

Anticipated acquisition by London Stock Exchange Group plc of Control of LCH.Clearnet Group Limited

ME/5464-12

The OFT's decision on reference under section 33(1) given on 14 December 2012. Full text of decision published 25 January 2013.

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**Please note that the square brackets indicate 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.**

## **PARTIES**

1. **London Stock Exchange Group plc** (LSEG) is the holding company of the London Stock Exchange plc and Borsa Italiana S.p.A., the companies responsible for the organisation, management and administration of trading venues on which equities securities, fixed income securities and exchange traded derivatives are traded. LSEG owns the London Stock Exchange (LSE) and Borsa Italiana, which are regulated markets established in the UK and Italy, respectively.
2. LSEG is based in the United Kingdom (UK) and has four core business divisions, namely: Capital Markets, Post-Trade Services, Information Services and Technology Services. Its Capital Markets division is comprised of:
  - the LSE, AIM, Borsa Italiana and Turquoise Global Holding Limited (Turquoise) for trading equity securities
  - LSE, Borsa Italiana and Societa per il Mercato dei Titoli Stata S.p.A (MTS) for trading fixed income securities, and
  - Italian Derivatives Market (IDEM), Italian Derivatives Energy Exchange (IDEX) and Turquoise for derivatives trading.
3. **LCH.Clearnet Group Limited** (LCH.Clearnet) is a clearing house active in the provision of clearing services for trades executed on trading venues and over-

the-counter (OTC) markets worldwide. It provides these services in respect of a wide range of asset classes including equities and fixed income securities, derivatives, commodities, energy, freight and metals contracts. It has two main operating subsidiaries, LCH.Clearnet Limited and LCH.Clearnet S.A. LCH.Clearnet generated turnover in the UK of approximately £[ ] million in 2011.

## **TRANSACTION**

4. As a result of the transaction and in accordance with an agreement entered into by the parties on 9 March 2012, LSEG will acquire up to 60 per cent of the issued share capital of LCH.Clearnet with existing shareholders continuing to hold 40 per cent. Existing shareholders will be subject to an ownership cap of 10 per cent and a voting cap of five per cent.
5. LSEG and LCH.Clearnet (the parties) submit that the proposed governance arrangements for LCH.Clearnet, which include an open-access provision, will govern the manner in which LSEG exercises control of LCH.Clearnet post-transaction. The parties state that LSEG's ability to determine the commercial strategy of LCH.Clearnet will be limited by virtue of these provisions which balance LSEG's position as a majority shareholder with the continued involvement of the various stakeholders in LCH. Clearnet (see paragraph 117 below).

## **JURISDICTION**

6. In March 2012, the parties, pursuant to Article 4(5) of the EU Merger Regulation (EUMR),<sup>1</sup> requested that the European Commission (the Commission) review the transaction. The OFT disagreed with this referral request on the basis that any competition concerns, if present, would most likely arise in the UK and therefore the UK was best placed to review the transaction. Therefore, as one Member State expressed its disagreement with the Article 4(5) referral request, the case was not referred to the Commission.

<sup>1</sup> Council Regulation of 20 January 2004 on the control of concentrations between undertakings (139/2004/EC).

7. In May 2012, after it received a notification of the merger from the parties, the Autoridade da Concorrência (the Portuguese Competition Authority (PCA)) submitted a referral request pursuant to Article 22 of the EUMR requesting that jurisdiction be transferred from the PCA to the Commission. The Comisión Nacional de la Competencia (CNC) (the Spanish Competition Authority) and the Autorité de la Concurrence (the French Competition Authority) subsequently joined this request, also asking that the Commission review the transaction.
8. On 4 July 2012, the Commission issued a decision refusing the Article 22 referral request and consequently the UK, Portugal and Spain retained their jurisdiction to review this transaction under their respective domestic laws.
9. The OFT issued an invitation to comment (ITC) on 9 July 2012. The parties submitted a satisfactory submission to the OFT on 5 September 2012 and, in accordance with the OFT's administrative timeline, the extended deadline for a decision was 14 December 2012.
10. As a result of the transaction, LSEG will be the majority shareholder in LCH.Clearnet and be able to appoint four of the 17 directors (including the CEO) and have approval rights over a further eight. LSEG will also have approval rights over certain strategic decisions and as the majority shareholder have the majority of voting rights.<sup>2</sup> Consequently, LSEG will acquire a controlling interest in LCH.Clearnet and, as a result of the transaction, the parties will cease to be distinct in accordance with section 23 of the Enterprise Act 2002 (the Act).
11. As the UK turnover of LCH.Clearnet exceeded £70 million in the last financial year, the turnover threshold as set out in section 23(1)(b) of the Act is satisfied. In light of the above, the OFT considers 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.

## **RATIONALE**

12. LSEG states that the transaction will enhance its presence in post-trade services and better enable it to deliver efficiencies and innovations across the full trading cycle that benefits both customers and the wider market.

<sup>2</sup> As discussed further below, the corporate governance structure has sought to limit these rights.

13. LCH.Clearnet states that the transaction reinforces its fully open clearing model. The parties submit that the transaction will contribute to the long term stability and soundness of a systemically important part of European financial infrastructure.

## **BACKGROUND**

14. The parties are active in the provision of a number of different services to the financial services sector including: listing,<sup>3</sup> trading, clearing and settlement<sup>4</sup> services. By way of background information, trading and clearing services are described in further detail below.

### **Trading Services**

15. Trading services comprise the buying and selling of financial instruments either on multi-party trading venues (Regulated Markets (RMs) or Multi-Lateral Trading Facilities (MTFs)) or bilaterally between two counterparties also known as over-the-counter (OTC). A bilateral trade may be subsequently reported to a trading venue.<sup>5</sup> Effectively a trading venue brings together buyers and sellers of securities.

### **Clearing Services**

16. Clearing services arise once a trade has taken place and are conducted by a clearing house, which carries out a number of functions, namely:

- it registers and processes the trade

<sup>3</sup> In order to trade publicly many types of securities, they need to be initially 'listed' or 'admitted to trading' on a Regulated Market (RM). Once listed and admitted to trading a security may be traded on a RM or Multilateral Trading Facility (MTF). An MTF is an alternative venue for trading financial instruments to a Regulated Market, in accordance with the rules set out in Title III of the Markets in Financial Instruments Directive 2004/39/EC (MiFID).

<sup>4</sup> This is the final stage to the trade and involves the exchange of the security for payment. Settlement generally occurs in a national central depository (CSD) which may perform custody services.

<sup>5</sup> An OTC trading participant may report the trade to a trading venue. The parties must abide by the rules of the trading venues and consequently the trade may need to be cleared.

- it may act as a central counterparty (CCP), sitting in the middle of the trade and assuming the counterparty risk involved. A CCP becomes the legal counterparty to every trade, acting as a buyer to every clearing member seller and a seller to every clearing member buyer. It effectively takes on the risk arising from the trade for its clearing members, and
  - it may perform netting functions,<sup>6</sup> offsetting a party's trading obligations against the CCP.
17. Clearing houses (hereinafter referred to as CCPs) may be stand-alone companies such as LCH.Clearnet or vertically integrated with a trading venue such as Deutsche Börse/Eurex Clearing.
  18. Clearing services are provided to clearing members. Trading venues may permit more than one CCP to clear trades executed on its platform (in other words, a trading venue may provide trade feeds to more than one CCP). The LSE currently provides its trading feeds for equities to both LCH.Clearnet Limited and Six x-clear. Turquoise, an MTF majority owned by LSEG, provides its trade feeds for equities to EMCF, EuroCCP, Six x-clear and LCH.Clearnet Limited.
  19. Where a trading venue is connected to multiple CCPs, clearing members may select which to use. An interoperable agreement between the CCPs connected to that trading venue will facilitate two CCPs being involved in one trade, that is, each CCP takes one side of the trade instead of a single CCP taking both sides. In such a scenario, both CCPs become legal counterparties to the trade and they will calculate and collect margin from each other to protect against default by the other.
  20. CCPs generate turnover from the fees and margins they collect from their clearing members. Typically, a CCP will charge a clearing member a membership fee that is not related to the volume of transactions subsequently cleared. The CCP will also charge different types of margin to cover the risk of it being the counterparty to a particular trade.
  21. A clearing member may have several positions open with the same CCP that may permit that member to benefit from netting and cross-margining.<sup>7</sup>

<sup>6</sup> Netting refers to the offsetting of buy and sell positions over a given period of time in a given product thereby reducing the number of open positions that need to be cleared and settled.

## REGULATION

22. The provision of financial services is subject to regulatory supervision. The parties are subject to regulatory supervision in many countries worldwide where they are active. In the UK, LCH.Clearnet Limited<sup>8</sup> is regulated by the Financial Services Authority (FSA) pursuant to the Financial Services and Markets Act 2000 (FSMA) and associated regulations<sup>9</sup> as it is a Recognised Clearing House (RCH).<sup>10</sup> LCH.Clearnet is also supervised by the Bank of England in relation to its payments system services.
23. As a RCH, LCH.Clearnet has regulatory obligations under the FSA's Recognised Investment Exchanges and Recognised Clearing Houses (REC) rulebook. As per section 2.7.2A of REC, a RCH must provide non-discriminatory access to its services.
24. There are proposals to change the regulatory regime in the UK as contained in the Financial Services Bill. Effectively, some of the FSA's responsibilities will move under the Bank of England's remit, in particular the regulation of CCPs and settlement systems. Regulation will continue pursuant to both the (amended) FSMA and the Banking Act 2009. The Financial Services Bill provides for the introduction of a Financial Policy Committee (a committee of the Bank of England's Court of Directors), the Prudential Regulation Authority (which will become a subsidiary of the Bank of England) and the Financial Conduct Authority (FCA) (which will replace the FSA). The FCA will have the objectives of securing an appropriate degree of protection for consumers;

<sup>7</sup> Cross-margining involves calculating the amount of collateral required from a counterparty to cover the risk presented by that counterparty's portfolio. Cross-margining can apply to a range of different products which display a degree of risk correlation.

<sup>8</sup> LCH.Clearnet S.A. is regulated by the Autorité des Marchés Financiers (AMF). The OFT understands that LCH.Clearnet S.A. faces similar regulatory supervision to its Limited subsidiary.

<sup>9</sup> Financial Services and Markets Act 2000 (Recognition Requirements for Investment Exchanges and Clearing Houses) Regulation 2001 (SI 2001/995) (as amended) and the Recognised Investment Exchanges and Recognised Clearing Houses (REC) section of the FSA handbook.

<sup>10</sup> In the UK, a CCP needs to be recognised and supervised by the FSA as a RCH or a Recognised Overseas Clearing House (ROCH) under the Financial Services and Markets Act 2000 in order to carry out regulated activities in the UK. The Bank of England's role is pursuant to Part 5 of the Banking Act 2009.

protecting and enhancing the integrity of the UK financial system and promoting effective competition in the interests of consumers.

25. At a supra-national level, there is a range of existing financial services regulations, enacted and proposed. Of relevance to this transaction is the recent enactment of the European Markets Infrastructure Regulation (EMIR)<sup>11</sup> which, amongst other things, mandates CCP clearing for eligible over-the-counter (OTC) derivative contracts and specifies requirements for the authorisation of all CCPs established in the European Union. The extent to which the OFT has taken EMIR into account is tempered by the fact that the accompanying technical standards for authorisation of CCPs (ESMA standards) are currently in draft.<sup>12</sup>
26. Currently, the package of measures known as MiFID II,<sup>13</sup> which contains the proposed Markets in Financial Instruments Regulation (MiFIR) are being discussed by the European legislature. The OFT notes that the MiFID II proposals, if enacted on the basis of the current draft, provide for open-access to clearing facilities, that is, a requirement that CCPs clear financial instruments on a non-discriminatory and transparent basis, regardless of the trading venue on which a transaction is executed.
27. The OFT considers that MiFID II is not sufficiently far advanced for the OFT to place reliance on it.<sup>14</sup>

<sup>11</sup> Regulation (EU) No. 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories.

<sup>12</sup> Draft technical standards published by ESMA on 27 September 2012. These standards will have to be adopted by the European Parliament in due course.

<sup>13</sup> Proposal for a Directive of the European Parliament and of the Council on markets in financial instruments repealing Directive 2004/39/EC of the European Parliament and of the Council dated 20 October 2011.

<sup>14</sup> The OFT also notes that legislative changes in the United States, in the form of the Dodd-Frank regulations, contain similar provisions to those proposed by MiFID II.

## COMPETITIVE ASSESSMENT

28. The OFT's approach to merger control is to first identify relevant frames of reference and then to consider whether there are plausible theories of harm to investigate in relation to those frames of reference.<sup>15</sup>
29. This decision is therefore structured as follows:
- The relevant frame of reference including identification of relevant product and geographic scopes.
  - The corporate governance and regulatory provisions which are relevant to the assessment of the theories of harm.
  - The competitive assessment relating to each main asset class: fixed income, equities and derivatives.

## FRAME OF REFERENCE

### INTRODUCTION

30. The OFT's starting point in identifying an appropriate frame of reference is generally to consider first if narrow candidate markets can be widened through substitution on the demand-side. If appropriate, the OFT then considers if substitution on the supply-side allows several products that are not demand-side substitutes, to be aggregated into one wider market.<sup>16</sup> In this case, the OFT considers the relevant product and geographic scopes applicable to each of trading and clearing services by reference to three separate asset classes, namely: fixed income, equities and derivatives.
31. This separation of asset classes is in line with the parties' submission, the Commission's recent decision in *Deutsche Börse/NYSE Euronext*,<sup>17</sup> and the

<sup>15</sup> Merger Assessment Guidelines, OFT1254, joint publication of the OFT and Competition Commission dated September 2010, section 5.1.

<sup>16</sup> Merger Assessment Guidelines, *supra*, paragraphs 5.2.6 to 5.2.19.

<sup>17</sup>Case No. COMP/M6166 – Deutsche Börse/NYSE Euronext, decision dated 1 February 2012. The Commission found that its market investigation supported a relevant product market for the trading of



results of the OFT's investigation. The OFT notes that, on a cautious basis, it has treated the provision of trading and clearing services as separate and distinct business activities for the purposes of its overall assessment.

## **FIXED INCOME SECURITIES**

32. Fixed income products are non-equity securities that oblige the borrower (the issuer of the product) to make payments to the registered owner of the product (the buyer) at a fixed rate of interest at specified intervals. Fixed income products are initially issued by borrowers and are mainly purchased by primary dealers.<sup>18</sup> They are subsequently traded dealer to dealer and dealer to client in the secondary market.
33. There are various forms of fixed income securities and can be characterized as 'corporate' or 'government' and traded through both cash and repo trades.<sup>19</sup>

### **Fixed income trading product scope**

#### Segmentation by type of financial instrument

34. The parties submit that the product scope consists of fixed income trading services for all financial instruments because customers could switch to trading fixed income products from different issuers, noting that for some customers, the primary factor influencing their trading decision is the risk profile of the traded security. They submit that these customers may, therefore, be able to switch between securities with the same credit rating and that certain services

equities and the trading of bonds (paragraph 61). The Commission also considered whether trading and clearing of cash securities (cash equities and bonds) could be considered together but left it open as no competition concerns arose on any narrower basis. However, in respect of derivatives trading, the Commission considered trading and clearing together but noted that this was without prejudice to other models (other than vertically integrated models) that of providing derivative trading and clearing services separately (paragraph 243).

<sup>18</sup> Primary dealers play a significant role in government bond markets, but are less significant in corporate bond markets.

<sup>19</sup> A cash trade involves the sale of a bond for consideration – the trade is executed, and the bond delivered to the purchaser in return for payment. A repo trade involves the sale of a bond for consideration together with an agreement for the subsequent repurchase of that bond.

provide sufficient market transparency to enable comparisons to be made between securities (such as the Fitch Peer Analysis Tool).<sup>20</sup>

35. The parties also note that a primary dealer may have quoting obligations relating to particular fixed income securities, which would limit that dealer's ability to switch its cash trading activities to an alternative security (quoting obligations apply only for cash trading). This potential limitation does not exist for repo trades or for traders that are not primary dealers.
36. Third parties considered that there was limited demand-side substitutability between financial instruments across all asset classes including fixed income. Even where different fixed income products share similar attributes (for example, market risk correlation), customers may consider the extent of substitution between such correlated products as limited for other reasons, such as, liquidity, overall costs of trading (execution and post-trade), a given product's features, established track record and market acceptance.
37. The OFT notes that the fact that at a particular point in time a fixed income instrument may have a similar profile or characteristic to another is not sufficient evidence to aggregate all financial instruments into one product scope because certain instruments will have sufficiently distinct characteristics and the relative risk profile and return of different financial instruments will vary over time.
38. The OFT considers that for the purposes of its assessment of this transaction, the appropriate product scope may be as narrow as the provision of trading services for each fixed income security with distinctions relating to the type of security (repo or cash), for example, trading services for UK Gilt repos. The OFT also considers that there are plausible distinctions to be made based on the date of issue, maturity and length of a specific fixed income security. However, it has not been necessary to conclude on this but the distinction is referenced where appropriate in the competitive assessment.

#### Segmentation by trading services (venues)

39. The parties submit the relevant product scope consists of all types of service including voice and electronic trading. They state that trading participants will

<sup>20</sup> Fitch Ratings publishes the Fitch Peer Analysis tool to assist traders to perform peer analysis on nearly 1600 corporate entities and 100 sovereigns, which assists in identifying substitutable bonds. See: [www.fitchratings.com/web\\_content/pat/Peer\\_Analysis\\_Tool\\_Fact\\_Sheet.pdf](http://www.fitchratings.com/web_content/pat/Peer_Analysis_Tool_Fact_Sheet.pdf).

simultaneously monitor bond prices on multiple voice and electronic venues in order to ensure that, for any given trade, they can always access the best price and can switch orders between the respective systems. The parties submit that, in response, pure electronic platforms maintain prices and services designed to compete against both hybrid venues and voice brokers.

