iv) putting OTC brokers or exchanges at a competitive disadvantage as a result of ICE's access to commercially sensitive information available via Trayport and concerning the activities of competing OTC brokers and/or exchanges. Foreclosure could result in an increase in competitors' prices and/or a worsening of the competitors' offering vis-à-vis ICE's, and in traders switching trades to ICE exchanges and, ultimately, could result in a reduction in competition in on-exchange energy trading execution and clearing services.

Ability

ICE's views

68. ICE told the CMA that most of the key competitors of ICE in EU utilities do not licence Trayport's back-end. ICE also said that there is nothing unique about

²¹ [redacted] submission to the CMA of 14 August 2014 in relation to CME's proposed acquisition of Trayport. The CMA notes that the submission stated, 'CME may leverage its control of Trayport's frontend aggregated trading system, which allows users to view and trade across multiple trading venues via a single screen, to unfairly favour CME's own trading activities/execution platform.'

²² These exchanges are currently: [redacted]

Trayport's software and that other ISVs and exchange groups offer a front-end and matching engine (ie back-end) services to European utilities markets. In addition, ICE said that the threat of retaliation from market participants would prevent foreclosure in practice. In particular, ICE said that traders could divert futures trading of ICE's contracts to trading futures on another exchange such as PEGAS (ie EEX), CME or Nasdaq or trading OTC with brokers. Traders and/or OTC brokers could also divert OTC trades currently cleared on ICE to another clearinghouse. ICE said that, since it charges per trade, the effect of diverting material trading or clearing volumes to its rivals would be significant and highly detrimental to ICE.²³

69. ICE told the CMA that Trayport has limited confidential information which is genuinely competitively sensitive and that it has internal controls to protect the confidentiality of such information. However, it recognised that the most sensitive information held or accessible by Trayport is trading activity at a user level. [REDACTED]

Third parties' views

70. Exchanges that currently use Trayport's back-end technology expressed to us serious concerns about the Merger. In particular, they told us the following:
- [REDACTED] told us that [50-100]% of trades executed on its exchange are routed through Trayport and that any alternative to Trayport would still require Trayport services and licensing. [REDACTED] told the CMA that, 'We are deeply concerned because the supplier of our trading system [REDACTED] will be acquired by one of our competitors.'
 - [REDACTED], told us that [50-100]% of trades executed on its exchange are routed through Trayport and that its alternatives to Trayport would be to: (i) [REDACTED] but that this is a weak [REDACTED], or (ii) cooperate with [REDACTED] which is not a real alternative because its system is also connected to Trayport. [REDACTED] said that it is concerned that ICE may be tempted to slowly degrade the Trayport services in order to strengthen WebICE, which poses the risk of an increase in the price of Trayport services and/or the setting up of stricter or special conditions for access to Trayport's platform in favour of ICE.
 - [REDACTED], said that, 'As a result of acquiring Trayport, ICE clearly has the ability to reduce the relative ease with which traders can use [REDACTED] and other exchanges (and the relative competitive offerings of ICE and competing exchanges more generally to the detriment of competing exchanges).'

²³ ICE response to CMA follow up questions on vertical ToH, contact details and share of supply of 24 February 2016 (dated 8 March).

Should it pursue this strategy, significant volumes would undoubtedly shift from [X] (and other exchanges) to ICE. The products traded are the same, customers readily choose between the two currently, and customers are sensitive to variations in the offerings of competing exchanges.' ICE would be able to impact all of the volumes of [X] (and a similarly large proportion of the volumes of all the exchanges) thereby reducing the ability of [X] and other exchanges to compete with ICE.' Lastly, it said that there is no easily feasible nor affordable alternative to Trayport that would allow [X] to remain competitive.

71. We also sought the view of competing exchanges that use their own proprietary matching engine but connect to Trayport via GV Portal. These third parties also expressed concerns as explained below:
- (a) [X] said that it uses [X] Trayport [X] and [X]. [X] has also provided evidence showing that approximately [50-100%] its trades in [X] are generated through Trayport ([X]). However, an additional [0-10%] of [X] trades and [20-50%] of [X] trades are received from [X] which is an ISV that currently needs access to Trayport. [X] expressed concerns that post-Merger ICE could use Trayport to increase its own exchange's share by influencing the functioning of Trading Gateway to favour its own business.
 - (b) [X] said that it uses [X] Trayport (through GV Portal) and [X]. It said that, in all commodity markets other than [X] core business, Trayport is essential in order to compete. It said that Trayport is not unique for its front-end system and functionality, but for its level of distribution and market information that allows market participants to get a complete view of the respective markets. It submitted that it is practically impossible to switch away from Trayport as there are no feasible alternatives available. [X] said that, 'In order to secure a fair and orderly competition between ICE and other exchanges and market places using Trayport it is of great importance that ICE is in no way treated differently in relation to pricing, technical infrastructure, features or connectivity giving competitive advantages for ICE and preferable routing to their exchange and clearing services. Further it is important that all Exchanges and Brokers have reasonable cost[s] for accessing and using Trayport in order to prevent a soft barrier for accessing and using Trayport.'
72. Two traders have also expressed concerns during our market testing that ICE post-Merger may foreclose competing exchanges.
73. On the basis of the evidence above, the CMA considers that both exchanges that use Trayport's back-end and exchanges that have their own matching

engine and order book technology (ie back-end) but are currently connected to Trayport via GV Portal, depend substantially on Trayport's software as an input into the execution of energy trades on their venues. The CMA considers that foreclosure of Trayport's competitors in the form of higher prices and/or a reduction in service quality offered to competing exchanges would therefore result in limited, if any, profit lost because of exchanges switching away from Trayport's software (ie back-end solution and GV Portal link). Moreover, given the integration between Trading Gateway/Joule and Trayport's back-ends (as explained in paragraph 47 above), a move away from Trayport could not be limited to the back-end but would need to be accompanied also by a move of front-end. Given the presence of significant network effects due to the aggregation of liquidity, a move away from Trayport for both back-end and front-end technologies by exchanges and traders respectively would be needed. Such a move would not only require considerable investment costs and time, but also would need coordination between trading venues and traders.

