EXPERT OPINION

DEUTSCHE BÖRSE/LONDON STOCK EXCHANGE: ASSESSING THE EUROPEAN COMMISSION'S FORECLOSURE CONCERNS

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Introduction

On 29 March 2017, the European Commission issued its decision prohibiting the merger between Deutsche Börse AG ("DBAG") and London Stock Exchange Group ("LSEG").[2] The Commission was concerned about, *inter alia*, the risk of foreclosure in the markets for post-trade services.

In this brief we consider the economic underpinnings of the Commission's theory of harm and conclude that the foreclosure concerns were not justified.

The markets for the provision of post-trade services

The parties offer listing, trading, and clearing services,[3] as well as post-trade services, which include (i) settlement and custody services ("SCS"),[4] and (ii) collateral management services ("CMS").[5]

The Commission's theory of harm that we analyse here concerned the provision of those services and, more precisely, focused on the vertical link between the (upstream) clearing services provided by DBAG's Eurex and LSEG's LCH, and the (downstream) SCS/CMS provided by DBAG's Clearstream and third-party competitor Euroclear. The Commission claimed that the merged entity would have had a *de-facto* monopoly in the upstream (clearing) markets, giving it the ability and incentive to foreclose competitors in the downstream (SCS/CMS) market – particularly its closest competitor, Euroclear. The merged entity could have done this, so the Commission suggested, by diverting LCH's settlement instructions away from Euroclear and towards Clearstream.

We regard the Commission's concern as unsupported by the economics of how these businesses actually operate, even taking as given the Commission's market delineation and conclusion that the merged entity would possess market power upstream (which the parties disputed). It seems unlikely that the merged entity would have had either the **ability** or **incentive** to leverage any market power upstream to foreclose competitors such as Euroclear.

Ability to foreclose

The Commission argued that the merged entity would have had the ability to divert settlement instructions away from Euroclear, by insisting that transactions it cleared be settled exclusively through its own downstream arm, Clearstream. According to the Commission, this would have deprived Euroclear and its securities account holders of the benefits from 'internal settlement', forcing them instead to use the more costly 'cross-system settlement', which may eventually induce them to relocate their accounts to Clearstream.

Internal settlement occurs if both sides of the transaction have an account with the same settlement provider, unlike cross-system settlement, where this is not the case (see Box for details). The Commission claimed that cross-system settlement is significantly more costly and less reliable than internal settlement. This would imply that there are positive network externalities: the more business a settlement provider attracts, the more internal settlement it can carry out. The consequential increase in scale would enable the provider to lower its costs. Since the merger would have syphoned transactions towards Clearstream, its competitor Euroclear would have suffered a scale disadvantage. Facing higher SCS/CMS costs of holding a securities account with Euroclear, its customers would have gradually relocated their securities/collateral portfolios to Clearstream.[6]

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2. European Commission, Decision of 29.3.2017 (Case M.7995 – Deutsche Börse AG and London Stock Exchange Group) (the "Decision").

3. Clearing takes place between the commitment to enter into a transaction (trade execution) and the fulfilment of that commitment (settlement). The main role of clearing is to manage counterparty risk: to ensure that the transacting parties honour their obligations resulting from the trade. A clearinghouse reconciles orders between transacting parties and acts as the central counterparty ("CCP") between them. To manage the risk that either the original buyer or the original seller defaults, the CCP splits the trade into two separate transactions: one between itself and the original buyer, and another between itself and the original seller.

4. Settlement is the final stage of the trading cycle and involves delivery of a traded security to the buyer in exchange for payment to the seller (Decision, Paragraph 37). The purpose of settlement is to discharge contractual obligations arising from a trade in respect of funds or securities transfers between parties. Custody involves the safekeeping and administration of securities and financial instruments on behalf of others.

5. CMS include the valuation of collateral, confirmation of valuations with counterparties, optimisation of collateral usage and the transfer of collateral between parties.

6. The Commission considered that pooling asset holdings with a single provider that also 'hosts' the most significant counterparties (including, in particular, CCPs), allows for the most efficient provision of SCS and CMS (Decision, Footnote 458).

However, the evidence on which the Commission based this finding was weak. In particular, instead of estimating the difference in actual costs for internal and cross-system settlement, the Commission examined the difference in the respective fees charged by Euroclear. But since prices typically include margins over and above costs, and margins may vary widely across products, the Commission's approach of 'proxying' a cost comparison with a price comparison is not appropriate.

