

# Agenda

Advancing economics in business

## Reducing risk in European post-trading: the benefits of same-day affirmation

**The verification of trades between counterparties is an important part of the trading and post-trading cycle in European equity markets, which has thus far received little attention in the policy debate. What benefits can be achieved from improving the trade verification process through greater automation and same-day affirmation?**

The efficiency of European equity trading and post-trading has been firmly on the agenda of the European Commission and national authorities for a number of years. Policy initiatives such as those targeted at the removal of the Giovannini Barriers,<sup>1</sup> and implementation of the Markets in Financial Instruments Directive (MiFID), are all contributing to improved efficiency and competition in the trading and post-trading sector in Europe. At the same time, advances in technology and other market-led developments are playing a similarly important role in improving the trade and post-trade environment.

One of the areas that is less well-understood and that, to date, has received less attention in the European policy debate, is the potential role that an improved trade verification process between the investment manager and broker/dealer can play in enhancing overall efficiency and reducing risks inherent in post-trading activities. While individual market participants across Europe have made significant efforts to improve the efficiency of their trade verification processes, there has been relatively little dialogue on the nature of the potential industry-wide benefits associated with these improvements. Moreover, a significant part of the market, particularly on the investment manager side, continues to conduct the verification process manually, and there is currently no uniform practice and often not even a target to complete the process on trade day. That is, there appears to be scope for improving the process and realising benefits.

This article examines the role played by the trade verification process and the benefits associated with improvements in that process. In particular, it considers the benefits associated with automating the verification process and establishing same-day affirmation (SDA) as best operational practice in equity markets among investment managers and broker/dealers in Europe.

### What is trade verification?

Trade verification is carried out on the institutional (or buy-) side of the market between the investment manager and broker/dealer, following the broker/dealer's execution of a trade order placed by the investment manager (see Figure 1). This process ensures that the parties are in agreement about the essential trade details such as security identifier, trade date, deal price, number of securities bought or sold, commissions, settlement details, and relevant account information. The aim is to confirm and match the trade details and, where required, add further details to ensure that the parties concur before trade processing moves to clearing and settlement.

The four key steps in the verification process are:

- the broker/dealer sending the notice of execution of a trade to the investment manager;
- the investment manager checking the notice of execution against the order and transmitting the allocation details of the trade to the broker/dealer;<sup>2</sup>
- the confirmation of those details by the broker/dealer (ie, the broker/dealer transmits back to the investment manager the instructions received from the investment manager);
- the affirmation by the investment manager that the details they have received back from the broker/dealer are correct.

Once the affirmation of the trade has been completed, the trade verification process between broker/dealer and investment manager concludes, and the clearing and

**Figure 1 Trade verification in the trading and post-trading value chain**



This article is based on the Oxera report 'Building Efficiencies in Post-trade Processing: The Benefits of Same-day Affirmation', prepared for Omgeo, June 2008. Available at [www.oxera.com](http://www.oxera.com).

settlement process begins, which also involves custodians, central securities depositories, and other participants in the post-trading value chain.

SDA is a term used to describe the completion of the trade verification process on trade day (ie, on the same day that the actual trade took place). That is, SDA means completing all four steps on trade date ('T+0'), leaving the remaining days for clearing and settlement to ensure that a trade can settle within the intended settlement period, which in most markets means on the third day after trade execution ('T+3').

## Automation as a precondition for SDA

The trade verification process between investment manager and broker/dealer can be structured in a number of ways which differ in the degree of automation and sequencing of steps required. Under manual trade verification, there is no involvement of any further intermediary, and the modes of communication between broker/dealer and investment manager are usually telephone, fax or email. Under automated trade verification, the process can be conducted bilaterally between broker/dealer and investment manager (local matching), or through a centralised matching utility (central matching).