74. For this reason, the CMA considers that post-Merger ICE would have the ability to harm competing exchanges by increasing the licence fee Trayport charges for its back-end technology, for those exchanges that use Trayport's back-end; or by increasing the licence fee Trayport charges for the connection to Trading Gateway (ie GV Portal), for those exchanges that use their own back-ends; and/or degrading the quality of their offering. We consider that rivals would find it difficult and costly to avoid such price increase and/or deterioration of service quality by switching to alternatives so that they would be unlikely to do it for a 5-10% increase in fees by Trayport.
75. We also received some concerns about the ability of ICE to gain access to commercially sensitive information available to Trayport about ICE's rivals and use it to put these rivals at a competitive disadvantage.
 - (a) [redacted] exchange, [redacted], said that post-Merger ICE would have access to competitors' customer data, including trading volume and activity, orders posted by traders, pricing and technology pricing rates, new product development and technical development, new regions served and new exchange collaborations. [redacted] told the CMA that all this information could be used to increase rivals' direct costs and advance ICE's own products to the disadvantage of rivals (particularly through the access to rivals' innovative ideas at a pre-launch stage). Another exchange, [redacted], said that this information could be used by ICE to target customers and develop 'uncompetitive' pricing/products.
 - (b) [redacted], told the CMA that with the acquisition ICE would gain a complete overview of the traded OTC and traded exchange market and that, due to

the access to Trayport data combined with the significance of data processed through Trayport, ICE would gain a significant degree of market intelligence compared to any other exchange, broker or any other market participant.

(c) A trader, [REDACTED], said that the acquisition gives ICE a 'complete overview of all transactions in the European energy markets' which, combined with other TOHs, would lead to higher costs, reduced competition and reduced market liquidity. Another trader, [REDACTED], said that data on platforms and brokers used by traders would give ICE information on its competitors and lead to unfair competition.

76. The FCA told us that it would expect to be common practice for confidentiality agreements to be in place in these circumstances, to prevent the disclosure or misuse of commercially sensitive information. The FCA would expect that Trayport's clients (and ICE's competitors) would be able to enforce such agreements against ICE, in case of misuse of information. In addition, the FCA told us that the previous owner of Trayport, GFI, was also a broker and an operator in this space and that, therefore, to some extent this risk may have already existed under the previous ownership.
77. The CMA also recognises that, as stated by ICE, the confidentiality constraints in Trayport's licences with venues and traders means that it is contractually restricted from sharing confidential customer information (in particular transaction data relating to each specific customer) with third parties, which would include affiliates within the ICE group. However, the CMA notes that the drafting of such licences would have had regard to Trayport's ownership structure at that time and thus would have focused in particular on ensuring that no broker was able to obtain an advantage through the use of the data.
78. Access to commercially sensitive information is a concern relevant to all three vertical theories of harm. The CMA considers it is a further mechanism through which ICE's rivals could be competitively disadvantaged post-Merger. However, the CMA also recognises that contractual restrictions, and recourse to contractual damages, along with reputational risks, may prevent ICE from using this information to its advantage. As such, the CMA considers access to commercially sensitive information to be a relevant factor in its consideration of the competitive effects of the Merger in the round but it has not considered it as a separate standalone theory of harm any further in this decision.

Incentive

79. The merged firm would have an incentive to foreclose competing exchanges to the extent that any profit gained by the merged entity from executing more trades on ICE exceeded the profit lost, if any, from exchanges who switched from Trayport to other alternatives.
80. On the basis of the evidence above, the CMA considers that the profit loss that could result from this strategy appears to be low because of a lack of alternatives for competing exchanges, which are likely to remain on Trayport and pass any cost increases on to traders executing on their venues. This may in turn result in traders seeking to trade directly using ICE's own vertically-integrated solution to avoid these increased costs.
81. To assess the extent to which ICE would be able to gain profits by foreclosing competing exchanges we considered the extent to which ICE and its rival exchanges compete in certain asset classes. We have considered the following factors: (i) ICE market shares calculated as a proportion of trades executed in 2015;²⁴ (ii) the Parties' internal documents; and (iii) third parties' views. The CMA has found the following:
- (a) UK gas: ICE has nearly 100% of exchange based trades of this market. EEX (through Powernext) is active with a share close to zero.
 - (b) EU gas (excl UK): ICE has 71% of exchange based trades of this market. EEX (through Powernext) is active with a share of 28.2%.
 - (c) UK power: ICE has 100% of exchange based trades of this market. No other exchange is active.
 - (d) EU power (excl UK): ICE has 2.8% of exchange based trades of this market. EEX has 49.4% shares and Nasdaq 38.9%.
 - (e) EU coal: According to the data provided by ICE, ICE has 100% of exchange based screen trades of this market. No other exchange is active in this market. However in an internal document ICE recognizes that, despite the introduction of a revised liquidity programme and cutting of screen transaction fees, ICE's coal futures market share dwindled in 2014 as CME targeted customers with further fee cuts. Futures market share was 31% in 2014, down from 44% in 2013. ICE's coal options market share was not impacted to the same extent but ICE said that it has

²⁴ Data provided by ICE in "Question C. Trading Volume Data 2014 and 2015" submitted to the CMA on 4 March 2016. ICE market shares have been calculated as a proportion of the volumes executed in 2015 by ICE, EEX, PEGAS, CME and Nasdaq.

started to see some erosion since the CME introduced automatic exercise.²⁵ A trader, [REDACTED], told the CMA that CME is the default choice in this market but that ICE is a close competitor.

