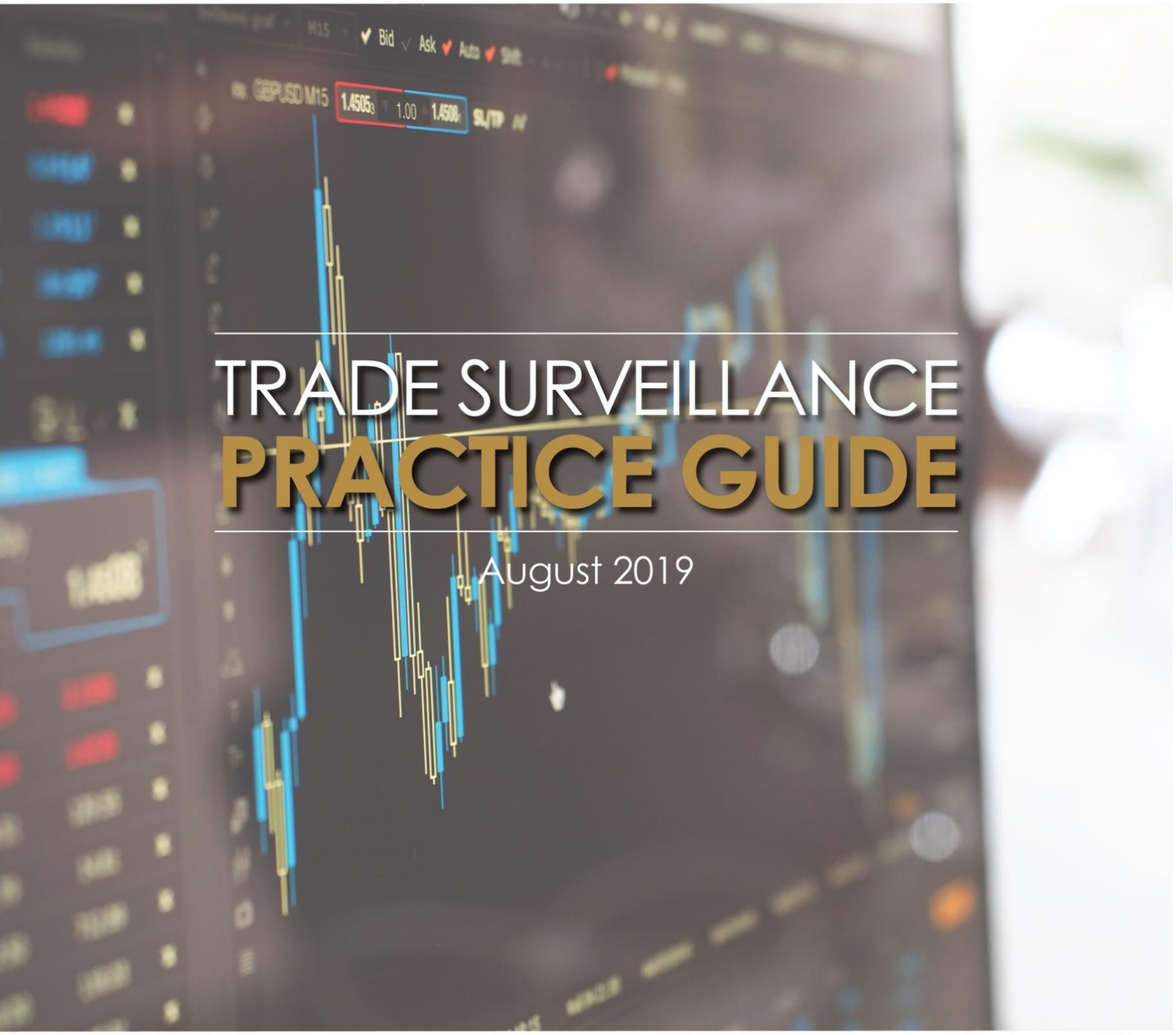
Monetary Authority of Singapore

SGX



TRADE SURVEILLANCE PRACTICE GUIDE

August 2019

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MONETARY AUTHORITY OF SINGAPORE

SINGAPORE EXCHANGE REGULATION

AUGUST 2019

1 Introduction

Overview

1.1 In its regulation of the capital markets, the Monetary Authority of Singapore ("**MAS**") seeks to promote fair, efficient and transparent markets, where participants have equal access to information and transparent trading rules are effectively enforced. Such market integrity preserves investor confidence and is crucial for well-functioning capital markets that support trade and economic growth.