Automation is, in practice, a precondition for completing the trade verification process on trade day and achieving SDA. With manual processes, there can be time lags and delays, given the sequential nature of the steps in trade verification. Moreover, where the investment manager is not automated, there may be no affirmation at all in practice; rather, settlement instructions are sent without explicit affirmation by the investment manager. By contrast, with automated processes, the majority of trades (which can be around 80–90% of trades, depending on the systems used and the implementation of those systems) can be affirmed on trade date—SDA is achieved in an automated manner and without manual intervention for the bulk of trades.<sup>3</sup> Manual intervention is required only for trades where details do not match between investment manager and broker/dealer (ie, for exception processing).

A significant and increasing proportion of market participants in Europe have already automated their trade verification processes and effectively adopted SDA as best operational practice. Nonetheless, many firms, particularly investment managers, continue to process trades manually or in a partly automated manner, and transmit messages via fax, email or telephone—there is currently no uniform practice, nor even a specified target to complete verification and affirm trades on trade day.

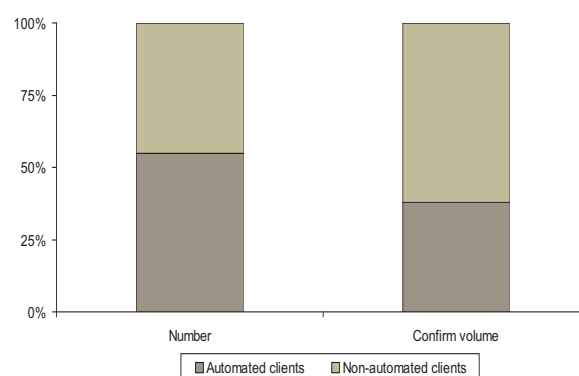
Market-wide data on the level of automation is not available. However, Figure 2 provides an illustration based on data provided by two large global broker/dealers. It shows the breakdown of their investment manager client base for equity trades according to whether the clients are automated (ie, whether they have automated verification systems for equity trades). For one broker/dealer, the total automated trade volume for clients in EMEA (Europe, the Middle East and Africa) markets was just over 50% (February 2008). The proportion for the other broker/dealer was even lower—only 42% of equity trades for EMEA clients could be processed through automated systems in the first quarter of 2008. Given that large clients tend to be more automated, the proportions by number of clients rather than trade volumes would be lower. Thus, due to a lack of automation of a significant part of the client base, the broker/dealers need to process a large proportion of trades manually, with confirmation messages being sent (and allocations and affirmation messages received) by fax, email or telephone.

Thus there appears to be significant scope for improvements in the trade verification process at the level of individual market participants, and correspondingly for the market as a whole.

## What are the benefits of adopting automated processes and SDA

Oxera's analysis shows that firms adopting automated processes to achieve SDA can expect reductions in the risks and costs associated with trade verification and other post-trading processes and an improved settlement performance. Further benefits in terms of risk and cost reduction may also accrue to the other parties in the post-trading value chain, and ultimately to end-investors.

**Figure 2 Equity trades for automated versus non-automated clients (% of total)**



Notes: The figure shows the breakdown of equity trades between automated and non-automated clients of two large, globally operating broker/dealers.  
Source: Oxera (2008), op. cit.

**Figure 3 Summary of benefits of automated trade verification and SDA**

Direct benefits	
Risk reduction	Cost efficiencies
Error reduction	Operating cost reduction
Improved dealing with exceptional trades	Reallocation of resources to more efficient use
Reduction in settlement fails	Volume insensitivity
Indirect benefits	
Improved information, transparency and monitoring	
Enables straight-through processing	
Enables shorter settlement cycles	
Harmonised settlement practices across countries	

Source: Oxera.

The main benefits are set out below (see Figure 3 for a summary).

### Reduction in risk and improved settlement performance

The adoption of automated SDA processes reduces the rate at which trade fails occur and mitigates the costs associated with these fails. These costs include the various risk exposures (eg, position risk), the increased funding requirements that come with greater uncertainty in the settlement process, and claims, penalties or other direct costs associated with trades that settle either late or not at all. Automated trade verification and SDA reduce risks and improve settlement performance as a result of the following.