40. LSEG considers that its competitors on MTS include the voice brokering businesses of BGC Partners, ICAP, Tradition and Tullett Prebon, as well as electronic venues including BGC Partners, BrokerTec, Eurex Bonds, HDAT and SENAF. The parties note that CCPs make no distinction at the clearing level between fixed income trades executed electronically (either on a broker-operated or exchange-operated platform) or via voice brokers.<sup>21</sup>
41. The OFT's market enquiries indicates a distinction between the use of trading services with voice brokers being used to trade **less** liquid (a term used to describe the level of trading activity) fixed income securities, whereas electronic trading was used for **more** liquid instruments. It was noted that the liquidity of a bond dropped as it reached its maturity date, with the most trading taking place near the date of issue. Recently issued bonds therefore tend to be traded electronically, whereas bonds closer to maturity tend not to be. The OFT therefore considers that it is appropriate to draw a distinction between these two types of trading venues. The OFT also received information to suggest that the majority of repo securities traded electronically were cleared which is not the case for voice brokered trades, thus supporting the differentiation by trading service.
42. In light of the above, the OFT has, for the purpose of assessing this case, considered separately electronic and voice broking trading services but it has considered the constraint from either service on the other in the competitive assessment where relevant.

#### **Fixed Income trading services geographic scope**

43. The parties state that the geographic scope is at least pan-European since participants demand fixed income trading services on convenient and

<sup>21</sup> The parties refer to the OFT's previous decision on the anticipated acquisition by Collins Stewart Tullet plc of FPG Holdings Limited, OFT decision dated 7 October 2004, where the OFT assessed the substitutability for each of the trading channels of brokering, direct trading and via an established exchange. The OFT notes that it did not conclude on the relevant product scope in this case and looked at both voice brokering and electronic trading in combination and as separate segments in its competitive assessment.

accessible venues, irrespective of the location of the trading broker. For instance, they stated that MTS offers trading of fixed income products on a pan-European basis. The parties refer to statements from fixed income trading service competitors, which suggest that their customers are located across Europe. Third parties broadly supported an EEA-wide geographic scope.

44. On the basis of the above evidence, the OFT considers that the appropriate geographic scope of fixed income trading services is likely to be at least EEA-wide.

### **Fixed Income clearing services product scope**

#### Segmentation by type of fixed income instrument

45. The parties submit that all fixed income clearing providers can offer clearing services for a broad range of fixed income products as the mechanisms for clearing trades in different fixed income products are essentially the same, irrespective of how the trade is executed and issuer location (for example French versus German bonds). In support, they point to the uniform fees applied by LCH.Clearnet and Eurex irrespective of issuer location.
46. The OFT notes that there are a significant proportion of CCPs that specialise in the clearing of specific fixed income securities. The presence of specialised CCPs and their lack of expansion indicate that the competition for clearing will differ depending on the product cleared and that it may not be appropriate to expand the product scope on the basis of supply-side substitution.
47. The OFT considers that there is insufficient evidence to aggregate fixed income clearing into one product market. However, the OFT has not needed to conclude on this matter as no competition concerns arise following an assessment of the narrowest frame of reference. The OFT takes into account the extent of competition between clearers of different instruments in its analysis of entry and expansion.

#### Self-supply

48. The parties state that vertically integrated providers could, at any time, open up to compete for third party trading volumes and they provided LCH.Clearnet internal documents that demonstrate it [ ]. Therefore, the parties argue that the product scope should be widened to take vertically integrated providers into account.

49. The OFT considers self-supply in the context of (i) the role of vertically integrated clearing providers, such as Eurex, providing a competitive constraint on stand-alone clearing providers, and (ii) the ability of a trading venue to switch to self-supplying clearing services.
50. The OFT has received no evidence to demonstrate that it would be profitable for trading services that are currently self-supplying clearing services to supply these services externally.<sup>22</sup> Also, MiFID II which may oblige vertically integrated providers to offer clearing services to other trading services is not sufficiently far advanced for the OFT to rely on it in its assessment.
51. In relation to a stand-alone trading venue switching to self-supply, the parties submit that this prospect acts as a constraint on open-access CCPs, which must remain competitive in order to retain clearing business. The parties cited two examples of this, but only in relation to derivatives: NYSE Euronext uses (and will use in full) NYSE Liffe Clearing as its CCP for Electronically Traded Derivatives (ETDs) traded on its NYSE Liffe London trading venue, and derivatives traded on ICE Futures Europe transferred from LCH.Clearnet to ICE Clear Europe. It is noted [ ].<sup>23</sup>
52. The OFT's market enquiries suggested that due to time and cost implication self-clearing would not affect the profitability of a SSNIP<sup>24</sup>. In summary, the OFT does not consider it appropriate to widen the product scope to take account of (i) supply by a vertically integrated clearer or (ii) switching to self-supply. However, the OFT has considered the constraint from both in its competitive assessment where relevant.

#### Segmentation by cleared and uncleared trades

53. The parties state that uncleared trades are an important competitive dynamic at the clearing level and should therefore be considered part of the product market. The parties submit that even if customers did not have the option of

<sup>22</sup> See the Merger Assessment Guidelines, section 5.2.20 for the OFT's approach to self-supply in this context.

<sup>23</sup> The parties refer to the 2012 annual report of [ ] in this regard.

<sup>24</sup> In selecting a candidate market and applying the hypothetical monopolist test, the OFT will assess whether the hypothetical monopolist could profitably raise the price of at least one of the products in the candidate market by at least a small but significant amount over a non-transitory period of time (that is a 'SSNIP'). See section 5.2.11-5.2.12 of the Merger Assessment Guidelines.

switching to an alternative clearing provider or sponsoring new entry, many customers would simply switch to uncleared trading rather than tolerate a less competitive clearing service. The parties rely on the following points in support of this submission:

- They estimate that 80 to 90 per cent of European cash trades and [20-30] per cent of European repo trades are uncleared, and therefore, uncleared trades remain a significant part of the European fixed income market dynamic. The parties further state that not all fixed income trading venues offer CCP clearing and many do not mandate clearing at all (examples provided are MTS and ORB<sup>25</sup>).
- Customers have switched from cleared trades to uncleared trades in response to changes in the margin requirements in [ ].

54. The OFT considers that there is insufficient evidence to include uncleared trades within the product scope for fixed income clearing, in particular for government bonds for the following reasons:

- The evidence presented does not demonstrate that customers would stop clearing their trades in response to a five per cent SSNIP but rather highlighted changes brought about by a substantial increase in margin requirements on [ ] fixed income securities in the wake of the financial crisis.
- The evidence before the OFT suggests that specific fixed income securities, such as Italian government bonds, are generally cleared whereas others, such as Portuguese government bonds, are not.
- The evidence indicates that there is a range of reasons other than risk for why some fixed income products are cleared and others are not for example, liquidity, established market practice (that is, the length of time a CCP has been clearing an instrument for) and national or wider regulatory reasons.

55. In relation to corporate bond trading, one venue considered clearing to be critically important to its services. However, third-parties noted that very few corporate bonds are cleared and therefore the OFT considers that uncleared trading may pose some degree of constraint on the clearing of corporate bonds.

<sup>25</sup> LSE's Orderbook for Retail Bonds.

56. In relation to cash and repo trading of government bonds, third parties confirmed to the OFT that having access to clearing services was of critical importance to clients on certain trading venues. In terms of switching to uncleared trades, third parties noted that this was a possibility but could not specify the extent to which this would occur for specific government bonds for a five per cent increase in their clearing costs (see paragraph 186 below).
57. The OFT has taken into account the constraint from uncleared trading in the competitive assessment, where relevant. The OFT considers that uncleared trading may be included in the product scope for the clearing of corporate bonds but this can be left open since it has concluded that no competition concerns arise in relation to these.

#### **Fixed Income clearing services geographic scope**

58. The parties submit that, like trading services, clearing services are supplied on a pan-European basis. They note, however, that in some cases their clearing customers would need to switch trading venues to access new clearing services.
59. The evidence available to the OFT in relation to geographic scope is similar across all asset classes for trading and clearing services with all third parties providing similar comments (see above in relation to geographic scope for trading services). Therefore, on the basis of the evidence before the OFT it considers that the appropriate geographic scope for fixed income clearing services is at least EEA-wide.

#### **Conclusion on the relevant frame of reference for fixed income securities**

60. For the purposes of its assessment of this case, the OFT considers the provision of each of trading and clearing services on a narrow basis, that being for a specific type of instrument (such as a UK Gilt or Italian government repo bond), by cash and repo trading and by type of venue (electronic trading) on an, at least, EEA-wide basis. However, as no competition concerns arise on this narrow product scope, the precise market definition can be left open.

#### **EQUITIES SECURITIES**

61. Equity securities signify an ownership position in a company and represent a proportional share in the company's assets and profits. Companies issue equity

securities for purchase by the general public to raise capital, increase their public profile and obtain a market valuation. Once issued and admitted to trading on a RM in the EU,<sup>26</sup> equity securities can be admitted to trading on any other trading venue, including other RMs and MTFs, and traded OTC.<sup>27</sup> LSEG provides equity security trading services on its LSE, AIM, Borsa Italiana and Turquoise trading venues. LCH.Clearnet is not active in the provision of equity trading services.

## Equity trading services product scope

### Segmentation by type of financial instrument

62. The OFT considers that there is limited demand side substitution between different equity securities, for example between a UK-listed equity and a French-listed equity. This is in line with previous OFT and Competition Commission (CC) decisional practice such as **BATS/Chi-X**<sup>28</sup> and **LSEG/Turquoise**,<sup>29</sup> which considered a distinct market for UK equities.
63. The parties submit that narrow product markets can be aggregated to form a wider product scope consisting of equity trading services in all European equities, suggesting that the conditions set out in the Mergers Assessment Guidelines are satisfied.<sup>30</sup>

<sup>26</sup> Securities can also be quoted on other venues such as AIM which is an exchange regulated market. The process of listing on such a venue is broadly similar to that on a Regulated Market.

<sup>27</sup> This applies to all equity instruments, such as company issued securities and exchange traded products like exchange traded funds.

<sup>28</sup> Case M/4904/11, Anticipated acquisition by BATS Trading Limited of Chi-X Europe Limited, decision of the OFT dated 20 June 2011 and a report on the anticipated acquisition by BATS Global Markets, Inc of Chi-X Europe Limited by the CC dated 24 November 2011.

<sup>29</sup> Anticipated acquisition by LSEG of Turquoise Trading Limited, decision of the OFT dated 12 February 2010.

<sup>30</sup> Merger Assessment Guidelines, joint publication of the OFT and CC, OFT 1254, dated September 2010. The two conditions referred to are: (i) production assets can be used by firms to supply a range of different products that are not demand-side substitutes, and the firms have the ability and incentive quickly (generally within a year) to shift capacity between these different products depending on demand for each; and (ii) the same firms compete to supply these different products and the conditions of competition between the firms are the same for each product; in this case aggregating the supply of these products and analysing them as one market does not affect the Authorities' decision on the competitive effects of the merger.



64. Third party enquiries did not support widening the product scope to include all equity products as seen above under fixed income (see paragraph 36).
65. The OFT does not consider that the conditions of competition are the same or similar for the provision of equity trading services for all types of equity financial instrument. The majority of alternative trading venues highlighted by the parties as offering the same or similar products are MTFs not Regulated Markets (RMs). Significant distinctions can be observed between RMs and MTFs, namely, RMs specialise in equities listed in their home country (LSE in UK equities, NYSE Euronext in French equities and so on).
66. Also, the investigation has not shown that prices are applied on a uniform basis by all equity trading venues, for example, NYSE Arca has two pricing schemes, one for equities listed in Finland, Spain, Sweden and the UK, and one for equities listed in the remaining jurisdictions but not distinguishing by nationality of the customer. Even if this did prove to be the case, it is important to note that price is only one parameter of competition.
67. However, as no competition concerns arise from the transaction on the basis of a narrow or wide product scope, the OFT does not need to reach a conclusion on the segmentation of equity trading services by type of financial instrument and can leave the precise product scope open.

#### Segmentation by type of trading venue

68. The parties consider that segmentation by type of trading venue is not appropriate since, they submit, LSEG is constrained by competition from trading venues offering other types of trading, including other order book based (on-book) venues (whether lit or dark) and off-book venues<sup>31</sup> and that RMs compete with MTFs.

<sup>31</sup> **On-book trading** refers to all trading taking place on order books (whether with or without pre-trade transparency) on RMs or MTFs. **Off-book trading** refers to all equities trades that are executed away from a public order book. It includes both: (i) trades that are executed outside a public order book but reported to trading venues; and (ii) trades that are executed bilaterally and not reported to a trading venue (pure OTC trades). **Lit trading** refers to all trading with full pre-trade transparency. **Dark trading** refers to trading without pre-trade transparency. Orders and offers specify only the equity and price, but not the available volume or the identity of the trader. **Dark trading** may be on-book (via order types with some non-displayed functionality or on a specific 'dark' order book), or off-book.

69. Third parties generally considered that MTFs and RMs are substitutes with some important exceptions: competition between MTFs and RMs tends to be limited to the most liquid securities, like FTSE 100 equities, and during continuous trading; and RMs remain the reference venue for determining the daily opening and closing price for domestic stocks, such that LSEG retains a near monopoly for trading in UK stocks during the opening and closing auction each day. Third parties also said that execution venues operating via different frameworks are generally not directly substitutable due to liquidity and cost differences.
70. Taking all factors into account, the OFT considers that MTFs and RMs are substitutes for the majority of equity trading services and has taken into account any differentiation between their respective services in the competitive assessment. The OFT also considers, in line with previous cases, that there may be a segmentation between on-book and off-book trading but has not considered it necessary to concluded on this.<sup>32,33</sup>

#### **Equity trading services geographic scope**

71. The parties submit that the relevant geographic scope for the supply of equity trading services is at least pan-European since electronic trading permits trading to be carried out cross-border regardless of venue location. Third party comments broadly supported this view.
72. The OFT believes that the relevant geographic scope is most likely to be at least EEA wide for equity trading services.

#### **Equity clearing services product scope<sup>34</sup>**

73. The parties state that the relevant product scope in clearing is for all clearing services for all equity securities across Europe and further afield irrespective of

<sup>32</sup> The OFT also considered, on a cautious basis and where relevant, the difference between cleared and uncleared equity trades. However, the OFT considers that there is no need to reach a conclusion on this matter for the purpose of the relevant product scope for equities trading services. A more detailed discussion of the difference between cleared and uncleared trades is set out above under fixed income securities, where this matter is of particular relevance.

<sup>33</sup> The OFT also notes that there may be segmentation by type of customer but has not needed to conclude on this matter as it does not affect the outcome of its analysis.

<sup>34</sup> The OFT considers self-supply, as it applies to vertically integrated trading and clearing providers, below (see paragraphs 48ff above).

location as there is little difference in the mechanisms for clearing trades in different equity securities, for example between equities listed in different jurisdictions, or between company-issued equities and Electronically Traded Funds (ETFs).

74. The parties further state that strong customer demand for interoperability on trading venues across Europe is evidence that the appropriate clearing product market is no narrower than that for trading.
75. Although third party CCPs indicated that they have the capability to clear a wide range of equities, in practice, however, there are few independent clearers who clear a wide range of equities. The OFT's market test indicated that the breadth of a CCP's operations is driven by the trading activity on the venues that it clears on. This indicates that the ability of CCPs to compete with each other for the clearing of certain equities (for example, based on location of listing) may therefore be limited by the trading platforms that they clear on.
76. The evidence does not show that CCPs provide clearing services for all types of equity securities and therefore it is not appropriate to aggregate equity clearing into one product market. In fact, there are some CCPs that specialise in the clearing of equities listed in specific countries or a limited set of countries and depending on the trade cleared (CC&G in Italian equities; CCP Austria and Oslo Clearing do not clear UK listed equities). LCH.Clearnet internal documents [ ].
77. In light of the above, the OFT considers that the conditions of competition in the clearing of different equity instruments are not generally the same such as to aggregate narrow product markets. However, as there are no competition concerns arising from an assessment on the basis of the narrowest frame of reference, the OFT has not needed to conclude on the precise product scope.

#### **Equity clearing services geographic scope**

78. The parties argue that the relevant geographic market for clearing services of equities securities is at least EEA-wide given that the same clearing services are provided to pan-European customers and trading venues wherever the clearing platform is geographically located, be it in the EEA or even worldwide.

79. Third party comments broadly supported this view with some exceptions relating to national regulatory barriers to clearing providers clearing certain equities.<sup>35</sup>
80. The OFT's market test indicates that a range of customers across Europe access CCPs around (and outside) Europe and this is further reinforced by the multinational nature of the customers that use these clearing services.
81. In light of this evidence, the OFT therefore considers that the appropriate geographic scope of equity clearing services is likely to be at least EEA-wide.

#### Conclusion on the relevant frame of reference for Equities securities

82. In relation to equities trading and equities clearing services, and for the purposes of assessing the proposed transaction, the OFT considers each type of financial instrument, such as a FTSE 100 (UK) equities, to form a separate product scope on, at least, EEA wide basis. However, given that competition concerns do not arise the OFT has left the precise market definition open.

## **DERIVATIVES**

83. Derivatives are financial contracts which derive their value from another product, asset or price known as the 'underlying'. Derivatives facilitate the transfer of financial risks between trading participants. They are used for a number of objectives: (i) to hedge the risk of a position in an underlying by offsetting the risk exposure of a position in that underlying by assuming an opposition position in another, (ii) to invest by means of an alternative mechanism for assuming a position in an underlying without investing in the underlying directly, and/or (iii) to acquire risk in order to speculate on or arbitrage the value of the underlying for profit.

<sup>35</sup> It was suggested to the OFT that certain countries may adopt certain regulatory standards which inhibit the ability of clearing providers to provide services for that country's securities. An example provided included that to provide clearing services for French securities, a clearing provider has to be authorised as a credit institution in France.

### **Derivatives trading services product scope**

84. The parties state that the market for derivatives trading services should be divided according to the following segments:
- the relevant execution environment, that is ETDs or OTC traded derivatives
  - the underlying asset class, namely: commodity derivatives, credit derivatives, equity derivatives, equity index derivatives, interest rate derivatives or foreign-exchange derivatives and
  - the type of derivative - options, futures or swaps.
85. Third parties generally supported this segmentation.
86. The OFT has not received any evidence to suggest that the conclusion of the Commission in *Deutsche Börse/NYSE Euronext*<sup>36</sup> that the trading of derivatives securities should be subdivided according to the relevant execution environment, that is Exchange Traded Derivatives (ETD) or Over-the-counter (OTC), is not applicable to this transaction.
87. In light of the above, the OFT considers that the product scope is, the supply of derivatives trading services by execution environment, type of underlying and type of contract.