Moreover, the Commission ignored the convergence, in both cost and reliability, between internal and cross-system settlement. More specifically, the Commission disregarded the fact that the so-called "Bridge", a reciprocal electronic communications link that allows for an efficient settlement of securities transactions between Clearstream and Euroclear customers, now offers "near-real-time" interoperability, making cross-system settlement more akin to internal settlement. The Commission also downplayed the role of "T2S", a new European securities settlement system that, as the Commission acknowledged, makes cross-system settlement cheaper and faster.[7]

Incentive to foreclose

The Commission further concluded that the merged entity would have had the incentive to divert to Clearstream fixed-income transactions cleared at LCH and currently settled at Euroclear. As explained above, this would have increased the latter's costs and degraded its service quality,[8] pulling customers away from Euroclear and towards Clearstream.

The Commission's conclusion was based on its claim that the merged entity would have had a *de-facto* monopoly in the markets for clearing services upstream and that it could leverage this to increase profit of its downstream SCS/CMS provider, Clearstream.

However, this argument fails to recognise that the merged entity would have no incentive to do this unless Clearstream was more efficient than Euroclear (and if it was more efficient, no harm to competition would result from such behaviour). In other words, the Commission's claim is not consistent with the "single-monopoly-profit theorem" ("SMPT").

The SMPT is based on the insight that, under certain circumstances, a vertically integrated firm with market power upstream can already extract all available rents at the upstream level (e.g., in this case, by setting clearing fees accordingly). It receives no additional benefit from having a monopoly at two levels of the supply chain. It would, therefore, gain nothing by excluding a competitor that is more efficient than the firm's own downstream arm.

The SMPT has often been seen by both its proponents and its detractors as a wide-ranging denial of the logic that vertical mergers could lead to foreclosure concerns. However, a more sensible position is to recognise that, whilst logically correct, the theorem only holds under certain rather restrictive assumptions. Among others, these are: (i) the input and the downstream product are supplied in fixed proportions; and (ii) the downstream market is competitive.[9]

In this instance, both conditions are satisfied, at least within the framework of the Commission's theory of harm. The first condition is satisfied, because each clearing transaction gives rise to a single settlement transaction. The second condition is satisfied, within the Commission's theory of harm, since, according to the Decision, there is fierce competition between Clearstream and Euroclear.[10] Thus, in this case:

a. The merged entity would have had an incentive to divert transaction feeds from Euroclear if Clearstream was more efficient than Euroclear (for example, as a result of the purported scale advantages from concentrating asset holdings and the provision of SCS/CMS in a single entity). However, such foreclosure would have constituted pro-competitive conduct that should not have raised any concerns.

b. Conversely, if Euroclear was more efficient than Clearstream, or if it offered a differentiated product, the vertically integrated merged entity would have maximised its profits by continuing to direct transaction feeds towards Euroclear.

As a consequence, the Commission's claim that the merged entity would have had the incentive to engage in anticompetitive foreclosure of Euroclear is logically flawed.

Conclusions

We conclude that the Commission's foreclosure concerns in the markets for post-trade services were not justified. The evidence the Commission used to argue that the merged entity had the **ability** to foreclose Euroclear was not robust, and its claim that, post-merger, the parties would have had an **incentive** to engage in anticompetitive exclusionary conduct against Euroclear was illogical and inconsistent with the Commission's own findings about competition in the downstream market.

Following the Commission's decision to prohibit the proposed merger, the parties abandoned the transaction without making use of their right to appeal. Therefore, regrettably, this and other theories of harm that the Commission put forward in the Decision will not be tested in the courts.

7. Decision, Paragraph 402.

8. Decision, Paragraph 615.

9. In theory, a desire to prevent Euroclear from growing further and entering the market for clearing services could have been an alternative foreclosure motive for DBAG. However, Euroclear is a long-established player that is significantly larger than Clearstream and could not have been kept from providing clearing services if it had had such ambitions. The Commission did not raise this possibility as a concern either.

