

MAST

MARKET ABUSE
SURVEILLANCE TOOL



The most sophisticated
trade surveillance
solution in the market

Improve your detection of market
abuse, reduce false positives and
prioritise high-risk alerts.



The landscape of need

The landscape of trade surveillance is shifting. On the one hand, significant increases in transaction volumes and complexity (including multi-leg orders and sophisticated cross-market activity) present a serious challenge to effective surveillance. On the other, regulators from around the world continue to expand their surveillance requirements, often necessitating customised metrics. Caught in the middle, compliance teams face growing numbers of unproductive alerts. This can overwhelm them during periods of market instability, such as March 2020.

MAST

MAST's risk-based approach employs a series of mathematical models. These help us understand how a trader's activities may directly influence the market price of an asset and whether their behaviour falls within one of the market abuse typologies. This approach also enables us to identify the factors or curves that different instruments share exposure to. With this understanding, we can detect whether a trader used correlated securities to perpetrate market abuse - a key component in cross-product abuse.

Not only is this approach superior to legacy rules-based systems for identifying instances of abuse, it also allows us to quantify the impact of potential market abuse. This means you can prioritise the alerts that pose the greatest risk to your firm.

Be confident and secure that our risk-based approach identifies the small number of things that you need to worry about - without the noise around you.

135M+

Number of trades we analyse per day

45

Countries that we analyse trades from

25%

Global AUM we monitor

60+

Clients from tier 1 investment banks to global asset managers, hedge funds, and sovereign wealth funds.

What makes MAST different?

- **True cross-product abuse detection:** Modelling the behaviour of correlated instruments empowers MAST to identify situations where a trader has used them to commit market abuse.
- **Severity-based alerts:** MAST qualifies the scale of risk by providing a USD value for each alert. This helps you prioritise the alerts that present the most risk.
- **Fewer false positives:** Built on mathematical models, MAST is inherently more capable of screening out false positives.
- **Dynamic auto-calibration:** MAST dynamically adapts to changes in market conditions, auto-calibrating customer parameters and thresholds in times of market instability.
- **Comprehensive coverage:** Providing coverage across all asset classes and most instruments, including OTC markets, assures surveillance teams that their coverage concerns are dealt with.
- **Calculation as a Service:** TradingHub's big data analytics platform allows customers to design and build solutions to complex problems. These range from simple reports and data extracts to customer-specific market abuse scenarios and even large-scale data transformations. This allows us to grow with you and identify new areas of support as they arise, which can be developed quickly and efficiently through our CaaS platform.

How MAST is uniquely suited to detect cross-product abuse

In recent years, global regulators have intensified their attention on cross-product and cross-market manipulation. Fines in the hundreds of millions of dollars are becoming commonplace. This is particularly prevalent in fixed income markets where traders are constantly hedging risk across products.

A nefarious trader may seek to conduct abusive behaviour across the credit curve of a given issuer by transacting in bonds of differing maturities from that issuer. The problem is accurately modelling the behaviour of correlated instruments for the purpose of market abuse detection.

To achieve this, MAST expresses each trade as a collection of sensitivities. This enables it to understand the degree to which different products share a common exposure and therefore the impact a trade will have on other products.

- For example, trades in French, German and Belgian bonds all exhibit sensitivity to the Euro Yield Curve. MAST's risk-based approach connects trading in each of these different bonds to detect cross-product abuse.



Coverage

Market abuse typologies

MAST avoids a long list of overlapping controls which generate alerts on the same trades. Instead, each metric covers several related abuse typologies. For example, the Ramping metric provides coverage for the 'pump and dump', 'ramping' and 'trash and cash' typologies described by regulators.

MAST provides coverage of all the market abuse typologies detailed in MAR. These are:

- | | |
|--|--|
| ● Abusive squeeze | ● Improper matched orders |
| ● Advancing the bid / offer | ● Layering / spoofing |
| ● Applying hard mark-ups to customer price | ● Manipulating price levels |
| ● Auction manipulation | ● Marking the close |
| ● Benchmark manipulation | ● Opening a position to mislead |
| ● Bull / bear raids | ● Painting the tape |
| ● Bypassing safeguard on the market | ● Partial fill customer orders |
| ● Circular trading | ● Personal account dealing (PAD) |
| ● Colluding in the aftermarket of an issue | ● Pinging |
| ● Creation of a price ceiling / floor | ● Placing orders with no intent to execute |
| ● Cross-asset | ● Price flashing |
| ● Cross-trades | ● Pump and dump |
| ● Cross-venue | ● Quote stuffing |
| ● Dealing on inside information (MNPI) | ● Ramping / Momentum Ignition |
| ● Derivative pay out manipulation | ● Suspicious volume |
| ● Excessive bid-offer spread | ● Trash and cash |
| ● Front running | ● Triggering of customer stop loss orders |
| | ● Wash trades |

To understand how we have grouped market abuse typologies together and mapped them to the various MAST metrics, please click [here](#).

Product and asset class coverage

MAST provides comprehensive coverage of the following products and asset classes.

FX

MAST measures how each trade shifts a trader's exposure to a common currency, regardless of the currency pair or instrument involved. This enables it to track a trader's position in each of the currencies they trade and detect cross-currency abuse involving both spot and derivative instruments.

- FX spot
- FX derivatives

Equities

MAST employs in-house benchmarks to measure regional and sectoral volatility. It then regresses individual equities against their corresponding benchmark. This enables MAST to strip out broader volatility from each instrument and focus only on their endemic price movements in its analysis.

- Cash
- Derivatives
- Indices
- CFDs
- DRs
- ETFs

Fixed income

MAST interprets each fixed income trade as an expression of interest rate, credit or bond basis risk. This enables MAST to understand how a trader positioned themselves along an underlying interest rate or credit curve, and ultimately whether a trader intended to manipulate these curves.