### **Derivatives clearing services product scope**

88. The parties submit that there is a separate market for the provision of derivatives clearing services and that from a demand-side perspective it may be segmented according to the relevant product scope for derivatives trading services.
89. From a supply-side perspective, the parties note that there is no need to consider types of derivatives separately for the purposes of clearing ETDs as the infrastructure that a CCP would use to clear a contract is, regardless of its type, the same or very similar. As such, there is no need for a different operational structure for each of these types of derivatives since the costs of trading and clearing both options and futures are broadly comparable and from a process perspective, the risk methodology and risk analysis is the same.

<sup>36</sup> Supra.

90. The OFT notes that the Commission considered that the provision of trading and clearing services for derivatives may be considered within the same relevant market. However, as this case involves the provision of clearing services by LCH.Clearnet to the merchant market (that is to non-vertically integrated trading venues), on a cautious basis, the OFT has considered trading and clearing services for derivatives separately.<sup>37</sup>
91. The information received by the OFT suggests that many CCPs clearing ETDs do so for all types of derivative contracts. However, this may be due to historical links between clearers and the trading platform (including self-supply) and not related to any ease of switching capacity or services between the different derivative contracts.
92. The OFT considers that CCPs can build up separate margin pools, risk measures and handling strategies for different types of derivative underlying and so it may be possible for a CCP to be established in one area of derivatives (such as ICE/International Petroleum Exchange in energy derivatives) but not be a strong option in other areas due to a lack of margin pool. The OFT therefore considers that it is not appropriate to widen the product scope in derivatives clearing on the basis of supply-side substitution.
93. As no evidence has come to the OFT's attention to suggest that vertically integrated clearing providers are active in the provision of derivative clearing services to independent trading platforms<sup>38</sup> or that it would be profitable for, say, Eurex or CC&G, to sell its 'captive', in-house supply to third parties in response to a SSNIP, the OFT considers that it is appropriate to exclude self-supply from the product scope.
94. In light of the above, the OFT considers it appropriate to segment clearing services in accordance with the segmentations found for derivative trading services and furthermore, that the relevant product scope should only include the provision of clearing services to independent, non-vertically integrated ETD trading platforms. However, as there are no competition concerns arising from

<sup>37</sup> This is consistent with the Commission's statement in *Deutsch Börse/NYSE Euronext* that there is a separate market for the provision of derivatives clearing services to third-party venues and OTC trading platforms. *Supra*, footnote 117.

<sup>38</sup> This is supported by the Commission's findings in *Deutsche Börse/NYSE Euronext*, where it noted that NYSE Liffe does not provide clearing services to third parties, *supra* footnote 117.

the transaction in relation to the trading and clearing of derivatives, the precise product scope can be left open.

### **Derivatives trading and clearing geographic market**

95. The parties submit that the relevant geographic market for derivatives trading and clearing is pan-European with it being noted that the majority of ETD trading takes place on two trading venues with pan-European reach, namely: NYSE Euronext and Eurex.
96. The parties further state that the majority of customers are European as demonstrated by the fact that European-linked derivatives are most liquid during European market hours.
97. Third parties noted that, generally, ETDs can be traded and cleared in the EU, regardless of where the contract is listed or traded and that therefore the geographic scope is likely to be at least EEA-wide.
98. The Commission noted in its recent decision that whilst the product market may be considered global, as customers may be located anywhere in the world, the geographic scope may be regional on the basis of the activities of Eurex and NYSE Euronext. However, the Commission left the precise geographic market definition open.
99. In light of the above, the OFT considers that the relevant geographic scope for trading and clearing services of ETDs is at least EEA-wide.

### **Conclusion on the relevant frame of reference for derivatives**

100. The OFT considers that there is a narrow product scope for the provision of trading and clearing services for derivatives, segmenting the frame of reference by venue of execution (ETD or OTC), type of underlying (equity or interest rate derivatives) and by type of contract (future, swap or option). However as there are no competition concern arise, the OFT considers that it does not need to conclude on the precise product scope.
101. The OFT considers that the relevant geographic scope for trading and clearing services of ETDs is at least EEA-wide.

## THEORIES OF HARM

102. The OFT considered, taking a cautious approach, a number of theories of harm in its competitive assessment across each of: fixed income securities, equities securities and exchange traded derivatives; horizontal and non-horizontal in nature.
103. Before discussing the specific theories of harm, the OFT sets out the approach to its analysis of the foreclosure theories of harm, which form the majority of the theories considered by the OFT, and thereafter an analysis of the corporate governance and regulatory provisions which frame the proposed transaction.

### OFT's analysis of foreclosure theories of harm

104. As per the Merger Assessment Guidelines (the Guidelines), most non-horizontal mergers are considered benign and do not generally raise any competition concerns.<sup>39</sup> Furthermore, such mergers can lead to efficiencies and this may result in the merged firm having increased incentives to compete to take business from rivals. As such this greater incentive to compete can result in an increase in rivalry. However, under certain conditions, non-horizontal mergers can weaken rivalry.<sup>40</sup>
105. In line with its the Guidelines, the OFT has framed its analysis of the non-horizontal foreclosure theories of harm by reference to the following three questions:<sup>41</sup>
- **Ability:** Would the merged firm have the ability to weaken the overall competitive offering of its rivals, for example through raising prices or refusing to supply them?
  - **Incentive:** Would the merged firm find it profitable to do so?

<sup>39</sup> Merger Assessment Guidelines, *ibid*, paragraph 5.6.1.

<sup>40</sup> *Ibid*, paragraph 5.6.4.

<sup>41</sup> *Ibid*, paragraph 5.6.6.



- **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 the realistic prospect of an SLC?

106. It is important to recognise that the analysis of these three questions may overlap given that factors taken into account may be relevant to more than one of these questions, however, in order to reach a conclusion that the merger gives rise to a realistic prospect of a substantial lessening of competition, the OFT would need to consider that each of these question is answered in the affirmative.<sup>42</sup>
107. Before turning to an individual assessment of each asset class, the OFT sets out the general framework it has used in this decision to undertake its foreclosure assessment.

### **Ability**

108. As stated previously, the parties rely in particular (although not exclusively) on both the corporate governance provisions contained in the transaction agreements and the regulatory environment to submit that, post-transaction, the parties will not have the ability to engage in behaviour that would raise competition concerns. These provisions are discussed in further detail below at paragraph 117ff.
109. The OFT has considered whether LCH.Clearnet has the **ability** post-transaction to engage in the foreclosure strategies identified, that is whether LCH.Clearnet has the ability to unilaterally weaken significantly the overall competitive offering of non-LSEG trading services post-transaction. In addition, the OFT has considered whether the corporate governance and regulatory framework constrain LCH.Clearnet's ability to unilaterally engage in such foreclosure and also LSEG's ability to influence LCH.Clearnet to do so.
110. For the purposes of assessing this transaction, the OFT considers that foreclosure of a trading venue or a CCP could involve a price rise, a refusal to supply or the degradation of quality of the service provided. When the OFT refers to the degradation of quality, it is cognisant of the potential for the parties to engage in so called 'soft biased' behaviour post-transaction. Such behaviour may include a reduction in service levels or resource allocation, de-

<sup>42</sup> Ibid, paragraph 5.6.7.

prioritising rivals development needs, delays in responding to requests for access and not providing reasons. Similar behaviour may occur in relation to interoperability arrangements between CCPs.

## **Incentive**

111. The OFT considers that the incentive to engage in the type of foreclosure strategies identified above may arise because any increase in clearing or trading fees, which would otherwise be unprofitable (as it would result in a loss of volume that is not offset by increased profit on retained customers), may be profitable post-transaction as these losses can be offset by gains in volumes at the trading or clearing levels, respectively.<sup>43</sup> In this regard, the OFT makes the following general observations.
112. As customers (trading participants such as banks) contract directly with, and pay fees separately to both a trading venue and CCP (not considering a vertically integrated provider), a price rise post-transaction will be levied directly on the end customer, which is not typical in foreclosure theories of harm.
113. The OFT notes that trading and clearing customers may consider the overall price (and wider competitive offering) of both trading and clearing services together (possibly alongside other costs of trading such as settlement) when choosing what services to use. For instance, if LCH.Clearnet charges higher prices (or reduces its competitive offering) to customers that trade on non-LSEG venues, this may induce customers to switch from these rival trading venues to the LSEG's venues. It is possible that customers may switch in order to avoid the overall increase in the price of trading and clearing when using a rival service.
114. In assessing the incentives of the parties to engage in foreclosure, the OFT has considered whether it would be profitable to do so. The OFT considered evidence of how customers could react to a price rise, refusal to supply or degradation of quality and whether they would switch to rival venues/CCPs as a consequence. Furthermore, where relevant, the OFT has considered quantitative evidence (see paragraph 190ff) and margin data to inform its assessment of whether foreclosure would be profitable.

<sup>43</sup> Ibid, section 5.6.

## Effect

115. The OFT considers that foreclosure strategies could, in this particular case, lead to two types of potentially anti-competitive effects. Taking the foreclosure of a trading venue as an example, the two possible effects are:

- At the clearing level through the **direct effect** of a clearing price increase (or a deterioration of some other aspect of their competitive offering) by LCH.Clearnet on its customers when these customers use non-LSEG trading services. There is direct customer harm since these customers contract directly with LCH.Clearnet.
- At the trading level through the **indirect effect** of the LCH.Clearnet price rise on non-LSEG trading venues weakening the competitiveness of these venues vis-a-vis LSEG venues.

116. While it is more common to focus on the so-called 'indirect effect' in foreclosure theories of harm, in this case the OFT has also considered the direct effects of foreclosure given the direct contractual relationships between customers and the parties as described above. In other words, the OFT considered whether competitive harm may arise in such a scenario regardless of whether there is also a marginalisation of rival trading venues.

## CORPORATE GOVERNANCE AND REGULATORY FRAMEWORK

117. The corporate governance provisions and regulatory framework provide the relevant post-merger context in which the parties submit they will operate post-merger. These provisions form one part of the evidence base on which the OFT has undertaken its assessment, especially as regards the foreclosure theories of harm.

### Corporate Governance

118. LSEG will acquire a controlling interest in LCH.Clearnet through the acquisition of 60 per cent of the share capital. The transaction includes certain corporate governance arrangements and an open-access provision, which attempt to limit the control LSEG will have in LCH.Clearnet post-transaction and to ensure it operates as an open-access CCP. As such, according to the parties,

LCH.Clearnet will not operate as a fully integrated clearing provider post-transaction.

119. LCH.Clearnet is currently owned by 83 per cent of its clearing members and 17 per cent by trading venues and therefore its shareholders had to consent to this transaction. These shareholders are potentially entities that would be expected to be harmed by any loss of competition or change in incentives arising from the transaction.
120. On 3 April 2012, approximately 94 per cent of LCH.Clearnet's shareholders votes were in favour of the transaction and the adoption of amended Articles of Association.<sup>44</sup> The most pertinent corporate governance provisions relevant to the OFT's assessment are set out below.
121. LSEG will appoint four of the 17 directors to the Board of LCH.Clearnet (the Board), including the CEO, and will have approval rights over a further eight (three Venue and five User directors). The non-executive Chairman and three independent non-executive directors (iNEDs) will be recommended to the Board through a nomination committee.<sup>45</sup> NYSE Euronext will take up the final board seat.
122. Although LSEG may remove directors not appointed by it, by virtue of its majority shareholding, it has contracted through the agreements underpinning the transaction not to do so where it would not be reasonable. If it did so act, LSEG will lose its rights as provided by the Relationship Agreement.<sup>46</sup>

<sup>44</sup>[ ] shareholder voted against and [ ] abstained.

<sup>45</sup> The nomination committee will consist of the Chairman, two iNEDs, one User director and one LSEG director. The quorum will be one iNED, the User director and the LSEG director.

<sup>46</sup> The Agreement underpinning the transaction and by which LSEG has certain consent and push matters and the right to appoint directors, amongst other things. LSEG will have specific approval rights over certain strategic decisions (consent matters) although LSEG will not be able to unilaterally implement or amend these matters without the support of other Board members.

LSEG may put certain matters to shareholders for a decision where the Board has either failed to consider them, is unable to reach agreement on them or LSEG wishes the shareholders to consider a different approach from that adopted by the Board (push matters). These push matters will require 60 per cent of votes cast, which must consist of at least 25 per cent of user shareholders.

123. The parties submit that the Board has been designed to ensure the continued representation of all key groups of stakeholders, including customers, and that these directors will scrutinise the continued operation of the business, ensure adherence to the open-access provision and hold LCH.Clearnet's management to account in this respect.
124. The parties state that the corporate governance structure, open-access provision and user involvement in both the risk committees<sup>47</sup> and product advisory groups<sup>48</sup> provide customers with the ability to ensure that LSEG does not unilaterally impose decisions on LCH.Clearnet to its own advantage and will ensure product development is fully aligned with customers' wishes.
125. In relation to commercially sensitive information, the parties state that there are robust conflict of interest provisions and information barriers already in place in LCH.Clearnet and these will remain post-transaction. The parties state that these provisions are important to permit rival venues and users of LCH.Clearnet to discuss proposals, assured of the confidentiality of those discussions from LSEG.
126. Some third parties raised concerns regarding the corporate governance provisions, in particular that LSEG would exert a significant degree of control, directly appointing 25 per cent of the Board and having a veto right over the appointment of another 50 per cent. As such, these third parties were concerned that LSEG could use its position to ensure that the Board comprises of 'friendly' directors, with the consent and push matters<sup>49</sup> extending further LSEG's influence over the Board.
127. These third parties expressed concern that there was no automatic prohibition on LSEG appointed directors from participating in discussions or receiving

<sup>47</sup> Each of LCH.Clearnet Limited and S.A. has a separate risk committee, the members of which are risk experts. The primary function of the risk committee is: to manage the risk of the business; approve the policy and framework for clearing member assessment; and approve the criteria for new venues and products.

<sup>48</sup> The management of LCH.Clearnet is supported by advisory groups for each major line of business or product. These groups provide specialist input and advice in relation to, for example, revenues and costs for the relevant business/product portfolio, service standards and pricing policy. These groups are made up of the LCH.Clearnet executive team and clearing participants (customers).

information that may be commercially sensitive to its rivals and as such allows LSEG to obtain commercially sensitive information about its rivals.<sup>50</sup>

128. The OFT notes that in addition to prohibition on a director from providing information received to its nominating shareholders, the amended Articles of Association specifically refer to competitively sensitive information. If a majority of the iNEDs determine that in order to prevent a breach of competition law or regulation, a director should not have access to competitively sensitive information, then it will not receive it, attend meetings or otherwise participate in any discussions or vote on such matters, unless the majority of the iNEDs agree otherwise.
129. The OFT also notes that users and venues may also request that the iNEDs exclude a particular shareholder director where certain competitively sensitive information concerning it is being discussed. In addition, the OFT is aware that contractual clearing agreements may contain confidentiality provisions prohibiting the disclosure of confidential information to any third party.
130. There is also the general requirement that all contractual arrangements between LSEG and LCH.Clearnet are concluded on an arms-length commercial basis (considered a core operating principle, incorporated in the amended Articles of Association, and by which LCH.Clearnet will be run post-transaction). Furthermore, the OFT notes the general duty on company directors to avoid conflicts of interest.<sup>51</sup>

#### Open-access provision

131. The parties state that LCH.Clearnet will continue to operate as an open and horizontal model post-transaction and to bolster this commitment, an open-access provision, considered a core operating principle, will be enshrined in the amended Articles of Association post-transaction. This open-access provision states:

LCH.Clearnet's services must be offered on terms that are fair, reasonable, open and non-discriminatory, and on a basis such that

<sup>49</sup> See footnote 45 above.

<sup>50</sup> The OFT considered this concern in particular when assessing the raising of barriers to entry and reducing innovation in exchange traded derivative (see paragraph 268ff below).

LCH.Clearnet's risk is adequately controlled. No exchange will be favoured over any other and LSEG's trading services users will not be favoured over any other exchange's users.<sup>52</sup>

132. LCH.Clearnet will be run in accordance with this open-access provision.<sup>53</sup> In addition the CEO of LCH.Clearnet is to use all reasonable efforts to inform himself, and instruct his management team to inform him, of any matter that is inconsistent with it, which he must then inform the Board.<sup>54</sup> Any change to this open-access provision will require a special resolution supported by shareholders holding at least 80 per cent of the votes cast.
133. The parties state that LCH.Clearnet is incentivised to operate in accordance with the open-access provision for a number of reasons including pressure from users and venues, regulatory obligations, normal profit maximizing incentives and the fiduciary duties of directors to act in the best interests of the company.
134. Some third parties raised concerns in relation to the operation of the open-access provision, stating that it will not fully protect against the creation of a vertical silo. The following concerns were noted: the open-access provision will not ensure LCH.Clearnet enters into interoperability agreements with other CCPs where requested; that it lacks specificity as to the products covered and how it will operate in practice (for example, how will the 'FRAND' rate be determined, what is the timeframe for granting access and will reasons be given). Furthermore, these third parties stated that the provision lacked any mechanism to ensure compliance and the resolution of disputes.
135. The OFT notes that the vast majority of third party customers were supportive of an open-access model and did not express any significant concerns regarding the transaction.

<sup>51</sup> Section 175 of the Companies Act 2006.

<sup>52</sup> This provision is also referred to as a 'FRAND' provision: that is, Fair, Reasonable and Non-Discriminatory.

<sup>53</sup> Article 3.1 of the Amended Articles of Association.

<sup>54</sup> As per schedule 8, paragraph 6 of the Relationship Agreement.

