# Risk Management – PT J.P.Morgan Sekuritas Indonesia Procedure

# **Risk Management Function**

Current Effective Date: 28 Mei 2018

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### **1. Document Information**

Primary Procedure Owner	Retno Wulandari
Secondary Procedure Owner	N/A
Review Cycle	Annually or if any regulation and/or policies changes
Last Review Date	16 April 2018
Effective Date	28 May 2018

## 2. Change Control

No	Date	Revised by	Approved by	Comments
1	1-Oct-14 2-Dec-14	Retno Wulandari	BOD	V1.0 Document written and Signed off
2	18-Sep-15 22-Sep-15	Retno Wulandari	BOD	<ul> <li>V2.0</li> <li>1.2. Legal Basis and Internal Policies – additional of Regulation concerning Integrated Risk Management.</li> <li>2 Glossary – some new terms.</li> <li>3.1. R&amp;R – amendment on Trade Monitoring &amp; Surveillance and Reporting.</li> <li>3.2. Organization Structure – new organization structure.</li> <li>4.2.2. Client Trading Limit Check and Review – new procedure.</li> <li>5 No. 6 KYC Procedure – new contact for escalation.</li> <li>6 – Reporting – some amendments and new procedure of Semi Annual Risk Profiles Report.</li> <li>Appendix C List of Document for Client On-Boarding.</li> <li>Appendix E List of Counterparties/Escalation – new contact for escalation.</li> <li>Replacement of Appendix F List of Facilities (no longer applied) with KYC Policy.</li> <li>Some editorial changes.</li> </ul>
3	22-Apr-16 17-May-16	Retno Wulandari	BOD	<ul> <li>V3.0</li> <li>3.2. Organization Structure – updated.</li> <li>2 Glossary – some new terms.</li> <li>4.4. Automated Ordering (Algorithm) and DMA Monitoring.</li> </ul>
4	24-May-16	Retno Wulandari	Director	V3.1 - Legal Basis and Internal Policies
5	Feb-2017 17-Apr-17	Retno Wulandari	BOD	V4.0 - New template - Some changes on each section
6	16-Apr-18	Retno Wulandari	BOD	V5.0 New requirements as stipulated in OJK Rule No. 57/POJK.04/2017
7	28-May-18	Retno Wulandari	Compliance	V.5.1. Process Flows

### 3. Definition

The Risk Management (RM) function is the function required by Indonesia Financial Services Authority (Otoritas Jasa Keuangan/OJK) as stipulated in the regulation No. V.D.3 concerning the Internal Control of a Securities Company Conducting Business as Broker-Dealer.

### 4. Summary

This Procedures document is the primary reference on matters concerning the entire operational of Risk Management (RM) function within PT J.P.Morgan Sekuritas Indonesia (JPMSI)

### 5. Scope

Lines of Business	Asia CIB Risk Management
Sub-Lines of Business	N/A
Function(s)	N/A
Locations	Indonesia
Legal Entities	PT J.P.Morgan Sekuritas Indonesia

### 6. Risk Management Framework and Culture

#### 6.1. Framework

Refer to the Global Legal Entity Risk Framework.

#### 6.2. Culture

The risk management framework is developed to create a culture of risk transparency and awareness, and personal responsibility throughout the Firm where collaboration, discussion, escalation and sharing of information are encouraged through

- Acceptance of responsibility by all individuals within the Firm
- Ownership of risk management within each function

### 7. Roles and Responsibilities

1. Broker and Client Trading Limit

Risk Management Officer shall monitor JPMSI's trading limit on a daily basis, liaise with Settlement and Finance LOB on any requirement of trading limit changes, set trading limit for new client and perform monitoring of the trading limit on a daily basis.

2. Trade Monitoring and Surveillance

Risk Management Officer shall perform verification of orders and/or instructions from clients and ensure that below requirements have been fulfilled before the clients can start trading through JPMSI:

- (a) Client's trading limit has been set up and applied.
- (b) Client's account has been opened and approved by Sales function.
- (c) Client has provided a written statement which confirm that:
  - i. Client agrees to guarantee the availability of funds and/or stock for settlement before placing buy or sell order.
  - ii. In any case whereby client fails to provide funds and/or stock, client agrees to absorb and refund all losses.

Risk Management Officer shall review the analysis of trade alerts performed by regional Monitoring and Surveillance team, which alerts generated by Smarts Broker application on T+1, and escalate any potential market manipulative transactions to Compliance LOB. As part of trade monitoring roles, Risk Management Officer shall also monitor potential fail settlement including potential borrowing of shares, advise potential risk on the fail settlement and the borrowing, ensure mitigation process is conducted as per Standard Operating Procedure, and escalate any issue to Board of Directors of JPMSI.

3. Reporting

Risk Management Officer shall provide updates on the implementation of the risk management to Board of Directors regularly, through Operating Committee Meeting (OCM). The meeting will be chaired by President Director, which members consist of Directors and/or supporting functions managers.

Risk Management Officer prepares two types of reports periodically:

- (a) Quarterly Key Risk Indicator (KRI) Report and other updates for Operating Committee Meeting (OCM) and BOD/BOC meeting
- (b) Semi-annual Risk Profile Report for Integrated Risk Management (financial conglomerate) and BOD/BOC meeting

Risk Management Officer is also responsible to escalate any issue to Directors during daily monitoring process or monthly KRI process, which will impact business materially.

- 4. Provide risk updates to Independent Commissioner.
- 5. Other roles and responsibilities as defined in the Global Legal Entity Risk Framework.

### 8. Broker and Client Trading Limit

#### 8.1. Broker Trading Limit

Step#	Details of Action	Responsible Party
1	Monitor trading limit balance through Member Interface (MI) application (Risk Management Report>Trading Limit) during trading hour	RM Officer
2	Escalate any (potential) trading limit decrease and propose for additional collateral by email to Finance, Settlement, and Sales LOB RM Officer should aware of some causes of trading limit decrease among others are: - High trading volume of high risk stocks or stocks with high haircut - Borrow stock from KPEI for trade settlement - Reduction of collateral amount that is pledged to KPEI	RM Officer

	In contrary, RM will propose for collateral withdrawal if trading limit amount is higher than daily average amount, by email to Finance, Settlement, and Sales LOB	
3	Calculate and obtain approval for collateral deposit or withdrawal	Finance/ Settlement
4	Process the collateral changes and report it to KPEI	Settlement
5	KPEI will reflect the collateral change in Member Interface	KPEI

Samples of MI application are provided in Appendix I

### 8.2. Client Trading Limit

Step#	Details of Action	Responsible Party
1	Request for trading limit set up for new client	Sales
2	Determine if the new client eligible for the Asia Risk Guidelines and Procedures, and Exempt Trading Policy If yes – input the applicable trading limit in Customer Account Acceptance Form (CAAF) and liaise with Credit Risk Management team for trading limit set up (Credit Risk Management team for Funds is CIB Credit Risk, for Hedge Funds & Asset Managers and Non Funds is CIB Credit Risk Indonesia, for International Client is CIB Credit Risk-Financial Institution)	RM Officer
3	If no - Credit Risk Management team will determine trading limit value and if the request is rejected, this should be communicated back to Sales (Credit Risk Management team for Funds is CIB Credit Risk, for Hedge Funds & Asset Managers and Non Funds is CIB Credit Risk Indonesia, for JPMSAPL is CIB Credit Risk-Financial Institution)	RM Officer
4	Request Settlement team to update the trading limit for new client in NOVA once got confirmation from Wholesale Client On Boarding (WCOB) APAC Equity team that the on-boarding process has been completed	RM Officer Settlement
5	Generate client trading limit report on start of day which consist of limit, exposures, and available limit	NOVA
6	Check the report to see if there is any trading limit breach	RM Officer
7	If there is breach limit, check with Sales if permanent or temporary limit increase is required	RM Officer
8	Confirm the limit change request by providing business justification. For permanent limit increase, it should include client trading history and trade value forecasting	Sales
9	Liaise with Credit Risk Management team for the limit increase (Credit Risk Management team for Funds is CIB Credit Risk, for Hedge Funds & Asset Managers and Non Funds is CIB Credit Risk Indonesia, for International Client is CIB Credit Risk-Financial Institution)	RM Officer
10	Once the increase has been approved, request Settlement LOB to update the changes in NOVA	RM Officer
11	Update the changes in NOVA	Settlement
12	For temporary trading limit increase, RM shall perform daily monitoring as detailed in step no. 6 and ensure the trading limit has been changed back to the original amount on settlement date or longer, depends on the request from Sales	RM Officer

Samples of client trading limit report is provided in Appendix II

### 9. Trade Monitoring and Surveillance

### 9.1. Smarts Broker/SB

JPMSI utilize SMARTS Broker/SB for trade monitoring. SB is a cross market surveillance service system developed by the NASDAQ QMX SMARTS group, and used by JP Morgan to improve the monitoring of securities markets. The tool will provide alerts on the occurrence of unusual transactions as per JP Morgan standard which also cover Indonesia capital market requirements, such as:

#### Wash Sale

A trade between buyer and seller but there is no changes in the beneficiary ownership of the stock. The motives are to create price ups/downs/stable in such a way as the price is created through normal transactions, to give impressions that the stock is actively traded on exchange or that the Broker is actively trading on exchange.

- Marking the Close

Placing sell or buy orders at the end of trading hour with low volume which motive is to create closing price as expected, could be ups/downs/as the same as previous closing price.

- Creating Fake Demand/Supply

There is 1 or more certain parties placing buy or sell orders with lower price under the best price, but if the buy/sell orders are achieving the best price, the orders will be cancelled or the quantity or price will be amended several times. Motive is to increase or decrease the stock price by giving the impression to market as if there is high demand and supply, to influence other investors to buy or sell the stock.

- Front Running

Exchange Member executes orders in advance based on the information that their client will place big order on the stock which may affect the market price. Motive is to gain profit or minimize losses.

- Unusual Transaction Volume/Value

Client places an order which historically is unusual in terms of volume or trade value. This information will be useful for Indonesian Financial Transaction Report and Analysis Centre (PPATK).

Step#	Details of Action	Responsible Party
1	Smarts Broker (SB) application generates trade alerts on T+1	Smarts Broker
2	Monitoring & Surveillance (M&S) team analyze each trade alert on T+1, input the analysis result and close the alert in the application. Once all alerts have been analyzed and closed, send email notification to RM officer	M&S team
3	If there is any potential <i>true alert</i> , M&S team will investigate it by requesting further explanation from Sales Trader, ECS, Middle Office, Compliance, or Technology team	M&S team
4	<ul> <li>When receive the email notification from M&amp;S team:</li> <li>RM officer log on to SB application (<u>https://jpmorgan.smartsbroker.com/cmss/login.jsp</u>)</li> <li>Download alerts by selecting all&gt;copy selection to clipboard&gt;export selection and save it in shared folder (H:\RM\Alerts)</li> <li>Export the attachments for further review by selecting the attachment sign then click export and save it in shared folder</li> </ul>	RM Officer

	<ul> <li>(H:\RM\Alerts)</li> <li>Review each alert and decide whether the alert indicates potential breach of regulations or internal policies, including any potential money laundering activities.</li> <li>Save the review result in shared folder (H:\RM\Alerts)</li> </ul>	
5	Follow-up money laundering activities with Compliance	RM Officer Compliance
6	Provide sign-off by replying the email notification from M&S team, if there is no further action required or once the investigation has been completed	RM Officer

Sample of email notification and details of SB application are provided in Appendix III

### 9.2. Automated Ordering (Algorithm) and Direct Market Access (DMA) Monitoring

Risk Management officer shall monitor Algorithm and DMA activities using monitoring tools (front office application and Smarts Broker/SB).

Other related functions (Sales Trading, Technology, and Compliance) are also involved in the implementation in accordance to their respective functions.

#### A. Emergency Shutdown/Kill Switches

Emergency shutdown procedures are designed by JPMorgan to minimize the impact of potentially catastrophic trading events by halting or stopping unintended trading activity.

The related functions within JPMSI will carry out its roles as follows:

- 1. RM officer monitors trading activities through front office application.
- 2. RM officer will escalate any activity that potentially requires kill switches, to other related functions (Sales Trading, Technology, and Compliance).
- 3. Based on discussion with all related functions, technology will liaise with regional team for further actions as specified in the Emergency Shutdown Standard for Electronic Trading document.

#### **B. Algorithm Parameters**

Electronic Trading Business Control Committee (E-Trading BCC) that is a forum consist of global Business Owner, Quantitative Research (QR), Technology, Market Risk, Model Group Governance (MGG), Legal, and Compliance has identified some controls applies for automated ordering activities in Indonesia market, as follows:

- 1. Max Spread restricts the spread that Algorithm may cross. Action: Algorithm limits price, but continues to trade, alert fired.
- 2. Max from Last max distance from stock's last traded price. Action: Algorithm limits price, but continues to trade, alert fired.
- 3. Max from Open max distance from stock's Opening Price. Action: Algorithm limits price, but continues to trade. Alert fired.
- 4. Max from Previous Close max distance from stock's Previous Close Price, applies in Open Auctions only.

Action: Algorithm limits price, but continues to trade. Alert fired.

- Max Child Order Size (Lots) restricts the size of individual orders released to market & alerts the trader when a threshold has been breached. Action: Algorithm restricts size to limit.
- 6. Max Child Order Frequency max number of child order amends/cancels that Algo may send in 60/300 seconds.
  - Action: Algorithm will stop Trading and Alert. All orders on market are cancelled.
- 7. Max % Volume max % of volume that Algo may participate. Hard cap on Client/Trader values.

Action: Algorithm caps Participation.

The details are provided in Appendix IV.

#### C. Potential Risks and Mitigation

There are some potential risks that must be monitored during trading hours:

- 1. Faulty or malfunctioning algorithm due to lack of algorithm testing, may lead to unusual large trades, improper trading market disruption, breach of internal limits resulting in reputation damage, financial harm and/or regulatory fines.
  - a. Poor quality of algorithm which is not in line with the designed or expected behaviour.
  - b. Introducing an unauthorized trading algorithm.
  - c. System insensitivity and feedback loop for algorithm calculation that may create incorrect historical data, resulting in sending incorrect instruction to JATS.
  - d. System efficiency and speed in assessing, transmitting, normalising and computing a mid-point price may influences the ability of a trading to generate the best bid/offer and to develop a precise mid-point and affix that to a matched trade.
- 2. Failure of hardware and software. The impact could be the order is not executed according to client instructions or it is not executed to exchange.
- 3. Human error when entering client's instruction onto trading system e.g. price and time limit, may lead to unexpected result of algorithm trading.
- 4. In addition, due to high frequency, there is a risk of client trading limit breach intraday. But the risk is very minimal for JPMSI due to DVP settlement.

