

## Competition between stock exchanges: findings from DG Competition's investigation into trading in Dutch equities

Sean GREENAWAY, Directorate-General Competition, unit D-1

In May 2004, a new episode in competition between European equity trading platforms opened with the launch by the London Stock Exchange (LSE) of an alternative service for trading Dutch equities to the incumbent exchange, Euronext. After implementing two rounds of price reductions, however, Euronext was able to hold on to almost all of its market share of about 98%. In order to ensure that competition in trading was not hampered from the start through anti-competitive behaviour by the incumbent exchange, in July 2004 the Commission launched an *ex officio* investigation under article 82 into the circumstances of Euronext's response, with a series of surprise inspections.

In September 2005, it was decided to close the case without action. Nonetheless, the investigation was useful to clarify several key issues concerning competition in this rather complex field. In this article we set out the case team's thinking on the key facts of the case, on the understanding, of course, that, since no decision was adopted in the case, these orientations do not constitute a precedent for the future.

### Facts of the case

The case concerned potential pricing and other exclusionary abuses by a company with almost 100% of the market up to that point, with the aim of preventing loss of market share following entry by a competitor. This could have led to a lessening of competition, ultimately to the detriment of investors and consumers.

Prior to LSE's challenge, Euronext implemented a digressive fee schedule based on number of trades executed, making use of pricing packages (similar to mobile phone package pricing). Prices in 2004 had been harmonized on all Euronext exchanges, meaning a net increase for many in the Netherlands some of whom collectively encouraged LSE to enter the market. Euronext implemented two rounds of reductions in their trading fees in the form of temporary rebates prior to the launch of the LSE's Dutch Trading Service (DTS). These reductions were limited to operations on Dutch securities.

The first set of price cuts — announced in April 2004 and valid till January 2005 — reduced the price for liquidity providers, with somewhat greater benefits going to larger members. Liquid-

ity is provided to markets mainly by brokers (principally the large investment banks) in the form of offers to buy or sell securities in a given volume at a given price. These brokers enable investors to trade immediately, and make their profits on trading fees and on the spread between the buy and sell prices.

The second scheme — announced just prior to DTS launch in May 2004 and valid until the end of July — reduced prices for liquidity takers, with no distinction as to size. Liquidity is mainly taken from markets by brokers acting on behalf of fundamental traders, i.e. investors. Banks dealing with retail investors are particularly likely to take liquidity. They may also take liquidity in the process of unwinding trades which they have internalized.

### Market definition and dominance

The case team took the view that the relevant market for the purposes of article 82 should be defined as the market for on-exchange trading services in Dutch equities. More precisely, it considered that this consisted of a bundled offering by the incumbent exchange of trading services in relation to a range of instruments, and that in each case it was necessary to distinguish between the offering to suppliers and demanders of liquidity in that instrument, since the former create externalities (both for the exchange and for investors) whilst the latter consume these externalities. Trading services in a particular instrument constitute, therefore, a two-sided market, while the exchange as a whole realizes economies of scope by offering trading in a variety of instruments given that demand and supply of liquidity in the class of Dutch equities is intermediated by a set of members of the exchange who typically trade in most of the instruments offered. Potentially, however, a rival could capture liquidity in a single instrument without doing so across the board.

Several candidates for inclusion in the relevant market were considered and dismissed. Firstly, direct trading between market participants, without the use of an intermediating system, was considered not to involve the supply of any competing service to that offered by the exchange and, as such, only to affect the elasticity of demand for exchange services and not the market definition itself. The same was true of internalized trading,

whereby brokers offset buy and sell trades on their own books rather than passing them through to the exchange. This corresponds to a general principle that self-provision of a service which is not offered as a rival to an existing commercial service cannot widen the definition of the relevant market, even if it clearly influences the monopoly output and price.

In respect of alternative trading systems, the case team reasoned that the services available in the Netherlands, whilst they might provide a marginal competitive restraint on Euronext, left it with considerable market power. Taking the post-entry price as a proxy for the competitive one, it would clearly be in the interests of a hypothetical monopolist to raise prices from this back to the pre-entry level if he could do so. Similarly, on the face of the market data it seemed very unlikely that the lowering of prices had attracted any significant additional business onto the exchange which had previously been carried out using alternative systems, although a strict proof of this proposition would seem rather difficult to obtain because of the number of relevant variables that would need to be modeled and the lack of control environments. The regulated nature of an exchange, best execution requirements on brokers and the concentration of liquidity on the exchange's order book are all factors which differentiate exchanges from alternative systems and make it likely that customers in many cases do not have a viable alternative to the exchange.

The case team considered that the geographic market was the EU or wider. The services provided by Euronext for trading Dutch equities are consumed by entities (broker-dealer banks) domiciled in a number of member states. In this sense, the 'nationality' of the instrument traded is irrelevant to the market definition.