136. LCH.Clearnet has stated that it is committed to the open-access provision in so far that it will be enshrined in its Articles of Association post-transaction and will require a vote of 80 per cent of shareholders in order for it to be amended. The OFT considers that any diversion from this open-access model would risk the parties' reputation with its customers.
137. Notwithstanding the above, the OFT notes that the presence of iNEDs, users and venue directors on the Board, together with user involvement in the risk committees and product advisory groups, provides an avenue for customers to monitor behaviour and where necessary bring concerns regarding discriminatory behaviour, including those listed above in paragraph 110, to the attention of the Board post-transaction. The OFT does not rely on the specific corporate governance provisions in its decision to mitigate any competition concerns, it is one of a number of factors the OFT has taken into account in reaching a decision.

## **Regulatory Framework**

138. The OFT takes the current regulatory provisions, as previously set out (see paragraph 22ff), into account in so far as they constrain to some degree the parties' ability and incentives to engage in foreclosure post-transaction. Before turning to this assessment, a brief overview of the remit of the FSA and the relevance of the recent enactment of EMIR is provided below.

### **Financial Services Authority**

139. The parties highlight the access provision contained in LCH.Clearnet's RCH authorisation, namely that it must provide non-discriminatory access to its services (access provision).<sup>55</sup> They argue that these regulatory obligations provide that LCH.Clearnet must make transparent and non-discriminatory its rules, based on objective criteria, governing access to its CCP services.
140. The OFT sought confirmation from the FSA as to the precise remit of these provisions and its supervisory role. The FSA stated that it closely supervises the activities of all CCPs authorised by it including LCH.Clearnet Limited. In relation to the access provision, the FSA stated that it is primarily concerned about non-discriminatory access for clearing members and could intervene to

<sup>55</sup> See paragraph 23 above for a description of LCH.Clearnet's regulatory obligations under the REC rulebook.



assess a complaint if necessary, and where possible ensure a resolution, where such action was required to maintain market integrity. The FSA has the power to withdraw a CCP's authorisation, prohibit a CCP offering new services until offered on a non-discriminatory basis and also to direct a CCP to take steps to address concerns identified.

141. In particular the FSA takes an active role in monitoring the composition (staffing and resources) and conduct of the risk committee of LCH.Clearnet Limited. The FSA is provided with minutes of the risk committee as required and assesses the overall appropriateness of the committee's membership.
142. Notwithstanding the above, the OFT cannot be certain that the FSA will be in a position to address all potential competition concerns raised particularly where it is uncertain whether that complaint involves a matter of market integrity. The OFT does not rely in its decision on the current (or planned strengthened) regulatory framework alone to mitigate any competition concerns, it is one of a number of factors which are taken into consideration.

## EMIR

143. The OFT notes the potential relevance of EMIR to the OFT's assessment of the transaction relates in particular to Articles 28, 37 and 38. Article 28 provides that the risk committee of an authorised CCP should include independent members and representatives of a CCP's clients (clearing members). Article 37 provides that admission criteria for clearing members should be non-discriminatory, transparent and objective, and Article 38 provides that an authorised CCP shall publicly disclose the prices and fees associated with the services it provides. These provisions will be applicable to LCH.Clearnet if and when it is authorised as a CCP under EMIR.<sup>56</sup>
144. The OFT is aware that LCH.Clearnet is currently under a duty to publish its fees as per the terms of its authorisation as a RCH and that its risk committees are composed of user members amongst others. As such the EMIR provisions add another layer to the current regulatory framework and are considered amongst other factors.

<sup>56</sup> The authorisation of CCPs under EMIR will commence once the ESMA technical standards are in force. Thereafter, CCPs will have about six months to seek authorisation.

## Corporate governance structure and regulatory framework and the parties' ability to engage in foreclosure

145. The OFT considers that the corporate governance structure provides for a substantial level of involvement of customers in the business activities of LCH.Clearnet. Whilst it is not feasible to completely rule out any form of influence by LSEG in the LCH.Clearnet business post-transaction, the OFT considers that the involvement of user, venue and iNED directors will provide a mechanism by which any discriminatory behaviour will be brought to the Board's attention. Each of the foreclosure strategies are discussed below with reference to the corporate governance and regulatory framework.

### Discriminatory and uniform price rises

146. In its assessment of the foreclosure theories of harm the OFT considers that foreclosure could involve a price rise, a refusal to supply or the degradation of quality. In relation to a price rise, the OFT has considered two types: (i) a discriminatory price rise by LCH.Clearnet on trades executed on non-LSEG venues; and (ii) a uniform price rise by LCH.Clearnet on trades executed on any venue on which it clears but where LSEG reduces its trading fees for trades cleared through LCH.Clearnet.
147. In relation to a **discriminatory** price rise on third party trading venues, the OFT considers that not only would this strategy go against the open-access provision enshrined in the Articles of Association, it would not be profitable<sup>57</sup> for LCH.Clearnet, and as such it would likely be against the fiduciary duties of the Board to engage in such a strategy. However, in the circumstance where LSEG directors voted in favour of such a strategy, the OFT considers that it is fanciful to consider that the iNEDs and user directors would do likewise and that LCH.Clearnet would introduce a discriminatory price rise.
148. In relation to a **uniform** price rise by LCH.Clearnet applied indistinctly to all customers, that is, whether they use LSEG or not, the OFT considers this to be feasible. The theory of harm is that LCH.Clearnet adopts a uniform price rise with LSEG reducing its trading fees for customers who trade on a LSEG venue and clear that trade through LCH.Clearnet. For these customers, the overall cost of trading and clearing with LSEG and LCH.Clearnet combined would be more attractive than remaining with a rival venue and LCH.Clearnet.

<sup>57</sup> Please see paragraphs 178ff for a discussion of the parties' incentives.

149. This strategy is broken down into two steps: the increase in price by LCH.Clearnet and then the reduction in trading fees by LSEG. The OFT has considered whether step one could be achieved in light of the corporate governance and open-access provisions.
150. A uniform LCH.Clearnet price rise combined with an LSEG price drop is more likely to be profitable for LCH.Clearnet than the discriminatory price rise noted above. As such, a vote by LCH.Clearnet directors to do so may not be against their fiduciary duties to the company, nor would it contravene the open-access provision. It is not necessary for the parties to rely on a degree of co-ordination as LCH.Clearnet would have an incentive to raise its prices uniformly following the LSEG price drop.
151. The OFT considers that a uniform price rise could also take the form of a failure to implement reductions in price, which LCH.Clearnet would have introduced absent the merger. The ability of the Board to prevent such a price rise (which is in effect a failure to implement a price reduction) is, in the OFT's view, limited. This is, in part, because it is not clear to the OFT that a failure to reduce price would be raised at the Board level such as to require a vote and therefore may not be easily detected.
152. The success of a uniform price rise strategy would also require the reduction of fees at the trading level by LSEG, that is, prices would increase at the clearing level and be offset at the trading level to ensure the overall cost of trading and clearing on LSEG/LCH.Clearnet remained below a comparable offering on a rival trading venue and LCH.Clearnet. The OFT notes that the corporate governance provisions have no impact on the ability of LSEG to reduce its trading fees as part of such a strategy.

#### Refusal to supply

153. The OFT considers that an outright refusal to supply would be in direct contravention of the open-access provision, the parties' regulatory obligations and would be transparent to its customers such that it would damage their customer relationships. Therefore it would be fanciful to consider that the directors of LCH.Clearnet (user and iNEDs in particular) would vote in favour of such a decision. The OFT does consider that there may be means whereby access could be delayed or otherwise prejudiced (for commercial grounds), any

discriminatory behaviour regarding access is considered under degradation of quality below.

#### Degradation of quality

154. With regard to the ability to engage in the degradation of quality of the service, the OFT considers that the involvement of users and iNEDs on the risk committee and product advisory groups of LCH.Clearnet provide an avenue by which such discrimination could be brought to the attention of the Board. Furthermore, the parties' regulatory obligations provide a further layer of scrutiny over discriminatory behaviour and a potential avenue of redress for aggrieved customers. However, the OFT cannot rule out all possible means by which such discrimination could occur or be certain that the Board would have oversight of such action on the basis of the corporate governance provisions or regulatory oversight.
155. The OFT has carefully assessed whether the corporate governance provisions and the regulatory framework, alone or in combination, would remove or reduce the **ability** of the merged entity to engage in foreclosure either through a uniform price rise or the degradation of quality post-transaction. The OFT considers that there remains a realistic prospect that the parties would have the **ability** to foreclose in these ways. In coming to this conclusion, the OFT is conscious that it cannot place wholesale reliance on a certain set of corporate governance provisions or a current or future regulatory framework given that these may be subject to change.

#### THEORIES OF HARM

156. As stated earlier, the OFT considered a number of theories of harm across each of the asset classes of fixed income securities, equities securities and exchange traded derivatives. In this section, each asset class is taken in turn and the applicable theories discussed. These theories of harm, divided by asset class, are:

##### **Fixed Income Securities:**

- unilateral effects in fixed income clearing services
- foreclosure of fixed income trading services and
- foreclosure of fixed income clearing services.

**Equities Securities:**

- unilateral effects in clearing of Italian equities
- foreclosure of equities trading services and
- foreclosure of equities clearing services.

**Exchange Traded Derivatives:**

- raising barriers to entry and reducing innovation in ETDs
- unilateral effects in clearing of ETDs
- foreclosure of existing trading services and
- foreclosure of clearing services.

**FIXED INCOME SECURITIES**

157. The OFT identified three theories of harm under fixed income, these being:

- unilateral effects in fixed income clearing
- foreclosure of fixed income trading services
- foreclosure of fixed income clearing services.

**Unilateral effects in fixed income clearing**

158. The OFT considers below the scope for unilateral effects in fixed income clearing on two grounds. First in relation to the horizontal overlap between LCH.Clearnet and CC&G in the clearing of cash and repo trades in Italian government bonds, and second in relation to potential competition between CC&G and LCH.Clearnet in French and Spanish government bonds.

**Italian government bonds**

159. The parties consider that no horizontal competition issues arise as a result of the overlap between CC&G and LCH.Clearnet. They state that the dynamics of competition in fixed income clearing are not driven by, or in any way dependent on, clearing competition between CC&G and LCH.Clearnet.

160. The parties do not have visibility of the trading of Italian government bonds on Eurex so they were unable to provide comprehensive market share data on the clearing of Italian government bond trades. However, excluding Eurex, the parties estimate that CC&G and LCH.Clearnet cleared [50-60] per cent and [30-

40] per cent, respectively, of Italian government bond repo trades in 2011. Similarly, they estimate that CC&G and LCH.Clearnet cleared [50-60] per cent and [30-40] per cent, respectively, of Italian government bond cash trades in 2011. The remainder of the market shares being accounted for, according to the parties, by uncleared trades.

161. The parties argue that LCH.Clearnet and CC&G have different customer bases and that the transaction will therefore not lead to an SLC in Italian fixed income clearing. They note that CC&G focuses on Italian domestic business with [ ] out of its [ ] fixed income clearing members based in Italy. Of the remaining [ ] customers, [a small number] are invoiced in the UK and generated approximately £[ ] in revenue in 2011. LCH.Clearnet customers are noted to be large international banks trading a wide range of government bonds.
162. The parties also state that the interoperability agreement between LCH.Clearnet and CC&G established with the close cooperation of the French and Italian regulators limits the extent of competition between the parties in Italian fixed income clearing. Under this agreement both parties have to collect the same collateral margins for trades in Italian government debt.
163. The vast majority of third parties had no concerns in relation to the horizontal overlap between CC&G and LCH.Clearnet. Third parties generally consider that CC&G and LCH.Clearnet are not close competitors and corroborated the parties' view that CC&G serves Italian customers whereas LCH.Clearnet serves non-Italian customers.
164. LCH.Clearnet's internal documents suggest that the main competitive constraint on LCH.Clearnet is [ ]. LCH.Clearnet's [ ]. Further, LCH.Clearnet's fees do not vary by type of government bond, that is, the same fee is applied to the bond of any state. As such, the OFT considers that there is limited, if any, price competition between LCH.Clearnet and CC&G with regards to Italian bonds. The lack of price competition in relation to Italian bonds further demonstrates the lack of closeness of competition between LCH.Clearnet and CC&G and [ ]. Also, CC&G's internal documents demonstrate its [ ].
165. In addition, according to third parties, most cash and repo trading of Italian government bonds takes place on MTS and this gives LSEG an incentive to keep LCH.Clearnet and CC&G's clearing fees for these trades the same. The OFT considers that any increase in clearing fees would be likely to reduce the

profits earned by MTS for these trades due to customers switching to other trading venues such as Eurex.

166. On the basis of the evidence above, the OFT considers that there is no realistic prospect of an SLC in the clearing of either cash or repo trading of Italian government bonds.

#### French and Spanish government bonds

167. The second ground considered for unilateral effects post-transaction arises from the potential competition between CC&G and LCH.Clearnet in French and Spanish government bonds. The OFT considered whether CC&G had existing plans to expand its activities in competition with LCH.Clearnet such that it may have been a stronger actual or potential competitor than its activities in Italian government bonds suggested. In particular, a reference in one of CC&G's internal documents tended to suggest that [ ]. However, there were other internal documents which suggested [ ].

168. Specifically, an internal CC&G document highlights [ ]. In particular, an August 2011 clearing update to the LSEG Board noted that [ ]. Also, in a November 2011 CC&G board meeting it was noted that [ ].

169. The OFT has weighed the evidence available to it and considers that CC&G would not have expanded internationally and even where this did occur, any expansion may not have been successful due to a lack of demand. On this basis, the OFT considers that there is no realistic prospect of the merger leading to an SLC from the loss of potential competition in the supply of clearing services for French and Spanish bond trades.

#### Conclusion on unilateral effects in fixed income clearing

170. On the basis of the evidence above, the OFT considers that there is no realistic prospect of an SLC in the provision of clearing services for Italian, French and Spanish fixed income securities post-transaction.

#### **Foreclosure of fixed income trading services**

##### **Ability**

171. The parties state that their ability to foreclose fixed income trading services is constrained by a number of factors. First, they submit that the prospect of

customers no longer clearing fixed income trades limits their ability to foreclose. As noted above in the frame of reference section (at paragraph 53), they estimated that [20-30] per cent of repo trades and 80 to 90 per cent of fixed income cash trades are uncleared.

172. Second, the parties submit that there is a small number of key fixed income customers [ ].
173. Third, the parties submit that there is a number of potential entrants to fixed income clearing that have the capability and skill to launch such a service and would do so if prompted by customers. They consider that the threat of such entry by supporting a rival platform means that LSEG and LCH.Clearnet would not be able to implement any foreclosure strategy. They also consider that they are limited by the threat to their wider business from customers losing trust in the parties.
174. The OFT's market investigation indicated that clearing is important for repo and cash trades for a range of government bonds, in particular for electronic trading. A number of fixed income electronic trading service providers noted that all or almost all of the trades executed on their services were cleared.
175. LCH.Clearnet is the only choice of clearer for standalone fixed income trading services including ICAP, Tullett Prebon, Cantor Fitzgerald and Tradition. Importantly, the platforms of these rival trading services do not have access to Eurex Clearing.
176. The limited choice of other fixed income clearers [ ]. For example, one of LCH.Clearnet's 'strategic objectives' is to [ ]. In the clearing of all European fixed income cash and repo trades on third party trading services, LCH.Clearnet has high market shares of up to [70-80] per cent and [80-90] per cent respectively, according to the parties' estimates and data.

#### Conclusion on the parties' ability

177. In light of the above evidence, the OFT considers that LCH.Clearnet may have the ability to foreclose rivals to LSEG's fixed income trading service, MTS. However, it has not been necessary to conclude on this given its findings in relation to incentives below.



## Incentives

178. The parties state that it would not be profitable for LSEG to seek to foreclose rival fixed income trading venues that use LCH.Clearnet's services as a significant proportion of the trading business cleared by LCH.Clearnet on these rival venues would not migrate to LSEG's MTS (whilst continuing to use LCH.Clearnet). The parties state that to achieve this level of significant switching (also known as diversion) they would need to severely impact the commercial viability of rival trading venues and that this is not plausible for several reasons:
- This would seriously harm LSEG's relationships with its customers who are effectively a small number of key trading banks [ ].
  - Customers would seek to punish LSEG [ ].
  - Customers may be able to sponsor entry and support competing trading venues until other clearing options could be found.
179. Some third parties expressed concern that the parties would have an incentive to foreclose rival trading venues post-transaction given LSEG's presence in electronically traded bonds via MTS. In particular concerns were expressed that LSEG would have an incentive to foreclose ICAP's BrokerTec electronic trading service which is used for cash and repo trading of a wide range of European bonds including UK Gilts.
180. Set against this, a number of third party customers indicated that LCH.Clearnet would find it difficult to induce them to move trading volumes to MTS from its rival trading services. Where LCH.Clearnet is used<sup>58</sup> customers noted that LCH.Clearnet would need to increase its clearing costs significantly<sup>59</sup> for this to be the case. With regard to the repo markets (with the exception of Italian government repos) and the cash trading of some government bonds such as UK Gilts, MTS offers limited, if any, liquidity. Customers stated that where MTS has limited liquidity they would need to switch collectively to MTS and as such this acts as a barrier to switching. It was further noted that there has been no long-term switching to MTS in repo trading even when MTS has offered price

<sup>58</sup> It was noted by a third party that much of fixed income trading is not exchange traded; this limits the parties' ability to engage in foreclosure.

<sup>59</sup> Higher than that used for market definition purposes, with the implication that the parties may face a wider set of constraints than those within the relevant frame of reference.

concessions and when there have been technical problems on rival trading services such as BrokerTec and tpREPO.<sup>60</sup>

181. In corporate bond trading, NYSE BondMatch uses LCH.Clearnet to clear all its trades. However, MTS does not offer a comparable CCP-cleared corporate bond trading service, raising significant doubt that in the event that LSEG sought to foreclose NYSE BondMatch through a refusal to supply, degrading quality or raising the costs of clearing, there would be insufficient switching to MTS to make such a foreclosure strategy profitable to LSEG. The parties also state that the revenue earned by LCH.Clearnet from clearing corporate bond trades from NYSE BondMatch were very limited in 2012.
182. It should also be noted that few corporate bond trades are subject to clearing through a CCP. As such, engaging in a strategy which tends to limit the ability of customers to clear corporate bonds would mean LCH.Clearnet risking the loss of its corporate bond clearing revenues to uncleared trading and any development of a corporate bond clearing business.
183. The OFT considers that there is no realistic prospect that the parties would have an incentive to foreclose LSEG's rivals in fixed income trading on the basis that: (i) any attempt to foreclose non-LSEG fixed income trading services would involve a greater risk of customers switching away from LCH.Clearnet compared to the prospect of customers switching to MTS, and that (ii) LCH.Clearnet has higher variable profit margins than LSEG in fixed income.
184. The OFT notes that LCH.Clearnet's variable profit margin for fixed income clearing is around €[ ] per trade and the variable profit margin for fixed income trading is around €[ ] per cleared trade on MTS.<sup>61</sup> Higher variable profit margins in absolute terms in clearing compared to trading suggest that the negative impact on profitability of lost sales in clearing may outweigh the positive impact on profitability of additional sales at the trading level were the parties to attempt to foreclose LSEG's rival fixed income trading venues.<sup>62</sup>

<sup>60</sup> A fixed income trading service operated by Tullett Prebon.