- **Greater accuracy in the trade verification process.** Automation makes it easier for the investment manager or broker/dealer to identify errors or mismatches in the trade details which, if not corrected up front, could result in the trade failing to settle on time. Automation also reduces the risk of new errors being introduced during the post-trade processes, compared with manual processing.
- **Improved process timing.** If the trade details are verified on trade day, a trade has a better chance of settling on the intended settlement day. With SDA, settlement instructions for affirmed trades can be sent to custodians or settlement agents on trade day, leaving the remaining days to finalise settlement and address any impediments that may arise further down the value chain, which would otherwise hinder timely settlement.

Market participants interviewed by Oxera confirmed the empirical significance of these effects. In particular, broker/dealers noted a significant difference in the settlement performance of trades for clients with

automated verification processes and non-automated clients. Figure 4 provides an illustration for one of the large broker/dealers interviewed—the rate of settlement failures (measured as the percentage of trades that fail to settle on intended settlement date) of automated clients is half that of non-automated clients over the same period of measurement.

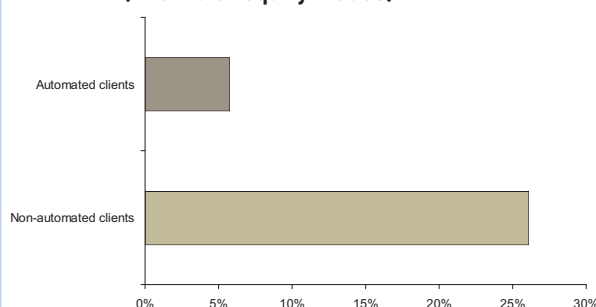
Other broker/dealers confirmed differences in settlement performance depending on whether the investment manager clients are automated and have the capacity to affirm trades on trade day. Similarly, the investment managers interviewed noted that, after automating the process and achieving SDA for the bulk of their trades, they experienced significant reductions in the frequency of settlement failures as well as in the costs associated with those failures.

### Operating cost efficiencies

Automation allows the processing of a larger volume of trades without corresponding increases in operating costs and risk. It makes the trade verification process (and the accuracy and timeliness of that process) less sensitive to changes in trading volumes, particularly peak volumes that would be more difficult to handle quickly and efficiently if manual processes were being used.

Automation allows firms to keep the number of staff working on trade verification within the middle office largely the same, despite significantly higher trade volumes, or to reallocate resources previously focused on repetitive manual tasks to more value-added activities.

Operating cost efficiencies are not restricted to the trade verification function within the middle office of the investment manager or broker/dealer, but apply to other functions (and other parties) along the value chain. In particular, a reduction in the risk of trade fails implies

**Figure 4 Comparison of settlement failure rates for automated and non-automated clients (% of total equity trades)**

Notes: The figure shows the percentage of equity trades in EMEA markets in February 2008 that were not settled on intended settlement date for clients with automated trade verification systems and non-automated clients, based on the data provided by a large global broker/dealer.  
Source: Oxera (2008), op. cit.

lower costs of preventing or following up potential or actual fails.

Fewer fails mean fewer costs downstream in record-keeping, reconciliations of settlement instructions, corporate actions, claims-handling and other functions required to resolve fails. Some of the operating cost efficiencies will therefore be enjoyed by other parties along the value chain, not just the investment manager and broker/dealer.

### Indirect benefits and wider market impacts

In addition to the direct risk- and cost-reduction effects, automated SDA processes can generate benefits that are more indirect or ancillary in nature. For example, the adoption of automated systems for trade verification provides for better information capture, greater transparency and more effective monitoring of the firm's own and counterparty performance. It is also a key step towards achieving full straight-through processing of trades from order to final settlement, with additional benefits in terms of cost and risk reductions.