1.2 As a frontline regulator, the Singapore Exchange Regulation ("**SGX RegCo**"), an independent subsidiary of the Singapore Exchange ("**SGX**"), works closely with brokers, MAS and other stakeholders to uphold robust compliance and surveillance standards, and encourages early disruption of irregular trading activities in SGX's markets.

1.3 Unlawful behaviour, such as insider trading, false trading and market manipulation, threatens market integrity, distorts market transparency, creates false markets and undermines public confidence in the capital markets. To deter such market misconduct and abuse, a combination of surveillance, supervision and enforcement is necessary.

1.4 In particular, trade surveillance is vital in the detection of market abuse and manipulative practices. Effective surveillance allows regulators and brokers to take early action to curb such misconduct.

Trade surveillance regime

1.5 In Singapore, the three main parties responsible for conducting surveillance of the capital markets to detect and deter market misconduct[1] are the brokers[2], approved exchanges ("**AEs**"), such as the SGX, and MAS.

1.6 Brokers provide most investors with access to the capital markets and are primarily responsible for monitoring the trading activities by their clients, employees or trading representatives ("**TRs**"). As regulated entities with obligations[3] to deter market misconduct, they have a duty to supervise the conduct of their staff and ensure that

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[1] Prohibited conduct as defined under Part XII of the Securities and Futures Act ("**SFA**"), Cap 289.

[2] A "broker" is defined as a financial institution with a capital markets licence granted by MAS, whose primary business is in the dealing of securities and trading of futures contracts. Brokers are trading members of the AEs where they trade securities and derivatives.

[3] SGX Trading Rule 5.12.7 states that "A Trading Member or a Trading Representative must not participate in any prohibited market conduct, including any insider trading, in securities or futures contract under the Rules or any applicable law or regulations, or knowingly assist a person in such conduct".

their representatives conduct themselves in accordance with regulatory requirements. In the event of potential market misconduct, brokers are required to review the trading activities, regardless of whether they originate from a TR or client[4], and submit the required reports to the regulators[5] (i.e. the AEs and MAS).

1.7 AEs are self-regulatory organisations in the capital markets with rules that govern both members and listed companies. They exercise supervision over their trading members and ensure fair and orderly trading of their listed products. AEs also undertake trade surveillance of their respective markets by monitoring real-time trading activities as well as collecting and analysing transactional data. When possible misconduct is identified, they will conduct a preliminary assessment and, where appropriate, refer the findings to MAS for review.

1.8 MAS has its own surveillance capabilities that complement the AEs' trade surveillance by leveraging technology and data analytics. MAS also maintains supervisory oversight of both brokers and AEs, and conducts regular inspections to ensure that they continue to discharge their obligations and responsibilities under the SFA.

Objectives

1.9 Based on the findings from MAS' inspections and SGX RegCo's observations from its member supervision, MAS and SGX RegCo jointly developed this practice guide ("**PG**") to assist brokers in developing and implementing good practices in their trade surveillance operations. While the PG may be based largely on findings and observations in relation to the trade surveillance operations of securities brokers, it is relevant to derivatives brokers as well.

1.10 The objectives of the PG are to:

a. Present the findings and observations of MAS and SGX RegCo on brokers' trade surveillance operations;
b. Outline the guiding principles essential to effective trade surveillance operations for brokers;
c. Recommend good practices to be adopted and highlight poor practices to be avoided by brokers;
d. Suggest self-assessment questions for brokers to assess the adequacy of their trade surveillance operations; and
e. Describe common types of suspicious trading activities and how to identify them.

[4] Paragraph 3.2 of the SGX Practice Note 5.12.9 states that "Trading Members' processes should be able to identify…irregular orders/trades regardless of whether they originate from one Trading Representative or customer or a group of Trading Representatives and/or customers acting in concert".

[5] SGX Trading Rule 5.12.8 states that "A Trading Member or a Trading Representative must immediately inform SGX-ST if it or he reasonably suspects, or knows of, any attempted market manipulation, insider trading, or any other prohibited trading conduct".

1.11 Brokers are strongly encouraged to adopt the good practices stated within this PG. Regulators will refer to the PG in future inspections to evaluate the brokers' trade surveillance programmes.

2 Guiding Principles for Trade Surveillance Operations

Supervisory scope and findings

2.1 Over the years, MAS and SGX RegCo have carried out multiple onsite inspections, compliance visits and offsite reviews of brokers' trade surveillance programmes.

2.2 In the most recent supervisory reviews of 10 retail securities brokers conducted in the last three years (i.e. 2016 to 2018), MAS and SGX RegCo focussed on three main areas to assess the adequacy and robustness of the brokers' trade surveillance operations, namely, (1) governance framework, (2) surveillance processes and resources, and (3) escalation policy.