<sup>61</sup> June 2012 estimates provided by the parties. As LCH.Clearnet and LSEG are primarily fixed cost businesses, these variable profit margins will remain broadly constant over significant changes in clearing and trading volumes.

<sup>62</sup> Merger Assessment Guidelines, OFT and CC, September 2010, paragraph 5.6.11(c).

185. In relation to the risk of customers switching away from LCH.Clearnet compared to the prospect of customers switching to MTS, the OFT notes that LCH.Clearnet would need to increase trading participants' clearing costs significantly in order for it to induce switching to MTS (on the basis of third-party comments discussed above). However, doing so would put at risk LCH.Clearnet's revenues in fixed income as explained below.
186. First, a significant increase in clearing costs on non-LSEG trading venues may lead to a drop in trading activity with some customers choosing to no longer use clearing services for their trades. The fact that customers will switch to uncleared trading in certain circumstances is supported by the drop in clearing (and trading) of [ ] government bonds when LCH.Clearnet applied a heightened risk margin framework for the trading of this government debt in 2011 and 2010, and where there was switching to bilateral uncleared trading. The OFT notes, however, that the price rise which induced the move to uncleared trading was high and this may limit the degree to which uncleared trading is an immediate constraint. The OFT has also taken into account to some degree, the parties' submission that at a recent meeting of the Bank of England Securities Lending and Repo Committee,<sup>63</sup> members remarked that there had been a material switch away from CCPs towards bilateral activities, which corroborates to some extent the constraint from bilateral trading.
187. Second, there is a risk that trading participants could switch to Eurex, which offers both trading and clearing services for a similar set of fixed income securities cleared by LCH.Clearnet. Customers informed the OFT that there was some switching to Eurex when LCH.Clearnet applied a heightened risk margin framework on various government bonds in the last three years. The threat from Eurex is corroborated by [ ].
188. Third, such an increase in clearing costs could increase the threat that customers would sponsor entry. An LCH.Clearnet internal document notes [ ]. While this is currently perceived as a [ ], the OFT considers that this threat acts as a constraint on the parties and this is discussed further under barriers to entry below (see paragraph 302 to 328).
189. Finally, the OFT also notes that some third parties indicated that the parties would be unlikely to behave in a discriminatory manner due to the negative customer reaction that would be generated and, in any event, they would be

<sup>63</sup> Meeting of 11 September 2012 – extract from minutes provided by the parties.

precluded from doing so due to their public commitments to operate LCH.Clearnet on an open and horizontal basis.

#### Critical diversion estimates

190. In assessing the incentive to engage in foreclosure, the OFT considers it can be useful to assess critical diversion estimates, where sufficient data is available. Critical diversion estimates measure what proportion lost from LCH.Clearnet on non-LSEG trading services would need to divert to LSEG to make it profitable for the parties to foreclose rival trading services to LSEG. The use of such estimates forms one part of the overall evidence base and all evidence is considered in the round.
191. The parties submitted an estimate of the critical diversion to make a refusal to supply strategy profitable given their profitable margins in trading and clearing. This estimate is [60-70] per cent. That is, at least [60-70] per cent of fixed income business cleared by LCH.Clearnet on non-LSEG venues would need to divert to MTS (while continuing to use LCH.Clearnet) in order to make it financially worthwhile for LSEG to refuse to give rival trading venues access to LCH.Clearnet.
192. The parties' critical diversion are based on: (i) LCH.Clearnet losing all its profits from clearing trades executed on non-LSEG venues, and (ii) the need for diversion to MTS to be at least [60-70] per cent to offset completely the losses incurred through MTS earning higher profits. The estimate also take into account LCH.Clearnet recapturing some of its clearing profits on the basis that all trades that migrate to MTS would be cleared by LCH.Clearnet.
193. The OFT considers that this critical diversion estimate is informative as to the level of diversion which would make a **total** foreclosure strategy profitable. Given the qualitative evidence from customers relating to the difficulty of getting customers to switch to MTS and the risk that they may switch to other alternatives, the OFT considers that a refusal to supply strategy would not be profitable for the parties.
194. The OFT also considered whether critical diversion estimates could be calculated to help assess the potential profitability of **partial** foreclosure (through a price rise or the degradation of quality). The OFT notes that the

critical diversion estimates were extremely sensitive to the assumptions used, especially on the degree of switching away from LCH.Clearnet.<sup>64</sup>

195. Taking all of the evidence in the round, the OFT considers that there is no realistic prospect that **partial** foreclosure would be profitable to LSEG. This evidence is: the third party information on the difficulty of switching, (as set out above at paragraph 180), the fact that MTS has limited liquidity in repo government bonds and no comparable offering to NYSE BondMatch for corporate bonds, the higher profit margins at the clearing level as opposed to trading, the threat of sponsored entry, and the threat of switching to uncleared trading or Eurex.

#### Conclusion on the parties' incentive to foreclose fixed income trading services

196. On the basis of the evidence and analysis set out above, the OFT considers that there is no realistic prospect that the parties would have an incentive to foreclose MTS's rival fixed income trading services post-transaction.

#### Effect

197. The OFT does not consider there to be any incentive to foreclose and no competition concerns therefore arise. For the sake of completeness, however, the OFT notes that even if the parties engaged in foreclosure, the OFT believes, on the basis of the evidence, that the effect on competition would not be substantial for the following key reasons:

- MTS's competitors (ICAP, Tullett Prebon) in fixed income trading services are strong and account for significant liquidity in key areas.
- As discussed further in the barriers to entry and countervailing buyer section below, there is a credible threat of customer sponsored entry with one CCP confirming it could do so within six months and for a cost of approximately £500,000 subject to customer demand.
- The corporate governance provisions including the involvement of users on the Board and in risk committees and product advisory groups and the role of the prudential and supervisory regulators provide a level of scrutiny which should serve to limit the effect of any attempted foreclosure.<sup>65</sup>

<sup>64</sup> This calculation would require a measure of the degree of switching away (elasticity) from LCH.Clearnet that would follow a price or quality change. The parties informed the OFT that they do not have such a figure nor did a third party put one forward. The calculation of the critical diversion estimate for total foreclosure does not require this input.

<sup>65</sup> The OFT also notes that LSEG may in fact have an incentive to drop its trading fees on MTS such as to attract even more clearing volumes onto LCH.Clearnet (for instance from Eurex and bilateral

198. In light of the above, the OFT considers that even where it is argued that the parties had the ability and incentive to engage in foreclosure post-transaction, there is no realistic prospect that this would have a detrimental effect on competition.

#### Conclusion on foreclosure of fixed income trading venues

199. For the reasons set out above, the OFT considers that there is no realistic prospect of a substantial lessening of competition as a result of non-horizontal effects in the provision of fixed income trading services post-transaction.

#### Foreclosure of fixed income clearing services

200. MTS has an estimated [40-50] per cent share of the electronically traded European bond markets (parties' estimates). The OFT also considered the foreclosure of fixed income clearing services as a potential theory of harm. However, the OFT does not have any evidence to suggest that other CCPs, for instance, TASE-CH and Keler, which are active primarily in the clearing of Israeli and Hungarian fixed income securities, and which also clear trades on MTS, would be foreclosed as a result of the transaction.

201. Furthermore, the parties would only benefit from such foreclosure where customers switch to LCH.Clearnet. As LCH.Clearnet is not active in the clearing of the same fixed instruments as TASE-CH and Keler there is no prospect of customers switching to LCH.Clearnet and therefore no incentive on the parties to engage in such behaviour post-transaction. Moreover, no concerns were raised by third parties about the parties having the ability or incentive to foreclose other fixed income clearing services post-transaction.

202. In light of the above, the OFT considers that there is no realistic prospect that rival fixed income clearing service providers will be foreclosed post-transaction.

#### EQUITIES SECURITIES

203. The OFT identified the following theories of harm relevant to this frame of reference:

uncleared trading). This would be above and beyond any hypothetical MTS price drop combined with a uniform LCH.Clearnet price increase. Other fixed income trading services may also respond to any price drop on MTS and/or higher LCH.Clearnet prices by reducing their fees. The possibility of this MTS price drop and stimulus in rivalry from its competitors means any effect overall could be benign if not potentially beneficial to customers.

- unilateral effects in the clearing of Italian equities
- foreclosure of equity trading services
- foreclosure of equity clearing services.

### **Unilateral effects in the clearing of Italian equities securities**

204. As the parties overlap in the clearing of Italian equities, the OFT considered the scope for unilateral effects post-transaction.

205. CC&G clears the majority of Italian-listed equities according to the parties' estimates, accounting for approximately [60-70] per cent by traded volume. LCH.Clearnet is noted to have a market share of approximately [0-five] per cent with EMCF and EuroCCP having shares of [10-20] per cent and [10-20] per cent respectively.

206. CC&G clears Italian equity trades on Borsa Italiana whereas LCH.Clearnet (along with the other CCPs mentioned above) clear trades on Turquoise and BATS Chi-X. The OFT's market investigation confirmed that customers do not consider the parties to be close competitors.

207. The OFT considers that the small increment in market share arising from the transaction, the lack of evidence that the parties are close competitors and the presence of EuroCCP and EMCF with greater market shares is sufficient to conclude that there is no realistic prospect that the transaction will result in an SLC in relation to the clearing of Italian equities post-transaction.

### **Foreclosure of equities trading services**

#### **Ability**

208. The parties argue that the corporate governance structure and pre-existing regulatory commitments are sufficient to prevent the parties from foreclosing equities trading services or harming equities trading customers post-transaction.

209. Notwithstanding this, the parties submit that to be able to engage in a strategy of foreclosure towards its equities trading competitors, LCH.Clearnet would need to be a 'must have' partner for those competitors. They consider that this is not the case. They note that alternative trading venues have thrived in both the EU and UK equities trading environments either without using LCH.Clearnet's services at all, or using LCH.Clearnet alongside other clearing

service providers. The parties consider that there is no material difference in the clearing needs between MTFs and RMs or between the customers of each of these types of venues.

210. The parties note that the trading venues, BATS, Chi-X, NYSE Arca and others developed competing equities trading franchises without being dependent on LCH.Clearnet for clearing capability. Indeed, a number of those competing platforms, such as the merged BATS Chi-X Europe,<sup>66</sup> have not become fully interoperable with LCH.Clearnet until early 2012.
211. The majority of third parties did not highlight significant differences between different equities CCPs but there were a few exceptions. Some third parties indicated that LCH.Clearnet has a differentiated service and specified its risk management methodologies, financial stability (as compared to EuroCCP and EMCF) and its ability to offer a more rounded service. These third parties also highlighted that a CCP seeking to offer services in France must have a credit institution status and their operational rules approved by the French regulator, AMF.
212. Third party information also suggested that a CCP's ability to reduce settlement costs was an important factor in using a CCP and that LSEG could use LCH.Clearnet to limit access to these benefits, protecting LSE's position as an 'incumbent exchange'. It was suggested that retail investors often used the incumbent exchange out of convenience and would not wish to fragment their post-trade process. For such customers, access to the CCP of the incumbent exchange is important (that is, access to LCH.Clearnet in the case of trading on LSE).<sup>i</sup> It was also stated by some third parties that it would be costly and risky to switch to another CCP.
213. The OFT notes that LCH.Clearnet is one of a number of CCPs active in the provision of clearing services for European equity securities trades. The others include EMCF, EuroCCP, Six x-clear, CC&G (owned by LSEG) and Eurex. LCH.Clearnet, EMCF, EuroCCP and Six x-clear provide equities clearing services to non-integrated trading venues, whilst in contrast, CC&G and Eurex generally do not.

<sup>66</sup> The Competition Commission approved the anticipated acquisition by BATS Global Markets, Inc of Chi-X Europe Limited on 24 November 2011.



214. The parties' combined shares of supply in European equities clearing services are [30-40] per cent by traded value and [30-40] per cent by traded volumes (see Table 1 below). Excluding self-supply and uncleared trades, the parties' shares are [40-50] and [30-40] per cent by traded value and volume, respectively.<sup>67</sup> The OFT notes that these shares are likely to be higher when a narrower product scope segmented by financial instrument is considered.<sup>68</sup> For instance, in the clearing of Dutch, Belgium, Portuguese and French equities, LCH.Clearnet's share of supply is approximately 60 to 80 per cent.<sup>69</sup>

**Table 1: Shares of supply for clearing of European Equities in 2011**

Clearing house	Traded value for trades in European equity securities (€ bns)	Share of traded value	Number of transactions (cleared sides - mns)	Share of number of transactions
CC&G	[ ]	[5-10]%	[ ]	[5-10]%
CCP Austria	[ ]	[0-5]%	[ ]	[0-5]%
EMCF	[ ]	[20-30]%	[ ]	[40-50]%
Eurex Clearing	[ ]	[10-20]%	[ ]	[5-10]%
EuroCCP	[ ]	[5-10]%	[ ]	[5-10]%
LCH.Clearnet Limited	[ ]	[10-20]%	[ ]	[5-10]%
LCH.Clearnet S.A.	[ ]	[10-20]%	[ ]	[10-20]%
Oslo Clearing	[ ]	[0-5]%	[ ]	[0-5]%
SIX x-clear	[ ]	[5-10]%	[ ]	[0-5]%
Uncleared (executed on trading venues without a CCP)	[ ]	[5-10]%	[ ]	[0-5]%
Combined LCH.Clearnet and CC&G	[ ]	[30-40]%	[ ]	[30-40]%
Total	[ ]		[ ]	

Source: Parties' estimates

<sup>67</sup>The parties were only able to exclude equity trades from vertically integrated providers. This is used as a proxy for excluding 'self-supply'. This involved excluding trades cleared by CC&G, Eurex, CCP Austria, Oslo clearing and Six x-clear. Excluding uncleared trades involved excluding trades executed on a trading venue without a CCP.

<sup>68</sup> However, regardless of whether the OFT conducts its assessment on the basis of a narrower product scope, its conclusions are the same.

<sup>69</sup> Given that LCH.Clearnet is the only CCP on NYSE Euronext and using estimate of NYSE's share of supply in equities trading from [www.batstrading.co.uk](http://www.batstrading.co.uk).

215. Whilst the OFT notes that [ ] tend to support differentiation by single and established<sup>70</sup> CCP, the vast majority of third parties did not highlight significant differences between the different equities CCPs. Furthermore, the OFT notes that both EMCF and EuroCCP have seen significant increases in market shares over the past number of years which casts doubt on some of the concerns expressed about their viability.
216. Indeed the OFT notes that, looking ahead, once a CCP has obtained authorisation under EMIR, claims of differentiation will become moot and trading venues may interoperate with any CCP once they have complied with the ESMA standards. No CCP informed the OFT that it would fail to meet the ESMA authorisation process and therefore the OFT considers that EMIR is a factor that limits the parties' ability to engage in foreclosure.
217. Since the Markets in Financial Instruments Directive 2004/39/ED (MiFID) came into force in 2007, trading services can be offered on a number of trading venues (such as RMs or MTFs). The OFT notes that consequently there was an increase in competition amongst equities trading venues across Europe with BATs, Chi-X Europe and Turquoise (now majority owned by LSEG) competing with the LSE. In particular, the OFT notes that Turquoise, BATs and Chi-X developed competing offerings without being dependent on LCH.Clearnet. This demonstrates that since 2007 there has been an increase in competition amongst equity trading venues without being dependent on LCH.Clearnet.
218. The OFT considers that the parties have only a limited ability to foreclose equity trading services post-transaction in light of the fact that that equities trading venues have entered the market and increased their competitive strength since the introduction of MiFID without being dependent on LCH.Clearnet, and furthermore that there is a choice of four CCPs.
219. The OFT notes that certain trading venues are wholly reliant on the clearing services of LCH.Clearnet, for example, NYSE Euronext. They are very likely to have an ability to engage in foreclosure of such a venue. The OFT notes however that a number of factors may pose limits on this ability nonetheless including the threat by the trading venue to use other CCPs on its trading platform, especially if they become authorised to clear across Europe under EMIR and also the presence of certain contractual clearing arrangements which

<sup>70</sup> An established CCP in this context refers to a CCP active in the clearing of multiple asset classes.

govern the relationship with LCH.Clearnet and provide a certain level of protection and redress.

#### Conclusion on the parties' ability

220. In light of the above, the OFT considers that, in general, the parties have a limited ability to foreclose equities trading venues given that there is a choice of four CCPs. In relation to the foreclosure of venues that rely solely on LCH.Clearnet, the OFT considers that the parties do have the ability to engage in foreclosure but that there are certain constraints which may operate to reduce this.

#### Incentives

221. The parties state that withdrawing LCH.Clearnet's services from rival trading venues could never be profitable and as such there is no incentive to engage in any foreclosure strategies.

222. The parties also submit that customer buyer power is a continuing threat to all venues and is exercised by sponsoring new entry (either through connecting to multiple venues or through taking equity stakes in venues) and through creating in-house crossing networks. The parties highlight the following examples of sponsored entry: Chi-X Europe, Sigma-X, Turquoise and UBS MTF.<sup>71</sup>

223. The parties also highlight that competing trading venues currently have a sufficient choice of clearer and offer interoperability of CCPs to customers. In light of this choice, the parties state that LCH.Clearnet would lose business with no consequent competitive gain should it engage in any of the foreclosure strategies described.