(f) Emissions: A competing exchange, [REDACTED], told the CMA that ICE has a dominant position and in the past year it has taken close to full control of this market.

82. On the basis of the evidence above, the CMA considers that ICE has a significant position across a number of asset classes eg EU natural gas and EU coal – and a smaller, but still a presence, in some other assets classes eg. EU power. As such the CMA considers that the profit that ICE would gain from foreclosing competing exchanges would be significant: (i) in asset classes where ICE has pre-Merger a strong position as ICE would reduce the ability of rival new entrants to compete and, in doing so, defend its current market position; and (ii) in asset classes where ICE is a smaller player ICE could reduce competition from rival exchanges that pre-Merger have significant market shares in some markets.

83. ICE provided an estimate of the annual revenue at risk as evidence on its lack of incentives to foreclose. ICE's estimate indicated that the maximum annual gain from foreclosure might be [REDACTED] compared to the annual revenues "at risk" of [REDACTED]. The CMA notes that this analysis assumes that Trayport would be totally prejudiced following total foreclosure. And, as explained above, the CMA considers that partial foreclosure would be a more plausible strategy and considers that ICE's analysis was not substantiated by supporting detailed data or documents. Moreover, customer retaliation assumes that it is possible for rival exchanges to switch to alternatives that, as explained above, is not possible in this case.

84. On the basis of the evidence available to it, the CMA considers that post-Merger ICE may have the incentive to foreclose competing exchanges in certain asset classes.

Effect

85. The CMA has received significant third party concerns from rival exchanges indicating that any increase in Trayport's licensing fees and/or a reduction in service quality (ie reduced connectivity, de-prioritisation of price listings on Trading Gateway, de-prioritisation of new product listings on the Trayport back-end, etc.) would seriously prejudice their ability to compete in the on-exchange execution of trades. On the basis of the evidence available, the

²⁵ See "IFEU Board strategy 2015" submitted to the CMA as Annex 18.

CMA considers it realistic that if ICE's rivals were to be partially foreclosed this would significantly harm competition between rival exchanges for the execution of trades on their venues.

Conclusion

86. Based on the evidence set out above, the CMA believes that there is a realistic prospect of an SLC as a result of vertical foreclosure arising through input foreclosure of competing exchanges.

TOH 2: Vertical effects arising through input foreclosure of competing OTC brokers

87. The CMA has assessed whether the merged entity may foreclose OTC brokers using Trayport's back-ends, with the aim of diverting their trades to ICE's exchanges, and thus harming their ability to compete.
88. In particular, the merged entity may foreclose OTC brokers by increasing the licence fee Trayport charges for its back-end technology and/or by degrading the quality of their offering, for example, by slowing the listing of their prices and products on Trayport's front-end access screen. This would result in an increase in competitors' prices and/or a worsening of the competitors' offering vis-à-vis ICE's and in traders switching trades to ICE exchanges and, ultimately, could result in a reduction in competition in (on-exchange and OTC-brokered) energy trading execution services.

Ability

89. The CMA has considered if, and the extent to which, OTC brokers would be able to switch to alternative solutions in case of an increase in the licence fee of Trayport's back-ends and/or a degradation of their offering available on Trayport. ICE stated that, in practice, the trading venues that use Trayport's infrastructure are available only via Trayport in part due to the functional integration of these back-ends with Trayport's front-end. This was confirmed by the third parties that responded to the CMA, although these respondents stated that this is due to Trayport's stringent contractual clauses.
90. For example, in 2012, ICE entered into an agreement with a broker, Griffin, which covered the provision of an electronic trading platform including WebICE, for the Griffin OTC markets and related support services. The Griffin markets initially included OTC bilateral and OTC cleared markets in respect of UK and EU natural gas, power and coal. Griffin launched its offering in March 2013 and broadened the services it provided during 2013. In 2014, however, Griffin decided to change its business strategy and switch from a standalone

OTC proposition to price aggregation with other OTC brokers and switched to Trayport's software ending its agreement with ICE. It was put to us by [X] that 'ICE's sponsoring of Griffin was an attempt by ICE to compete with Trayport in both platform provision and facilitation of all energy trading, ie OTC bilateral forwards as well as exchange executed futures. It submitted that ICE effectively wanted to control the trader front-end for both OTC broker executed and exchange executed trades'. However, this third party submitted that whilst Griffin connected many customers to its front-end platform it found it extremely difficult to do so in a reasonable time period (given cash burn rates) and in sufficiently large initial numbers to establish a credible, standalone, non-Trayport liquidity pool. Effectively this was due to Trayport's 'monopoly' position allowing Trayport to control the liquidity pools and broker venues to which traders are allowed to connect.