2.3 Overall, the findings were mixed. In the reviews of the governance frameworks, we found that senior management of most brokers had approved the trade surveillance frameworks and received periodic reports on key surveillance findings. However, senior management oversight was found to be lacking in some brokers, where the trade surveillance frameworks were approved by local or group compliance, and senior management were not informed of surveillance findings.

2.4 In relation to surveillance processes, the majority of brokers performed trade surveillance by manually reviewing exception reports generated from trading data (which may be operationally inefficient and prone to errors), instead of using automated trade surveillance systems to enhance the detection of potential market misconduct. Only half of the brokers had put in place processes to periodically review their surveillance programmes, while the rest only conducted such reviews on an ad-hoc basis.

2.5 Almost all the brokers performed trade surveillance on a daily basis and incorporated trend analysis in their assessments. However, more than half did not have an established timeline for case closure to ensure timely review of exceptions. In terms of resources, trade surveillance operations were typically overseen by the broker's compliance team comprising one to five dedicated staff, depending on the size and complexity of the business. Only one broker provided regular structured training to its surveillance staff.

2.6 With respect to escalation policies, the majority of brokers had in place internal escalation processes to inform senior management of suspicious trading activities. For some brokers, the escalation policy on the reporting of potential market misconduct to the regulators was inadequate due to a lack of formalised guidelines and processes. These brokers had also not reported any suspicious trading activities to SGX RegCo in the past three years.

2.7 Based on the inspection findings and observations from both MAS and SGX RegCo, this PG outlines five guiding principles for brokers' trade surveillance operations. It is important that brokers adhere to these principles in the review and design of any trade surveillance programme.

Principle 1: Strong senior management oversight

2.8 Senior management[6] oversight is critical in fostering a strong culture of compliance at a broker. They should ensure that the broker fulfils its regulatory obligations to deter market misconduct, and take clear responsibility for assessing and managing market misconduct risks.

2.9 To facilitate their decision-making, senior management and relevant stakeholders (e.g. business head) should be kept informed of any key trends or observations from trade surveillance that may suggest suspicious trading activities or impact their risk management approach. Therefore, the broker needs to have well-defined internal processes that identify what and when suspicious trading activities need to be escalated. The escalation processes should be properly documented in the standard operating procedures ("**SOPs**"), and appropriately implemented so as to keep senior management apprised of any suspicious trading activities.

2.10 SOPs should also contain guidelines on the proper course of actions (e.g. query, verbal reminder and account suspension) to be taken, including the reporting of suspicious trading activities to the relevant regulators, such as MAS, the AEs and the Suspicious Transaction Reporting Office ("**STRO**").

2.11 Ultimately, senior management should maintain sufficient oversight of the broker's trade surveillance operations and ensure that the guiding principles outlined in this PG are adhered to.

[6] In the context of this principle, senior management refers to C-suite executives (or their equivalent) at the broker.

Industry practices observed

- ✓ Senior management set the right tone and take responsibility for managing market misconduct risks.
- ✓ Senior management are actively involved in regular surveillance meetings and decision-making on suspicious trading activities.
- ✓ Compliance and business heads work closely to assess and determine appropriate remedial actions for clients and TRs whose trades have triggered surveillance alerts or exception reports.

- × Senior management do not get periodic reports and are seldom involved in decision-making on surveillance matters.
- × Suspicious trading activities identified by staff are seldom or not escalated to senior management.
- × Senior management adopt a legalistic approach in complying with regulatory requirements and deal with market misconduct issues in a reactive or passive manner.

Self-assessment questions

- How often do senior management receive updates on issues related to trade surveillance and market misconduct? When was the last time potential market misconduct was escalated for senior management's attention?
- Is there evidence that senior management maintain close oversight of trade surveillance operations and make appropriate decisions on identified suspicious activities?
- Do senior management assess risks arising from market misconduct as part of periodic assessments of business risks that may adversely affect the broker's operations? What are the types of follow-up actions taken after such assessments?
- Do senior management prioritise compliance concerns arising from trade surveillance over business interests?
- How supportive are senior management of trade surveillance operations, with respect to resources, staffing and infrastructure?

Principle 2: Sound detection mechanisms and assessment framework

2.12 Brokers should have in place appropriate systems and structured processes to detect potential market misconduct and meet any requirements set out in the SFA, regulations, notices, trading rules and guidelines issued by regulators. Systems and processes should be updated regularly to keep pace with market developments and regulatory changes. For instance, brokers should consider adopting automated surveillance systems, artificial intelligence and machine learning to enhance the monitoring of trading activities.