224. In relation to NYSE Euronext, a venue for which LCH.Clearnet is the only CCP, the parties submit (without prejudice to their position that they do not have the ability to foreclose), that any business that did divert to LSEG from NYSE Euronext is more likely to divert to Turquoise than to the LSE, due to the profile of the securities in question. And that there is less to gain from diversion to Turquoise since the parties make lower profit margins per trade executed on

<sup>71</sup> Chi-X was established in 2007 by Instinet (a wholly owned subsidiary of Nomura Holdings) and is currently owned by several financial institutions. Sigma-X is an electronic trading service offered by Goldman Sachs. Turquoise is owned by LSEG and shareholder banks. UBS MTF is an electronic trading service offered by UBS Limited.

Turquoise and cleared on LCH.Clearnet than the profit margins per trade from LCH.Clearnet S.A. clearing for NYSE Euronext. They suggest that together LCH.Clearnet Limited and Turquoise would only gain €[ ] for each trade diverted to Turquoise<sup>72</sup> but that LCH.Clearnet S.A. would lose €[ ] for each trade switching away from NYSE Euronext. On this basis, they argue that foreclosure of NYSE Euronext would not be profitable.

225. Some third parties noted that they were encouraged by LSEG's evident willingness to embrace competition in equities by providing the LSE trade feed to LCH.Clearnet and Six x-clear, and Turquoise's<sup>73</sup> trade feeds to EMCF, EuroCCP, Six x-clear and LCH.Clearnet.
226. The OFT considers that there is no incentive for the merged parties to seek to foreclose NYSE Euronext post-transaction given that LCH.Clearnet S.A. earns higher profit margins than the combined profit margins of LCH.Clearnet Limited and Turquoise (see discussion on profit margins above).<sup>74</sup> Moreover, third party information suggested that there would be significant diversion to BATS Chi-X if such a scenario arose given that it has greater liquidity for European securities listed and traded on NYSE Euronext's RMs. Therefore, diversion to Turquoise would not be sufficient to make foreclosure of NYSE Euronext profitable. This conclusion applies equally to a price rise, refusal of continued access or degradation of quality.
227. LCH.Clearnet also clears for BATS Chi-X, SWX<sup>75</sup> and Equiduct.<sup>76</sup> In respect of each of these, the OFT has found that there is currently a choice of another

<sup>72</sup> Made up of Turquoise's margin per trade of €[ ] and LCH.Clearnet Limited's margin per trade of €[ ]. Note that LCH.Clearnet Limited clears Turquoise trades and that LCH.Clearnet S.A. clears NYSE Euronext trades.

<sup>73</sup> It should be noted that LSEG owns 51 per cent of Turquoise. The CC, in its report on the anticipated acquisition by BATS Global Markets, Inc of Chi-X Europe Limited, dated 24 November 2011, did not treat Turquoise as fully independent of LSEG in determining its competitive strategy (paragraph 8.33) but concluded that Turquoise was in effect a joint venture between its 12 bank shareholders and LSEG.

<sup>74</sup> This would still be the case taking into account [ ].

<sup>75</sup> Six Swiss Exchange – the Swiss stock exchange.

<sup>76</sup> Equiduct is an European equities trading service.

CCP on each of these venues. Customers that use LCH.Clearnet to clear their trades executed on BATS Chi-X, SWX and Equiduct in general suggested that were LCH.Clearnet to raise their clearing costs on these venues, that they would switch to a different CCP rather than switching some of their trades to LSEG venues. For these trading services the OFT considers that there is a significant risk that if LCH.Clearnet engaged in any of the foreclosure strategies identified (price rise, refusal to supply or degradation of quality), there would be significant switching to other CCPs.

228. Furthermore, the evidence from third parties suggests that switching to the LSEG's venues would not be sufficiently high to make any foreclosure strategy of BATS Chi-X, SWX and Equiduct profitable.

#### Critical diversion estimates

229. The parties submitted an estimate of the critical diversion estimate to make a refusal to supply strategy profitable. This estimate is [20-30] per cent and is informative as to the level of diversion which would make total foreclosure profitable.<sup>77</sup>
230. The OFT considers that taking all of the evidence in the round, total or partial foreclosure strategies would not be profitable. This is on the basis of the evidence set out above on switching from LCH.Clearnet to other CCPs as opposed to switching to LSEG venues, and in the case of NYSE Euronext, by the quantitative evidence on the parties' variable profit margins.

#### Conclusion on the parties' incentive to foreclose equity trading services

231. On the basis of the evidence and analysis set out above, the OFT considers that there is no realistic prospect that the parties have an incentive to foreclose non-LSEG rival equity trading venues post-transaction. Consequently, there is no realistic prospect of an SLC in the provision of equity trading services.

#### Effect

232. As the OFT considers that the parties would not have the incentive to engage in any foreclosure strategies post-transaction, it does not need to specifically address whether there would be a resultant effect on competition in the provision of equity trading services.

<sup>77</sup> The discussion on the critical diversion estimates for partial foreclosure (as discussed above in fixed income at paragraph 194) is equally applicable to equities.

233. Nonetheless, the OFT considers that even if the parties engaged in a foreclosure strategy, the effect on competition would be limited. This is because clearing members are sophisticated buyers such that they could consider sponsoring entry or expansion of CCPs if they considered that LSEG was seeking to marginalise equities trading venues.
234. The OFT notes the Competition Commission's (the CC) conclusions in BATS/Chi-X, where it found that high customer concentration meant that the threat of withdrawal of business (in whole or party) is a potential constraint on an exchange. Also, that the low costs and transparent nature of the MTF business model and the ease with which liquidity can switch, meant such a threat was viable.<sup>78</sup> The CC also found that the actions of only a small number of trading firms would be sufficient to sponsor entry and pointed to the fact that each significant MTF in the UK was founded by a consortium of customers.<sup>79</sup> The OFT considers this to be relevant to the likely effect of any attempted foreclosure of rival equity service providers.
235. The OFT notes that in relation to CCP entry, EMCF was launched by ABN AMRO Bank N.V. in 2007 and EuroCCP, a subsidiary of US-based Depository Trust and Clearing Corporation (DTCC), launched its services in Europe in 2008 with support from a number of large financial institutions.
236. As with fixed income, the OFT considers that there would be transparency over the actions of LCH.Clearnet given its structure of having users on its Board and involved in its risk committees and product advisory groups. As such, the OFT believes that foreclosure strategies would be transparent and brought to the attention of the Board, which would weaken the effect of any such foreclosure behaviour. Furthermore, the FSA plays an active role in monitoring the activities of LCH.Clearnet, as discussed previously, and adds a further layer of scrutiny to the activities of LCH.Clearnet thereby limiting any effect of foreclosure.

#### Conclusion on the foreclosure of equity trading services

237. The OFT considers that whilst the parties may have some ability to engage in foreclosure, there is no realistic prospect that they have the incentive to do so. Notwithstanding this, the OFT considers that the effects of such foreclosure would be limited and therefore the OFT considers that there is no realistic

<sup>78</sup> Supra, paragraph 9.14.

<sup>79</sup> Supra, paragraph 9.15-.916.

prospect of a substantial lessening of competition as a result of non-horizontal effects in the provision of equity trading services post-transaction.

238. Consequently, the OFT considers that there is no realistic prospect that the transaction will result in an SLC in the provision of equity trading services post-transaction.

### **Foreclosure of equities clearing services**

#### **Ability**

239. The parties submit that their ability to foreclose rival equity clearing service providers is non-existent. They submit that to do so LSEG would need to hold a position of market power in pan-European equities trading. They cite Turquoise as a [ ] in pan-European equities, pointing to it achieving between [five-10] per cent of each of Dutch, Portuguese, Belgium and French equities. The parties state that as LSEG is already interoperable on its equities platforms, it is inconceivable that LSEG would undo that work and see trading volumes switch away to competing venues.
240. Some third parties raised concerns regarding the ability of LSEG either to withdraw trading feeds from LCH.Clearnet's rival CCPs or to discriminate against them. These third parties also stated that CCPs that currently do not have access to the LSE's trading feeds should be provided access to them.
241. It was also suggested by these third parties that not only would a CCP lose the trade volumes from LSEG venues, but a direct result may be the loss of trades on other venues, because trading participants seek to use the same CCP for all trading venues. Remaining with two CCPs, it was suggested, would be significantly more costly, due to duplicated settlement and margin requirements and reduced volume discounts.
242. Third party customers noted that there could be switching away from Turquoise in response to an increase in trading fees, but there was some concern that it would be difficult to shift trades away from the LSE due to the high liquidity it has in UK equities.
243. LSEG has three equity trading services, LSE, Borsa Italiana and Turquoise. LSE and Borsa Italiana are RMs offering trading services whereas Turquoise is an MTF for European and US equities. There are a number of other European equity trading services including NYSE, BATS Chi-X, SWX, Equiduct, Burgundy, and Deutsche Börse.

244. Currently, LSEG (taking account of Turquoise also) partners with EuroCCP, SIX x-clear and EMCF, in addition to LCH.Clearnet and CC&G. The OFT has assessed whether LSEG has the ability to foreclose one or more of these CCPs.
245. According to the parties' estimates, LSEG accounts for [20-30] per cent of European equities trading. The OFT notes that LSEG's market shares on a narrower product scope segmented by type of financial instrument may be higher. For example, LSEG's share for the trading of UK-listed equities is [40-50] per cent by traded value, according to the parties' estimates. See Table 2 below.

**Table 2: FTSE100 shares on-book with pre-trade transparency for LSEG's financial year 2011 (April 2010 - March 2011)<sup>80</sup>**

FTSE 100 (on book-pre trade)				
Trading venue	Value traded (GBP bns)	Share (value traded)	Number of equities traded	Share (number of equities traded)
<b>BATS Chi-X Europe</b>	[ ]	[30-40]%	[ ]	[30-40]%
<b>Burgundy</b>	[ ]	[0-5]%	[ ]	[0-5]%
<b>Equiduct</b>	[ ]	[0-5]%	[ ]	[0-5]%
<b>Deutsche Börse</b>	[ ]	[0-5]%	[ ]	[0-5]%
<b>LSEG</b>	[ ]	[50-60]%	[ ]	[60-70]%
<b>Mercado Continuo</b>	[ ]	[0-5]%	[ ]	[0-5]%
<b>Nasdaq OMX Europe</b>	[ ]	[0-5]%	[ ]	[0-5]%
<b>NYSE Arca</b>	[ ]	[0-5]%	[ ]	[0-5]%
<b>NYSE Euronext</b>	[ ]	[5-10]%	[ ]	[0-5]%
<b>QuoteMTF</b>	[ ]	[0-5]%	[ ]	[0-5]%
<b>Total</b>	[ ]		[ ]	

Source: the parties' estimates

<sup>80</sup> This table shows LSEG's share of trading of UK-listed equity securities for the financial year 2011 (April 2010 to March 2011) executed on or reported to trading venues located across Europe, and also located just in the UK.



246. The market share evidence above suggests that the parties may have the ability to foreclose clearing services in relation to certain types of equities, in particular in relation to UK-listed equities.
247. While CCPs can and do partner with a wide range of equities trading services, access for some to LSEG's trading services may be important. The OFT assessed the parties' ability to foreclose each of Six x-clear, EuroCCP and EMCF in turn.
248. In relation to Six x-clear, although it is not dependent entirely on LSEG, the OFT considered in particular whether the parties would have the ability to foreclose it in respect of UK equities. This is because it may be more difficult for customers of the LSE to avoid a UK equity trading fee increase if they clear on SIX x-clear given the high liquidity on LSE in these equities. As such, the OFT considers that the parties would have the ability to foreclose Six x-clear post-transaction.
249. In relation to EuroCCP, it clears for Turquoise [ ]. EuroCCP stated that if LSEG withdrew the Turquoise trade feed from EuroCCP, it would lose [ ] per cent of its revenues [ ]. [ ]. In light of this information, the OFT considers that the parties would have the ability to foreclose EuroCCP post-transaction.
250. Finally, in respect to EMCF, the OFT notes that it is not dependent on LSEG trade feeds and indeed only started clearing on Turquoise in 2012. Therefore, the parties' ability to foreclose EMCF is considered very limited.
251. The corporate governance provisions are not relevant to this analysis since they do not apply to the activities of LSEG.

## **Incentives**

252. The parties state that any foreclosure strategy of a CCP would only be profitable if it resulted in a significant proportion of clearing business switching to LCH.Clearnet, whilst continuing to use LSEG's trading venues. According to the parties, this would not occur and customers would seek to punish LSEG for such behaviour by switching to rival trading venues.
253. The parties highlight that LSEG's customers already use multiple trading venues for their equity trading and they could therefore switch to another venue in order to continue using that other CCP.

254. The OFT notes that Turquoise has a small market share of trading in pan-European equities (typically around [five-10] per cent depending on listing location<sup>81</sup>). In the case of Turquoise restricting customers' choice of CCP or raising customers' trading costs for using certain CCPs, the OFT considers that this would significantly weaken its competitive offering. Moreover, third parties noted that it would be difficult to get them to switch to LCH.Clearnet and that they would be likely to switch some of their trades away from Turquoise instead.
255. As set out in the frame of reference section (see paragraph 70 above), the OFT notes that MTFs and RMs are substitutes for the majority of equity trading services. However, as some third parties have highlighted some differentiation between MTFs and the LSE and that it may be difficult for customers to switch away from the LSE (due to its high liquidity), on a cautious basis, the OFT has considered if LSEG, using the LSE venue, could foreclose Six x-clear.
256. The OFT considers that such a move would not be supported by customers of SIX x-clear, which would be reluctant to switch to LCH.Clearnet. There is also a risk that some LSE trades migrate to LSE's competitors in UK equities such as BATS Chi-X and other trading venues listed at Table 2 above.
257. The OFT considers that a trade switching away from LSE would be very costly in comparison to the benefit from a trade switching to LCH.Clearnet Limited from SIX x-clear. This is because the LSE earns higher variable profit margins (€[ ] per equity trade) than LCH.Clearnet Limited (€[ ] per equity trade). The parties may also face retaliatory action by SWX if the merged entity sought to foreclose SIX x-clear from the LSE. This is because LCH.Clearnet is a CCP on SWX.
258. The parties submitted an estimate of the critical diversion to make a refusal to supply strategy profitable. This estimate is [70-80] per cent and is informative as to the level of diversion which would make a total foreclosure strategy profitable. The evidence from customers is that they would be unlikely to switch to LSEG venues following a refusal to supply. On balance, the OFT considers that a refusal to supply would not be profitable.

<sup>81</sup> Using data on <http://www.batstrading.co.uk>

259. The OFT considers that taking all of the evidence in the round there is no realistic prospect that total or partial foreclosure would be profitable to LSEG given the switching away from LSEG venues, the reluctance of customers to switch to LCH.Clearnet, and in the case of SIX x-clear, the evidence on the parties' variable profit margins.
260. Finally, in relation to other CCPs gaining access to the LSE's trade feeds, the OFT notes that other CCPs have entered and established market shares in the equities clearing market without access to the LSE's trade feeds. The OFT considers that the competitive strength of other CCPs is not dependent on gaining access to the LSE and therefore considers that the parties do not have the ability to foreclose other CCPs in this way.

#### Conclusion on the parties' incentive to foreclose equity clearing services

261. On the basis of the evidence and analysis set out above, the OFT considers that there is no realistic prospect that the parties have an incentive to foreclose rival equity clearing providers.

#### Effect

262. It is not considered necessary to consider the effects of foreclosure of CCPs on competition given the OFT's conclusion on incentives above.
263. However, the OFT notes its comments set out above under the effect of foreclosure of equity trading venues above (see paragraphs 232ff) and considers that they are equally applicable to the foreclosure of clearing services, such that any effects of such foreclosure would not lead to an SLC.

#### Conclusion on foreclosure of equity clearing services

264. The OFT considers that the parties have limited ability to engage in the foreclosure of equity clearing services but that there is no realistic prospect of them having an incentive to do so.
265. In light of the above, the OFT considers that the transaction will not give rise to an SLC through the foreclosure of equity clearing services post-transaction.

## EXCHANGE TRADED DERIVATIVES

266. The OFT considered the following theories of harm in relation to exchange traded derivatives (ETDs):

- raising barriers to entry and reducing innovation in ETDs
- unilateral effects in the clearing of ETDs
- foreclosure of existing trading venues, and
- foreclosure of clearing service providers

267. Of these theories of harm, the only one which raised potential concerns related to raising barriers to entry and reducing innovation in derivatives. As such, the OFT discusses this theory below before providing a short summary of its conclusions on the other potential theories of harm.

### **Raising barriers to entry and reducing innovation in ETDs**

268. The OFT considered whether the transaction would result in increased barriers to entry or expansion such as to reduce competition and innovation in ETD trading services. This includes the parties foreclosing trading services from introducing new ETD products in competition with existing ETD products and also reducing their incentives to invest in new innovative products.

### **Ability**

269. The parties state that the corporate governance framework prevents the implementation of any such foreclosure strategy as (i) discrimination is not possible on any basis and (ii) there are robust conflict and confidentiality protections to prevent LSEG gaining access to any competitively sensitive information and that information relevant to competitors will not be discussed with, or distributed to, LSEG. The parties also refer to the recent announcement by Nasdaq OMX to use LCH.Clearnet for its new trading venue.<sup>82</sup>

270. The parties state that their combined share of supply for the clearing of ETDs is de minimis. The parties also state that account should be taken of the contractual relationship between LCH.Clearnet Limited and NYSE Euronext (referred to as the out-sourced agreement) in that the clearing volumes associated with NYSE Euronext should be attributed to NYSE Liffe Clearing.<sup>83</sup>

<sup>82</sup> Announced in June 2012.

<sup>83</sup> NYSE Liffe Clearing is the CCP for NYSE Euronext's Liffe London derivatives trading venues since 2009. NYSE Liffe Clearing outsources certain clearing functions to LCH.Clearnet Limited. This relationship is due to terminate in 2013.

The parties also state that because the relationship between LCH.Clearnet S.A. and NYSE Euronext's continental derivatives business<sup>84</sup> is due to terminate in 2014, these volumes should also be attributed to NYSE Liffe Clearing and not LCH.Clearnet.