To minimize the risk, JPMorgan developed an Algorithm Control Checklist that must be completed by E-Trading BCC prior to launching a new strategy that covers:

- 1. General questionnaires about the algorithm and the parameters.
- 2. List of control specific to the algorithm.
- 3. Checklist for monitoring.
- 4. Limits management.
- 5.Control framework.
- 6. Compliance and regulatory requirements.
- 7. Software Development Life Sycle/SDLC.
- 8. Model determination.

RM Officer shall monitor the alerts generated by SB on T+1 that covers all trades including algorithm and DMA.

On a quarterly basis, the E-Trading BCC set up a call to discuss any update from each member/control function including new strategy being developed or launched, performance review of the Algorithm and significant errors or issues updates.

### 9.3. Settlement Risk Mitigation

Step#	Details of Action	Responsible Party
T+2	Settlement Team to inform any un-matched settlement instruction of international/foreign client to Regional Operating Centre (ROC) cc Sales Trading, RM Officer, and Compliance and to check eligibility of stock borrowing to KPEI to manage possible late stock delivery from client.	Settlement Team Sales Trader
T+3	Sales Trader to advise any updates from client to Settlement Team. Settlement Team liaises with ROC to get borrowing approval, unless Middle Office (MO) contacts Settlement Team directly. Email notification/approval should include max tenor allowable for client. Max tenor is 5 days or depends on liquidity of the borrowed stock.	Settlement Team ROC MO

T+3 – stock returns date	Settlement Team updates the settlement and borrowing status to all contacts in the distribution list	Settlement Team
Max stock returns date-1	Settlement Team to inform all contacts in the distribution list plus MO if there is potential delay to return stock borrowing to KPEI, including estimation of all costs incurred. MO shall inform clients the potential buy-in.	Settlement Team MO
Max stock returns date	Sales Trading to obtain approval for the buy in and execute the trade on exchange.	Sales Trader
T+2 – max stock returns date	RM Officer performs the monitoring, advise potential risks, ensure mitigation process is conducted, and escalate any issue to BOD.	RM Officer

### 10. Reporting

RM Officer prepares two types of report periodically:

### 10.1. Updates for Operating Committee Meeting (OCM) and BOD/BOC Meeting

The updates consist of Key Risk Indicators (KRI) and any other risk information such as potential operational risk found in daily monitoring and/or secondary placement project & new project launched by regulator or internal JPM.

Step#	Details of Action	Responsible Party			
	Monthly basis				
1	BD1 Request data from all operational functions (Compliance, HRD, Settlement, Finance, Technology) using the agreed template	RM Officer			
2	BD5 Provide data as requested	All heads of operational functions			
3	BD6 Compile the data, assess the risk rating, and escalate major issues, if any, to Board of Directors via email or ad-hoc meeting Otherwise, save the report in shared folder (H:RM\KRI\Monthly)				
	Quarterly basis				
4	BD10 Compile latest 3 months of KRI	RM Officer			
5	BD11 Discuss the quarterly KRI with each operational function	RM Officer All heads of operational functions			
6	BD12 Revise the KRI if needed, and finalize the report	RM Officer			
7	BD13 Obtain signoff from each support function	RM Officer			
8	BD15 Send the quarterly KRI including other risk information to Business Manager (BM) for the material of OCM	RM Officer			
9	BOD provides signoff on the quarterly KRI in the OCM	BOD			

### The KRI consist of nine risk stripes:

				Ware On attenda
	Risk Type	Definition	Risk Parameters - Succession Plan	Key Controls - Human Resources (HR) function with supervisory of CAO monitors work
		Human Resources	- Training	<ul> <li>Human Resources (HR) function with supervisory of CAO monitors work permit status of foreign staff, if any</li> </ul>
		Insufficient people/capabilities and/or inappropriate	- License - Capacity	- HR with supervisory of CAO will monitor license status of key person
		behaviour	- Human error	- Each LOB is responsible for monitoring resource issues in their LOB and escalating any issue to HR, CAO, LOB Manager, and BOD
			- Fraud	and escalaring any issue to int, one, bes manager, and bes
		<u>Net Adjusted Working Capital (NAWC)</u> - Misstatement of Net Adjusted Working Capital (NAWC)	- NAWC value (daily average,monthly highest/lowest) - Capital Structure:	
		report; and/or	- Subordinated loan value	Finance team to ensure correct reporting of NAWC     Finance team to monitor the NAWC position on daily basis and to
		- Insufficient amount of NAWC	- Debt/Equity	<ul> <li>Finance team to monitor the NAWC position on daily basis and to escalate any material changes to BOD and LOB Manager</li> </ul>
		<ul> <li>Incompliance to local regulatory limits and other reporting/ Regulatory Capital requirements</li> </ul>	<ul> <li>NAWC value/Minimum value of NAWC</li> <li>Ease of access to request capital leverage to shareholders</li> </ul>	
		- Uncompleted action plans related to regulatory	- Financial capability of the shareholders	
		External Non-regulatory Audit	- Audit Findings	
		<ul> <li>Misstatement or omission in the external financial reporting</li> </ul>		
		- Audit rating is less than unqualified	- Audit Results	
		- Outstanding significant action plans from previous	- Action Plans	<ul> <li>Finance and Settlement team to ensure the implementation of PAPE for trade related journal entries and applicable accounting principles for</li> </ul>
		audit results	· Action Frans	general accounting entries
		Internal Audit - Inadequate Oversight & Governance (O&G), including	- Audit Findings	Each LOB will ensure adherence to internal policies and regulations     Each LOB will update and implement SOP consistently
		risks related to NBIA, project management, major capital		Bach Bob win aparto and imponient our consistently
		investments, heightened risk transactions - Audit rating is less than satisfactory	- Audit Results	
		<ul> <li>Audit rating is less than satisfactory</li> <li>Outstanding significant action plans from previous</li> </ul>	- Action Plans	
		audit results		
		Business Complexity The business complexity is not supported by	- New product/New Business Initiative Approval (NBIA) process	NBIA process is performed involving all LOBs before new product is
		sufficient/solid infrastructure, resources, and KYC	- Sales trading desk issues	launched
			- New client on-boarding (quantity, missing documents, timeframe, etc.)	- RM officer liaise with Wholesale client On-Boarding (WCOB) team to
		Know Your Client (KYC)	- KYC renewal/remediation (quantity, missing documents, timeframe, etc.)	perform the new client On-Boarding as well as KYC renewal and/or remediation.
		Incompliance to OJK Rules concerning KYC Principal	- Closing account (reason, etc.)	- KYC updates to be discussed in OCM
			- Type of clients	- Compliance will conduct audit regularly
			- Sending order to JATS - Network	
		System Failure	- Network - System Access	Each LOB will escalate any system issue to technology team     Tachaolan and (a series) technology
		Failure to develop and deploy secured, stable, and reliable technology solution	- Manual intervention	<ul> <li>Technology team will follow up with vendor and/or regional technology team for solution</li> </ul>
			<ul> <li>Other main systems issues (network/access/manual intervention issues, etc.)</li> <li>Project updates</li> </ul>	
				- RM officer to monitor the trading limit during trading hour and escalat
		Trading Limit	- Block collateral amount and percentage (daily average, highest, and lowest)	any potential risk when the blocked collateral is more than 50%, or if
		Failure to execute orders on market due to insufficient		there is any requirement to increase TL due to high trade volume, base on information from Sales team
		Trading Limit	- Trade value in regular board (daily average, highest, and lowest)	- RM officer will work with Settlement team to calculate and prepare
				cash collateral deposit - Sales team to ensure the reporting in a timely manner to identify root
		Trading Error/Facilitation	- Trading Error and Facilitation value, frequency, and the P/L	cause and action plan
		<ul> <li>Overbought/oversold, or price margin provided to client, and delayed or missing reporting or approval in error</li> </ul>	- Hanny site and Facilitation value, nequency, and the 175	- Settlement team to send list of outstanding error and facilitation for
		database		reporting, to Sales team, cc Compliance and RM - RM officer will help chasing Sales Trader to complete the report, and
		- Root cause analysis or action plans are outstanding for	- Pending reporting and approval of the error/facilitation	Sales Trading Manager to acknowledge and approve the report, and
		previous records		database
1	<b>Operational</b>	Client Trading Limit Breach	- Trading limit utilization	- RM officer reviews the Client Trading Limit Breach report generated automatically on start of day
		- Client trade amount is bigger than the approved limit		<ul> <li>RM officer will liaise with Sales Trader if there is any potential</li> </ul>
		- Request for credit limit increase not being raised by	- Breach Trading Limit	negative limits that requires temporary or permanent increase
		Sales team and/or approved by RM officer and/or Credit team	5	- RM officer will request Settlement team to update the limits based on the discussion with Sales and necessary settlement risk analysis
			- Trading limit increase	- RM officer will liaise with Credit Team if there is any requirement to
			- Material issues (e.g. potential regulatory breach, written client complaint, open	increase the limits permanently
		<u>Timelines of Escalation</u> Incidents or issues are escalated in a timely manner to	market exposure) to be escalated	All LOBs to comply with the Escalation Standard and Reporting Timeline
			- Timeframe of the escalation	All bobs to comply with the Escalation Standard and Reporting Timenne
				1
		the appropriate persons	- Status of the escalation	- Salas taam and Sattlement team will escalate any complaint from
			- Status of the escalation - Verbal complaints from clients	- Sales team and Settlement team will escalate any complaint from clients either verbally or formally to RM officer and Compliance
		the appropriate persons Customer Complaints Number of formal complaints received from client due to	- Verbal complaints from clients	clients either verbally or formally to RM officer and Compliance - RM officer and Compliance will follow up with respective LOB, escalate
		the appropriate persons <u>Customer Complaints</u>		clients either verbally or formally to RM officer and Compliance - RM officer and Compliance will follow up with respective LOB, escalate and/or discuss it further with regional team to identify follow up actions
		the appropriate persons Customer Complaints Number of formal complaints received from client due to	- Verbal complaints from clients	clients either verbally or formally to RM officer and Compliance - RM officer and Compliance will follow up with respective LOB, escalate and/or discuss it further with regional team to identify follow up actions
		the appropriate persons Customer Complaints Number of formal complaints received from client due to	- Verbal complaints from clients - Written/formal complaints from clients - Complaints handling/follow up process	clients either verbally or formally to RM officer and Compliance - RM officer and Compliance will follow up with respective LOB, escalate and/or discuss it further with regional team to identify follow up actions - Finance team will ensure any complaint is reported to OJK on monthl basis
		the appropriate persons <u>Customer Complaints</u> Number of formal complaints received from client due to delayed confirmation or other non-technical issues <u>Operating Committee Meeting (OCM)</u> Meetings held and all minutes received. OCM must	- Verbal complaints from clients - Written/formal complaints from clients - Complaints handling/follow up process - Latest OCM	clients either verbally or formally to RM officer and Compliance - RM officer and Compliance will follow up with respective LOB, escalate and/or discuss it further with regional team to identify follow up actions - Finance team will ensure any complaint is reported to OJK on monthl basis - CAO mark each participant's calendar in advance for one year period
		the appropriate persons <u>Customer Complaints</u> Number of formal complaints received from client due to delayed confirmation or other non-technical issues <u>Operating Committee Meeting (OCM)</u>	- Verbal complaints from clients - Written/formal complaints from clients - Complaints handling/follow up process - Latest OCM - Distribution of OCM pack/MoM	clients either verbally or formally to RM officer and Compliance - RM officer and Compliance will follow up with respective LOB, escalate and/or discuss it further with regional team to identify follow up actions - Finance team will ensure any complaint is reported to OJK on monthly basis - CAO mark each participant's calendar in advance for one year period - CAO populate updates from each support function one week before nex
		the appropriate persons <u>Customer Complaints</u> Number of formal complaints received from client due to delayed confirmation or other non-technical issues <u>Operating Committee Meeting (OCM)</u> Meetings held and all minutes received. OCM must have appropriate loal risk function representation hut may be held at location or regional level, subject to LOB policy and size of business in location	- Verbal complaints from clients - Written/formal complaints from clients - Complaints handling/follow up process - Latest OCM - Distribution of OCM pack/MoM - Attendees/quorum	clients either verbally or formally to RM officer and Compliance - RM officer and Compliance will follow up with respective LOB, escalate and/or discuss it further with regional team to identify follow up actions - Finance team will ensure any complaint is reported to OJK on monthl basis - CAO mark each participant's calendar in advance for one year period
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### RM Officer will measure the risks by referring to tables below:

	Probability of Occurrence			Impact		
Probability		Likelihood		Consequences	Severity	
Unlikely	< 10%	< 10% Unlikely but can reasonably be expected to occur (not		Minor	Low	
Possible	10-25%	10-25% Will occur at times		Significant	Moderate	
Likely	25-50%	25-50% Will occur frequently		Serious	High	
Very Likely	>50%	Continuously experienced		Major	Very High	

Inherent Risk			Impact			
			Minor	Significant	Serious	Major
<u>.</u>	Very	Likely	Moderate	High	Very High	Very High
	Lik	ely	Moderate	High	High	Very High
Probability	Poss	sible	Low	Moderate	High	Very High
æ	Unli	kely	Low	Moderate	High	High
Inhere	at Dials	Qual	ity of Risk Ma	inagement l	mplement	tation
millere	IIU KISK	Strong	Satisfactory	Fair	Marginal	nsatisfacto
Low		1	1	2	3	3
Low to Moderate		1	2	2	3	4
Moderate 2		2	2	3	4	4
Moderate	to High	2	3	4	4	5
High		3	3	4	5	5

Sample of quarterly KRI, data request and email approval are provided in Appendix V.  $$\rm JPMorgan\ Chase\ \&\ Co.$ 

# 10.2. Semi-annual Risk Profile Report for Integrated Risk Management and BOD/BOC Meeting

- Semi-annual Risk Profiles Report is a summary of JPMSI risk profiles for the period that ended 30 June and 31 December.
- The report consist of 9 type of risks which include credit risk, market risk, liquidity risk, operational risk, legal risk, reputation risk, strategic risk, compliance risk, and intra-group risk.
- RM officer liaise with each risk owner when performing the assessment of risk ranking for each type of risk.
- The report is sent to RM officer of JPMCB Jakarta branch for further discussion within Integrated Risk Management Committee, prior to each due date of reporting to OJK, which schedules will be agreed between JPMSI and JPMCB Jakarta branch.