2.13 Brokers should record all communications between TRs and the persons providing instructions on orders and trades in clients' accounts. Electronic communication channels, such as messaging platforms, are increasingly common and may require the use of sophisticated monitoring tools. Records of such communications, which may provide strong evidence of market misconduct, should be made available to surveillance staff for their review and active monitoring.

2.14 A trade surveillance programme, including alert types, exception reports, parameters and thresholds, should be commensurate with a broker's nature of business[7] and scale of operations, and back-tested with historical data to ensure their effectiveness. It should be reviewed at least on an annual basis or when necessary[8], with a formal approval process for any changes. In particular, more frequent reviews should be performed for programmes with no or few exceptions, or too many false positives.

2.15 For any alerts and exceptions raised, brokers should conduct robust assessments with proper records within a reasonable period to ensure timely review and escalation of potential market misconduct. A comprehensive assessment framework that includes review focus, assessment criteria and thresholds, and guidelines on case closures (such as common acceptable or unacceptable reasons) should be put in place to guide staff in their reviews. Staff should leverage information[9] available in-house to enhance the effectiveness of any trade surveillance programme.

2.16 Trade surveillance policies and procedures should be clearly documented in the SOPs to ensure consistency and clarity, and should include roles and responsibilities, assessment guidelines, timeline for case closure, escalation process, trend analysis and management reporting requirements.

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[7] Such as products offering, types of clients, modes of trading and so on.

[8] Regulatory developments, such as rule revisions, issuance of new guidance and market misconduct sanctions, as well as launch of new products and businesses by a broker could trigger a review. The review policy should identify such potential triggers for a review.

[9] Such information includes, but is not limited to, credit history, related/connected persons, trading patterns, past interactions, market developments, extent of profitability/losses, trending news, trading restrictions, delinquency list and accounts under close supervision.

Industry practices observed

- ✓ Use of automated trade surveillance systems to monitor suspicious trading activities.
- ✓ Annual review of trade surveillance framework, including the scope of monitoring, parameters and thresholds.
- ✓ Consistent and clearly documented assessment methodology.
- ✓ Phone recordings and records of electronic communication channels (e.g. messaging platforms) are reviewed in assessing potential market misconduct.
- ✓ Relevant global standards and guidelines are adopted in the trade surveillance programme.

- × Informal and unstructured trade surveillance programme that may not have been reviewed regularly.
- × Exceptions are generated daily by manually filtering trading data, which may be prone to human errors.
- × SOPs are poorly-written and provide limited guidance on how to assess and close alerts/exceptions.
- × Timeline for assessment is not tracked as a performance indicator, which may result in late detection of potential market misconduct.
- × No review of audio and/or electronic communications between TRs and clients.

Self-assessment questions

- Can the systems and processes detect market misconduct set out in the SFA, regulations, notices, trading rules and guidelines issued by regulators? When was the last time that the systems and processes were updated?
- How familiar are the surveillance staff with the assessment framework? What evidence is there that it is consistently and properly applied?
- How often are the policies and procedures reviewed? Are they able to handle new types of market misconduct?
- Are alerts and exceptions being assessed appropriately and closed in a timely manner? Is there any trend analysis performed?

• Is appropriate technology being used in trade surveillance operations to enhance the detection of market misconduct? Have there been occasions when regulators identified suspicious trading activities by clients, which could have been detected by surveillance staff?

Principle 3: Sufficient resources for trade surveillance

2.17 Brokers should have experienced and dedicated staff performing trade surveillance operations, with a clear reporting line that does not present a conflict of interest. Surveillance staff should be equipped with relevant skills and undergo continuous learning to keep pace with market and regulatory developments.

2.18 Adequate resources and budget should be allocated to a broker's trade surveillance operations in areas such as IT and manpower to ensure that its trade surveillance programme is effective in detecting potential market misconduct. There should be adequate IT resources for fine-tuning alerts, upgrades to surveillance systems, deployment of monitoring tools and facilitation of information sharing with internal and external stakeholders for investigations.

2.19 Trade surveillance staff should be given the necessary resources and management attention to carry out their duties efficiently and effectively. An adequately-resourced trade surveillance function allows brokers to fulfil their regulatory obligations under the relevant laws and trading rules to detect and deter market misconduct. Any failure to do so may attract regulatory scrutiny and disciplinary action.

Industry practices observed

- ✓ Dedicated staff responsible for trade surveillance.
- ✓ Mandatory regular training, including e-learning modules, for surveillance staff to complement on-the-job training.
- ✓ Surveillance staff reports independently to the head of compliance and senior management.
- ✓ Periodic sharing sessions with relevant stakeholders to discuss new regulatory hot spots that may affect trade surveillance.