91. The CMA therefore considers that OTC brokers would not be able to use alternatives to Trayport's back-end technology linked to Joule/Trading Gateway to, for example, avoid any deterioration in the quality of their services available on Trayport. OTC brokers would need to switch both back-ends and front-end, but this would require significant investments, cost and time. The CMA therefore considers that rival OTC brokers would not be able to avoid a price increase/reduction of quality by switching to alternatives and, as such, ICE would have the ability to partially foreclose its OTC broker rivals post-Merger.

Incentives

92. The merged firm would have an incentive to foreclose competing OTC brokers to the extent that any profit gained by the merged entity from executing more trades on ICE exceeded the profit lost, if any, from OTC brokers who switched from Trayport to other back-end/front-end solutions. On the basis of the above, the CMA considers that the profit loss that could result from this strategy appears to be very low because of a lack of alternatives for competing OTC brokers, which are likely to remain on Trayport and pass any cost increases on to traders executing on their venues. The CMA notes that all OTC brokers active in energy trading are currently using Trayport's infrastructure and would therefore be affected by an increase in their costs.
93. The profit gained from the (partial) foreclosure of OTC brokers depends on the extent of substitutability between OTC trading and on-exchange trading which may vary across asset classes and products.
94. ICE said that it is certainly the case that there is direct competition between OTC and on-exchange trading of energy and commodity derivatives in the sense that traders can often realistically choose between these options. This

means that OTC contracts can be just as effective a constraint on ICE's futures contracts as contracts offered by other exchanges. It told the CMA that in utilities trading, the vast majority of trading is conducted OTC, and customers use on-exchange and OTC trading interchangeably on a constant basis. Therefore, OTC trading is a competitive constraint on the exchange traded derivatives offered by ICE. It added that this competitive constraint is apparent from how trading is implemented; for example ISVs allow users to compare OTC and on-exchange prices and bid/ask spreads for equivalent derivatives products in real-time as a single market on one screen. ICE submitted that this strongly suggests that OTC trading exerts a competitive constraint on on-exchange trading.

95. Third parties confirmed to us that OTC trading (bilateral and cleared) and on-exchange trading are generally seen as substitutes from the perspective of traders, although there are important differences for example around the nature of the clearing, counterparty and collateral requirements and the associated costs.
96. In addition, on the basis of the evidence, the CMA considers that although OTC and on-exchange trading are differentiated products, OTC trading and on-exchange trading are to some extent substitutable to one another and that, consequently, the energy products traded on OTC brokers, accessible via Trayport, and on ICE exchanges are substitutable to one another from the perspective of traders.
97. To assess the extent to which ICE would be able to gain profits by foreclosing competing OTC brokers the CMA considered the extent to which ICE and its rival OTC brokers compete in certain asset classes. We considered ICE market shares calculated as a proportion of total trades (including on exchange and OTC trading) executed in 2015 and found the following:²⁶
 - (a) UK gas: ICE has approximately 59% of this market. The other 40% of UK natural gas is traded via OTC brokers.
 - (b) EU gas (excl UK): ICE has 16% of this market. The other 77% of EU natural gas is traded via OTC brokers.²⁷
 - (c) UK power: ICE has 1.4% of this market. All the rest is traded via OTC brokers.

²⁶ Data provided by ICE in "Question C. Trading Volume Data 2014 and 2015" submitted to the CMA on 4 March 2016. ICE market shares have been calculated as a proportion of the volumes executed in 2015 by exchanges (ie ICE, EEX, PEGAS, CME and Nasdaq) and OTC brokers that use BTS.

²⁷ EEX (through Powernext) is active with a share of 6.5%.

- (d) EU power (excl UK): ICE has 1.2% of this market. OTC trading accounts for the majority of the remaining trading, namely 61%.²⁸
- (e) EU coal: ICE has 3% of this market. All the rest is traded via OTC brokers.
98. On the basis of the evidence above, the CMA considers that ICE has a significant position across a number of asset classes, eg UK natural gas, and a smaller presence some other assets classes, eg EU natural gas and UK power. As such, the CMA considers that the profit that ICE would gain from foreclosing competing OTC brokers would be significant: (i) in asset classes where ICE has a strong position pre-Merger for which it would have the incentive to reduce the ability of rivals to compete in order to defend its current market position; and (ii) in asset classes where ICE is a smaller player it could reduce competition from rival OTC brokers, which pre-Merger have significant market shares in some asset classes, in order to divert trades.
99. On the basis of this evidence, the CMA considers that post-Merger ICE would be able to recapture some of the trades that would switch away from competing OTC brokers and would therefore have an incentive to foreclose competing OTC brokers.

Effect

100. For the reasons set out above, the CMA believes that partial foreclosure of OTC brokers may significantly reduce competition between ICE and its rival OTC brokers in the execution of trades in energy derivatives markets.

Conclusion

101. Based on the evidence set out above, the CMA believes that there is a realistic prospect of an SLC as a result of vertical foreclosure arising through input foreclosure of OTC brokers.

TOH 3: Vertical effects arising through input foreclosure of competing clearinghouses

102. ICE owns and operates a clearinghouse and it competes with other clearinghouses which are linked to Trayport through Clear Link, its STP service.

²⁸ EEX has 21% shares and Nasdaq 17% in this market.