Step#	Details of Action	Responsible Party		
1	BD6 Prepare semi-annual Risk Profile Report using latest template and update the report based on latest 2 quarters of KRI	RM Officer		
2	BD7 Discuss the report with each LOB			
3	BD8 Revise the report based on the discussion with each LOB, and finalize the report	RM Officer		
4	BD9 Obtain signoff from each LOB	RM Officer All LOBs' heads		
5	BD12 Send the report including all the email signoff to RM officer of main entity	RM Officer		

Sample of semi-annual Risk Profile Report and email approval are provided in Appendix VI.

RM officer should also monitor daily trading behaviour and escalate any issue that may expose JPMSI to reputational risk or other risks. The issues should be shared to Compliance LOB and BOD verbally or by email.

If there is any audit finding related to risks, this has to be reported to Risk & Control Office, input it to Force system manually, including the details of the finding and follow up action. Risk & Control Office team will monitor and ensure that follow up action has been completed and the Force report can be closed.

If there is any regulatory change concerning Risk Management, it has to be reported to Force system as self-identified issue. Details must be lodged into the system, including impact and follow up action. Risk & Control team will monitor and check if the follow up action has been completed and the issue can be closed.

### 11. Maker – Checker

No	Process Name	Maker	Checker/Approver
1	Broker trading limit monitoring	N/A (the information is provided by Member Interface system)	RM officer
2	Client trading limit set up	Credit team (for Funds is CIB Credit Risk, for Hedge Funds & Asset Managers and Non Funds is CIB Credit Risk Indonesia, for JPMSAPL is CIB Credit Risk- Financial Institution)	RM officer
3	Client trading limit monitoring	N/A (the information is provided by NOVA automatically)	RM officer
4	Trade monitoring via Smarts Broker system	Monitoring and Surveillance team	RM Officer
5	Due diligence of CAAF	RM Officer	WCOB APAC Equity team
6	Quarterly Key Risk Indicator Report	RM Officer	Each LOB Head
7	Semi-annual Risk Profile Report	RM Officer	Each LOB Head

### 12. Escalation Matrix

No	Team Name	Description	Email
1	Front Office Team	Follow up the escalation sent by M& S team	Direct email
2	Compliance LOB	Follow up escalation of trade alerts, money laundering and invalid Trading ID	Direct email
3	Settlement Team	Follow up Broker trading limit escalation	Indonesia.Cash.Equity.Ops@jpmorgan .com
4	Finance/LEC Team	Follow up Broker trading limit escalation	jkt_fin_equity@jpmchase.com
5	Monitoring and Surveillance (M&S) team	Trade alerts analysis	Asia_Compliance _Monitoring_&_Surveillance@jpmchas e com
6	Electronic Client Solutions (ECS) team	Follow up the escalation sent by M& S team	ecs-hk@jpmorgan.com
7	WCOB APAC Equity team	KYC issues	wcob.apac.equity.and.prime@jpmorga n.com
8	Global Credit Risk Management (GCRMO) Overlimits team	Indonesia Cash Equity Facility	<u>gcrm.mumbai.reporting@jpmorgan.co</u> <u>m</u>
9	CIB Credit Risk team	Trading limit set up for funds	Direct email
10	CIB Credit Risk Indonesia team	Trading limit set up for hedge funds & asset managers and non-funds	cib_credit_risk_indonesia@jpmorgan.c om
11	CIB Credit Risk-Financial Institution team	Trading limit set up for JPMSAPL	Direct email
12	CRMO India Deactivation team	Pre-Trade Approval	crmo.india.deactivation@restricted.cha se.com
13	Operating Committee Meeting	Provide approval on KRI, Risk Profile Report, SOP and other strategic updates	Direct email

### 13. Forms and Templates



## 14. Systems and Shared Drives used

No	Name of Application	Description	URL Reference	Support Team Name	Support Team Email
1	Smarts Broker	Market surveillance and compliance solutions by NASDAQ OMX.	https://jpmorgan. smartsbroker.co m/cmss/login.jsp	Compliance trade surveillance tech team	SMBC- ClientServices @nasdaqomx.c om
2	Member Interface	A portal that provides an integrated and comprehensive information about risk management related to the activities carried out by Clearing Member and Trading Limit.	130.202.22.95	Risk Management Team of KPEI	<u>unit.kke@kpei.c</u> <u>o.id</u> Phone: 5299 – 5735
3	Cosmos	Cosmos (aka BNS) is a comprehensive order management system that handles order validation, persistence, acknowledgements, and routing for both touch (interactive) and no-touch (DMA – Direct Market Access). BNS also manages post execution/surveillance functions.		Via local Technology team	Direct email
4	NEO Global	The New Equity Order System, developed originally in Tokyo to provide a consistent interface between various trading systems and exchanges. NEO accepts orders from trading applications and routes them to exchanges. Execution reports are		Via local Technology	Direct email

		routed back from the exchanges to the			
		exchanges to the originating application. In addition NEO manages order state for supporting order and execution amendments and cancellations. It has specific support for optimized trading of baskets and waves. Each NEO process runs as a redundant pair, generally multiple processes running on two separate hardware configurations. One process is the primary, and the other is a secondary running in hot stand-by mode. In the case of a failure on the primary the secondary process can take over. The failover and recovery process should take only a few seconds.			
5	TROVE	The application that consolidates and normalizes trading data across multiple feeder systems; providing a single repository for various consumer inquiry services.	https://service- cotv-p-eq- na.jpmchase.net: 20102/custom- search/SR3SSIV JAG		
6	SELM	The Strategic Exposure and Limits Monitoring application that provides access to a vast range of client limit information necessary to monitor Derivatives and Securities counterparty trading line usage. SELM is used across regions by all GCRM Front Office, GCRM Middle Office and LOB users participating in limits monitoring functions. SELM's key functionalities are: 1. Facility Mapping (batch) 2. Constraints Evaluation (batch) 3. User Interface, which displays	https://citssweb.u s.jpmchase.net:8 443/selmweb/ho me.action	Risk Management Customer Support Risk Technology Customer Support Risk Entitlements Support Team	Risk Managem ent Customer Support@jpmor gan.com Phone: Toll Free 800-757- 1581 or direct 602-606-4216 Risk_Entitleme nts_Support@jp morgan.com
		Facility Limits, Credit Exposure and Availability 4. Over limits Processing (batch) TCP/FM Functions: Position linking for TCP products Unused calculation for TCP products CFAS (credit facility availability) calculation Memo-posting used by Asia Trade Operations.			
7	ICRD	An application that provides users with fast access to client reference data, ratings and exposure information. Users are able to drill down to view facility	https://icrd.jpmch ase.net:8443/icrd web/links/index.j sp?fromRoot#{"s howLinks":"links Page"}	Risk Management Customer Support	Risk Managem ent Customer Support@jpmor gan.com
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		information for a particular client or family, to see the reference data for the facility, facility amounts, dates, pricing, finance arrangement information, eligible borrowers and supports. Users are able to drill down from the client record or from facilities to view out standings.		Risk Technology Customer Support Risk Entitlements Support Team	Phone: Toll Free 800-757- 1581 or direct 602-606-4216 Risk_Entitleme nts_Support@jp morgan.com
8	Exposure Now	An application that provides users with fast access to client reference data, ratings and exposure information. Users are able to drill down to view facility information for a particular client or family, to see the reference data for the facility, facility amounts, dates, pricing, finance arrangement information, eligible borrowers and supports. Users are able to drill down from the client record or from facilities to	https://janus- sso.jpmorgan.co m/sso/action/logi n?domainName= jpmchase.net&U RI=https%3a%2f %2fcrm.us.jpmch ase.net%3a8443 %2fenWeb%2f& msg=+&securityL evel=0&cs=ToVd OUXOgIVf%2fRo zoXsjTKFzW8k% 3d	Risk Management Customer Support Risk Technology Customer Support	Risk Managem ent Customer Support@jpmor gan.com Phone: Toll Free 800-757- 1581 or direct 602-606-4216
		view out standings		Risk Entitlements Support Team	<u>Risk_Entitleme</u> <u>nts_Support@jp</u> <u>morgan.com</u>
9	IBID	A web-based provisioning application managing identity, entitlements, and other user attributes for employees and client contacts in the Investment Bank.	<u>https://ibid.jpmor</u> gan.com/RMT	IBID Request Management Help Guide	

# 15. Data Sourcing

Source Data 1	•	N/A
User Tool 1	•	N/A
Query Name 1	•	N/A

### 16. Process Flow Charts

### 16.1. Broker Trading Limit Monitoring



### 16.2. Client Trading Limit Set up



### 16.3. Client Trading Limit Monitoring



16.4. Trade Monitoring via Smarts Broker



### 16.5. Key Risk Indicator Report

Monthly Basis



#### 16.6. Semi-annual Risk Profile Report



#### **Service Level Agreement** 17.

Trade and Communication Surveillance between JPMorgan Chase Bank, N.A. - Hong Kong Branch, J.P. Morgan Administrative Services Australia, JPMorgan Chase Bank, N.A. - Singapore Branch and PT J.P. Morgan Securities Indonesia

#### **Defined Terms** 18.

APAC	Asia Pacific	JPMSI	J.P.Morgan Sekuritas Indonesia, PT
AML	Anti-Money Laundering	KPEI	Indonesia Clearing and Guarantee
всс	Business Control Committee	LOB	Line Of Business

BOC	Board of Commissioners	M&S	Monitoring and Surveillance
BOD	Board of Directors	MGG	Model Group Governance
DMA	Direct Market Access	мі	Member Interface
ECS	Electronic Client Service	MLRO	Money Laundering Reporting Officer
E-Trading	Electronic Trading	NAWC	Net Adjusted Working Capital
ETT	Electronic Trading Technology	осм	Operating Committee Meeting
GCRMO	Global Credit Risk Management Operations	ОЈК	Financial Services Authority
мо	Middle Office	PPATK	Indonesian Financial Transaction Report and Analysis Centre
iCRD	Integrated Credit Risk Desktop	QR	Quantitative Research
IDX	Indonesia Stock Exchange	SDLC	Software Development Life Cycle
ROC	Regional Operating Centre	SB	SMARTS Broker
JATS	Jakarta Trading System		

### 19. Training Methods

Risk Management Officer shall go through the procedures and refer to the policies and other documents listed on section 20.

### 20. Referenced Policies, Relevant Circulars and Other Procedures

Governing Policies	-	OJK Rule No. V.D.3 concerning the Internal Control of a Securities Company Conducting Business as Broker-Dealer.
	-	Capital Market Law No.8 Year 1995:
		Article 90 and 93 concerning Fraud.
		Article 91 and 92 concerning Market Manipulation.
		Article 95-98 concerning Insider Trading.
	-	Law No. 8 Year 2010 concerning The Prevention and Eradication of The Crime of Money Laundering.
	-	IDX Rule No. II-A Provision No. II.1.13 concerning Securities Trading: the Securities Exchange Member is responsible for all transactions conducted at the Exchange.
	-	IDX Rule No. III-A Provision No. IV.7 concerning Exchange Membership: exchange member that provides DMA is required to establish surveillance system and having a dedicated officer to oversee client's transaction pattern excluded from appropriateness.

	- KPEI Rule No. II-13 concerning Risk Calculation.
	<ul> <li>OJK Rule No. 17/POJK.03/2014 concerning Implementation of Integrated Risk Management for Financial Conglomerate.</li> </ul>
	<ul> <li>PPATK Rule No. SE-03/1.02/PPATK/05/15 concerning Indicators of Suspicious Financial Transactions for Financial Service Providers.</li> </ul>
	- Exempt Trading Policy.
	<ul> <li>OJK Rule No. 57/POJK.04/2017 concerning Good Corporate Governance Implementation by Securities Companies Conducting Businesses as Underwriter and Broker-Dealer</li> </ul>
	- Global Legal Entity Risk Framework
	If there is any discrepancy between regulation and internal policies, RM must follow the regulations released by local authorities
Relevant Legal Obligation ID	N/A
Other Procedures	<ul> <li>Emergency Shutdown Standards for Electronic Trading.</li> </ul>
	E-Trading Control Standards.
	Operational Risk Standards.
	<ul> <li>JPMSAPL – Compliance Surveillance – SMARTS Broker Surveillance Procedures Version 1.5</li> </ul>

### 21. Record Retention

All records must be retained for 5 years for tax purposes and 30 years for legal purposes, at minimum.

### 22. Access Control and Privacy Protection

All data is saved in home folder that can only be accessed by RM Officer. Systems access is certified regularly by user, line manager, and information owner.

## 23. Appendix I – Member Interface Application

### 1. Log on to the application



2. Trading Limit Dashboard (mask the economic information & user name) old

					HOME ABOUT C	CHANGE PASSWORD L	.OGOUT
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Member Id : BK Name : Dewi Per	rmata Sari Date : Friday, 19 Septem	iber 2014 6:36:35 PM Last Login	: 07 September 2014 1:18:	07 PM	Mulai 6 Januari 2014,	Perubahan Satuan Perda	agangan
Risk Management Reports	Dashboard						
Static Data, Risk General Information	Clearing Member :	BK # J.P. Morgan Securities Indon	esia#ICM				
Obligation and Right Report		19/09/2014 18:18:05					
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Trading Limit Allocation							
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	Free Collateral for Li	mit					
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	Trading Member	: BK # J.P. Morgan Securiti	es Indonesia # ICM 💌				
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	Used Limit						
	Available Limit						
	Traded Limit						
	Balance						

24. Appendix II – Client Trading Limit Report (mask personal email address & client name)



new

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### 25. Appendix III – Smarts Broker (SB)



1. Email notification from Monitoring & Surveillance team (mask personal email address & PI) old

I I Votage Votage	Indonesia Daily File: 16 Jan 2017 - Message (HTML)	22 🛱 🗆 ()
Suppore X in the second	OneNote Asign Mark Categorize Follow Translate Select - Zoom Call Chan, Reopinint Actions Policy Unread Up - Up - Call Chan, Reopinint Articles - Coom Call Cha	
From: # To: # Cc C C C C C C C C C C C C C C C C C C		Sent: Tue 1/17/2017 3:15 PM
Hi Retno,		120 4
Please kindly note that daily alerts have been completed in SMARTS and is now ready for your review and No other possible exception was noted. Thanks.	signoff.	
Kind regards,		
Andy		
JPMC Internal Use Only		
		(w)
Retention Policy IBM Inhor 185 & monthsi Funice: 7/16/2017		

### 2. Log on to SB

1) Logon to Smart Broker and input personal login credentials and password. old

Login successful, welcome Wai Ling	g Chan
Program start   Change password   Edit watchlist	s   Reports   Logout
	LastLogin: 10/04/2013 2:31:53 PM
Program start	1.0
Start June Applet 1	Ethint David White Other 1
When running in Applet mode, SMARTS Broker will	When running in WebStart, SMARTS Broker is
be launched via your web browser and you will need to keep your browser open.	launched in a secure sandbox outside of your web browser. You will be prompted to allow access when
SMARTS Broker will be restricted in memory to the	saving files, printing, etc.
system wide setting, if you are experiencing poor performance you may wish to by Webstart mode.	You can allocate more memory to SMARTS Broker we advanced options.
	also logout from the website. If you're having trouble starting

JPMORGAN CHASE & CO.