- × Trade surveillance is given limited resources and access to information.
- × Surveillance is conducted by staff in functions such as credit and operations, who may not possess the relevant skillsets.
- × Trade surveillance is performed by staff on a rotation basis.
- × No formal and structured training for surveillance staff, who only rely on on-the-job training.

Self-assessment questions

- Is the manpower allocated to trade surveillance operations commensurate with the scale and complexity of the business?
- When is the last time that the budget for trade surveillance operations was revised or increased? Is the current budget reasonable?
- Are the surveillance systems up-to-date and able to meet the requirements of the trade surveillance programme?
- Do surveillance staff have the knowledge and experience, and undergo the requisite training to conduct trade surveillance effectively?
- Do surveillance officers have clearly defined roles and responsibilities, and operate independently from sales and dealing functions?

Principle 4: Proper recordkeeping and quality assurance

2.20 As part of trade surveillance operations, it is important for brokers to keep proper records and documentation for audit and inspection purposes. There should be a maker-checker process to ensure that alerts and exceptions are properly assessed before closure. All assessments and decisions made for alerts and exceptions should be well-documented and escalated according to the relevant SOPs. Any deviations should be substantiated, recorded and duly approved. There should be a formal process to monitor the status of any outstanding items and follow-up actions required. There should also be a centralised database that tracks problematic accounts flagged up by alerts and exceptions so that trend analysis can be performed.

2.21 Quality assurance processes could be implemented to ensure that the trade surveillance programme is being carried out properly (e.g. periodic sampling checks of alerts and exceptions). Information relating to the parameters, thresholds and assessment methodology used in the trade surveillance programme should be restricted to authorised persons to ensure the integrity of surveillance operations.

Proper controls should put in place to secure confidentiality and for any changes to the surveillance programme.

Industry practices observed

- ✓ Surveillance staff track and monitor problematic accounts and clients with suspicious trading activities.
- ✓ Quality assurance reviews are performed periodically on alerts and exceptions to ensure that the assessments are sound and consistent.
- ✓ Version control logs are kept for any changes to systems, processes, policies and procedures.
- ✓ Trade surveillance systems, processes, policies and procedures are audited annually to ensure compliance.

- × Institutional knowledge about past cases is not recorded and limited to the staff who made the assessments.
- × Assessments are poorly documented and unsubstantiated with brief and repetitive rationale used to close alerts.
- × Changes are made on an ad-hoc basis and not tracked properly, with poor documentation of the rationale.
- × Few quality assurance processes are in place with no regular audits conducted.

Self-assessment questions

- Is the surveillance function audited regularly? Are there sampling checks performed to ensure that SOPs are being adhered to?
- Are suspicious accounts tracked in a centralised database and monitored as part of trade surveillance?
- How are past cases of potential market misconduct archived? Are they used to inform the training programme for surveillance staff?
- Are changes to the systems and processes, including the reasons, clearly documented?
- What are the controls to ensure the confidentiality of the key information relating to the trade surveillance programme?

Principle 5: Prompt and confidential communications on potential market misconduct

2.22 Besides the brokers, regulators monitor trading activities in the respective markets for potential market misconduct. To assist in their review of trading activities, regulators may request for information from brokers relating to the brokers' clients. Brokers are expected to provide such information promptly and not reveal the regulatory requests to third parties, including the clients. The confidentiality of information relating to potential market misconduct (including regulatory requests) should be strictly enforced and any such information should be restricted only to authorised persons within the broker.

2.23 However, for the purpose of early disruption, regulators may also request brokers to review suspicious trading activities by their clients or TRs, which are to be completed within a stipulated time period and this may involve the brokers engaging the clients or TRs for their trading rationale. Upon the conclusion of their reviews, brokers are to take the necessary remedial actions, if any, based on their SOPs. This may include a review of their trade surveillance programmes for any gaps.

2.24 Periodically, regulators may share information on enforcement actions, regulatory developments and surveillance findings with brokers. Specific concerns may be highlighted to brokers, and brokers should consider appropriate measures to address them, including the implementation or enhancement of processes, and the amendment of SOPs accordingly.

2.25 Brokers are also encouraged to engage regulators should they require guidance on surveillance issues or observations, such as trading activities that were repeatedly flagged but assessed to be non-conclusive due to limited information available to the brokers. If brokers detect suspicious trading activities or trading patterns of concern, they should report such findings to regulators promptly through the appropriate channels.

Industry practices observed

- ✓ Strong controls are in place to ensure the confidentiality of information relating to trade surveillance.
- ✓ Trade surveillance staff respond promptly to regulatory queries and requests, and engage regulators on related issues.
- ✓ Clear escalation framework for self-reporting of suspicious trading activities and potential market misconduct to the regulators.

