

Associés en Finance

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CAC versus SEAQ International : the Numbers Are In

An Exercise in Transactions Accounting on European Exchanges¹

Official statistics on trade volumes are usually assumed to be a direct measure of a market's liquidity – and as such, a key consideration that can lead investors to prefer one market to another. Not surprisingly, they lie at the heart of the contest between European exchanges.

Since its creation in 1985, SEAQ International (SEAQI), the London Stock Exchange's screen-based quotations system for continental European blue chip stocks, has been in fierce competition with continental European exchanges. Based upon the official trade volumes of the continental European exchanges and SEAQI, from the end of the '80s and the beginning of the '90s, between 25% and 60% of the daily transactions on the 250 largest capitalization stocks of continental Europe, including the large caps traded on the CAC system, went through SEAQI.

Yet statistics – even official ones – can be misleading. Indeed, direct comparison of trade volumes on SEAQI and continental European exchanges are problematic for two reasons: differing market structures and differing methods used by each market to declare and register trades.

Accounting differences associated with market structures

CAC, the automated, centralized market used in Paris, is order-driven; trades are matched on-screen, with liquidity guaran-

teed by investors placing orders at limited prices. In contrast, SEAQI is price-driven: screens display quotes, or net prices at which market-makers are prepared to buy or sell minimum quantities of shares. On SEAQI, member firms act as market makers and all member-to-member transactions are automatically recorded; given the French market's centralized nature such transactions are never recorded on CAC.

To complicate matters further, when an order is executed on SEAQI, market makers declare two trades: the seller's sale and the buyer's purchase.

Accounting differences associated with declaration and registration standards

The Paris Bourse is said to take a *Trading System View*, which means it records only those trades executed through its own system. In contrast, the London Stock Exchange takes a *Regulated Environment View*: it records all transactions undertaken by any member firm under its regulatory jurisdiction.

In practice, this means that SEAQI's official statistics include even those trades in French stocks that its members execute through CAC. Significantly, SEAQI market makers unwind a

¹ This financial letter is the synthesis of a study by Professor Bertrand Jacquillat and Carole Gresse "The Diversion of Order Flow on French Shares from the CAC Market to the SEAQ International: an Exercise in Transactions Accounting", working paper, 1996.

large share of their positions on CAC, which means these transactions are counted both in Paris and in London.

The first column in Table 1 below indicates for a single executed transaction of Q, the official volume declared by SEAQI; the second, this volume after elimination of redundancies; and the third, the volume that would be declared in a market environment such as the CAC's. The third line of the table presents the two possible interpretations of registering orders executed by SEAQI members on CAC: if one exclusively considers the market as a trading system (first bullet) or if one view it as a marketing organization and distribution facility as well.

Table 1
Differences and Redundancies
in Reporting Standards

	Reported SEAQI Volume	Real SEAQI Volume	CAC Volume
Transaction between final clients	2Q	Q	Q
Market maker to market maker trade	2Q	—	—
Execution of an order by a SEAQI member on the CAC			
• Trading system	2Q	0	Q
• Trading system and marketing organization	2Q	Q/2	Q/2

Harmonizing accounting distortions

46 French stocks are quoted on CAC and offered at displayed prices on SEAQI.

SEAQI's average market share in these "doubly-quoted" French stocks is 54.62% before adjustment, which corresponds to an average daily turnover of 2,881,714 thousand French francs, as indicated in Table 2. These figures² based upon 261 working days, take into consideration the ten French bank holidays for

² These figures concern the 1993 calendar year whereas the field study discussed below concerns March-April of 1995.

which the SEAQI, obviously, had a market share of 100%; even if trade volumes during this period were low, this increases the SEAQI average market share. This market share is reduced to 52.81% when one considers exclusively working days on the French Bourse, the average SEAQI daily turnover being 2,991,388 thousand French francs. During Parisian bank holidays, the SEAQI daily turnover is a mere 128,894 thousand French francs.

Table 2
Average daily traded French franc
volume in French stocks

	Including all days	Excluding CAC bank holidays	Exclusively CAC bank holidays
SEAQI	2,881,714	2,991,388	128,894
CAC	2,337,586	2,505,326	—
SEAQI portion of total turnover	54.62%	52.81%	100%

Nevertheless, adjusting for the differences in reporting standard mentioned above, official SEAQI statistics include interdealer trades. Since these trades are reported twice in the time-stamped data, if two transactions have exactly identical characteristics (identical dates, times, volumes and prices) for a same stock, one can consider the trade to be a single member-to-member transaction. Excluding such member-to-member transactions, the SEAQI's market share falls to 45.69% (see Table 3).

Table 3
Average daily traded French franc
volume excluding member-to-member
transactions

	Including all days	Excluding CAC bank holidays	Exclusively CAC bank holidays
SEAQI	2,075,082	2,153,525	106,167
CAC	2,337,586	2,430,717	—
SEAQI portion of total turnover	47.77%	45.69%	100%

This percentage decreases to 30.08% if one corrects for the fact that market makers declare both the seller's and the buyer's transactions. To eradicate all accounting distortions, SEAQI statistics must also be filtered for transactions executed by market makers on CAC. The proportion of trade volume executed on CAC is based upon a field study within five large double-licensed brokerage houses having a significant market share in "doubly-quoted" French shares, during twenty-five trading days, from March through April 1995.³ SEAQI market makers of these firms recorded the economically significant components, identified in Table 4 below, of each one of their transactions by completing a specific grid.