103. The concern under this TOH is that post-Merger, ICE could foreclose competing clearinghouses from obtaining access to trades executed by OTC brokers that are hosted on Trayport and that need to be cleared.²⁹

Ability

104. To assess the extent to which rival clearinghouses depend on Trayport for the provision of clearing services to OTC brokers, the CMA has considered the extent to which competing clearinghouses receive most of their OTC trades to be cleared via Trayport:
- (a) [REDACTED] exchange [REDACTED], said that [50-100%] of [REDACTED] trades in [REDACTED], [50-100%] in [REDACTED] and [50-100%] of [REDACTED] come from Trayport STP. [REDACTED] also said that ICE will certainly seek to use the Trayport software to increase its own exchange's share or the amount of OTC trades that it clears from brokers, which may be in direct competition with Trayport's other [REDACTED] customers.
 - (b) Another exchange and clearinghouse, [REDACTED], told the CMA that it essential to establish an STP link with Trayport if you are to compete in the European energy space.
 - (c) Another exchange and clearinghouse, [REDACTED], uses Trayport to attract OTC cleared trades at its clearinghouse. It said that it is 'dependent' on Trayport for its European Utilities products, including for [REDACTED], and there is no other platform, [REDACTED], that can provide access to its commercial customer base. It is reliant on Trayport creating and listing its products on the Trayport screens and then maintaining the availability of these products and support for traders that want to use [REDACTED] clearing. [REDACTED] Trayport is the only facility that has access to the whole energy trading market, including brokers and traders.'
 - (d) Another exchange and clearinghouse, [REDACTED],³⁰ told us that ICE may eventually direct trading traffic on Trayport to ICE's proprietary platform instead. It also said that a further concern then would be that all such trades may subsequently be exclusively cleared by the clearinghouse operated by ICE. 'ICE's unfettered control of this clearing link presents an opportunity to disrupt fair and open access to other CCPs, either by mandating clearing on ICE or making it commercially unviable for other CCPs to retain the link. This is exacerbated by Trayport's monopoly in the OTC commodities space'.

²⁹ We note that ICE's CME/Trayport submission stated, 'CME may leverage its control of Trayport to direct OTC clearing volumes to its clearinghouse.'

³⁰ [REDACTED]

105. The CMA has also sought third parties' views on how they would process OTC cleared trades if Trayport's STP were not available:
- (a) One trader ([REDACTED]) and five OTC brokers ([REDACTED]) said that an alternative would be to manually register executed trades at the clearinghouse. However they said that manual processing is operationally inefficient, slow and prone to errors.
 - (b) One trader ([REDACTED]) and four OTC brokers ([REDACTED]) told the CMA that an alternative channel would be EFETnet STP. Although two of them considered it a strong alternative, the majority of these respondents said that this channel is not sufficiently accepted by the market, does not support many clearinghouses, is not always operationally efficient and can be commercially prohibitive.
 - (c) Three OTC brokers ([REDACTED]) said that brokers' in-house systems are an alternative route for OTC cleared trades. However some respondents said that this solution leads to duplication of costs and that it would be impeded by the inability to pass trades to clearing from the point of execution.
106. Third parties have also said that the advantage of Trayport's STP link over the other alternatives is the ability to provide clearing ID and clearing status back into the trading screens of market participants. A number of third parties also explained that executed trades need to be sent to a clearinghouse within a very short period of time (ie 5 minutes or 15 minutes depending on the product) and that, for this reason, a timely registration of trades is very important. For this reason, alternatives to Trayport's STP link that do not allow for a timely registration, such as manual registration of executed trades, are considered weak alternatives.
107. The CMA has also received a number of concerns in relation to this TOH from competing clearinghouses – ie [REDACTED]³¹ [REDACTED]. In addition, five traders have also expressed concerns that ICE post-Merger may foreclose competing clearinghouses.
108. On the basis of the evidence above, the CMA considers that whilst there are alternatives to the Trayport STP link these are of inferior quality and higher cost. For this reason and on the basis of the evidence above, we consider that the available evidence suggests that the currently available alternatives to Trayport STP are not good substitutes and, as such, ICE may have the ability

³¹ [REDACTED] said that ICE may direct trading traffic on Trayport to ICE's proprietary platform and said that a further concern then would be that all such trades may subsequently be exclusively cleared by the clearinghouse operated by ICE.

to foreclose competing clearinghouses from obtaining access to OTC trades routed for clearing and/or favour ICE's clearinghouse operations.

Incentive

109. The merged firm would have an incentive to foreclose competing clearinghouses to the extent that any profit gained by the merged entity from clearing more OTC trades on ICE's clearinghouse exceeded the profit lost, if any, from clearinghouses that switched from Trayport STP link to alternative solutions.
110. ICE submitted that, since it charges per trade, the effect of diverting material trading or clearing volumes to its rivals would be significant and highly detrimental to ICE. As an example of this ability to retaliate, ICE said that it was historically the main clearer of OTC coal trades and that, following the introduction of CME's competitive commercial offer, its OTC clearing share has dropped from [90-100]% in June 2013 to [30-40]% currently.³² The CMA notes that with respect to this example, CME was reliant on its commercial arrangement with Trayport in order to attract clearing volumes and that absent access to Trayport's services, including listing of its products, CME may have been unable to successfully compete with ICE for the provision of clearing services for OTC coal trades.
111. The CMA considers that the profit loss that would result from this strategy appears to be low, given that alternative solutions to connect OTC brokers to clearinghouses seem of lower quality and higher costs. For this reason, the CMA considers that competing clearinghouses are likely to pass on the increased cost to traders and this may result in traders preferring to use ICE's vertically-integrated model.
112. In relation to the profit that ICE would gain from such strategy, we note that, given that all competing clearinghouses are currently using Trayport's STP link, ICE's clearinghouse would be the only available clearinghouse that, as explained above, would not be subject to increased costs and, therefore, would not increase prices to traders. As such, we consider that, following this strategy, trades would be switched to ICE's clearinghouse and ICE would be able to derive profit gains from an increased number of cleared OTC trades via clearing fees and/or other fees.