- × No internal guidelines on the reporting of suspicious trading activities to regulators.
- × Incomplete or tardy submission of information to the regulators.
- × Internal access control to trade surveillance documents and information is not strictly enforced.

Self-assessment questions

- Do surveillance and/or compliance staff consult regulators on surveillance issues? Do they report suspicious trading activities or trading patterns of concern?
- Have surveillance staff been able to respond to regulatory requests in a timely and complete manner?
- Have there been occasions when brokers identified suspicious trading activities by clients but failed to report them to the regulators in a timely manner?
- Are there processes in place to restrict information on potential market misconduct to authorised persons?
- Are there safeguards to ensure the confidentiality of communication with regulators?

3 Monitoring of Potential Market Misconduct

3.1 The supervisory reviews conducted between 2016 and 2018 by MAS and SGX RegCo also examined retail securities brokers' efficacy in the detection of potential market misconduct. In general, the brokers have trade surveillance mechanisms in place to detect potential market misconduct, though they differ greatly in the types of market misconduct they detect and the adequacy of such mechanisms.

3.2 The following section of the PG outlines the common practices and gaps that the regulators had observed among the retail securities brokers, and provides guidance on the factors that should be considered when assessing suspicious trading activities for potential market misconduct.

3.3 Brokers should note that the factors identified in this PG are neither exhaustive nor definitive, and their monitoring and investigation processes should be tailored to be commensurate with the complexity of each case. Brokers are also reminded of their obligations to report suspicious trading activities or trading patterns of concern to the regulators through the appropriate channels.

3.4 This section of the PG is to be read in conjunction with the previous two series of the Trade Surveillance Handbook[10] issued in 2016 and 2018 by SGX RegCo, which featured trading malpractices in the securities market such as spoofing, layering and marking-the-close, as well as a case study on pre-arranged trading.

Pre-arranged trading

Pre-arranged trading typically involves the trading of a security that occurs at specified prices, volumes and time in a manner agreed upon by the market participants (excluding married trades) in an attempt to match each other's trades. It may involve a group of clients and/or TRs working together for the rollover of trades. Such trading behaviour has the effect of creating a false or misleading appearance of active trading in the security.

Good practices observed

• Daily review of alerts triggered
• Review covers matched trades by: ○ clients with the same address

[10] The Handbooks are available at https://www2.sgx.com/regulation/guides-handbooks.

- clients that are tagged to the same TR/group of TRs (for those working in teams)
- clients' related accounts
- clients and TRs' personal/ connected persons' accounts

- Perform trend analysis to identify potential groups of clients that are working in concert

Factors to consider during assessment

Client's relationships	Brokers should use all available information, such as those obtained when a client opened an account, to establish a client's relationships or potential connections with his counterparties. Such information may include family relations (such as spouse, parent, child and siblings), employment details, residential/mailing address, same TR/ group of TRs (for those TRs working in teams), authorised third party, common nationality and accounts opened in the same period. Brokers may also rely on other internal reports such as collateral or credit reports to establish possible motives for suspicious trading activities. For example, clients who are connected to the listed company as shareholders and directors may have used their shares in the same company as collateral and may be incentivised to create a false market for personal gains or to prevent margin calls.
Quantity of matched trades	A large proportion of the seller's original contract size that is matched by related parties suggests pre-arranged trading that may constitute false trading.
Market impact	Trades that are executed at a volume disproportionate to the order book and/or account for a significant proportion of the market volume (particularly in illiquid securities) may mislead investors on the true level of interest in the security.

Traded price	Trades consistently executed at a targeted price range are likely to have the effect of artificially maintaining the share price.
Time proximity of order entries	Orders for pre-arranged trades are typically entered at about the same time. This time proximity has the effect of excluding other market participants from the transactions.
Frequency of occurrence	The frequent execution of matched trades among the same parties at the same volumes (which are subsequently reversed at about the same prices) over a period of time suggests that the transactions did not involve a change in beneficial ownership; were to create the impression of active trading through circular trading among connected parties; or were to artificially maintain the share price.

Wash trades (trades involving no change in beneficial ownership)

Wash trades occur when there is a simultaneous purchase and sale of the same security where there is neither a change in the beneficial ownership nor a transfer of risk. Such trades artificially increase trading volumes or maintain prices, which may constitute false trading.