27

Login successful, welcome	
Program start   Change password   Edit watchlists	Reports   Logout
Program start	Last Login: 10/04/2013 2:31:53 PM
Start Java Applet When running in Applet mode, SAARTS Broker will be launched via your web browser and you will need to keep your browser open. SMARTS Broker will be restricted in memory to the system wide setting. If you are experiencing poor performance you may wish to try Webstart mode.	Start Java WebStart When running in WebStart, SMARTS Broker is launched in a secure sandbox outside of your web browser. You will be prompted to allow access when saving files, printing, etc. You can allocate more memory to SMARTS Broker via advanced options.

2) Once successfully logged on, the SB starting screen will be displayed. old



New



3. Reviewing the SB Alerts Analysis

1) Select all>copy selection to clipboard>export the selection to excel format and save it in H:\RM\Alerts old



Nasdaq	1X 16 Jan	J.P.Morgan
Current Alerts  Archive  Alert notification	All 👻	All alerts
Alert notification            EX         Alert Time         Security           Select All         Ctrl+A	Description	Status Owned by Comments
Select All Ctrl+A Copy Selection to Clipboard Ctrl+C Export Selection Layout		Jan 17, 2017 Jan 17, 2017 Jan 17, 2017 Jan 17, 2017
Find & Filter Toolbar Ctrl+F		
M         Trades         Volume           total         1.840         12.032.400	January 16, 2017         Induded data:         All dat           Value         Rp 96, 348, 762, 500         Induded data:         All dat	high Rp 8,075 first Rp 8,075 low Rp 7,975 last Rp 7,975
Trades Volume total 1.840 12.032.400	Value	high Rp 8,075 first Rp 8,075 low Rp 7,975 last Rp 7,975
M         Trades         Volume           total         1,840         12,032,400           all         ##         1/         all         ##         5/	Volue Rp 96,348,762,500	high Rp 8,075 low Rp 7,975 Events ▼ Hour ter × ✓ Counterparty Filter × ✓ Legend Filter
M Trades Volume total 1,840 12,032,400 ▲ ▲ ▲ 1,1 ▲ ▲ ▲ fx ☆ ☆ ⋧	Volue Rp 96,348,762,500	high Rp 8,075 low Rp 7,975 first Rp 8,075 last Rp 7,975 Events ▼ Hour ter × Counterparty Filter Entity Broker ▼ Type Volume ▼ Buyer Seller Unknow(m) (dx) JPMOR GAN (idx) Crossing Crossing Cancelled o ddlat / Unknown

old

Α	В	С	D	F	F	G	н		-
SMARTS Daily A		C	U	E	F	6			-
Analyst: Max Sa									
Alert ID	Alert Date	Alert Time	Security	Security Name	Alert	Description	Account Ref	Trader Id	
1	30-Jun-14	10:01:02	MSKY.JK	MNC SKY VISION ORD	MULTIPLE ENTRY OF ORDERS (ACCOUNT)	MULTPLE ENTRY OF ORDERS (ACCOUNT) - Between 09:59:51 and 10:01:02, Proprietary Account 781684 entered orders for MSK/ JK a total of 20 times: 20 buys and 0 sels, with the values of the orders ranging from DR212,000 to DR27,283,500. A significant number of order entries within a short time period may warrant further enouries.	781684	0097064	Genuine orders. Orders traded subseq
2	30-Jun-14	10:03:51	MSKY.JK	MNC SKY VISION ORD	MULTIPLE ENTRY OF ORDERS (ACCOUNT)	INULTPLE ENTRY OF ORDERS (ACCOUNT) - Between 10.02.06 and 10.0.51, Proprietary Account 781684 entered orders for MSKY JK a total of 20 times: 20 buys and 0 eels, with the values of the orders ranging from DR214,000 to DR10,320,000. A significant number of order entries within a short time period may warrant further enquiries.	781684	0097064	Genuine orders. Orders traded subseq
	30-Jun-14		MSKY.JK	ORD	POSSIBLE RAMPING (HOUSE) (BUY)	POSSIBLE RAMIPIC (HOUSE) (BUY) - Between 0953:51 and 100:351, House JHORGAH executed 11 trades which increased the price of MSY/ JK by a total of 16 price spreads, During this period, the price increased by a total of 10 price spreads (threshold = 3 spreads) from DR2,120.000 to DR2,170.000. This movement of 2.36% exceeds the limit of 2.00%. The benchmarked price movement after applying the cutoff the 120%.	781684	0097064	Minimal market share. Orders were sim the period covered in the alert.
4	30-Jun-14	10:09:53	MSKY.JK	MNC SKY VISION ORD	POSSIBLE RAMPING (HOUSE) (BUY)	POSSIBLE RAMIPNG (HOUSE) (BUY) - Between 09:59:53 and 10:09:53, House JMORGAN executed 12 trades which increased the price of MSKY JK by a total of 19 price apreads, During this period, the price increased by a total of 10 price apreads (threshold = 3 apreads) from DR2,120.000 to DR2,170.000. This movement of 2:36% exceeds the limit of 2.00%. The benchmarked price movement after applying the cutoff is 1:20%.	781684	0097064	Minimal market share. Orders were sim the period covered in the alert.

new

0:01:02 MSKY.Jk	Security Name	Alert	Description	Account Ref	Trader Id	Comment
		Alert	Description	Account	Trader Id	Comment
0:01:02 MSKY.JK	LINC CRY LOCION			Rof	-	Continent
	ORD	MULTIPLE ENTRY OF ORDERS (ACCOUNT)				Genuine orders. Orders traded subseq
0:03:51 MSKY.JK	MNC SKY VISION ORD	MULTIPLE ENTRY OF ORDERS (ACCOUNT)		a com		Genuine orders. Orders traded subseq
0:03:51 MSKY.JK	MNC SKY VISION ORD	POSSIBLE RAMPING (HOUSE) (BUY)				Minimal market share. Orders were sim the period covered in the alert.
0:09:53 MSKY.JK	MNC SKY VISION ORD	POSSIBLE RAMPING (HOUSE) (BUY)				Minimal market share. Orders were sin the period covered in the alert.
0	:03:51 MSKY.JK	0RD 03.51 MSKYJK MMC SKY VISION 0RD 09:53 MSKYJK MMC SKY VISION	0RD         0RD           03.51         MSKY JK         MNC SKY VISION POSSIBLE RAMPING (HOUSE) (BUY)           0RD         0RD           09.53         MSKY JK         MNC SKY VISION POSSIBLE RAMPING (HOUSE) (BUY)	.03.51         MSKY_JK         MNC SKY_VISION         POSSIBLE RAMPING (HOUSE) (BUY)           .09.53         MSKY_JK         MNC SKY_VISION         POSSIBLE RAMPING (HOUSE) (BUY)	0RD 0RD 0RD 0RD 00.03.51 MSKY_JK MNC SKY VISION POSSIBLE RAMPING (HOUSE) (BUY) 0RD 00.03.51 MSKY_JK MNC SKY VISION POSSIBLE RAMPING (HOUSE) (BUY) 00.03.51 MSKY_JK MNC SKY VISION POSSIBLE RAMPING (HOUSE) (BUY)	.03.51         MSKY_JK         MINC SKY VISION POSSIBLE RAMPING (HOUSE) (BUY)           .09.53         MSKY_JK         MINC SKY VISION POSSIBLE RAMPING (HOUSE) (BUY)

2) Export all attachments to excel format for further review



New



3) Review of the alerts assessment

All cases of breach are unique and there is no standard way of assessing an alert, hence professional knowledge and judgment to determine the assessment method and assessment result should apply.

Below is a high-level guideline of assessment for common types of SMARTS alerts.

Alerts	Types of assessments
Price driven alerts E.g. Price drive, possible layering	<ol> <li>Market trend         To determine whether an alert indicates potential price manipulation of a security, analyst may check whether the price movement of the security is in line with the market price movement. Market trend can be accessed through Bloomberg, SMARTS or public news agency.     </li> </ol>
	2) Historical record Analyst may also perform a look-back exercise on the trading pattern of the client/trader. If the trader/client is used to trading similar amount of the same security at similar period in a day, it is unlikely that the alert indicates an attempt to drive the price of the security. Historical trading record of a trader/client can be accessed through SMARTS.
	<ol> <li>Liquidity Analyst should assess the liquidity of the security in question. For highly-liquid security, it is unlikely that the trader/client is able to manipulate market price.</li> </ol>
	<ol> <li>Algo strategy Analyst may check the strategy of an algorithmic trading which serves to act mechanically in achieving trade aim at close. The trade strategy could either be</li> </ol>

	naccive or aggressive. Passive trading strategy aims at trading a security
	passive or aggressive. Passive trading strategy aims at trading a security according to the market movement while passive strategy aims at achieving a certain amount trade by a certain time. The algo strategy applied impacts the assessment of whether an alert indicates potential breach of regulations or internal policies.
	For Algo issues, analyst should contact the IT team for detail information. Email addresses:
	<ul> <li>Algo IT: ETT Operate Asia; Algo Asia</li> <li>Trade Vault IT: L1 Compliance</li> </ul>
Possible insider trading	<ol> <li>Publicly available information To assess whether an alert indicates insider trading, analyst should assess whether there is public available information, including announcements, news or rumours that would prompt a trader to make the investment decision in question.</li> </ol>
	Publicly available information should be searched via Bloomberg or general search engines, such as Google.
Principal trading related alerts E.g. Front-running,	The principal trading related alerts aim to flag potential cases that traders execute orders on a security for its own account while taking advantage of advance knowledge of pending orders from its customers.
precedence	<ol> <li>Line of business         To assess whether a trader takes advantage of advance knowledge of customer order, the analyst should assess whether the principal trade in question and the corresponding customer order are ordered by trading desks of the same line of business.     </li> </ol>
	Traders are unlikely to have visibility of customer orders in another line of business and the possibility of traders being able to take advantage of advance knowledge of customer order for executing principal trades for their own account is very low.
	The names of traders responsible for the principal trade and the corresponding client trades can be identified through SMARTS. The Line of business that the traders belong to can be identified through JP Morgan's directory.
	<ol> <li>Order entry time Analyst should pay attention to the order entry time of both the principal trades and the corresponding client orders.</li> </ol>
	Traders can only take advantage of knowledge of customer orders for benefiting relevant principal trades if the principal trades are executed before the customer trades.
	The analyst should be aware that all front running activities should involve a behaviour profit for the trader.
Alerts related to open/close market price or trading	<ol> <li>Historical record         For assessing alerts related to open/close trading price or volume, analyst should             look at historical trading records of the security.     </li> </ol>
volumes E.g. Market dominance at open/close	If the opening/closing trading price or volume of the security has been consistent over a certain period of time, it is unlikely that the opening/closing trading price or volume is intentionally manipulated.

Crossing / wash trade	The crossing / wash trade alert aims to flag potential cases that traders execute both a buy and a sell for the same security from one JP Morgan account to another.
	<ol> <li>Ultimate beneficial account This alert filters all the trades with JP Morgan as both the buyer and seller. To determine whether there is a potential wash trade, analyst should check the ultimate beneficial owner of the trade.</li> </ol>
	Trader that either the buy side or the sell side executes the trade on behalf of a customer should not be considered as a wash trade.
	To understand the ultimate beneficial owner of a trade, analyst should either check the information with the Middle Office.

#### 4. SB Views

To review the alerts, the following SB analysis views are helpful:

#### 1. Spread View

The spread view (clicking the top left tab) enables detailed visual analysis and is helpful for analyst to gain an overall picture of trading activity quickly.



The spread view section can be broken into 3 parts:

- A. The chart
  - a. The X axis shows the trading time in a day and the Y axis shows the trading prices.
  - b. The green section in the chart shows the bid and the red shows the offer of a security.
  - c. The circle in the chart is shows trades executed "on market" and the squares are executed "off market".
- B. The counterparty filter
  - a. The "counterparty filter" allows user to analyse trades by different entity levels in the chart.
  - b. Entity levels in SB are broken down into
    - Broker Shows all trades executed by JP Morgan (idx) in the chart.

- Account type Adds granularity by categorizing JP Morgan (idx) trades into Client © and Proprietary (H) in the chart.
- Account Adds granularity by displaying selected trades by unique client and proprietary account numbers in the chart.
- Trader Provides details on trades by the trader that executed the trade including trader SID in the chart.