The benefits that can be realised by individual firms are likely to increase as more, and ideally all, firms in a given market adopt automated processes (that are standardised or interoperable). Broker/dealers, for example, need their existing (as well as potential) clients to adopt automation in order to reorganise their own activities in a way that fully captures the benefits of automation. If some clients (or potential clients) do not adopt automation, the broker/dealer will still have to organise its operations in order to meet the requirements of its non-automated clients. At present, many investment managers and broker/dealers that have switched to an automated solution find it difficult to benefit from it fully due to the lack of automation of their counterparties.

Moreover, some of the benefits associated with automation and increased levels of SDA can be realised only if there is a market-wide move towards these processes (within a country or region). Initiatives such as shortening the settlement cycle and harmonisation of settlement practices across EU countries could be achieved more easily in an environment where firms have adopted more consistent and efficient trade verification processes.

From a wider perspective, the benefits accruing at the level of individual firms can be expected to translate into lower costs for end-investors. In a competitive industry, reductions in the risks and costs borne by investment managers and broker/dealers (or other intermediaries and infrastructure providers) would, once these benefits have been realised by a significant part of the market, be reflected in lower prices, resulting in lower transaction

costs for end-investors and producing associated beneficial effects on liquidity.

## Implications

If the benefits are significant, this raises the question of what prevents market participants from adopting automated processes to achieve SDA. Potential reasons that may explain the status quo in the market include the following.

- The costs of implementing automated systems may exceed the benefits for some firms in the market, such as those with small trade volumes.
- A lack of understanding of the costs and benefits of automated SDA processes and, more generally, a lack of attention within firms to middle-office (and back-office) operations.
- A cost–benefit trade-off that may not be sufficiently attractive for individual firms given the level of implementation and ongoing costs associated with automated systems, and due to the skewed incentives of firms to undertake the investment. In particular, firms may not have the incentives to invest in automation if they currently do not bear the cost or risks associated with manual processes, but would incur the actual cost of changing the processes and investing in automated systems. In addition, since the benefits depend to a large extent on the degree of automation of a firm's counterparties, the investment may not be worthwhile at current levels of automation in the market, but would become worthwhile if automation (using standardised or interoperable systems) were introduced on a market-wide basis.

Further analysis would be required to understand the specific reasons for the lack of adoption of automated trade verification processes. However, the potential benefits on offer, combined with some of the possible reasons for a lack of adoption outlined above, suggest that, from a public policy perspective, there could be merits in facilitating increased adoption of automated processes and SDA as best operational practice among European investment managers and broker/dealers by, for example, increasing awareness and understanding, and improving the alignment of incentives within firms.

Overall, trade verification plays an important role in the post-trading value chain, and the adoption of automated processes and SDA could reduce costs and risks in post-trade processing and make the overall process more efficient. This is particularly important given the various ongoing initiatives aimed at building efficiencies in European post-trading. Trade verification, and how to improve this process (ie, towards automated SDA), should form part of the policy debate.

---

<sup>1</sup> The Giovannini Group (2001), 'Cross-border Clearing and Settlement Arrangements in the European Union', Brussels, November; and The Giovannini Group (2003), 'Second Report on EU Clearing and Settlement Arrangements', Brussels, April.

<sup>2</sup> The trade order executed by the broker/dealer may be a block order for different mandates or client accounts of the investment manager. On receipt of the notice of execution of the block order, the investment manager sends the allocation details for the individual accounts.

<sup>3</sup> See Oxera (2008), 'Building Efficiencies in Post-trade Processing: The Benefits of Same-day Affirmation', prepared for Omgeo, June. Available at [www.oxera.com](http://www.oxera.com).

If you have any questions regarding the issues raised in this article, please contact the editor, Derek Holt: tel +44 (0) 1865 253 000 or email [d\\_holt@oxera.com](mailto:d_holt@oxera.com)

Other articles in the July issue of *Agenda* include:

- damages actions: the European Commission White Paper
- dealing with doping: a question of the benchmark
- divide and conquer? geographic segmentation of telecoms markets

For details of how to subscribe to *Agenda*, please email [agenda@oxera.com](mailto:agenda@oxera.com), or visit our website

**[www.oxera.com](http://www.oxera.com)**