Good practices observed

• Daily review of alerts triggered
• Review of matched trades by: ○ same account number, client name and Unique Identification Number ○ client’s related accounts such as corporate accounts where the client is a director or majority shareholder and authorised third party
• Use of self-trade prevention tools in trading systems to avoid unintentional wash trades

- Perform trend analysis to identify consistent patterns of wash trades

Factors to consider during assessment

Market impact	Larger trades that deviate from market levels may be used to create a false appearance of market activity or create artificial price pressure. Nevertheless, brokers should note that smaller wash trades may also be of concern if a pattern of wash trades is observed.
Time of entry	Deliberate matched trades are typically entered at about the same time for liquid securities and at a slightly longer period for illiquid securities.
Decision-making process	In the context of proprietary trading, there could be individual traders or a team of traders who carry out fully independent trading strategies for different purposes such as arbitraging and hedging. Such trading may be less of a regulatory concern if there are adequate safeguards (such as information barrier policies and clear oversight) in place to ensure that trading decisions are made independently.
Frequency of occurrence	Wash trades that occur frequently or at specific intervals (near market closing or end of the month/quarter/year) are more suspicious. It is therefore useful for brokers to monitor patterns of repeated instances of self-matching trades.

Front running of client orders

Front running occurs when a broker or TR knowingly trades in the same security with his own account (at the same or better terms) ahead of a client's unexecuted order for profit or loss avoidance.

Good practices observed

• Daily review of alerts/exception reports triggered
• Alerts detect trades that are immediately entered ahead of a client trade at the same or a better price, including all filled, partially filled and unfilled orders
• Review of TR's trades includes those belonging to: ○ TR's related and connected person's account and error-in-trade ("**EIT**") account ○ TR that are executed by external brokers (by reviewing TR's statement of accounts) ○ TR's buddy (for those working in teams)
• Review of personal trades of TRs involved in the force-selling of clients' orders (e.g. central dealer) against the respective force-selling orders executed by them
• Review of broker's stock accounts
• Review of phone recordings and records of electronic communication channels (e.g. messaging platforms) in determining the timing of orders placed by clients
• Require timely declaration, periodic review and update of TR's related and connected persons

Factors to consider during assessment

Time proximity of TR's order and client's order	A TR's order that is entered shortly ahead of his client's order suggests that the TR may have received the client's unexecuted order prior to placing his personal trade.

Same or better price	A TR's order may be placed at a price which is the same or better than his client's order.
Frequency of occurrence	Recurring front running trades are more suspicious and less likely to be genuine coincidences. It is therefore useful for brokers to monitor repeated instances of front-running and question TRs if necessary.

Ramping/price driver

Trades that have the effect of artificially raising or lowering the market price of a security may create a false market. Such trades which cause significant price movements warrant greater scrutiny.

Poor practices observed

Most brokers do not have a specific surveillance programme for the monitoring of ramping activities. Instead, brokers typically review trades that trigger significant price movements for potential market misconduct such as pre-arranged trading or marking-the-close.

Factors to consider during assessment

Traded price	Activities that warrant greater scrutiny include: • Unusual price movements during the trading day or against the opening price; • Trades that account for a significant proportion of the total price movement during the trading day; and • Trades that move the price against fundamentals (e.g. corporate announcements, market news and general market conditions).

Timing of trades	Trades that are entered near sensitive periods such as end of the month or financial year, date on which closing price of the security is factored into the pricing of a related instrument (e.g. derivatives or warrant) or during takeover period may be indicative of manipulative intent.
Timing of orders	Execution of aggressive orders concentrated within a short time span which causes the security price to rise to a level unsupported by fundamentals.
Frequency of occurrence	Accounts with trades that repeatedly cause significant price movements may be attempting to create artificial price levels.

Security dominance

Concentration of trades in a security by a client or group of clients could be legitimate if it is the result of genuine market forces of demand and supply. However, such concentration could be a result of a client or a group of clients with no apparent connections working in concert to create a false or misleading impression of active trading in a security i.e. security dominance.

Poor practices observed

Only a few brokers have a specific surveillance programme for the monitoring of security dominance. Their reviews are limited to security concentration by a single client beyond pre-determined thresholds in traded value and/or volume.

Factors to consider during assessment

Surge in trading activity	A sudden increase in trading activity for a security by a client or a group of clients in the absence of material announcements may be an attempt to create a false impression of liquidity. In such instances, a broker may observe a sudden increase in its exposure to a single security. The broker may also observe that trades done by the client or the group of clients are excessive relative to the depth and liquidity of the market at the time and/or account for a significant proportion of the market volume (particularly in illiquid securities).
Frequency of occurrence	A client or a group of clients who trades in the same security in excessive volumes over a period of time (e.g. consecutively across a few days) may suggest attempts to create a false market.
Client's connections	Brokers should use available information such as those found in the account opening documents or credit reports to establish a client's relationships and connections with any underlying beneficial owner. For example, trading activities by a same group of clients or clients tagged to the same TR, who repeatedly trade in the same security or trade against each other in the same security and collectively make up a significant proportion of the market volume, may suggest possible collusion. Clients who are connected to the listed company as shareholders and directors may have used their shares in the same company as collateral and may be incentivised to dominate the market and influence the share price to their advantage.