Table 4
The reporting of market makers' trade volumes

Trade size	Order initiated by	Order executed on	(1)	(2)	(3)
Q	LSE Member	CAC	3Q	Q	Q
Q	LSE Member	Own book	2Q	0	0
Q	LSE Member	LSE Member	4Q	0	0
Q	Own book	CAC	Q	Q	Q
Q	Own book	LSE Member	2Q	0	0
Q	Final investor	CAC	2Q	2Q	2Q
Q	Final investor	Own book	Q	Q	0
Q	Final investor	LSE Member	3Q	Q	0

(1): Volume generated by the corresponding trades in the SEAQI time-stamped data.

(2): Volume (1) minus interdealer trades.

(3): Volume (2) finally executed on the CAC.

To clarify the meaning of this table, let us take the first line as an example. Column (1), corresponding to volume generated by the corresponding trades in SEAQI time-stamped data, indicates 3Q. The multiplier of three can be explained as follows: the order is initiated by a LSE member who reports Q to SEAQI; the order then goes to the surveyed market maker who reports Q to SEAQI; the surveyed market maker

³ The market shares of such firms are at the heart of their strategies and, as a result, proprietary and totally confidential. It is fair to assume that the combined market share of the firms involved in this field study represented at the time over one-third of total transactions on the concerned "doubly-traded" French stocks.

reports a third Q to SEAQI when executing the trade through CAC. For obvious reasons, only the last trade is reported in column (2) and (3) of Table 4.

Trade volumes on SEAQI and CAC are aggregated daily for each stock in order to calculate the daily proportion of the SEAQI reported volumes on each stock that corresponds to CAC executed trades.

In fact, during our field study, 59.05% of the total French franc trade volumes reported by these five firms to SEAQI on French stocks were, for all practical purposes, executed on CAC. Applying these results to the 251 trading days of both markets, SEAQI accounts for just 8.35% of all trades in French equities.

In summary, SEAQI's market share in "doubly-traded" French stocks is 54.62% before adjustment. The figure falls to 52.81% for transactions executed when both markets are open, and 45.69% when transactions between SEAQI members are also eliminated. If restated to count each transaction between an end-buyer and end-seller a single time, as CAC does, the percentage is 30.08%. And if transactions by London-based market makers who unwind their positions directly on CAC are also excluded, SEAQI accounts for just 8.35% of all trades in French equities. Even if such transactions are split equally between the two systems, SEAQI's share is significantly below 15%.

Contrary to a widely-held view, the vast majority of trades in French securities that are on both books – in London and Paris – take place through CAC's orderbook. The numbers are in.

The future coexistence between the two markets

SEAQI's popularity and the role it took in processing trades in French equities, were linked to the Paris Bourse's higher profile abroad, including the arrival en masse in the mid-1980s of Anglo-American institutional investors intent on broadening the international spread of their portfolios. Accustomed to price-driven systems operated by market makers or

“specialists”, these investors’ cultural affinities and shared language led them to operate initially through London-based brokers, which explains SEAQI’s steady growth until the early 1990s.

Yet in the competitive fray, CAC has now forged ahead of large trades in major French stocks, benefiting from at least three developments: the Paris Bourse’s adoption of new, flexible rules governing block trading; users’ growing awareness that CAC offers narrower bid-ask spreads than those on SEAQI⁴; and, finally, Anglo-American investors’ greater willingness to spread their orders throughout the day rather than execute them all at once, in a single transaction, which is easier on SEAQI. What is somewhat ironic is that this reversal is coincident with the arrival of a new competitor on UK stocks, the *Trade Point System*, a centralized electronic transactions system.

⁴ The *Financial Times* of 26 October 1995 mentions the fact that NatWest Securities, one of the major market makers on SEAQI, had the intention to re-orient its trading activities directly on the continental European exchanges due to the fact that these have modernized their technology and eased their regulations. Since then several other large brokerage houses have announced their intentions to do likewise.

Nevertheless, market makers clearly help markets function more efficiently: by quoting bid-ask spreads for large volumes of securities, they make for far greater immediate liquidity. Not surprisingly, data on transactions executed in London and Paris show marked differences in “trade profiles”. While CAC handles 18 times more transactions than SEAQI, individual transactions represent much smaller amounts; on SEAQI, transactions concern amounts 12.5 times higher on average. And the system’s market makers “advertise” on screen around the globe, promoting sales that benefit both markets. As a great deal of the blocks traded by SEAQI market makers are finally executed on the CAC, the CAC order book can be considered as a type of “interdealer broker” which benefits from the commercially more aggressive SEAQI licensed market makers, including several French brokerage houses⁵.

⁵ In fact, SEAQI market makers are the type of buyers and sellers on CAC that the Paris Bourse has never effectively managed to establish for various reasons. The most effective way to fill in the gap and to counter this competition would be set up a liquidity program with the quoted companies. For more on this subject, see Financial Letter n° 25 “Companies, organize your liquidity”.

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