In respect of a dominance assessment, Euronext's very high market share was combined with the presence of numerous barriers to entry, including regulatory conditions, network barriers, the need for access to fungible clearing and settlement arrangements, the information advantages of incumbency and strategic considerations. The same arguments militate against widening the relevant market on the grounds of supply-side substitutability. Economies of scale and scope and network externalities also give rise to 'natural' monopolies, although these monopolies may be limited in scope and thus take the form of non-overlapping parallel monopolies for as long as markets remain segmented on the basis of the nationality of the firm issuing the security. Under conditions of natural monopoly, the threat of entry

does not typically constrain pricing<sup>(1)</sup>. Finally, the case team found no evidence of sufficient countervailing buyer power in the Dutch market. Most significantly, the observed level of profits achieved by Euronext prior to entry was consistent with the existence of market power rents.

### Assessment

The Commission considered the original pricing scheme and the two rounds of rebates by Euronext under the angle of foreclosure and predation. Although Euronext's intent does indeed seem to have been to exclude any significant loss of market share to LSE, the Commission's analysis came to the conclusion that, notwithstanding the lack of any relationship to costs, the pricing mechanisms employed could not be qualified as abusive for the following reasons:

- a) There are good reasons in this case to believe that a digressive fee schedule is welfare enhancing. This is because it stimulates marginal trading, making markets more liquid (with macroeconomic externalities on cost of capital and enhanced return to risk-equivalent investments). This form of pricing existed prior to LSE's entry, and is, furthermore, also used by most other exchanges.
- b) There was no evidence of individual targeting in the rebates, or of 'retroactivity' (i.e. they are just rebates on marginal prices and not on total sales). This applies both to their design and to their actual impact as observed ex-post.
- c) The selection which is operated in the rebate schemes is primarily between liquidity providers and liquidity takers, which can be viewed as differentiated pricing in a two-sided market. On the two sides of the market, incentives, and hence elasticity of demand, are indeed quite different, making this an economically defensible pricing strategy.
- d) In this industry, fixed costs are high while variable costs are close to zero. This raises the question of what the relevant standard might be for predation. Whether or not Euronext incurred avoidable losses also runs up against the question of what the relevant counterfactual is, given that they feared migration of the entire market. Under any reasonable standard, we concluded that Euronext's prices could not be deemed predatory. Euronext continued to make significant — if reduced — profits at the new prices. In addition, as long as DTS remains

<sup>(1)</sup> Cf. M. Motta, *Competition Policy*, 2004:74, drawing on Baumol, Panzar and Willig, *Contestable Markets and the Theory of Industrial Structure*, New York 1982.

in the market, Euronext has no perspective to recuperate the profits foregone. Intervention would risk sending a signal that dominant companies cannot cut prices, especially since there is no obvious clue in the literature or case law as to how to calculate a minimum price that Euronext should have respected.

- e) Most banks had already incurred the sunk costs of connecting to DTS, although they may have been dissuaded from investing in more sophisticated order routing tools. Many of them also did (and still do) actually trade on DTS in addition to Euronext, even though such trading remains marginal overall.
- f) LSE — whose launch offer for DTS was substantially below its UK prices — might have cut prices still further, and if it did not do so, this was probably out of strategic considerations (fear of provoking a price war from Euronext in their domestic market) which did not arise out of Euronext's reaction but characterized the market even prior to entry. For this reason also, a story relying on the precedent value of Euronext's reaction in deterring entry on other markets was not considered convincing.

### General issues

The following general points from the investigation are also worth noting:

- a) The case team rejected the theory that competition between exchanges is impossible because of network effects which favour the incumbent — we concluded that these might be overcome under appropriate conditions, notably by technology.

- b) Whilst competition between exchanges has positive welfare effects, because of the position of clearing and settlement organizations it does not eliminate monopoly profits from the trading value chain. These are potentially a more serious source of welfare losses.
- c) There is a risk that operators whose home market is protected from entry (e.g. due to customized clearing arrangements) might be able to conquer foreign markets without this leading to the most efficient outcome. This argues that there is a need for a systemic approach to enabling competition in the sector.
- d) The clearinghouse, in this case, seems to have been willing to allow competition at the trading level notwithstanding the importance of the incumbent exchange both as a shareholder and as a customer. This might be explained by the fact that its own position in the value chain would be more difficult to dislodge if not tied to a single exchange.

As a postscript, the conclusion that competition between exchanges is possible and under some circumstances welfare enhancing does not imply it is to be expected (due to coordinated effects), nor does it exclude that the consolidation of exchanges may have greater welfare effects. It does not, therefore, identify an ideal model for a European capital market or a process to get there. It does, however, underline that inefficiencies in current arrangements are significant and that there is potential to generate welfare gains of a macroeconomic order from eliminating some of these inefficiencies.