- Bonds
- Derivatives including swaps
- Indices
- Other funded instruments

Commodities

MAST models financial instruments as expressions of the underlying physical commodity. This lets it understand the correlation between them and ultimately how a trader positioned themselves with respect to a commodity across all their trading in both physical and financial products in different venues.

- Metals spot and derivatives
- Oil & gas spot and derivatives
- Power spot and derivatives
- Agricultural spot and derivatives



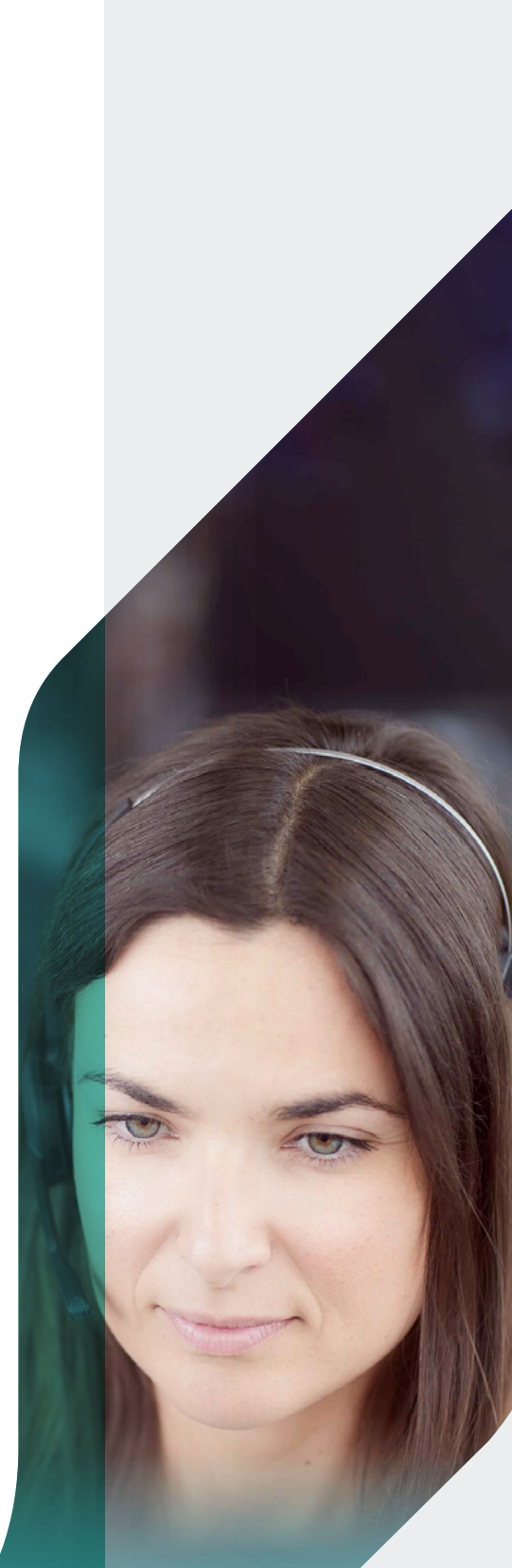
Customisation

No two firms are the same. Each structures their operations to fit their unique setup. One firm might trade in different locations from another and therefore have different regulatory regimes to comply with. They also structure their compliance functions differently. Some may have exchange rules monitoring as part of their second line of defence while others will not be set up that way. Each organisation will have different requirements for their surveillance function. As a result, the solutions needed must be bespoke to your needs and the problem sets that you are trying to fix. A solution which can be fully customised is highly desirable.

When combining MAST with Calculation as a Service (CaaS), our reporting and analytics solution, we are able to integrate extremely powerful customisation capabilities with the core MAST product offering. This enables you to define your own metrics in a simple and cost-effective way. Now you are empowered to solve these challenges yourself and react as quickly as your compliance landscape changes.

Why use CaaS?

- **React quickly to business or regulatory changes:** Utilise the library of standard reports or build your own custom reports to address the bespoke reporting needs you have.
- **Make existing metrics your own:** CaaS gives you the functionality to augment existing metrics to meet custom requirements you may have for a particular metric.
- **Cover your surveillance gaps:** Using TradingHub's calculation framework, you can build your metrics without needing to build in-house tools or onboard data to another vendor.



Product features

Case management

MAST offers a comprehensive case management system, including a fully customisable inbox. This lets you build your compliance hierarchy directly in the tool and find a workflow that suits you.

Intuitive interface and workflow

A sophisticated product requires a sophisticated interface, which intuitively visualises customer data. MAST achieves exactly that by streamlining abuse investigations with our instinctual workflow and risk visualisations. Your alerts are displayed in a way that focuses attention on cases with the highest financial risk.

Detailed documentation

The Information Centre is a documentation browser embedded within MAST. It includes detailed explanations of MAST's models and interface to help you gain a thorough understanding of the surveillance logic.

Day-level results

MAST aggregates every instance into a single day-level alert for each metric-instrument combination. The combination of aggregated alerts and MAST's low rate of false positives significantly reduces the resources required for monitoring your trading activity.

Reporting

MAST's Reporting Portal offers users the possibility to retrieve exceptionally granular information. Customers can choose from a number of reports generated by TradingHub or write bespoke scripts themselves.

News feed

The news feed aggregates articles from a variety of providers and represents them as pins overlaying the Insider Trading interface. This helps you better understand the events contributing to a price shock.

Advance your surveillance function

Let us help you improve your detection of market abuse with a risk-based approach that empowers you to focus on the highest-risk transactions threatening your firm.

Reach out to learn more.

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