³² ICE response to CMA follow up questions on vertical ToH, contact details and share of supply of 24 February 2016 (dated 8 March).

113. Overall, the CMA considers that post-Merger ICE may have the incentive to foreclose competing clearinghouses from obtaining access to OTC trades routed for clearing.

Effect

114. For reasons similar to those set out in paragraph 85, the CMA believes that partial foreclosure of rival clearinghouses would significantly reduce competition between ICE and its rivals in the clearing of OTC trades in energy derivatives markets.

Conclusion

115. Based on the evidence set out above, the CMA believes that there is a realistic prospect of an SLC as a result of vertical foreclosure arising through input foreclosure of competing clearinghouses.

TOH 4: Horizontal unilateral effects arising from the loss of competition in the supply of energy trading front-end access services.

116. The CMA has also considered whether the Merger may lead to an SLC through horizontal unilateral effects arising from the loss of competition in the supply of energy trading front-end access services, and ancillary services to traders.

Framework and mechanisms

117. As explained above, Trayport offers traders Joule, a front-end trading screen that connects to Trading Gateway and charges [X]. In addition, Trayport offers traders a number of ancillary services such as regulatory reporting services and market data services. ICE supplies its front-end technology/software, WebICE, which provides traders with access to ICE's exchanges.³³ ICE also supplies ancillary services. Traders pay ICE data fees (which includes the provision of WebICE)³⁴ as well as trade execution fees (per transaction) and clearing fees (per transaction) to execute and clear trades on ICE exchanges and ICE clearinghouse respectively.
118. To the extent that energy products traded on venues accessible via Trayport and on ICE exchanges are substitutable for one another, traders may

³³ ICE's exchanges can also be accessed via 'conformed' third parties (ie independent software vendors (ISVs) or ICE customers who have developed their own in-house software) that allow traders to view ICE's real time market data and execute trades on ICE's exchanges.

³⁴ The parties told us that ICE's front-end (ie WebICE) is not monetised. ICE also told us that traders do not pay less if they do not want to use WebICE.

substitute between Trayport Joule/Trading Gateway and WebICE to access and initiate trades on these venues, and between Trayport and ICE for the provision of ancillary services. The substitutability between energy trading on venues hosted on Trayport and on ICE exchanges in turn reflects to a significant extent the substitutability between OTC trading and on-exchange trading. Although such substitutability varies by asset class/product, the evidence and considerations set out below are not at asset class/product level.

119. In relation to Trayport, the CMA notes that the Trayport licence fee charged to traders [§]. A trading business that increases its volume of trading is likely to require additional screens to initiate trades. If these fees were to increase, and assuming that there were substitute energy products available on ICE's exchanges, traders could in principle switch trades away from venues on Trayport to ICE, thus reducing the number of Joules/Trading Gateway screens needed. Therefore, even assuming traders continue to use Trayport (ie would not switch away all their transactions), there could still be a diversion of trades from Trayport and the venues hosted on Trayport to ICE in response to an increase in Trayport licence fee. This in turn would have a negative impact on Trayport's revenue.
120. Considering ICE's fees to traders, similar considerations as above could apply in relation to ICE execution fees and clearing fees which vary per transaction. If these fees were to increase traders could switch trades from ICE to Trayport and the venues hosted on Trayport, and this would have a negative impact on ICE's revenue.
121. On the basis of the considerations above, Trayport and ICE could be regarded as competing for liquidity pre-Merger, in particular to attract trades. Following the Merger, the merged entity could have an incentive to increase the Trayport licence fee charged to traders for Joule/Trading Gateway and/or ICE fees charged to traders, as trades that would have been lost pre-Merger would be recaptured.³⁵ In addition to price effects, the merged entity could also degrade the service quality, reduce the range of services provided to traders and/or close Joule/Trading Gateway or WebICE access to certain asset classes. In the longer run, the merged entity could also reduce investments in innovation.

³⁵ The CMA notes that the merged entity could in principle also act indirectly on the fees paid by traders for the execution or clearing of trades on trading venues hosted on Trayport by (i) increasing Trayport's licence fee charged to OTC brokers and/or exchanges that use Trayport's back-ends and/or (ii) increasing Trayport's fees charged to clearinghouses for the STP connection to OTC brokers. Assuming some pass-through of these increased costs from trading venues/clearing houses to traders, these last two mechanisms would lead to an increase in the execution fees and clearing fees, respectively, that trading venues/clearing houses on Trayport charge to traders.

122. In what follows, the focus of the competitive assessment will be on the loss of existing competition between ICE and Trayport in the supply of front-end access and ancillary services to traders, although we note that some of the evidence is also relevant in a dynamic context.

Closeness of competition

123. As part of the competitive assessment, the CMA sought to test whether the Parties were close competitors in the supply of front-end access and ancillary services, in particular by examining:

- the extent to which trading venues hosted on Trayport compete with ICE exchanges in the provision of energy trade execution services to traders; and
- the extent to which Trayport and ICE compete in the provision of front-end access and/or ancillary services to traders.

124. The CMA examined evidence, including the Parties' submissions, internal documents and comments submitted by third parties.