HY327/057         Walke         WAP	total visible broker	1	Volume 1,367,800 203,500 =14.9% 203,500 =14.9%	Value HK\$36,085,032.00 HK\$ 5,443,625.00 =15.1% HK\$ 5,443,625.00 =15.1%	WAP total <b>HK\$26.3189</b> others <b>HK\$26.3133</b> broker <b>HK\$ 26.334</b>	Select	relevant entity
10.00       10.30       11.30       12.00       12.30       13.30       14.00       15.20       16.00         HH\$527.00-       Pre-spen       Shunghal Industrial Holdings Ld. (Nex2)       Pre-spen       Dury Exception       Dury Exception       Dury Exception         HH\$527.00-       Pre-spen       Shunghal Industrial Holdings Ld. (Nex2)       Pre-spen       Dury Exception       Dury Exception       Dury Exception         HH\$527.00-       Pre-spen       Stanghal Industrial Holdings Ld. (Nex2)       Pre-spen       Dury Exception       Dury Exception       Dury Exception         HH\$527.00-       Pre-spen       Stanghal Industrial Holdings Ld. (Nex2)       Pre-spen       Dury Exception       Dury Exception       Dury Exception         HH\$527.00-       Trades       Value       Value <th>1. 10</th> <th># 1.7 🔵 🖬 iki</th> <th>i 😘 🛣 🎑 🌾</th> <th></th> <th></th> <th></th> <th></th>	1. 10	# 1.7 🔵 🖬 iki	i 😘 🛣 🎑 🌾				
Hits27.05*       Hits27.05*       Shanghai industrial Holdings Ltd. (Rex2)       Diverse (Mission Processing)         Hits27.05*       Hits26.65       Disempile       Non-         Hits26.65       Disempile       Hits26.65       Disempile       Non-         Hits26.65       Disempile       Hits26.65       Disempile       Non-         Hits26.65       Hits26.65       Hits26.65       Disempile       Non-         Hits26.65       Hits26.65       Hits26.65       Disempile       Disempile       Non-         Hits26.65       Hits26.65       Hits26.65       Disempile       Disempile       Non-       Disempile         Hits26.65       Hits26.45       Disempile       Disempile       Disempile       Disempile       Disempile         Hits26.65       Hits26.45       Disempile       Disempile       Disempile       Disempile       Disempile       Disempile				Thursday, February 7, 201	3		Counterparty Filter
HHS2/2057       Buyer       Seler         HHS2/2057       Buyer       Seler         Unknown)       JP. Morgan Broking (Hong Kong         Version       Version       JP. Morgan Broking (Hong Kong         Version       1203,500 -14.9%       HKS 5,443,625.00 -15.1%       btolk (Herse HKS26,3133)         Version       1203,500 -14.9%       HKS 5,443,625.00 -15.1%       btolk (Herse HKS26,3133)         Version       1203,500 -14.9%       HKS 5,443,625.00 -15.1%       btolk (Herse HKS26,3133)         Version       1203,500 -14.9%       HKS 5,443,625.00 -15.1%       btolk (Herse HKS26,3133)         Version       1203,500 -14.9%       HKS 5,443,625.00 -15.1%       btolk (Herse HKS26,3133)         Version       1203,500 -14.9%       HKS 5,443,625.00 -15.1%       btolk (Herse HKS26,3133)         Version       1203,500 -14.9%       HKS 5,443,625.00 -15.1%       btolk (Herse HKS26,3133)         Version       1203,500 -14.9%       HKS 5,443,625.00 -15.1%       btolk (Herse HKS26,3133)         Version       1203,500 -14.9%       HKS 5,443,625.00 -15.1%       btolk (Herse HKS26,3133)         Version       1200 10.30 11.00 11.20 12.00 12.30 13.20 14.00 14.30 15.00 16.0       Counterparty Filter         HV1952/US       1000 10.30 11.00 11.20 12.00 12.00 13.20 14.00 14.30 15.00 16.0       Buyer Seler	10000000	10:00	10:30 11:00	11:30 12:00 12:30 13:00	13:30 14:00 14:30 15:00	15:30 16:0	Entity Broker - Type Volume
HK120.95-         Common Difference         C	and the second	4				ngs Ltd. (hkex2)	And and a second s
Trades         Volume         Value         VWAP           total         603         1,367,800         1+435,625.00         15.1%         total         0dners         FK526,3333         Select relevant entity           vesble         1         203,500         14.9%         HK5 5,443,625.00         15.1%         total         0dners         FK526,3333         Select relevant entity           vesble         1         203,500         14.9%         HK5 5,443,625.00         15.1%         total         0dners         FK526,3333         Select relevant entity           vesble         1         203,500         14.9%         HK5 5,443,625.00         15.1%         total         fK526,3333         Select relevant entity           vesble         1         203,500         14.9%         HK5 5,443,625.00         15.1%         total         fK526,3333         Select relevant entity           vesble         1         203,500         14.9%         FK526,3334         total         Fw12700         Select relevant entity           10.00         10.30         11.00         12.00         12.30         13.00         14.90         15.00         15.01         Fw12700           HK32700         10.00         11.00         12.00         12	HK\$27.	00 Pre-open				1	(Unknown)
View         View <th< th=""><th>HK\$26.</th><th>95 - Opening</th><th></th><th></th><th></th><th>이번에 크게 크려.</th><th>J.P. Morgan Broking (Hong Kong)</th></th<>	HK\$26.	95 - Opening				이번에 크게 크려.	J.P. Morgan Broking (Hong Kong)
Utal         603         1,367,800         HK\$55,085,032.00         total         MX\$203,809         Select relevant entity           visible         1         203,500 = 14.9%         HK\$55,443,625.00 = 15.1%         others         HK\$25,3133         Select relevant entity           widthe         1         203,500 = 14.9%         HK\$55,443,625.00 = 15.1%         others         HK\$26,3133         others         HK\$26,3133         others         HK\$26,3134         Select relevant entity           widthe         1         203,500 = 14.9%         HK\$26,010 = 15.1%         others	,						
Director         1         203,500 = 14.9%         HK \$ 3,443,625.00 = 15.1%         Director         Dire	Pist Net u	Trades				1	
Image: Second	total		1,367,800	Value HK\$36,085,032.00	VWAP total HK\$26.3189		
10:00 10:30 11:00 11:30 12:00 12:30 13:00 13:30 14:00 14:30 15:00 15:30 16:0 HH3:27.05 - Shanghai holustrial Holdings Ltd. (Nex:2) - Buyer Seler	total		1,367,800 203,500 =14.9%	Value HK\$36,085,032.00 HK\$ 5,443,625.00 =15.1%	WWAP total HK\$25.3189 others HK\$26.3133	Select	relevant entity
HIS2/UD7 Shanghai Industrial Holdings Ltd. (hiex2)	total		1,367,800 203,500 = 14.9% 203,500 = 14.9%	Value HK\$36,085,032.00 HK\$ 5,443,625.00 =15.1% HK\$ 5,443,625.00 =15.1%	WWAP total <b>195326,3189</b> others <b>HK\$26,3133</b> broker <b>HK\$26,334</b>	Select	relevant entity
Shanghai industrial Holdings Ltd. (hkex2)	total		1,367,800 203,500 = 14.9% 203,500 = 14.9%	Value HK35,085,032.00 HK35,443,625.00 = 15.1% HK55,443,625.00 = 15.1% IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	WAP others HK526.3133 others HK526.3133 broker HK5 26.334	Select	L
	total visible	603 1 1 12 🕒 प्राप्त कार्य	1,367,800 203,500 = 14.9% 203,500 = 14.9%	Value           Hx455,085,032.00           Hx45 5,443,625.00           Hx55 5,443,625.00           IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	WAP other HK255.1183 others: HK256.5133 broker HK2 25.334		Counterparty Filter
	total visible broker	603 1 1 12 💽 🖬 🖬 10:00	1,367,800 203,500 = 14.9% 203,500 = 14.9%	Value           Hx455,085,032.00           Hx45 5,443,625.00           Hx55 5,443,625.00           IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	WWAP           other           others           other           other           broker           >           >           13.30         14.00           14.30         15.00	15:30 16:0	Counterparty Filter Entity Broker - Type Volume

#### C. The legend filter

old

- a. The "legend filter" allows user to analyse trades based on the trades specific characteristics in the chart.
- b. Users are able to see if the trade is initiated by buyer or seller.
- c. Market crossing can be isolated in the chart.
- d. "On-market" and "Off-market" trades can be separately reviewed.
- e. News alert can be turned on or off.

high HK\$26.90 low HK\$26.10	first HK\$26.90 last HK\$26.25
	Events 👻 Hour 🗙
Counterparty Filter × Entity Froker Volume Volume Volume Volume (Upknown)	Legend Filter × Trade Colours     Seller Initiated     Buyer Initiated
	Crossing Opening / Closing External Initiated Cancelled Oddlot / Unknown
	Trade Shapes On Market Off Market News Sensitive News General News Alerts Current Alert Other Alerts
	Counterparty Filter × Entity ≩roker → Type Volume → Buyer Seller (Upkboy(n)

#### 2. Trade / Order History view

#### This view is accessed by selecting the third tab in SB

old

	Market: 🎯 🔤 idx		← Date:	🚛 🔟 January 1	15, 2014	Security: BBCA	A. JK - BNK CENTRAL A	SIA ORD		æ 🖪	
	Date	Time 🗸	Type	Broker	Volume	Price	Account	Order Id	Flags	Parent Order Id	
3	anuary 15, 2014	09:02:32	TRADE	JPMORGAN	100	10125.0	506564	LHC.PSETWID230Q9UI000	. Bi ON	PTG.SO1310E55RC.	
32	anuary 15, 2014	09:02:34	BEST ASKS		2,700	10125.0	1				
3	anuary 15, 2014	09:02:34	BEST ASKS		2,700	10125.0					
38	anuary 15, 2014	09:02:34	BEST BIDS		5,800	10100.0	1				
32	anuary 15, 2014	09:02:34	BEST BIDS		5,700	10100.0					
33	anuary 15, 2014	09:02:34	BEST ASKS		2,400	10125.0					
30	anuary 15, 2014	09:02:34	TRADE	JPMORGAN	200	10125.0	506564	LHC.PSETWID230Q9UI000	. Si ON	PTG.SO1310E55RC.	
38	anuary 15, 2014	09:02:34	DELETE Bid	JPMORGAN	100	10100.0	506564	LHC.PSETWID230Q9UI000		PTG.SO1310E55RC.	
38	anuary 15, 2014	09:02:34	TRADE		100	10125.0	1		Bi ON		
32	anuary 15, 2014	09:02:34	BEST ASKS		1,200	10125.0					
Ja	anuary 15, 2014	09:02:34	TRADE		1,200	10125.0			Bi ON		
38	anuary 15, 2014	09:02:35	BEST BIDS		4,600	10100.0					
Ja	anuary 15, 2014	09:02:35	ENTER Bid	JPMORGAN	200	10125.0	506564	LHC.PSETWID230Q9UI000		PTG.SO1310E55RC.	
Ja	anuary 15, 2014	09:02:35	TRADE	JPMORGAN		10125.0	506564	LHC.PSETWID230Q9UI000	. Bi ON	PTG.SO1310E55RC.	
30	anuary 15, 2014	09:02:36	ENTER Bid	JPMORGAN	300	10100.0	506564	LHC.PSETWID230Q9UI000		PTG.SO1310E55RC.	
Ja	anuary 15, 2014	09:02:37	BEST BIDS		4,900	10100.0					
3	anuary 15, 2014	09:02:37	BEST ASKS		1,000	10125.0					

New



Characteristics of this view:

- A. All JPM order and trade data is shown in this view
- B. Clicking on a trade in the spread view will highlight the trade in the trade/order history pane
- C. Trades are arranged chronologically by default. To sort / order by volume, price or another field simply click the column heading
  - 3. Depth Replay view

This view is accessed by selecting the forth tab in SB
old

	Market: 🎯 🚥 id	x			▼ Date:		January 15	5, 2014 Security: BBCA. JK - BNK CENTR	AL ASIA ORD					
	🔺 T Broker	V P Acc	Orde	Ę	IDR					x	✓ Market Filter ×	✓ Counter		
	09: BE	200 10		•	Indicator	Price	Ask volume	Orders	Bid volume	B	Market Display	Entity Broker		
	09: E JPM	300 10 506	LHC							-	IDR	8		
1	09: T JPM	100 10 506	LHC								idx			
	09: BE	2, 10										J		
	09: BE	2, 10												
	09: BE	5, 10								-				
	09: BE	5, 10			-									
	09: BE	2, 10												
	09: T JPM	200 10 506												
	09: D JPM	100 10 506	LHC											
	09: T	100 10												
	09: BE	1, 10												
	09: T	1, 10				10,250	478,500	x478,500						
	09: BE	4, 10				10,200	857,500	×857,500						
	09: E JPM	200 10 506				10,175		A contraction of the second se						
	09: T JPM	200 10 506						x96,100						
	09: E JPM	300 10 506	LHC			10,150	163,600	×163,600						
	09: BE	4, 10			TRADE	10,125	1,200	x1,200		E				
	09: BE	1, 10		li I										
	09: BE	1, 10												
	09: BE	1, 10		li li		10,100		x200 &JPMORGAN x100 &JPMORGAN x4,600	4,600					
	09: BE	4, 10				0.245.243		And a second sec	0.0200					
	09: BE	1, 10				10,025		×10,000	10,000					
	09: BE	16 10				10,000		x844,700	844,700					
	09: T	1, 10				9,975		x2,500	2,500					
	09: T	100 10			-	0.000								
	09: T	400 10				9,950		×105,100	105,100					
	09: BE	16 10												
	09: BE	16 10												
1	09: BE	16 10								1				
1	09: BE	1, 10		-										

new

	Replay @					• Date:	41	January 15	, 2014 Security: BBCA.JK - BNK CENTRAL	ASTA OPD				A			
	St. 12.01		1.	Text				January 10			-						
•		Broker V P		. Orde	-	1200334					57.0	✓ Market Filter ×	Counterparty				
	09: BE 09: E		) 506		^	Indicator	Price	Ask volume	Orders	Bid volume		Market Display	Entity Broker	▼ Type	Volume		
	09: E		506			-					*	IDR	Buyer	Seller			
	09: BE											idx 🔊	(Unkn	awn) (idx)			
	09: BE																
	09: BE			-													
	09: BE			-													
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	09: T		506	LHC													
	09: D	100 10	506	LHC													
	09: T	100 10	)				_										
	09: BE																
	09: T	1, 10					10,250	478,500	x478,500								
	09: BE						10,200	857,500	x857,500								
	09: E		506			-	10,175	96 100	x96,100								
	09: T		) 506				122.201		And a second sec		m						
	09: E		506	. LHC			10,150		×163,600								
	09: BE					TRADE			x1,200		#						
	09: BE			-													
	09: BE 09: BE			-													
	09: BE			-			10,100		x200 &JPMORGAN x100 &JPMORGAN x4,600	4,600							
	09: BE			-			10,025		x 10.000	10,000							
	09: BE	16 10				-	10,000		x844,700	844,700							
	09: T	1, 10				l											
	09: T	100 10					9,975		x2,500	2,500							
	09: T	400 10		-			9,950		x105,100	105,100							
	09: BE	16 10	)			-											
	09: BE	16 10	)			-											
	09: BE					L				-							
	09: BE	1, 10	)		-		-										

Characteristics of the view:

- 1) The Depth Replay view shows the details of trades at different point of time during the trading period.
- 2) Clicking through different entries of trading time on the left hand side of the view allow user to view a list of trades executed at that particular point of time.
- 3) Market events associated with the selected time is also shown in the view.