Insider trading

Trading in a security, directly or indirectly, by a person who is in possession of inside information regarding a company, where the person knows or ought reasonably to know that the information is not generally available and if generally available, might have a material effect on the price or value of the security.

Poor practices observed

Most brokers do not have a specific surveillance programme for the monitoring of potential insider trading activities. For those that do, reviews are restricted to trades relating to STRs filed by the brokers.

Factors to consider during assessment

Market fluctuations 	A security that experiences the following shortly before a material announcement is made public may suggest potential insider trading has taken place: • Significant price movements (compared to recent traded prices); • Unusual trading volume (vis-à-vis historical average volume); or • Sudden surge in trading in the security (vis-à-vis the broker's total trading volume in the market).
Monetary benefit 	The beneficial owners of accounts that buy (sell) large quantities before positive (negative) news typically resulting in high realised/unrealised monetary gains or loss avoidance may be trading on inside information.
Trading profile 	A change in the trading behaviour of a client or TR that is not in line with his usual trading profile may be caused by an awareness of upcoming material announcements that could cause significant price movements in the security. For instance, a client who usually places low value trades suddenly transacts in trades of relatively high value; a client who usually contras his trades decides to buy and hold a particular security instead; or a client who has never traded in a

	security (or securities of similar sectors) suddenly starts trading in it.
Traded price and volume 	A client or TR who trades in a security at a price that deviates significantly from the previous day's closing price/last traded price or increases his trading volume in the security significantly during the period prior to a material announcement may be trading while in possession of inside information.
Connections to the listed company 	Brokers should use available information such as those obtained when a client opened an account or credit reports (e.g. related accounts that are tagged together for risk management monitoring purpose) to determine possible connections to a listed company. For instance, employer details may indicate a potential connection to the listed company and therefore, possession of inside information.

Unauthorised trading

Unauthorised trading occurs when a broker or TR trades in a client's account taking instructions on orders from a third party (including the TR himself) without the client's prior written authorisation empowering the third party to trade on his behalf. Trades may be placed by a third party or TR through a client's account to hide the true identity of the person operating the account. This can often be seen in suspicious trading activities such as security dominance and pre-arranged trading.

Poor practices observed

Brokers tend to rely on TRs to ensure that the third party has been authorised by the client to trade on his behalf before accepting any orders from the third party. Further, most brokers did not adopt mechanisms to detect unauthorised third party trading in a client's account.

Brokers are strongly encouraged to put in place the following controls to mitigate the risk of unauthorised trading:

- Periodic reminders/training to all TRs on the requirements for a client's written authorisation for a third party to operate the account and for proper records of such authorisation to be kept

- Processes to prohibit the use of mobile phones or any phone for which conversations on the acceptance of orders from clients are not recorded or where call-backs via recorded phone lines are not performed
- Processes to limit the use of hold-mail arrangements[11], except for extenuating circumstances where brokers should be satisfied of the need for such an arrangement and ensure that appropriate risk disclosure is made to clients
- Compliance testing of TRs' phone recordings and/or electronic communications through which instructions on orders and trades for client accounts may be taken by TRs
- Review of TRs' EIT accounts for unusual or high volume of activity
- Review of payments received from or paid to third parties
- Processes to ensure payments to clients are not passed to the TRs unless authorised in writing by clients

Factors to consider during assessment

Common red flags	The following are red flags that may suggest unauthorised trading and should trigger compliance reviews and/or suspicious transaction reporting: • Third-party payment received to settle an amount owed by a client or request for withdrawal of funds payable to a third party, particularly if the third party does not have a direct relationship with the client • Frequent requests from a client for a broker to issue payments to third parties or payments to be passed to TR • TRs with unusual or high volume of error account activities • Clients who have hold-mail arrangements or use P.O. box addresses • Same mobile number tagged to different client accounts • Opening of multiple trading accounts under the same TR • Accounts exhibiting suspicious behaviour such as security dominance and pre-arranged trading
Records of trading instructions	When reviewing phone recordings and/or electronic communications, such as instant messaging between TRs and the persons providing instructions on orders and trades in the client accounts, brokers should check against internal records or use call-backs to determine if (i) the orders were indeed instructed by the client or that (ii) written authorisation had been obtained for orders received from a third party.

[11] Arrangements where brokers will hold or retain contract notes and statements for clients.

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