Closeness of competition between OTC and on-exchange trading

125. As noted above, the existence of pre-Merger competition between the Parties for the provision of energy trading front-end access services depends on the extent of substitutability between products traded on venues accessible via the Parties' front-end. This in turn relates to the extent of substitutability between OTC trading and on-exchange trading. On the basis of the evidence set out in paragraphs 92-101 above, the CMA considers that although OTC and on-exchange trading are differentiated products, OTC trading and on-exchange trading are to some extent substitutable to one another and that, consequently, the energy products traded on OTC brokers accessible via Trayport and on ICE exchanges are substitutable to one another from the perspective of traders.

Closeness of competition between the Parties

ICE's views

126. ICE submitted that there is no horizontal overlap between the activities of ICE and Trayport because ICE does not provide an aggregator screen that allows customers to view real-time prices or execute trades on multiple OTC marketplaces or on any exchange other than ICE's regulated marketplaces. Trayport is only a supplier of software – ie ISV – and ICE does not have a

standalone technology business that competes with multi-exchange ISVs or with other firms who supply their exchange software and services to third party exchanges on a standalone basis effectively as an ISV. Whereas Trayport software is licenced to exchanges, OTC brokers and traders.

127. ICE also submitted that the WebICE screen is not a substitute for Trayport's front-end and that traders would not switch to WebICE if the latter were not available. Lastly, ICE said that because Trayport's software 'platform' is used by the main OTC brokers in energy, Trayport is routinely conflated with OTC brokers and OTC trading so that third parties are confused and their comments do not demonstrate horizontal competition between ICE and Trayport.
128. The CMA also received evidence in relation to ICE's strategic partnerships with OTC brokers in the past:
- In 2009 ICE entered into a partnership with ICAP with the purpose of adding electronic trading capability to ICAP's oil broking desk. [REDACTED].³⁶
 - In 2012, ICE entered into an agreement with another broker, Griffin, which covered the provision of an electronic trading platform including WebICE, for the Griffin OTC markets and related support services.³⁷
129. ICE submitted that neither of ICE's collaborations with OTC brokers was aimed at displacing Trayport. In particular, the partnership with ICAP concerned oil markets where Trayport is not relevant. In addition, ICE stated that Griffin called an end to the collaboration when it decided to adopt a different business model for which ICE's WebICE business model was not an option. According to ICE, this shows that ICE's past willingness to provide WebICE to support these collaborations was not a competitive threat to Trayport.³⁸

³⁶ [REDACTED].

³⁷ [REDACTED]. The Griffin markets initially included OTC bilateral and OTC cleared markets in respect of UK and EU natural gas, power and coal. Griffin launched its offering in March 2013 and broadened the services it provided during 2013. In 2014, however, Griffin decided to change its business strategy and switch from a standalone OTC proposition to price aggregation with other OTC brokers. For this reason, Griffin wanted to use Trayport's software offering, including its back-ends, and the ICE and Griffin partnership concluded.

³⁸ ICE stated that, "Therefore, there are only two areas of potential horizontal concern highlighted by complainants where the CMA will wish to be reassured that no SLC can arise: (i) WebICE does have similar front-end functionality to TGW; however, it does not provide an aggregation option; (ii) the Griffin and ICAP initiatives were both ventures with specific business objectives for ICE, and were not designed to displace Trayport. See Annex 3 submitted by ICE in response to the Issues Letter.

Third party views

130. The majority of third parties (23 out of 41) responding to the CMA's market test said that the Parties compete in the provision of front-end access services and/or provision of trading facilitation services. For example, a broker, [X], told the CMA that the Parties do compete in front-end access because ICE's front-end platform (WebICE) connects to its exchanges in energy markets where Trayport's front-end platform aggregates OTC liquidity. In addition, the Parties compete in the facilitation of energy trading because in UK and EU gas, UK power and coal trade matches occur on both the Trayport back-ends run by OTC brokers and the ICE Europe exchanges. A trader, [X], said that as Trayport is the only way to access the brokered markets, there is clear competition between the parties for front-end access services and related trade facilitation services (eg clearing). Another trader said that the Parties compete because Trayport brings together the energy brokered markets whereas ICE provides a cleared exchange trading venue for energy futures and options.
131. It was put to us by a broker, [X], that ICE's sponsoring of Griffin was an attempt by ICE to compete with Trayport in both platform provision and facilitation of all energy trading, ie OTC bilateral forwards as well as exchange executed futures. Another third party, [X], told the CMA that in recent years ICE has made numerous attempts to challenge Trayport's dominance, including via the Griffin collaboration, but WebICE screen has failed to attract sufficient liquidity in these market segments in order to become an alternative to Trayport aggregators and screens. [X].
132. A number of third parties (10 traders out of 19) have expressed concerns that the Merger may give rise to unilateral horizontal effects.

Internal documents

133. The CMA has also reviewed a number of internal documents. One internal document prepared by Trayport, indicates that [X]. ICE submitted that it did not agree with Trayport's suggestion and that, in any case, it did not concern existing uses of Joule or WebICE. Another internal document suggests that [X]. ICE explained that in this document [X], and thus ICE's goal is to attract liquidity which currently trades on OTC broker platforms to its own exchange.³⁹

³⁹ See Annex 23, "Utility markets strategy day", dated 3rd September 2015. Slide 38 and 39.