#### 5. Full List of Alerts

Alert	Descriptions			
After Processing Complete	This alert signifies that the alerts for the market for the market have completed processing on the available trading data. No further alerts will be generated on that date.	Nil	• SMARTS	Delay issue if do not see this alert in the morning.
Block Trade	This alert identifies where a trade satisfies the block trade requirements specified in Shenzhen/Shanghai Stock Exchange	Account Code     Order entered time     Liquidity Best priority bid/ask	SMARTS	<ul> <li>Account code and trader</li> <li>Size and price of order</li> <li>Relevant News</li> </ul>
Breaking the Market	This alert identifies where a single order immediately executes against multiple price levels.	Account Code     Strategy     Order type     Liquidity     Best priority bid/ask     News or announcement	SMARTS     Bloomberg	<ul> <li>Operation of an algo or program trading which serves to act mechanically in achieving trade aim</li> <li>Timing of the orders</li> <li>Liquidity of security – volume of trades and value of stock</li> <li>Activity during trading period</li> <li>News which may warrant the aggressive trading behaviour.</li> </ul>
Cancelled Trade Report	This is an end of day alert which generates a csv file listing all cancelled trades over the trading day. (Cancelled trades can be seen in the SMARTS Broker trading history under Order Type as 'CANTR')	<ul> <li>Account Code</li> <li>Order enter and deletion time</li> <li>Liquidity</li> <li>Best priority bid/ask</li> </ul>	SMARTS	Account code and trader     How close the order     was entered and     cancelled     Size and price of order

				<ul> <li>Reason of being cancelled</li> </ul>
Crossing	Alert identifies on-market trades where the broker is on both sides	<ul> <li>Account Code</li> <li>Order entered time</li> <li>Liquidity</li> <li>Best priority bid/ask</li> </ul>	• SMARTS	<ul> <li>Account code and trader</li> <li>Any change of beneficiary ownership in final allocation</li> <li>The type of client</li> <li>Size of the transaction against market volume</li> <li>The time the buy and sell order was entered into the market, instantaneously higher the potential risk</li> </ul>
Crossing (Off-Market)	Alert identifies off-market crossings (that is crossings executed away from the order book) which exceed a volume limit.	Account Code     Order entered time     Liquidity     Best priority bid/ask	SMARTS	<ul> <li>Account code and trader</li> <li>Any change of beneficiary ownership in final allocation</li> <li>The type of client</li> <li>Size of the transaction against market volume</li> <li>The time the buy and sell order was entered into the market, instantaneously higher the potential risk</li> </ul>
Crossing at Short Term High/Low	This alert identifies a pattern of trading whereby a large crossing, executed by a broker at a short-term price high or low, may in some cases warrant enquiries as to whether the large crossing involved a change in beneficial ownership (that is, the trade may be a 'wash trade').	<ul> <li>Account Code</li> <li>Order entered time</li> <li>Liquidity</li> <li>Best priority bid/ask</li> </ul>	SMARTS	<ul> <li>Account code and trader</li> <li>Any change of beneficiary ownership in final allocation</li> <li>The type of client</li> <li>Size of the transaction against market volume</li> </ul>

				<ul> <li>The time the buy and sell order was entered into the market. instantaneously higher the potential risk</li> <li>If the execution price was at the high or the low at the time</li> <li>The frequency during the day, and account activity previously in the stock</li> <li>Trading instructions in IOS Audit Trail</li> </ul>
Employee Crossing	This is primarily an information alert highlighting any trade where employees have traded directly with each other. This type of trade could indicate that the trade has been prearranged between the employees which may have implications if a pattern of activity develops between the employees, and/or if the trading generates significantly increased market turnover for the security.	<ul> <li>Size of buy and sell orders</li> </ul>	• SMARTS	<ul> <li>Any change of beneficiary ownership in final allocation</li> <li>The time the buy and sell order was entered into the market, instantaneously higher the potential risk</li> <li>Size of the transaction against market volume</li> </ul>
Employee Trading with Client	This is primarily an information alert highlighting any trade where an employee has traded directly with a client.	Account code and trader	SMARTS	<ul> <li>Any segregation of employee and client order</li> <li>Timing of orders</li> </ul>
Entry and Deletion of Order Close to Exchange Settlement Time	This alert identifies a possible attempt to manipulate exchange settlement prices. The settlement price set by exchange officials are key to overnight P&L swings and are the reference used by the clearing house to determine margin calls.	<ul> <li>Account code</li> <li>Time of entry and deletion</li> <li>Volume entered and deleted</li> <li>Any re-entry of order on same side of market</li> </ul>	SMARTS	<ul> <li>Operation of an algo or program trading which serves to act mechanically in achieving trade aim</li> <li>Timing of the orders</li> <li>Activity over the day</li> </ul>
		<ul> <li>(indicates intention for legitimate trade)</li> <li>Presence of account/trader on both side of market in auction period</li> <li>Same account on the opposite side once trading commenced</li> <li>Large position in the security, or related derivative expiry</li> <li>Absence of further order after deletion (possible indicator of fictitious order)</li> </ul>		News that could have an effect on market price
Entry and Deletion of Order/Trade on Opposite Side	This alert attempts to identify where a client or trader enters a large volume buy or sell order in order to create a short term price floor or ceiling whilst it executes an order on the opposite side of the market. In these circumstances it is arguable that the large order entered prior to the trade executions on the opposite side, does not represent a genuine intention to buy / sell and is therefore fictitious.	<ul> <li>Time of entry and deletion</li> <li>Presence of same account/trader on both sides of market</li> <li>Same account / trader on the opposite side once the other side order was deleted</li> <li>Volume entered and deleted</li> </ul>	• SMARTS	<ul> <li>Timing of the orders</li> <li>Activity over the day</li> <li>Large position in the security, or related derivative expiry</li> <li>News that could have an effect on market price</li> </ul>
Entry and Deletion/Amendment of Order in Auction Phase	This alert identifies a trading pattern referred to in some markets as 'Spoofing'; it occurs where a client or trader has entered an order for a significant volume in the opening or closing auction phase, and then deletes that order shortly prior to the commencement of trading. The entry of the large volume order may be used to create a false or misleading	<ul> <li>Account Code</li> <li>Time of entry and deletion</li> <li>Volume entered and deleted</li> <li>Any re-entry of order on same side of market</li> </ul>	• SMARTS	<ul> <li>Operation of an algo or program trading which serves to act mechanically in achieving trade aim;</li> <li>Timing of the orders</li> <li>Liquidity of security –</li> </ul>

	appearance of volume, with the client or trader possibly seeking to take advantage of this by trading on the opposite side of the market at or around the time of the order being deleted.	<ul> <li>(indicates intention for legitimate trade)</li> <li>Presence of account/trader on both sides of market in auction period</li> <li>Same account on the opposite side once trading commenced</li> <li>Large position in the security, or related derivative expiry</li> <li>Absence of further order after deletion (possible indicator of fictitious order)</li> </ul>		volume of trades and value of stock Activity during auction period News that could have an affect to the opening/closing sessions
Entry of High Closing Bid or Low Closing Ask (Quote)	This alert identifies small value buy orders that are entered in the last x minutes of trading and that increase the best bid (decrease the best ask) to a price higher than (lower than) the last trade price, with that order being present as at the close of the market, thereby establishing the closing price for the day.	<ul> <li>Account code</li> <li>Volume and price entered</li> <li>General market activity over the day</li> <li>Security characteristics         <ul> <li>liquidity, market cap etc</li> <li>News or announcement</li> </ul> </li> </ul>	• SMARTS	<ul> <li>Account code and trader</li> <li>Order type and algo</li> <li>Liquidity of security – volume of trades and market depth</li> <li>Historical trading activity</li> </ul>
Giving Up Priority (Quote)	This alert identifies when a broker has entered a BID/ASK for a significant quantity at a price away from priority and then both cancels this order as it approaches priority, and re-enters the order shortly thereafter (with the same client, trader or order reference) at a price level further away from priority	<ul> <li>Volume and price</li> <li>Account Code</li> <li>General market activity over the day</li> </ul>	SMARTS	•
House/Account	This alert identifies where a broker or client's	Account Code and	SMARTS	Account code and
Participation Exceeding Limit	market share (buy or sell) on a trading day exceeds % limit. The % limit is lower if there has been significant price movement over the day - price movement is the difference between the closing price and the previous day's closing price. This alert appears as an	Trader Volume and Price of order News or announcement		trader • Any genuine execution • Liquidity of security – volume of trades and value of stock
	end of day report which issues a CSV file listing all securities in which the broker/client has exceeded the turnover limit, and provides details of the price movement in each security over the course of the trading day.			<ul> <li>Activity during trading period</li> <li>Historical trading activity</li> </ul>
Increased Participation	listing all securities in which the broker/client has exceeded the turnover limit, and provides details of the price movement in	<ul> <li>Account Code</li> <li>Pattern of trade time on multiple stocks</li> <li>Volume traded</li> </ul>	SMARTS	<ul> <li>Activity during trading period</li> <li>Historical trading activity</li> </ul>

Large Order (Average	This is an information alert identifying the	Account Code and	SMARTS Charts –	Account function and
Volume)	entry of orders that are significantly greater than the average order size for that security. The alert may add value to monitoring of stocks on Watch or Restricted lists, or that are otherwise of interest to Compliance.	<ul> <li>Trader</li> <li>Volume of order and Percentage of issued shares</li> <li>Volume of order in relation to the day's overall activity;</li> <li>Liquidity of security</li> </ul>	provide a good picture of volume by account and price movement over the day	<ul> <li>security type</li> <li>activity of account trading in security</li> <li>Liquidity of stock and size of the order</li> <li>The stock price movement (price support)</li> <li>Other supporting orders for the same client</li> <li>Historical view</li> <li>Relevant News</li> </ul>
Large Order (Issued Capital)	This alert identifies the entry of a single order in a security which represents a (pre- determined) per-centage of issued capital in that security.	<ul> <li>Security</li> <li>Volume traded</li> <li>Account</li> </ul>	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of any intraday patterns</li> <li>SONAR to review activity</li> </ul>	<ul> <li>Account purpose and trader</li> <li>If Program trading account: ensure they are acting on behalf of clients on an agency basis, depending on the Restricted List code</li> <li>If a house account establish why we are accumulating such a large position</li> </ul>
Large Trade (Average Volume)	This alert identifies the execution of any trade that has a volume higher than the pre- determined volume.	<ul> <li>Account Code and Trader</li> <li>Volume of order</li> <li>Volume of order in relation to the day's overall activity;</li> <li>Liquidity of security</li> </ul>	<ul> <li>SMARTS Charts – provide a good picture of volume by account and price movement over the day</li> </ul>	<ul> <li>Account function and security type</li> <li>activity of account trading in security</li> <li>Liquidity of stock and size of the order</li> <li>The stock price movement (price support)</li> </ul>
				<ul> <li>Other supporting orders for the same client</li> <li>Historical view</li> <li>Relevant News</li> </ul>
Large Trade (Exceeding Value Threshold)	This alert identifies the execution of any trade that has a value higher than the pre- determined value.	<ul> <li>Security</li> <li>Volume traded</li> <li>Account</li> </ul>	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of any intraday patterns</li> <li>SONAR to review activity</li> </ul>	<ul> <li>Account purpose and trader</li> <li>If Program trading account: ensure they are acting on behalf of clients on an agency basis, depending on the Restricted List code</li> <li>If a house account establish why we are accumulating such a large position</li> </ul>
Large Trade (Exceeding Volume Threshold)	This alert identifies the execution of any trade that has a volume higher than the pre- determined volume.	<ul> <li>Security</li> <li>Volume traded</li> <li>Account</li> </ul>	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of any intraday patterns</li> <li>SONAR to review activity</li> </ul>	<ul> <li>Account purpose and trader</li> <li>If Program trading account: ensure they are acting on behalf of clients on an agency basis, depending on the Restricted List code</li> <li>If a house account establish why we are accumulating such a large position</li> </ul>
Large Trade (Issued Capital)	This alert identifies the execution of a single on-market trade that exceeds a specified % of the issued capital of that security. The alert is also available for Off-market (or manually reported trades) that ex-ceed a	<ul><li>Security</li><li>Volume traded</li><li>Account</li></ul>	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of any intraday patterns</li> <li>SONAR to review</li> </ul>	<ul> <li>Account purpose and trader</li> <li>If Program trading account: ensure they are acting on behalf of</li> </ul>

	specified % of issued capital. The alert is primarily an information alert. However, in some markets, legal of statutory obligations may arise where an entity purchases or sells a quantity of shares that exceeds a specified % of issued capital + typically, this takes the form of a disclosure being made to the market.	Account	activity • SMARTS	<ul> <li>clients on an agency basis, depending on the Restricted List code</li> <li>If a house account establish why we are accumulating such a large position</li> <li>Explanation from Trader</li> </ul>
Late Trade (Reporting after Deadline)	This alert identifies where a late trade has been reported to the market after a specified time (in breach of exchange rules).	Trader	SONAR	<ul> <li>Explanation from frader on potential reasons for late trade</li> <li>Trader is required to file MAC error report even there is no P&amp;L impact.</li> </ul>
Layering	This alert identifies a trading pattern that may indicate possible MULTIPLE ALERT TYPES through layering of multiple orders at various price levels on the buy or sell side of the market. If the orders do not represent a genuine intention to buy/sell, the layering of these orders may have been entered with the intention to create a false or misleading appearance of volume and therefore demand in the order book.	<ul> <li>Account Code (particularly if DMA, HFT)</li> <li>Number of orders</li> <li>Liquidity of stock</li> <li>Percentage of total bids/asks in market</li> <li>Price ranges entered in orders, compared to the market</li> </ul>	SMARTS Depth replay	<ul> <li>Operation of an algo or program trading which serves to act mechanically in achieving trade aim</li> <li>Liquidity of security – volume of trades and value of stock</li> <li>Is it the same account on opposite side of the spread</li> <li>Direction of the price of the security for potential price support, or account trying to encourage the market to movement in a certain direction</li> <li>Orders out in the market;</li> <li>Historical view in the stock, previous account history</li> </ul>
Layering (Possible Spoofing)	Same as layering but this "Spoofing" version of the alert differs from the "Layering" alert in that it requires that volume must be executed on the opposite side of the market whilst the Layered position is in place. The standard "Layering" alert just identifies the setting up of layered orders on one side of the market.	Account Code (particularly if DMA,HFT)     Number of orders in market – 7 for Liquid Securities and 5 for Illiquid Securities     Percentage of total bids/asks in market     Price ranges entered in orders, compared to the market	SMARTS Depth replay	<ul> <li>Operation of an algo or program trading which serves to act mechanically in achieving trade aim</li> <li>Liquidity of security – volume of trades and value of stock</li> <li>Is it the same account on opposite side of the spread</li> <li>Direction of the price of the security for potential price support, or account trying to encourage the market to movement in a certain direction</li> <li>Orders out in the market;</li> <li>Historical view in the stock, previous account history</li> </ul>
Market Dominance at Open/Close	This alert identifies a trading pattern that may indicate where a client or trader is regularly dominating the market at the open and/or close with significant volume and with price impact. One of the more common manipulative devices is for a client/trader to set prices at or around the open or close, as the opening or closing price can often set the tone and momentum for a security during subsequent trading.	<ul> <li>Volume of order and price move</li> </ul>	SMARTS	<ul> <li>Account Code and Trader Name</li> <li>Liquidity of security</li> <li>News which may warrant increase in activity</li> <li>% change in price</li> <li>Order price in relation to bid/ask spread</li> <li>Completion on the open or close with other</li> </ul>