271. Tables 3 – 5 below show the parties' combined share of supply for clearing of ETDs.

**Table 3 – ETD clearing shares - excluding the volumes currently provided by LCH.Clearnet Limited to NYSE Liffe Clearing and excluding NYSE Euronext's current continental derivatives volumes**

Instrument	Total no. of contracts	LSEG total no. of contracts <sup>85</sup>	LSEG share	LCH.Clearnet total no. of contracts <sup>86</sup>	LCH.Clearnet share	LSEG and LCH.Clearnet combined share
Single stock equity ETDs	[ ]	[ ]	[0-5]%	[ ]	[0-5]%	[5-10]%
Equity index ETDs	[ ]	[ ]	[0-5]%	[ ]	[0-5]%	[0-5]%

<sup>84</sup> LCH.Clearnet S.A. is the CCP for NYSE Euronext's continental derivatives trading business.

<sup>85</sup> All volumes provided for CC&G are the trading volumes for the IDEM and IDEX trading venues since CC&G only clears for them in relation to ETDs. These venues are owned by LSEG.

<sup>86</sup> LCH.Clearnet's volumes in this table derive from the trading volumes of Turquoise Derivatives since this is the only trading venue to which LCH.Clearnet provides EU clearing services for single stock equity ETDs and equity index ETDs when NYSE Euronext's Liffe London and continental derivatives trading venues are excluded.

**Table 4 – ETD clearing shares - excluding the volumes currently provided by LCHC Limited to NYSE Liffe Clearing but including NYSE Euronext’s current continental derivatives volume**

Instrument	Total no. of contracts	LSEG total no. of contracts	LSEG share	LCH.Clearnet total no. of contracts <sup>87</sup>	LCH.Clearnet share	LSEG and LCH.Clearnet combined share
Single stock equity ETDs	[ ]	[ ]	[0-5]%	[ ]	[10-20]%	[10-20]%
Equity index ETDs	[ ]	[ ]	[0-5]%	[ ]	[5-10]%	[5-10]%

**Table 5 ETD clearing shares - including the volumes currently provided by LCHC Limited to NYSE Liffe Clearing and including NYSE Euronext’s current continental derivatives volumes**

Instrument	Total no. of contracts	LSEG total no. of contracts	LSEG share	LCH.Clearnet total no. of contracts <sup>88</sup>	LCH.Clearnet share	LSEG and LCH.Clearnet combined share
Single stock equity ETDs	[ ]	[ ]	[0-5]%	[ ]	[40-50]%	[40-50]%
Equity index ETDs	[ ]	[ ]	[0-5]%	[ ]	[10-20]%	[10-20]%

272. When volumes attributable to NYSE Euronext are excluded, the parties’ combined market share is [five-10] per cent for single stock equity ETDs and

<sup>87</sup> LCH.Clearnet’s volumes in this table derive from the EU trading volumes of Turquoise Derivatives plus the EU trading volumes of NYSE Euronext’s continental derivatives trading venues as per LCH.Clearnet’s internal figures.

<sup>88</sup> LCH.Clearnet’s volumes in this table derive from the EU trading volumes of Turquoise Derivatives (as per Table 1 above) plus the EU clearing volumes from NYSE Euronext’s continental ETDs and EU clearing volumes from the outsourcing arrangement with NYSE Liffe Clearing as per LCH.Clearnet’s internal figures.

[0-five] per cent for equity index ETDs. If the parties' suggested approach is not adopted, and the OFT attributes all outsourced volumes to LCH.Clearnet, the parties' combined share of supply would be [40-50] per cent for single stock equity ETDs and [10-20] per cent for equity index ETDs. The increment from CC&G's ETD clearing activities are [0-five] and [0-five] per cent for single stock and equity index ETDs respectively. The relevance of these relationships and the attribution of market shares are discussed further below.

273. Some third parties stated that the transaction might raise the possibility of the parties hindering the entry of new ETD venues by preventing their entry in a market where LSEG is currently active, or could consider entering. These concerns can be summarised as follows:
- LCH.Clearnet is the only independent, non-vertically integrated CCP in the EU, and the vertically integrated providers are not open to third party trading venues
  - LSEG would have the ability to foreclose attempts by rivals to introduce new products, for example by favouring new product developments by Turquoise over those of rival platforms and/or refusing to consent to required IT upgrades, and
  - a new entrant into the ETD trading space would need non-discriminatory access to clearing arrangements and that concerns arise regarding LSEG's ability to limit, delay or prevent LCH.Clearnet providing clearing services to third parties post-transaction.
274. The OFT has considered the parties' evidence of LCH.Clearnet operating as an open horizontal model in the derivatives area before the merger discussions began in early 2012. In particular LCH.Clearnet has supported applications for new or revised services from a number of trading venues including Nasdaq OMX. This demonstrates how important LCH.Clearnet has been in supporting new innovation in this market in recent years, with very little new entry occurring at the trading level in these products without LCH.Clearnet providing support.
275. Regardless of whether the OFT accepts that the relationship between LCH.Clearnet and NYSE Euronext is an out-sourcing agreement, and whether the current market shares should be allocated to NYSE Liffe Clearing rather

than LCH.Clearnet, the OFT understands that LCH.Clearnet is currently the only independent, non-vertically integrated clearing provider for ETDs in the EEA. For non-vertically integrated trading venues there is limited choice of clearing service provider which indicates that LCH.Clearnet has the ability to foreclose new trading venues.

276. As discussed under the corporate governance section above (see paragraphs 129 to 130), the Articles of Association will contain a conflict of interest provision allowing the iNEDs to exclude directors in certain situations.<sup>89</sup> These provisions are bolstered by confidentiality provisions that are contained in contractual provisions together with the general duty on company directors to avoid conflicts of interest.<sup>90</sup>
277. Based on the evidence available to it, the OFT considers that the parties may have the ability to engage in foreclosure post-transaction.

### **Incentive**

278. The parties state that LSEG would not have the incentive to foreclose rival trading venues or new entrants for the following reasons:
- To ensure LCH.Clearnet is successful it must attract as many trading venues as possible to maximise its clearing volumes and so increase the size of the margin pool to allow for margin offset.
  - LSEG's current ETD trading position is so small [ ].
279. The parties state that for the above reasons it would not be profitable for LSEG to engage in a foreclosure strategy of rival ETD trading venues.
280. Some third parties suggested that LSEG would have an incentive to exercise its influence over LCH.Clearnet to the disadvantage of its rivals in the trading of

<sup>89</sup> The Articles of Association provide that, if a majority of the iNEDs determine that in order to prevent a breach of applicable competition law or regulation, a director appointed should not have access to competitively sensitive information, that director shall not be entitled to receive it, attend any meeting at which it is discussed or participate in discussions or vote on any resolution at such a meeting unless a majority of the iNEDs agrees otherwise.

<sup>90</sup> Section 175 of the Companies Act 2006.



European ETDs, in order to divert trading volumes to its own Turquoise platform.

281. NYSE Euronext and Eurex are estimated to supply around 80 per cent of European ETD trading services. The services currently supplied by LCH.Clearnet Limited to NYSE Liffe Clearing to enable it to clear ETD trades on its NYSE Liffe London venue and the services LCH.Clearnet S.A. supplies to NYSE Euronext's continental derivatives business will terminate in 2013 and 2014 respectively. This will lead to the loss of a [ ] of revenue for LCH.Clearnet ([30-40] per cent of its revenues). Therefore the OFT considers that the parties will have a strong incentive to seek new business from ETD trading venues to replace this lost revenue stream.
282. The OFT notes that currently Turquoise has a relatively small market share of approximately [0-five] per cent. With the introduction of EMIR mandating clearing for certain OTC derivatives, it is anticipated that the market for clearing of derivatives securities will grow. As such, the OFT notes that the parties also have an incentive to grow Turquoise's ETD business. However, in order to compete with NYSE Euronext and Eurex, Turquoise will need access to a pool of open interest<sup>91</sup> at the clearing level. This, in turn, means that LSEG has an incentive to encourage or enable LCH.Clearnet to expand its open interest pool.
283. As open interest is vital to the strength of a CCP in ETD clearing,<sup>92</sup> the OFT considers that the parties will have the incentive to support entry of new products to increase the pool of open interest in order to make ETD trading on Turquoise and other venues more desirable to either NYSE Euronext or Eurex.
284. The OFT considers that the prospect of the parties discriminating against entrants who would otherwise invest resources in developing new products and thereby increasing the pool of open interest available is not realistic. Consequently, it would not be in the interests of Turquoise or other ETD trading venues if LCH.Clearnet engaged in discriminatory behaviour.

<sup>91</sup> Once a trade is executed it gives rise to an open position otherwise known as open interest. Trades are added to a pool of open interest or offset against open positions. By netting open positions and cross-margining across a portfolio, a clearing member will seek to reduce its margin requirements and contributions to the default fund.

<sup>92</sup> This was confirmed by the Commission in its Deutsche Börse/NYSE Euronext decision, *supra*.

285. Furthermore, the OFT notes that Nasdaq OMX has just announced its partnership with LCH.Clearnet for ETD clearing despite it being aware of this transaction. Moreover, the OFT considers that contractual provisions in clearing arrangements (that is between the CCP and trading venue) would also fortify the confidentiality provisions contained in the corporate governance provisions and further address any concerns of potential entrants.
286. In light of the above, the OFT considers that there is no realistic prospect that the parties have the incentive to engage in a strategy of raising barriers to entry or reducing innovation in the exchange trading of derivatives.<sup>93</sup>

### **Effect**

287. As the OFT considers that the parties do not have the incentive to engage in the raising of barriers to entry or reducing innovation in the trading of ETD derivatives, it does not have to also consider the effects.
288. Notwithstanding the above, in the unlikely event that the parties did engage in foreclosure in ETDs, in terms of effects it should be noted that the Commission concluded in *Deutsche Börse/NYSE Euronext*<sup>94</sup> that entry and/or expansion by a combined Turquoise/LCH.Clearnet offering against the much larger margin pools of the incumbents would be very difficult. The OFT notes that this transaction may make it more likely for Turquoise and LCH.Clearnet to invest and develop their offering which may increase competition in this market which has few effective competitors. Therefore if there was any likelihood that any trading level entry could be harmed by this transaction this would be countered by the benefits which would accrue from an increase in competition presented by a Turquoise/LCH.Clearnet offering.

<sup>93</sup> The OFT has not found it necessary to undertake a quantitative analysis of the parties' incentives to engage in total foreclosure of rival derivatives trading venues given the qualitative evidence set out above. Furthermore, any quantitative analysis would be based on the parties' current variable profit margins. However, an assessment of entry barriers and innovation is particularly forward looking in nature and the parties' variable profit margins may be subject to change given the future loss of LCH.Clearnet's volumes from NYSE Liffe and because Turquoise only recently entered derivatives trading. This limits the value of any quantitative analysis.

<sup>94</sup> *Supra*, paragraphs 994 to 1004.

## Conclusion on raising barriers to entry and reducing innovation

289. The OFT considers that whilst the parties may have the ability to engage in foreclosure strategies such that they raise the barriers to entry and/or reduce innovation in the exchange trading of derivatives, there is no realistic prospect that the parties have an incentive to do so. Furthermore, there is no realistic prospect that the effects of any such action would give rise to competition concerns. Consequently, there is no realistic prospect of an SLC post-transaction.

### **Unilateral effects in the clearing of ETDs<sup>95</sup>**

290. The parties overlap in the provision of clearing services for European ETDs and therefore the OFT considers whether unilateral horizontal effects would arise post-transaction.

291. The OFT notes that LCH.Clearnet's clearing of European ETDs (including single stock equity ETDs and Equity Index ETDs) is minimal when the clearing volumes from NYSE Euronext are excluded. If the OFT considers the volumes of clearing provided by LCH.Clearnet to NYSE Euronext attributable to LCH.Clearnet, then the market share is approximately [40-50] per cent for single stock ETDs and [10-20] per cent for equity index ETDs.

292. Regardless of whether the OFT attributes the NYSE Euronext volumes to LCH.Clearnet partially or in full, the increment from the transaction is [0-five] per cent for EU single stock ETDs and [0-five] per cent from equity index ETDs. Furthermore, the OFT considers that CC&G and LCH.Clearnet are not close competitors as CC&G is not active on venues located outside of Italy and there is limited overlap in the ETDs that they clear, as confirmed by third parties.

293. In light of the above, the OFT considers that there is no realistic prospect of an SLC in the clearing of EU ETDs post-transaction.

### **Foreclosure of existing ETD trading services**

294. The OFT considers that the arguments set out above in relation to the incentive to raise barriers to entry are equally applicable to the foreclosure of existing

<sup>95</sup> The OFT notes that the parties are also active in the clearing of energy ETDs but given the negligible combined market share, this is not considered further.

ETD trading services and as such the OFT concludes that the parties do not have the incentive to engage in any such behaviour post-transaction. Therefore, it has not been necessary to also consider the parties ability to do so, or the effect of such action.

295. Consequently, the OFT considers that there is no realistic prospect of an SLC arising in relation to this theory of harm.

### **Foreclosure of clearing service providers**

296. LSE owns FTSE International, a financial indices provider. In order for a trading venue to offer equity index derivatives for trading, they must purchase a licence from the relevant index provider. For ETDs, once the licence is granted to the trading venue, the CCP is not required to also seek a further licence. In the case of OTC trading of derivatives, as there is no trading venue, the CCP must obtain the licence in order to clear the equity index derivative product.<sup>ii</sup>

297. The OFT considers that the parties would have the ability to withhold the licence where pre-existing contractual provisions are not in place granting access in perpetuity, but considers that there is no evidence that the transaction would raise concerns in relation to CCP access to FTSE index licenses.

298. [ ].The OFT has not received any evidence to suggest that third party CCPs are considering entering the clearing of OTC FTSE index derivatives such as to cause competition concerns. Whilst the OFT received a concern from one third party in this regard, no other third parties who would be potentially affected by a refusal to supply the FTSE licence raised concerns.

299. The OFT further notes that there will be little merger-specific effect on FTSE's licensing incentives as LSEG already has its own CCP, CC&G. The role of CC&G is significant in this space. For instance, while Turquoise uses LCH.Clearnet for some clearing functions for derivatives based on FTSE Index underlying, it uses CC&G for clearing services and technology covering netting, position management, clearing activities, settlement price calculations, exercise and assignment processing and corporate action processing.<sup>96</sup> This indicates that the change brought about by the merger will be limited in any event.

<sup>96</sup> See [www.tradeturquoise.com/press/TQ\\_FTSE\\_ProductLaunch.pdf](http://www.tradeturquoise.com/press/TQ_FTSE_ProductLaunch.pdf).

300. In light of the above, the OFT considers that there is no realistic prospect of an SLC arising post-transaction in relation to the foreclosure of trading or clearing service providers on the basis of index licensing.

### **THIRD PARTY CONCERNS**

301. The OFT received a number of third party concerns and comments during the course of its assessment. All third party information was assessed by the OFT and these comments are reflected in the analysis above where relevant.

### **BARRIERS TO ENTRY AND COUNTERVAILING BUYER POWER**

302. The OFT considers that barriers to entry and countervailing buyer power are relevant to an assessment of foreclosure effects, in so far, as the presence of credible entrants or expanders or the power of customers to threaten or actually sponsor entry is of relevance to its competitive assessment. The OFT considers these factors are especially relevant in this case to its assessment of the parties' incentive to foreclose fixed income trading services. The OFT also considers the threat of customer sponsored entry in equities is relevant to its overall analysis and sets out, for the sake of completeness, its observations in relation to this below.

#### **Countervailing buyer power in fixed income**

303. The parties state that customers have influence over clearing services and that, because demand is concentrated amongst few customers, they would be able to punish the parties if they behaved in an anti-competitive manner by trading bilaterally or without clearing.

304. Customers also have significant buyer power as they are also shareholders of LCH.Clearnet, MTS and other trading and clearing services. They argue that customer influence in fixed income is strengthened through trade associations such as ICMA<sup>97</sup> and AFME.<sup>98</sup> They also submit that customers could use their influence to encourage an alternative clearing provider to supply services on

<sup>97</sup> International Capital Market Association.

<sup>98</sup> Association for Financial Markets in Europe.

non-LSEG fixed income trading services. They note that customers coordinated the sponsorship of LCH.Clearnet's RepoClear<sup>99</sup> service through ISMA, the predecessor of ICMA. They also note that BrokerTec was founded in 1999 by seven banks.

305. Some third party customers noted that individually they had little influence and negotiating strength in their dealings with CCPs but almost all third-party customers noted that they had sponsored entry in the past (as noted at paragraph 309 below). This suggests that customers may exercise buyer power collectively through the threat of sponsored entry.
306. The OFT notes that LCH.Clearnet's fixed income clearing business is concentrated with a small number of customers making up a significant proportion of its business. For example, LCH.Clearnet Limited's top 10 Gilt customers represent approximately [50-60] per cent of nominal trading volumes and its top 10 fixed income customers of Spanish debt represent approximately [50-60] per cent of nominal trading volumes. Similarly, LCH.Clearnet S.A.'s top 10 fixed income customers of Spanish debt represent between 60 per cent and 80 per cent, and its top 10 fixed income customers of French debt generate approximately [50-60] per cent of clearing fees.
307. LCH.Clearnet will continue to have user shareholders post-transaction and the OFT notes that trading customers have a combined shareholding of just over [30-40] per cent and five user directors will be on LCH.Clearnet's Board. Also, as users will be present on the risk committee and product advisory groups of LCH.Clearnet they will have some degree of input in LCH.Clearnet's fixed income clearing business. In this respect, the OFT notes that the existing operating model and arrangements of RepoClear will be preserved post-transaction. This is a core operating principle of LCH.Clearnet and as such will be enshrined in the Articles of Association. It is considered a minority protected reserved matter (requiring 80 per cent of votes cast to effect an amendment). In addition, the OFT notes that MTS is 39.63 per cent owned by its customers and directors representing six banks sit on the MTS Board.
308. Taking all of the evidence available into account, the OFT considers that there is a high concentration of customers in fixed income such that a relatively small number are of importance to LCH.Clearnet (and MTS) such that the threat or

<sup>99</sup> RepoClear is the name of LCH.Clearnet's fixed income clearing service.

withdrawal of business (in whole or part) acts as a potential constraint on LCH.Clearnet. In particular, the actions of a relatively small number of trading firms could support the entry of a new fixed income CCP and as such the risk that LCH.Clearnet would engage in foreclosure strategies is reduced by the influence of these customers, its customer shareholders and customer directors.