Competitive constraints

134. ICE told the CMA that numerous ISVs and exchange groups offer equivalent front-end and matching engine software. It said that Trayport's success is based on its customer relationships not on any unique software functionality that it has developed. However, as set out above, ICE also said that, in practice, the OTC brokers and exchanges that use Trayport's infrastructure are available only via Trayport in part due to the functional integration of these back-ends with Trayport's front-end. This was confirmed by the third parties that responded to the CMA, although these respondents stated that this is due to Trayport's stringent contractual clause and closed system which means that traders cannot currently use alternative front-end technologies to access all the trading venues (both OTC brokers and exchanges) using Trayport's back-end infrastructure.
135. The CMA also considers that, as explained above in paragraphs 66 to 86, the proprietary front-end technology/software of competing exchanges that offer them, such as CME, has not gained traction in the energy trading market, despite offering comparable solutions.

Conclusions on horizontal unilateral effects

136. On basis of the evidence set out above, the CMA considers that there are reasons to believe that the Merger may give rise to some concerns in relation to the supply of energy trading front-end access services, and/or ancillary services to traders. Nonetheless, the CMA recognises that, some of the evidence set out above points towards different conclusions.
137. Overall, the CMA cannot exclude that the Merger may result in a realistic prospect of a horizontal SLC in the supply of front-end access and ancillary services to traders. In any event, the vertical theories of harm are themselves each sufficient to justify making a reference.

Barriers to entry and expansion

138. Entry, or expansion of existing firms, can mitigate the initial effect of a merger on competition, and in some cases may mean that there is no substantial lessening of competition. In assessing whether entry or expansion might prevent a substantial lessening of competition, the CMA considers whether such entry or expansion would be timely, likely and sufficient.⁴⁰

⁴⁰ [Merger Assessment Guidelines](#), from paragraph 5.8.1. 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).

139. Most third parties that responded indicated that entry would be costly. Most importantly, , given the presence of significant network effects due to the aggregation of liquidity, they stated that some coordination would be necessary to attract sufficient liquidity to establish a rival to Trayport. A number of third parties pointed to the failed attempt of Griffin to attract liquidity to its platform when it was hosted on the ICE infrastructure as evidence of the high barriers to entry.
140. The CMA believes that entry or expansion or rivals would not be timely, likely or likely to prevent a realistic prospect of a substantial lessening of competition as a result of the Merger.

Countervailing buyer power

141. ICE told the CMA that many market participants could retaliate against actions described in the theories of harm. We consider that, given our competitive assessment and evidence from customer and competitors, traders and brokers would have weak or no alternatives in the short term. We recognise that in the longer term alternatives to Trayport may arise but we did not receive evidence that, at this stage, this would be timely, likely and sufficient. In addition, we consider that, even if traders and/or brokers could retaliate in markets other than energy trading, it is likely that only a subset of customers would be able to retaliate and their actions would not protect others from an increase in price and/or deterioration of quality

Third party views

142. The CMA contacted customers and competitors of the Parties. Most third parties (over three quarters) expressed concerns about the Merger. Concerns included concerns from rival exchanges and clearing houses at the ability and incentive of the merged entity to foreclose them. Some OTC brokers and many traders raised concerns about the scope for horizontal effects eg increases in price. Third party comments have been taken into account where appropriate in the competitive assessment above.

Decision

143. Consequently, the CMA believes that it is or may be the case that the Merger has resulted, or may be expected to result, in a substantial lessening of competition within a market or markets in the United Kingdom.

144. The CMA therefore believes that it is under a duty to refer under section 22(1) of the Act. However, the duty to refer is not exercised⁴¹ whilst the CMA is considering whether to accept undertakings⁴² instead of making such a reference. ICE has until 5 May 2016⁴³ to offer an undertaking to the CMA.⁴⁴ The CMA will refer the Merger for a phase 2 investigation⁴⁵ if ICE does not offer an undertaking by this date; if ICE indicates before this date that it does not wish to offer an undertaking; or if the CMA decides⁴⁶ by 11 May 2016 that there are no reasonable grounds for believing that it might accept the undertaking offered by ICE, or a modified version of it.

Andrea Coscelli
Executive Director, Markets & Mergers
Competition and Markets Authority
27 April 2016

ⁱ In relation to paragraph 97, the Parties stated that the numbers presented exclude OTC voice and appear to exclude smaller exchanges. The Parties stated that if OTC voice were included, alternative figures would be:

Para 97(a)

- the 59% share for ICE would be 48% (incl. OMIP et al. and OTC voice)
- the 40% share for OTC brokers would be 52% (incl. OMIP et al. and OTC voice)

Para 97(b)

- the 16% share for ICE would be 11% (incl. OMIP et al. and OTC voice)
- the 77% share for OTC brokers would be 84% (incl. OMIP et al. and OTC voice)
- the 6.5% share for EEX would be 4.5% (incl. OMIP et al. and OTC voice)

Para 97(c)

- the 1.4% share for ICE would be 0.9% (incl. OMIP et al. and OTC voice)

Para 97(d)

- the 1.2% share for ICE would be 0.6% (incl. OMIP et al. and OTC voice)
- the 61% share for OTC brokers would be 78% (incl. OMIP et al. and OTC voice)

⁴¹ Section 22(3)(b) of the Act.

⁴² Section 73 of the Act.

⁴³ Section 73A(1) of the Act.

⁴⁴ Section 73(2) of the Act.

⁴⁵ Sections 22(1) and 34ZA(2) of the Act.

⁴⁶ Section 73A(2) of the Act.

- the 21% share for EEX would be 11% (incl. OMIP et al. and OTC voice)
- the 17% share for Nasdaq would be 9% (incl. OMIP et al. and OTC voice)

Para 97(e)

- the 3% share for ICE would be 1.6% (incl. OMIP et al. and OTC voice).