		<ul> <li>Time of activity;</li> <li>Change in price – value &amp; ticks</li> <li>Volume at close relative to trading over the day</li> </ul>	SMARTS     SB Graph – Gives a good picture of activity over the day in relation to price movement	Account Code and Trader Name     Operation of an algorithmic or program trading which serves to act mechanically in achieving trade aim at close     Liquidity of security – volume of trades and value of stock     Has the account traded
	This alert identifies a trading pattern where a broker is attempting to influence the closing price of a security artificially. One of the more common manipulative devices is for a broker to act the price of the deco of tradings.			<ul> <li>throughout, or part of the day the day</li> <li>Small volume order</li> <li>Previous activity in the same security</li> <li>The price direction of the security over the day</li> <li>Selling into a rising market, or buying into a falling market</li> <li>Day of the month – any reporting significance (fin year) or contract expiry (derivatives and futures)</li> <li>News items</li> </ul>
Marking the Close (Single/Multiple House)	broker to set the price at the close of trading, as this is the price regularly quoted as the indicator of a securitySs price performance over a trading day, and can often set the tone and momentum for the security during subsequent trading.			<ul> <li>Takeover periods</li> <li>Expiry, or revaluation</li> <li>Position held by account in the security and historical trading</li> </ul>
				patterns
Multiple Entry/Deletion/Amendment of orders	This alert identifies where a significant number of orders with the same client reference or trader id is entered, deleted or amended within a short period of time.	<ul> <li>Time of activity</li> <li>Account Code</li> <li>Number of entries/deletions</li> <li>Change in price</li> </ul>	• SMARTS	<ul> <li>Account Code and Trader Name</li> <li>Multiple entries at the same price</li> <li>Operation of an algorithmic or program trading which serves to act mechanically in achieving trade aim at close</li> <li>Liquidity of security – volume of trades and value of stock</li> </ul>
New Price High/Low on Last Trading Day of Month/Quarter/Year	This alert identifies where the broker is responsible for a buy trade which established a 90 day high, or a sell trade which establishes a 90 day low. The last day of a trading month is often regarded as a day on which trading participants may have an interest in influencing or setting the closing price for the day - commonly referred to as 'window dressing'. This is primarily an information-based alert	<ul> <li>Price High/Low</li> <li>Period of time for the High/Low Point</li> <li>Security</li> </ul>	SB Graph – Gives a good picture of activity by account over time to assess trends     SMARTS	<ul> <li>Patterns of activity by account in the security</li> <li>Type of client; Fund Manager, Hedge Fund etc</li> <li>Liquidity of security</li> <li>The security price movement in relation to the sector</li> <li>News which may warrant change in activity</li> <li>Basic price</li> </ul>
1		<ul> <li>Security</li> </ul>	<ul> <li>SMARTS</li> </ul>	<ul> <li>Review if there were</li> </ul>

Off-market Trade Report	This alert identifies an Off-market trade that is outside the trading day's on-market high and low prices, and/or an Off-market trade that is outside the best bid and ask (that is, the bid/ask spread) immediately prior to the reporting of the trade. Where a trade is executed away from the market and then sub-sequently reported or published to the market, internal broker or market rules / regulations may invoke specific obligations on the broker. This is therefore an information-based alert that highlights a particular trade type.	<ul> <li>Security</li> <li>Account Codes</li> <li>Volume</li> <li>Price</li> </ul>	<ul> <li>SMARTS</li> <li>BLOOMBEG provides added information surrounding any corporate actions</li> </ul>	<ul> <li>Account Code and Trader – note Index Arb, ESW, EFP and mistaken price orders often hit the alert</li> <li>Liquidity of Security</li> <li>The price away from the market price</li> <li>Size of the transaction, i.e. larger the transaction the further away from bid/ask</li> <li>Previous days closing price</li> <li>News which may warrant increase in activity</li> </ul>
Opening Price Jump/Fall	This aler identifies a trading pattern where a client or trader is trying to manipulate the opening price of a security	<ul> <li>Security</li> <li>Volume traded</li> <li>Direction of trade</li> <li>Order entered time</li> <li>Order instruction</li> <li>Open price compared with last day close price</li> <li>Price effect on the remainder of the day</li> <li>Overnight news or announcement</li> </ul>	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of any intraday patterns</li> <li>SONAR to review activity</li> </ul>	<ul> <li>Account purpose and trader</li> <li>Operation of any algos/program trading instructions</li> <li>If Program trading account, ensure they are acting on behalf of clients on an agency basis, depending on the Restricted List code</li> <li>Patterns of activity by account in the security</li> <li>Type of client - PB, Fund Manager, Hedge Fund etc</li> <li>Liquidity of security</li> </ul>
				<ul> <li>Trading activity by account over the day</li> <li>News which may warrant active trading around the opening.</li> </ul>
	Alert identifies where a member cancels an	Security	SMARTS	
Order Cancellation/Amendment to Inferior Price	order in a security and the volume of the cancelled orders exceeds more than X% of that day's trading volume; or, where a member amends an order to an inferior price and the volume of the original order (prior to amendment) exceeds more than X% of that day's trading volume.	Account Code     Order Volume		<ul> <li>Account(s) Code and Trader(s)</li> <li>Liquidity of Security</li> <li>Trading activity by account over the day</li> <li>Price impact of the order amendment.</li> </ul>
Cancellation/Amendment	cancelled orders exceeds more than X% of that day's trading volume; or, where a member amends an order to an inferior price and the volume of the original order (prior to amendment) exceeds more than X% of that		SMARTS	Trader(s) <ul> <li>Liquidity of Security</li> <li>Trading activity by account over the day</li> <li>Price impact of the order</li> </ul>

	-	-	-	-
				trades and price fluctuation of stock
				<ul> <li>Is it conclusive?</li> </ul>
				• Did we start the action?
Pattern Giving Up Priority on Layered Orders Alerts	A combination of giving up priority and layering alerts indicates that a significant number of orders at various price levels were entered but deleted as it approached priority price, which may indicate no intention of trading.	<ul> <li>Account Code (particularly if DMA,HFT)</li> <li>Number of orders in market – 7 for Liquid Securities and 5 for Illiquid Securities</li> <li>Percentage of total bids/asks in market</li> <li>Price ranges entered in orders, compared to the market</li> <li>Genuine execution over the day.</li> </ul>	SMARTS Depth replay	<ul> <li>Operation of an algo or program trading which serves to act mechanically in achieving trade aim</li> <li>Volatility and liquidity of security – volume of trades and price fluctuation of stock</li> <li>Direction of the price of the security for potential price support, or account trying to encourage the market to movement in a certain direction</li> <li>Intention for legitimate trade</li> <li>Historical view in the stock, previous account history</li> </ul>
Pattern Multiple Alerts Types Alerts	A combination of 2 or more alert types generate in a single security over a series of days, which indicates a party is responsible for 2 or more trading devices over a period of time could be regarded as manipulative.	<ul> <li>Security</li> <li>Alerts received</li> <li>Frequency of alerts Impact on market – price move, percentage volume traded</li> </ul>	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of account over time in the security</li> </ul>	<ul> <li>Account(s) Code and Trader(s)</li> <li>Pattern of trading over the period and any changes</li> <li>Same account or client activity responsible during the period</li> <li>News items which may affect</li> </ul>
				<ul> <li>an activity shift</li> <li>Operation of an algorithmic or program trading which serves to act mechanically in achieving trade aim at close</li> <li>Liquidity of security – volume of trades and value of stock</li> </ul>
Pattern of Establishing Day High/Low	Alert identifies where a Member has been responsible for establishing a day's high or low price. The pattern identified are 2 instances in 2 days of establishing the days' high or low, 2 in 3 days, 3 in 5 days, 6 in 10 days and 9 in 20 days.	<ul> <li>Security</li> <li>Day High or Low price</li> <li>Frequency of alerts</li> </ul>	<ul> <li>SMARTS</li> <li>SB - Graphs to see impact of account over time in the security</li> </ul>	<ul> <li>Account(s) Code and Trader(s);</li> <li>Pattern of trading over the period and any changes</li> <li>Same account or client activity responsible during the period</li> <li>News items which may affect an activity shift</li> <li>Operation of an algorithmic or program trading which serves to act mechanically in achieving trade aim at close</li> <li>Liquidity of security – volume of trades and value of stock</li> </ul>
Pattern of Establishing Day High/Low Close	This alert identifies where a broker establishes the closing price at the day's high or low on a sufficient number of trading days to meet the conditions for a pattern. It may indicate a trading pattern where a client	<ul> <li>Security</li> <li>High or Low closing price</li> <li>Frequency of alerts.</li> </ul>	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of account over time in the security</li> </ul>	<ul> <li>Account(s) Code and Trader(s);</li> <li>Pattern of trading over the period and any changes</li> </ul>

Pattern of High Participation at Close	or trader attempts to maintain the price of a security through regularly upticking or downticking the price to a level that establishes the closing price of the security at the day's high or low. This alert identifies where the Member or Client is responsible for generating significant buy or sell volume in the last x minutes of the afternoon trading session on x successive trading days. The alert generates at both the House (member) and Account/Trader level.	<ul> <li>Time of activity</li> <li>Change in price – value &amp; ticks</li> <li>Volume at close relative to trading over the day</li> </ul>	<ul> <li>SMARTS</li> <li>SB Graph – Gives a good picture of activity over the day in relation to price movements.</li> </ul>	<ul> <li>Same account or client activity responsible during the period</li> <li>News items which may affect an activity shift</li> <li>Operation of an algorithmic or program trading which serves to act mechanically in achieving trade aim at close</li> <li>Liquidity of security – volume of trades and value of stock</li> <li>Account Code and Trader Name</li> <li>Operation of an algorithmic or program trading which serves to act mechanically in achieving trade aim at close</li> <li>Liquidity of security – volume of trades and value of stock</li> <li>Has the account traded throughout, or part of the day</li> <li>Small volume order</li> <li>Previous activity in the same security</li> <li>The price direction of the security over the day</li> <li>Selling into a rising market, or buying into a falling market</li> </ul>
Pattern Price Change Following Large Trade Alerts	A combination of large trade, marking the close and ramping alerts indicates that a party has executed a trade for a large volume of shares, and that this trade has then been followed by a patter of trading that increased/decreased the share price, with one of the price movement occurring at or near the close of trading.	<ul> <li>Security</li> <li>Time of activity</li> <li>Volume traded;</li> <li>Price movement in ticks</li> <li>Price change – absolute and percentage after large trade</li> </ul>	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of account over time in the security</li> </ul>	<ul> <li>Day of the month – any reporting significance (fin year) or contract expiry (derivatives and futures);</li> <li>News items</li> <li>Takeover periods</li> <li>Expiry, or revaluation</li> <li>Position held by account in the security and historical trading patterns</li> <li>Account and Trader</li> <li>Operation of any algo trading</li> <li>Buying or selling activity of the account after the price movement</li> <li>Historical activity in the stock, looking for repeated pattern</li> <li>News items which may give rise to increased market interest</li> </ul>

Pattern Price Change on Close Following Large Trade Alerts	A combination of large trade and marking the close alerts indicates that a party has executed a trade for a large volume of shares, and that this trade has then been followed by a pattern of trading that increased/decreased the share price, with one of the price movement occurring at or near the close of trading.	<ul> <li>Security</li> <li>Time of activity</li> <li>Volume traded against market volume near the close;</li> <li>Price movement in ticks</li> <li>Price change – absolute and percentage after large trade</li> </ul>	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of account over time in the security</li> </ul>	<ul> <li>Account and Trader</li> <li>Operation of any algo trading</li> <li>Buying or selling activity of the account near the close after the price movement</li> <li>Historical activity in the stock, looking for repeated pattern</li> <li>News items which may give rise to increased market interest</li> </ul>
Pattern Unusual Trading on Last Day of Month Alerts	Pattern unusual trading on last day of month requires a combination of any three or more of the following alerts -Market dominance, Market share price impact, Price driver, Price high low, Possible Ramping/Marking the Close (Ramping), Significant Volume in Last 2/10 minutes of Trading.	Account     Volume     Change in price	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of account over time in the security</li> </ul>	<ul> <li>Account(s) Code and Trader(s);</li> <li>Pattern of trading over the period and any changes</li> <li>Same account or client activity responsible during the period</li> <li>Account position in F&amp;O being expired on month end</li> <li>News items which may affect an activity shift</li> <li>Operation of an algorithmic or program trading which serves to act mechanically in achieving trade aim at close</li> <li>Liquidity of security – volume of trades and</li> </ul>
				value of stock
				value of stock
Penny Trades	Penny Stocks can be defined as low-priced, often speculative securities. Penny trades then are trades that take place in these low- priced stocks. Given the speculative nature of the stock, users may deem it necessary to be notified when these trades occur.	<ul> <li>Account Code and Trader</li> <li>Volume of order and Percentage of issued shares</li> <li>Volume of order in relation to the day's overall activity</li> <li>Liquidity of security</li> </ul>	<ul> <li>SMARTS Charts – provide a good picture of volume by account and price movement over the day</li> </ul>	<ul> <li>Account function and security type</li> <li>Activity of account trading in security</li> <li>Liquidity of stock and size of the order</li> <li>The stock of price movement (price support)</li> <li>Other supporting orders for the same client</li> <li>Historical view</li> </ul>
Penny Trades	often speculative securities. Penny trades then are trades that take place in these low- priced stocks. Given the speculative nature	<ul> <li>Trader</li> <li>Volume of order and Percentage of issued shares</li> <li>Volume of order in relation to the day's overall activity</li> <li>Liquidity of security</li> <li>Account Codes and Traders</li> <li>Prop and Client order entry timestamp</li> <li>Volume</li> </ul>	provide a good picture of volume by account and price movement	<ul> <li>Account function and security type</li> <li>Activity of account trading in security</li> <li>Liquidity of stock and size of the order</li> <li>The stock of price movement (price support)</li> <li>Other supporting orders for the same client</li> <li>Historical view Relevant News</li> <li>Account Activity across the day prior to the transactions</li> <li>Time between transactions</li> </ul>
Penny Trades Piggybacking (Proprietary/Employee) Possible Churning or Double Printing (Proprietary Account)	often speculative securities. Penny trades then are trades that take place in these low- priced stocks. Given the speculative nature of the stock, users may deem it necessary to be notified when these trades occur. This alert identifies where an employee or house account 'piggyback' a client account by trading after client trades have been executed. This alert identifies a trading pattern that can be used as a device by a market participant to artificially inflate traded volumes in a security. Whereas a house holds buy and	Trader Volume of order and Percentage of issued shares Volume of order in relation to the day's overall activity Liquidity of security Account Codes and Traders Prop and Client order entry timestamp	provide a good picture of volume by account and price movement over the day	<ul> <li>Account function and security type</li> <li>Activity of account trading in security</li> <li>Liquidity of stock and size of the order</li> <li>The stock of price movement (price support)</li> <li>Other supporting orders for the same client</li> <li>Historical view Relevant News</li> <li>Account Activity across the day prior to the transactions</li> <li>Time between</li> </ul>
Piggybacking (Proprietary/Employee) Possible Churning or Double Printing	often speculative securities. Penny trades then are trades that take place in these low- priced stocks. Given the speculative nature of the stock, users may deem it necessary to be notified when these trades occur. This alert identifies where an employee or house account 'piggyback' a client account by trading after client trades have been executed. This alert identifies a trading pattern that can be used as a device by a market participant to artificially inflate traded volumes in a	<ul> <li>Trader</li> <li>Volume of order and Percentage of issued shares</li> <li>Volume of order in relation to the day's overall activity</li> <li>Liquidity of security</li> <li>Account Codes and Traders</li> <li>Prop and Client order entry timestamp</li> <li>Volume</li> <li>Price</li> <li>Volume and price</li> <li>Principal account and</li> </ul>	<ul> <li>provide a good picture of volume by account and price movement over the day</li> <li>SMARTS</li> </ul>	<ul> <li>Account function and security type</li> <li>Activity of account trading in security</li> <li>Liquidity of stock and size of the order</li> <li>The stock of price movement (price support)</li> <li>Other supporting orders for the same client</li> <li>Historical view Relevant News</li> <li>Account Activity across the day prior to the transactions</li> <li>Time between transactions</li> <li>Price movement of the</li> </ul>

