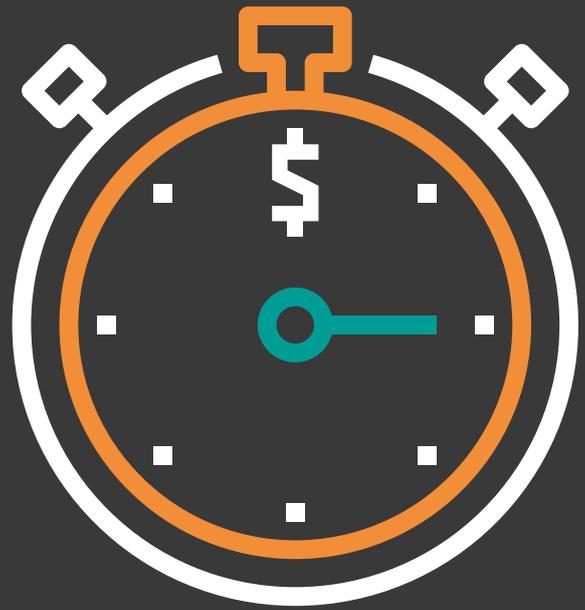


## BROKERS AND TCA: LESSONS FROM THE CRISIS

Time is money, and at no time is more money at stake than when the mood of the market changes.



Traders need to simultaneously understand and adapt to new trading patterns, and quickly locate alpha. In previous cycle changes, the quantitative evidence behind strategy revisions was patchy and incomplete. Backtesting is an arduous, time-consuming process and cannot fully track for the uniqueness of each economic cycle or market pattern.

Traders were left to fall back on qualitative measurements such as mix of prior experience, available information and market chatter. While certainly valuable, the hyper-competitive nature of today's markets (where execution spreads are tight and margins are thin). Coupled with increasing requirements to demonstrate best execution, means traders need to look beyond anecdotal evidence towards actionable data. Adding to this turbulent period are the rising costs of accessing market data from exchange consolidation and additional regulation. Asset managers are turning more and more to transaction cost analysis (TCA) for agile, real-time analysis on their execution. Machine learning and advanced quantitative processes are now available in TCA. This allows firms to accurately estimate price slippage for trades before they enter the

market. The analysis is continuously growing and continuously learning which becomes a helping hand for the trading desk; ensuring growth and more sophisticated strategy based on new market information. The question as to where this data should be analysed is a relevant one. The OEMS supplier has an advantage as they allow the buy side to undertake analysis across all of their orders and all of their counterparties without surrendering the data to a third party.

Firms who implemented this technology in the last two years are now able to report measurable differences on trading strategies. For one of our clients, overall cost of execution fell by a quarter when comparing a recent period after implementation and a similar period before.

While the total amount of executed notional volume remained the same, the data provided precipitated a shift in the proportion of liquidity seeking and market impact algorithmic trades. As the volatile movements in markets occur and during times of crisis, price volatility and spreads tend to be up; which means notional volumes (average daily volumes)

increase. This could illustrate that there is less consensus on the intrinsic value of a stock, and, ultimately makes it harder to execute predictable movements.

We also saw shifts in the proportion of trades executed through different brokers. Larger VWAP orders were more likely to be split into multiple smaller notional IS (Implementation shortfall) orders. TCA can help show how and when buyers should shift strategies in a dynamic market, including seasonal changes and new market conditions. Data can show when to shift from inline or passive to aggressive trading strategies by purchasing available shares or contracts at the current at-market price. The analysis can also simply help determine when is best to place orders for immediate execution. The overall impact of these changes tends to be a more dynamic style of trading, which can ultimately lead to bringing down the overall cost of a trade. We've seen clients reduce their notional weighted average arrival price slippage from 40bps to 30bps (25%).

The result of this has an impact beyond the buy side. Our analysis of how trading behaviors shifted once dynamic TCA was implemented showed; that once armed with up to date transaction data and detailed real time analytics there were major changes in the frequency different brokers were used for execution.

Some major investment banks with the required algorithms and best execution saw increased flow, while others saw their overall share shrink in the wake of this data. Armed with more information, the buy side will always vote with its wallet. Investment banks appreciate that more and more of their clients have access to blotters with recommendations on both estimated market conditions and the best performing broker algorithms based on those recommendations.

The lessons from this latest period of market turmoil are still being learned and absorbed by the larger financial community. We thoroughly believe a major consequence of this time will be the broad understanding that the need for real-time analysis and actioning of trading patterns will be a critical part of investment infrastructure for both the buy and sell side. Constant improvement is fast becoming the baseline for successful traders.



Pascal Kuyten  
Software Director

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Responsible for the development of TORA's real-time trading API's and researching new methodologies using artificial intelligence for performing best-execution analysis.

## ABOUT TORA

TORA is the leading global provider of advanced investment management technologies supporting the full trading lifecycle. TORA has a full suite of cloud-based SaaS delivered execution, analytics and compliance tools, as well as order, portfolio and risk management capabilities and a global FIX network.

TORA's products are utilised by hundreds of the industry's leading hedge funds, asset managers, proprietary trading firms and sell-side trading desks globally. TORA has over 250 employees globally. With its headquarters in San Francisco TORA has offices across the globe including New York, Hong Kong, Tokyo, Jersey, Romania, Singapore and Sydney.