### **Countervailing buyer power in equities**

309. The OFT notes that much of the analysis relating to countervailing buyer power in fixed income is applicable to equities trading and clearing. In particular, third-party customers noted that they had sponsored entry in the past, suggesting that collectively they have buyer power. Third-parties noted the support for the entry and set up of Turquoise and EuroCCP in 2007 due to a perceived lack of competition and the need to reduce the costs of trading and clearing in cash equities at the time.
310. As with fixed income, the OFT considers that there would be transparency over the actions of LCH.Clearnet given its structure of having users on its Board and involved in its risk committees and product advisory groups. The OFT believes that this contributes to the buyer power of customers.
311. Moreover, the OFT's assessment of buyer power is consistent with the CC's findings on customer power in relation to equities trading in BATS/Chi-X.<sup>100</sup> The CC found that high customer concentration had two consequences, that the threat of withdrawal of business was a constraint on an exchange and that the actions of a relatively small number of trading firms would facilitate a shift in liquidity.<sup>101</sup> The CC also noted that customers of BATS and Chi-X were large and sophisticated institutions with experience in many jurisdictions and were well able to protect their interest.<sup>102</sup>

<sup>100</sup> A report on the anticipated acquisition by BATS Global Markets, Inc of Chi-X Europe Limited, dated 24 November 2011, paragraph 9.24-9.25.

<sup>101</sup> Supra, paragraph 9.14-9.15.

<sup>102</sup> Supra, paragraph 9.24.

## Barriers to entry and expansion in fixed income

312. In assessing whether entry or expansion might prevent an SLC, the OFT considers whether such entry or expansion would be timely, likely and sufficient. These criteria apply to actual or, in exceptional circumstances, the perceived threat of entry.<sup>103</sup>
313. The OFT considers that an assessment of the threat of entry must take account of the particular features of the market in question and in this case, the threat of potential entry need not be that high. As noted above when discussing the parties' incentive to engage in the foreclosure of fixed income trading services (paragraphs 178 to 196), the OFT considers that there is limited prospect of the parties benefiting from the foreclosure of non-LSEG fixed income trading services due to the difficulty in getting customers to migrate their trading volumes to MTS. Under these circumstances a low threat of potential entry may be sufficient to limit any foreclosure incentives of the parties. The OFT calibrates its assessment of the timeliness, likelihood, and sufficiency of entry in this context.
314. The parties submit that there are several existing CCPs that would be well-placed to enter fixed income clearing in Europe or to expand their offerings to additional products or platforms. The parties argue that entry barriers are low and emphasise the role of customers supporting entry either from a CCP clearing a different asset class or from a trading service like [ ].

### Likelihood of entry and expansion

315. The OFT notes that the threat of new entry, specifically identifying [ ]. However, the OFT considers that this threat may increase if LCH.Clearnet were to engage in foreclosure. [ ]. The OFT considers that customer loyalty to LCH.Clearnet would quickly decrease in the event that the parties attempted to foreclose MTS's rivals and that LCH.Clearnet's customers could support new entrants by providing capital and shifting their clearing to this new entrant. The high concentration of LCH.Clearnet's customers could greatly assist this process. Customers consider it important to promote competition, as demonstrated by their role in BrokerTec's entry. The OFT therefore believes that customers are likely to sponsor the entry of new CCPs if the need arises. This is corroborated by their role in the entry of EuroCCP and EMCF as discussed under sufficiency of entry below.

<sup>103</sup> Merger Assessment Guidelines, *supra*, section 5.8.



316. The OFT was informed that a CCP active in European equities has fixed income clearing capability in its systems and would consider entering where there was customer demand to do so. This CCP noted that entry would cost around €0.5 million primarily due to system enhancements and, to a lesser extent, amendments in legal arrangements. The OFT also notes that this CCP already has established relationships with large international clearing members, some of which are also customers of LCH.Clearnet. Furthermore, the OFT is aware that SIX x-clear successfully moved from equity clearing to clearing of fixed income securities (namely Swiss franc bonds traded on SWX).
317. Combined with the potential for large customer demand (as noted above), this information suggests that entry of a new fixed income CCP could be likely to counter any incentives of the parties to engage in foreclosure strategies.
318. The OFT considers that the opportunity cost of customers switching CCPs does not act as a major barrier to entry in fixed income. In particular, in cash trading counterparty risk is only managed over a few days and while the counterparty risk can be managed over longer periods of time in some fixed income repo trades, the OFT considers that this does not raise concerns. In this respect, the OFT notes that 86 per cent of repo trades on automated trading services such as MTS were for approximately one day.<sup>104</sup>
319. The OFT also considers that regulatory authorisation would not act as a sufficient barrier to entry, in particular in the case of a CCP expanding into new products such as from equities into fixed income. The OFT also notes that regulatory approval did not prevent CCPs like EuroCCP and EMCF entering into European equities clearing. Regulatory approval for this type of expansion was not noted by third-parties as a significant entry barrier.

#### Timeliness of entry and expansion

320. Third party information suggests that it could take between six and 12 months for CCPs to expand their services into fixed income clearing. This would involve enhancing existing systems to expand from equities into fixed income, for example, and gaining the necessary regulatory approvals. The OFT therefore considers that entry would be timely.

#### Sufficiency of entry and expansion

321. The OFT considers that entry would be of sufficient scale to disincentivise the parties from foreclosing rival fixed income trading services. This is due to the concentration of LCH.Clearnet fixed income revenues from a small number of

<sup>104</sup> ICMA 2012 Survey.

customers. These customers would have the ability and incentive to move a significant proportion of LCH.Clearnet volumes to a new CCP.

322. The examples of the entry by equity CCPs indicate the potential scale of entry. Since EuroCCP was established in 2007, it estimates that it has gained a market share of around 26 per cent in the clearing of European equities. Likewise, EMCF entered in 2007 and gained a market share of close to 40 per cent in 2010.<sup>105</sup>

#### Conclusion on entry and expansion into fixed income clearing

323. On the evidence above, the OFT considers that the threat of customer sponsored entry or the actual expansion of an existing CCP into fixed income clearing would be expected to be, or would be, timely, likely and sufficient for the parties to have no incentive to foreclose non-LSEG fixed income trading services. The OFT also considers that, if the parties sought to foreclose, customer sponsored entry (or the threat of it) would, alongside other factors, mean that there was no substantial effect on competition in fixed income clearing or trading.

#### Barriers to entry and expansion in equities

324. In relation to equities trading and clearing, the OFT notes the Competition Commission's (the CC) conclusions in BATS/Chi-X, where it found that high customer concentration meant that the threat of withdrawal of business (in whole or part) is a potential constraint on an exchange. Also, that the low costs and transparent nature of the MTF business model and the ease with which liquidity can switch, meant such a threat was viable.<sup>106</sup> The CC also found that the actions of only a small number of trading firms would be sufficient to sponsor entry and pointed to the fact that each significant MTF in the UK was founded by a consortium of customers.<sup>107</sup>
325. Turquoise was set up by a consortium of nine investment banks in 2007. Chi-X Europe, now merged with BATS Europe, was set up by Instinet, a wholly-owned subsidiary of Nomura. UBS launched UBS MTF, a non-displayed external venue for the crossing of European cash equities and depository receipts.

<sup>105</sup> EMCF Annual Report 2010, page 4.

<sup>106</sup> A report on the anticipated acquisition by BATS Global Markets, Inc of Chi-X Europe Limited, dated 24 November 2011, paragraph 9.14.

<sup>107</sup> Supra, paragraph 9.15-.916.

326. In relation to CCP entry, EMCF was launched by ABN AMRO Bank N.V. in 2007 and EuroCCP, a subsidiary of US-based Depository Trust and Clearing Corporation (DTCC), launched its services in Europe in 2008 with support from a number of large financial institutions.
327. Overall, whilst the OFT has not needed to place significant reliance on this given the overall competitive nature of the equities clearing and trading markets, it believes that the same conclusion in relation to customer sponsored entry (actual or perceived) found in relation to fixed income apply to equities.

## **ASSESSMENT**

328. LSEG is proposing to acquire up to 60 per cent of the issued share capital of LCH.Clearnet, with existing shareholders continuing to hold the remaining 40 per cent. The transaction agreements contain certain corporate governance and open-access provisions which will limit LSEG's ability to control LCH.Clearnet post-transaction.
329. LSEG is primarily active in the provision of trading exchange services on an international basis with its subsidiary CC&G active in the supply of clearing services, predominantly in Italy. LCH.Clearnet is active in the provision of clearing services on an international basis through its two subsidiaries LCH.Clearnet Limited and LCH.Clearnet S.A.
330. The OFT has assessed both horizontal and non-horizontal theories of harm across the major traded asset classes: equity securities, fixed income securities and exchange traded derivatives.
331. The OFT considers that the provision of fixed income trading and clearing services (each considered separately) may be segmented by type of financial instrument, for example an Italian government bond, and by both cash and repo securities. The OFT further considers that the provision of fixed income trading services may also be segmented by trading venue and that electronic trading is relevant to its assessment. As no competition concerns arise from an assessment of the narrowest frame of reference, the OFT has not considered it necessary to conclude on the precise product scope.
332. Similarly, the OFT considers that the provision of equities trading and clearing services may be segmented by type of financial instrument, for example, a

FTSE 100 (UK) equity. However, as no competition concerns arise as a result of the transaction, the precise product scope can be left open.

333. In relation to exchange traded derivatives, the OFT considers that the relevant product scope for both trading and clearing may be segmented by venue of execution (ETD or OTC), type of underlying and by type of contract. Given the nature of the parties' activities in this regard, the OFT has on a cautious basis considered the provision of trading and clearing services separately. Again, as no competition concerns arise from the transaction, the OFT has not sought to conclude on the precise product scope.
334. The OFT concludes that the relevant geographic scope for the provision of trading and clearing services across all three asset classes is EEA-wide.
335. The OFT has analysed a number of non-horizontal and horizontal unilateral effects theories of harm. In relation to non-horizontal theories of harm, the OFT assessed whether the parties have the ability and incentive post-transaction to engage in a uniform or discriminatory price rise, a refusal to supply or the degradation of quality.
336. The OFT found that the corporate governance and open-access provision set out in the transaction agreements and UK regulatory framework would not, in themselves, prevent the parties' ability to engage in partial foreclosure. They would, however, serve to limit the ability to engage in total foreclosure and impact on the parties' incentive to engage in any form of foreclosure. This is due to the extensive customer involvement in the business of LCH.Clearnet on the Board, in risk committees and product advisory groups and the open access provision committing the Board and LCH.Clearnet business to operate a horizontal open access clearing model. Likewise, the UK supervisory agencies in regulating LCH.Clearnet as a Recognised Clearing House also has powers in relation to the provision of access and the composition and functioning of LCH.Clearnet's risk committees. The OFT considers that the involvement of venue and iNED directors on the Board and regulatory oversight will provide a range of mechanisms by which most foreclosure strategies would be brought to the attention of the LCH.Clearnet Board especially relating to a refusal of access/to supply.
337. However, the OFT considers that even taking account of the corporate governance provisions and regulatory framework, the parties would be likely to

retain the **ability** to engage in partial foreclosure strategies (namely a uniform price rise and/or quality degradation).

338. In relation to unilateral effects, the OFT considers that although the transaction will result in a three to two in the provision of clearing services of Italian fixed income securities, the overlap between the parties in relation to Italian fixed income securities is very limited with CC&G predominantly serving Italian customers ([ ] of its [ ] customers based in Italy) and LCH.Clearnet's serving a large international customer base. Eurex is also viewed as a closer competitor to LCH.Clearnet and that the regulatory framework for the interoperability between LCH.Clearnet and CC&G limits the level of competition between them. The OFT does not consider that unilateral effects concern arise.
339. In relation to the potential entry by CC&G in the provision of clearing services for French and Spanish fixed income securities, the OFT considers that the internal documents are mixed but the expansion by CC&G is sufficiently uncertain to raise any concerns over unilateral effects.
340. In relation to the foreclosure of fixed income trading venues, the OFT found that the parties have the ability to engage in foreclosure. The OFT found that there is no realistic prospect that they would have the incentive to do so since this would not be a profitable strategy. Customers would be unlikely to switch to MTS if LCH.Clearnet's increased its fees on MTS' rival fixed income trading venues, in part, since the MTS fixed income business has insufficient liquidity, especially in repo government bonds and corporate bonds. In addition, clearing level margins are much higher than those at the trading level meaning there is a significant risk that a foreclosure strategy would result in loss rather than profits. The OFT also found that the incentive to foreclose would be significantly limited by a combination of the presence of users on risk committees and product advisory groups, the threat of customer sponsored entry, the close constraint from Eurex and the ability of customers to switch to uncleared trading.
341. In relation to fixed income clearing services, the OFT found that LCH.Clearnet would have no ability or incentive to foreclose given that no third party concerns were raised and LCH.Clearnet does not overlap in the clearing of the same fixed income instruments as other fixed income CCPs (other than CC&G and Eurex). The OFT therefore has found that there is no realistic prospect of an SLC post-transaction in the provision of fixed income trading or clearing services.

342. In relation to equities, the OFT found that there is active competition amongst a number of CCPs in the provision of clearing services for European equity securities. A number of European equity trading service providers entered the market without being dependent on LCH.Clearnet. Other venues are sole users of LCH.Clearnet but the OFT found that the ability to harm these trading service providers was limited by contractual provisions and bargaining power and the threat of these venues using other CCPs once authorised under EMIR to provide services across Europe. On this basis, the OFT considers that the parties have only limited ability post-transaction to foreclose equity trading services.
343. The OFT considers that there is no incentive on the merged parties to seek to foreclose a trading platform given that it would not be profitable to do so. The OFT found that most trading service providers have a choice of at least one other CCP and this would not change post-transaction. The third party evidence indicates that a price rise or degradation in quality would lead customers to switch to a different CCP as opposed to an LSEG venue, that is, a switch away from the parties' services. In the case of venues who currently exclusively use LCH.Clearnet, the OFT found that there were higher profit margins earned by LCH.Clearnet from their existing trading relationships that would be the case if they sought to induce customers to switch to Turquoise through an increase in clearing fees. Moreover, the OFT found, in the event that customers did switch, the majority would switch to BATS Chi-X rather than Turquoise/LSEG. The evidence did not therefore support any incentive to foreclose.
344. As with fixed income, the OFT found that the incentives to foreclose and, in the event that foreclosure were attempted, any effect on competition would be mitigated by customers, who are sophisticated large financial institutions, threatening to, or actually sponsoring the entry or expansion of CCPs. These customers are also involved in the corporate governance of LCH.Clearnet and this would provide transparency over any foreclosure behaviour.
345. In relation to foreclosure of equity clearing providers, the OFT found that the parties would have some ability to foreclose. The OFT concluded, however, that there is no realistic prospect that the parties would have the incentive to foreclose equity CCPs. In relation to Turquoise foreclosing CCPs, this would significantly weaken Turquoise's competitive offering given that the evidence shows that third parties would merely switch away from Turquoise to rival

trading platforms. In relation to the LSE foreclosing Six x-clear from access to LSE trade feeds, the OFT considers that it would not be profitable to do so since customers of Six x-clear were reluctant to switch to LCH.Clearnet and given that a trade switching from the LSE would be more costly relative to the benefit of a trade switching from Six x-clear to LCH.Clearnet and the prospect of retaliation from SWX (owner of Six x-clear) whom LCH.Clearnet provides a range of clearing services.

346. The critical diversion estimates also suggest that total foreclosure through a refusal to supply would not be profitable for the parties given that at least [70-80] per cent of switching would need to be to an LSEG venue.
347. The OFT therefore has not found a realistic prospect of an SLC as a result of non-horizontal effects in the provision of equities trading services and equities clearing services post-transaction.
348. In relation to the horizontal overlap in the provision of clearing services for Italian equities, the OFT considers that the overlap between LCH.Clearnet and CC&G is very limited and, to the extent that there is a loss of competition, the merged entity will be constrained by the number two and three players, EMCF and EuroCCP respectively. The OFT has not found that there is a realistic prospect of an SLC arising from unilateral effects in the supply of clearing services for Italian equities.
349. LCH.Clearnet is considered by third parties to be the only open and horizontal clearing provider for exchange traded derivatives. The OFT found that the corporate governance provisions were unlikely to prevent the parties having the ability to engage in a degradation of service quality.
350. The OFT found that it is not realistic for the parties to engage in foreclosure strategies in derivatives. LCH.Clearnet will lose in 2014 a significant proportion of its ETD clearing business with the termination of its clearing contract with NYSE Euronext. LCH.Clearnet therefore has an incentive to grow its open interest in order to attract business and revenues. In addition, the small size of Turquoise in trading services for European ETDs compared to the much larger suppliers, NYSE Euronext and Eurex, would remove any incentive for the parties to prevent access, entry or expansion of other trading platforms on LCH.Clearnet. The profit maximising strategy will be to grow the open interest and clearing business with a range of trading platforms to compete with NYSE

and Eurex. The OFT considers that the analysis of the foreclosure of existing European ETD venues is similar to the above.

351. The OFT considered unilateral effects in the clearing of ETDs but given the small increment and the fact that the OFT found that CC&G and LCH.Clearnet were not considered to be close competitors no unilateral effects concerns in European ETDs arise. The OFT also considered foreclosure of clearing service providers but found that any change brought about by the merger is limited and that there is no evidence that CCPs are considering entering the clearing of OTC FTSE index derivatives such as to raise concerns.
352. For the reasons outlined in this Decision, the OFT does not believe that it is or may be the case that the merger may be expected to result in a substantial lessening of competition within a market or markets in the United Kingdom.
353. This merger will therefore **not be referred** to the Competition Commission under section 33(1) of the Act.

<sup>i</sup> The OFT notes that Six x-clear is also active in the provision of clearing services on LSE.

<sup>ii</sup> The OFT notes that some index providers may require CCPs to obtain a licence regardless of whether the trading venue has one.