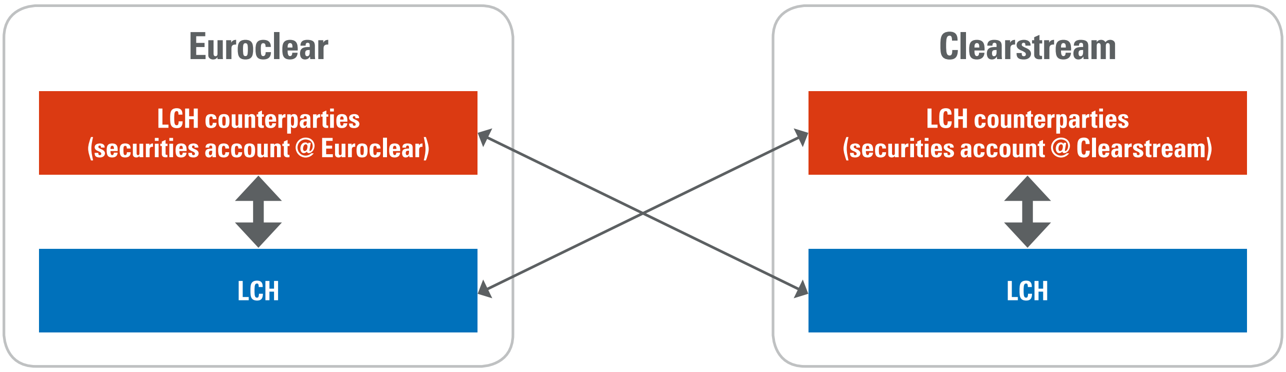
10. See, e.g., Decision, Paragraphs 606 and 642.

Internal and cross-system settlement *pre* and *post* merger

Figure 1 illustrates the downstream firms' situation prior to the merger, in relation to transactions cleared at LCH, the latter being the clearinghouse that has placed itself between the original buyer and the original seller of a securities trade, so that each becomes a counterparty to LCH, which acts as a CCP. As most of its counterparties (buyers or sellers) hold a securities account with either Clearstream or Euroclear (but not usually both), LCH has an account with both SCS/CMS providers, and it sends the bulk of settlement instructions to where the relevant counterparty holds its securities account, allowing for 'internal settlement' (indicated by the wide arrows). Only a limited number of instructions are channelled to the respective other SCS/CMS provider, giving rise to 'cross-system settlement' (as indicated by the thin arrows between Euroclear and Clearstream).

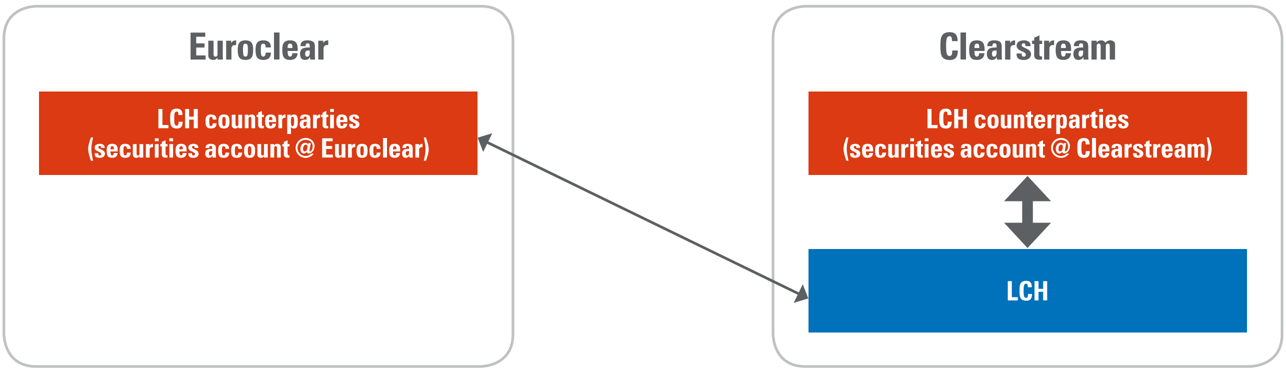
After implementation of the merger, the situation would – according to the Commission – have become as depicted in Figure 2. The merged entity would re-direct LCH settlement instructions currently processed at Euroclear towards Clearstream. The figure illustrates the extreme scenario in which this would have been accomplished by LCH closing its account with Euroclear altogether, necessitating cross-system (instead of internal) settlement of transactions between LCH and its counterparties on a larger scale than before (as reflected by the now wider arrow between Euroclear and Clearstream).

Figure 1: Internal and cross-system settlement *pre*-merger



Source: Compass Lexecon

Figure 2: Internal and cross-system settlement *post*-merger (as per theory of harm)



Source: Compass Lexecon