	generally available and is price sensitive, in this case, the trading is ahead of market information in the form of client order flows, which is not generally available and is price sensitive.			<ul> <li>Volume traded and pattern of trading over the day</li> <li>Opening and closing a position with client trading in between Usually presence of VAR, NNN, PFL accounts facilitating client orders in alerts – generally OK. Ensure they are acting on behalf of clients</li> </ul>
Possible Front-running of Large Client Order (Off- market)	The alert identifies the reporting of a significant Off-market crossing in which a house account buys/sells from/to a client where that house account has accumulated a similar volume of shares on the opposite side of the market in a period prior to the Off-market trade at a better price than that received by the client in the Off-market trade.	<ul> <li>Client Account and Volume Traded</li> <li>Prop Account and Volume Traded</li> </ul>	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of account over time in the security</li> </ul>	<ul> <li>Activity and intent of proprietary account</li> <li>Timing of order received for client accounts</li> <li>Volume traded and pattern of trading over the day</li> <li>Opening and closing a position with client trading in between.</li> <li>Usually presence of VAR, NNN, PFL accounts facilitating client orders in alerts – generally OK. Ensure they are acting on behalf of clients</li> </ul>
Possible Insider Trading	This alert seeks to identify unusual trading activity within the look-back period leading up to a price- sensitive news announcement. The alert looks for larger than average volume traded in that security.	<ul> <li>Title of Announcement</li> <li>Volume by Account (Prop, Client, Employee)</li> <li>Date of largest volume traded</li> <li>Account with largest</li> </ul>	<ul> <li>SMARTS – provides good picture of price movement and quick analysis of account activity over time</li> <li>Relevant Newspaper</li> </ul>	<ul> <li>Weight of the news item         <ul> <li>material or immaterial</li> <li>Any internal PSI</li> <li>Current market trends – overall, product sector and company specific</li> </ul> </li> </ul>
		volume traded <ul> <li>Impact on price</li> </ul>	<ul> <li>Websites (SMH/Bloomberg) to provide any further information which may or may not contribute to trading activity</li> <li>SONAR – can also be used to gain a longer term trade and position history</li> </ul>	<ul> <li>Activity of account over a period of time prior to the news item's release         <ul> <li>noting basket trading or algo activity</li> <li>Purpose of the account</li> </ul> </li> </ul>
Possible Insider Trading (Price Movement After Announcement)	The trigger point for the alert is the determination of announcement price sensitivity. This sensitivity is determined by the fluctuation of the security price after the announcement is made. Upon receipt of a candidate announcement, the alert looks back for x days and calculates the broker's volume on both the buy and sell sides of the market on each of these days. The trading is a candidate for an alert if the volume on at least one of these days exceeds the broker's historical average for that security by greater than the threshold. The alert then looks at the price movement of the security over the look-back period. If the broker's volume herceds the volume/value threshold, and the price has moved by greater than x% in the direction of that broker's trading, an alert is generated.	<ul> <li>Title of Announcement</li> <li>Volume by Account (Prop, Client, Employee)</li> <li>Date of largest volume traded</li> <li>Account with largest volume traded</li> <li>Impact on price</li> </ul>	<ul> <li>SMARTS – provides good picture of price movement and quick analysis of account activity over time</li> <li>Relevant Newspaper Websites (SMH/Bloomberg) to provide any further information which may or may not contribute to trading activity</li> <li>SONAR – can also be used to gain a longer term trade and position history</li> </ul>	<ul> <li>Weight of the news item         <ul> <li>material or immaterial</li> <li>Any internal PSI</li> <li>Current market trends – overall, product sector and company specific</li> </ul> </li> <li>Activity of account over a period of time prior to the news item's release         <ul> <li>noting basket trading or algo activity</li> <li>Purpose of the account</li> </ul> </li> </ul>
Possible Intraday Churning	This alert identifies where a client or trader has bought AND sold a significant quantity of a security during a trading day, with the net value of that trading (accumulated value of buy transactions less accumulated value of sell transactions) being zero or close to zero. Where an entity is trading significant volumes for little or no economic	<ul> <li>Account Codes and Traders</li> <li>Order entered time</li> <li>Volume</li> <li>Price</li> </ul>	SMARTS	<ul> <li>Any difference in beneficiary ownership in final allocation</li> <li>Account Activity across the day prior to the transactions</li> <li>Time between order</li> </ul>

	benefit/loss, this may indicate that the trades have been prearranged with a counterparty such that parcels of shares are passed between associated parties at or around the same price. This alert looks for a trade by the entity that is identical in price and volume to a	Time of activity;	<ul> <li>SMARTS</li> </ul>	<ul> <li>being entered</li> <li>Historical market trading volume</li> <li>Connected relationship with the listed company</li> <li>Operation of Algos</li> </ul>
Possible Operator Error (Cancelled Trade)	cancelled trade earlier in the trading day, but with the client references reversed, this could be indicative of the trader having executed a crossing trade with the clients on the wrong side of the trade therefore making it necessary for the trader to cancel the trade and then re-execute with the clients on the correct side.	<ul> <li>Account Code and Trader</li> <li>Volume and Price of order</li> <li>Variance from current market price</li> </ul>		<ul> <li>Client mandated orders</li> <li>Deletion of order</li> <li>Possible fat finger mistake</li> <li>Order price in relation to bid/ask price Frequency of the sales person, DTR, DMA</li> </ul>
Possible Operator Error (Price)	This alert seeks to identify where a trader enters an order which is substantially away from the current trading price of that security.	<ul> <li>Time of activity;</li> <li>Account Code and Trader</li> <li>Volume and Price of order</li> <li>Variance from current market price</li> </ul>	SMARTS	<ul> <li>Operation of Algos</li> <li>Client mandated orders</li> <li>Deletion of order</li> <li>Possible fat finger mistake</li> <li>Order price in relation to bid/ask price Frequency of the sales person, DTR, DMA</li> </ul>
Possible Operator Error (Volume)	This alert seeks to identify where a trader enters an order for a substantial value at or close to priority and then, shortly after, the order is deleted and replaced with an order for the same price but for a substantially reduced volume. So, for example, the alert might identify an order entered by a trader for 7,000,000 shares which, shortly afterwards, is deleted, and quickly followed by an order for 700 shares at the same price and entered by the same trader.	<ul> <li>Time of activity;</li> <li>Account Code and Trader</li> <li>Volume and Price of order</li> <li>Variance from current market price</li> </ul>	• SMARTS	<ul> <li>Operation of Algos</li> <li>Client mandated orders</li> <li>Deletion of order</li> <li>Possible fat finger mistake</li> <li>Order price in relation to bid/ask price Frequency of the sales person, DTR, DMA</li> </ul>
Possible Parking	This alert seeks to identify where a trader or account may try to disguise a position to hide the true ownership of the security. This would usually include the transfer of cash or a cash like instrument to keep the balance sheets equal, a pattern sometimes referred to as "warehousing" or "parking".	<ul><li>Account</li><li>Trader</li></ul>	<ul><li>SMARTS</li><li>Bloomberg</li></ul>	<ul> <li>Cross with same counterparty in both first and second crossing</li> <li>Any PSI announced</li> <li>Is it at month / quarter / year end</li> </ul>
Possible Prearranged Trading	This alert identifies where the client broker and another broker (counterparty), enter a BID and ASK within a short time period of time for the same volume and price which generates a trade between the two brokers for the whole of the volume. This could indicate that the trade was pre-arranged.	<ul> <li>Account Codes and Traders</li> <li>Order entered time</li> <li>Volume</li> <li>Price</li> <li>•</li> </ul>	• SMARTS •	<ul> <li>Any difference in beneficiary ownership in final allocation</li> <li>Account Activity across the day prior to the transactions</li> <li>Time between order being entered</li> <li>Historical market trading volume</li> <li>Connected relationship with the listed company</li> </ul>
Possible Prearranged Trading (Quote)	This alert identifies where, within a short period of time, the client broker and another broker enter a bid and ask for the same volume and price, which generates a trade between the two brokers for the whole of the volume. The volume of the order must be significant given the trading history of the security.	<ul> <li>Time of activity</li> <li>Volume and Price</li> <li>Time between Orders</li> </ul>	• SMARTS	Account purpose and Trader     Similarity of orders and time difference     Has similar volume been shown to the market prior to the trade     Liquidity of the stock, less liquid greater the risk     Frequency, historical pattern in the security making use of the broker information
Possible Prearranged Trading In Opening/Closing Session	This alert identifies where a client broker and another broker (counterparty), enter a BID and ASK within a short period of time for a	<ul> <li>Time of activity</li> <li>Volume and Price</li> <li>Time between Orders</li> </ul>	• SMARTS •	<ul> <li>Account purpose and Trader</li> <li>Similarity of orders and</li> </ul>

Auction	significant volume in an opening or closing auction phase, and which generates a trade between the two brokers for a significant proportion of the order volume.	Time of activity;	SMARTS	<ul> <li>time difference</li> <li>Has similar volume been shown to the market prior to the trade</li> <li>Liquidity of the stock, less liquid greater the risk</li> <li>Frequency, historical pattern in the security making use of the broker information</li> <li>Operation of algos</li> </ul>
Possible Ramping At Settlement Time	execution of a series of trades over the settlement period which generates a price movement over the settlement period which would impact the final settlement price. One of the trading devices used to manipulate the price of a security may be to generate significant price movements in the security during the settlement period. Such significant price increase may have the effect of drawing buyers into the market, thereby significantly increasing the settlement price of the instrument	<ul> <li>Account Code and Trader</li> <li>Volume and Price of order</li> <li>Variance from current market price</li> </ul>		<ul> <li>Client mandated orders</li> <li>Deletion of order</li> <li>Possible fat finger mistake</li> <li>Order price in relation to bid/ask price</li> <li>Frequency of the sales person, DTR, DMA</li> </ul>
Possible Ramping / Marking the Close (Ramping)	This alert identifies a trading pattern as the execution of a series of trades over a short time period which generates a price movement over that period which is unusual given the trading history of the security. If the price movement subject of the alert occurs within x minutes of the close of the market the alert is re-titled as Marking the Close (Ramping).	<ul> <li>Security</li> <li>Time of activity</li> <li>Price movement in ticks</li> <li>Price change – absolute and percentage</li> </ul>	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of account over time in the security</li> </ul>	<ul> <li>Account and Trader</li> <li>Operation of any algo trading</li> <li>Buying or selling activity of the account prior</li> <li>Buying or selling activity of the account after the price movement</li> <li>Historical activity in the stock, looking for repeated pattern</li> <li>News items which may</li> </ul>
				give rise to increased market interest
Possible Spoofing (Entry and Deletion of Large Order at Best Bid/Ask)	This alert identifies where a large order is entered at the best bid or ask and then within a short period of time is deleted. The intent of this alert is to identify an order that may be fictitious - that is, an order that is entered for the purpose of creating a false or misleading appearance with respect to the market for, or demand for, a security.			
Possible Spoofing (Multiple Deletes)	This alert identifies where buy or sell orders are entered AND deleted within a short period of time (without having traded). The parameters for this alert are based on a matrix whereby a specified number of orders is entered and then deleted within a specified number of seconds. In some circumstances, the entry and deletion of multiple orders within a short period of time may represent an intention on the part of the client or trader to create a false or misleading appearance with respect to the demand for, or market for, a security. The issue is whether the orders do represent a genuine intention to buy or sell.	<ul> <li>Time of activity</li> <li>Account Code</li> </ul>	SMARTS	<ul> <li>Any genuine executions</li> <li>Algo behaviour</li> <li>Type of client</li> <li>Size of transaction</li> <li>Frequency during the day</li> </ul>
Possible Wash Trade (A to A)	This alert seeks to identify trading patterns where the same account reference is on both sides (both bid and ask) of a trade. This alert can cover both on- and Off-market trades, depending on the nature of the market and the user's requirement.	<ul> <li>N.B. need to download CSV file for further details - things to note in CSV file:</li> <li>Time of activity</li> <li>Account Code</li> </ul>	• SMARTS	Account code and trader     The type of client     Size of the transaction against market volume     The time the buy and sell order was entered into the market, Instantaneously

1 1				higher the potential risk
				<ul> <li>If the execution price was at the high or the low at the time</li> </ul>
				<ul><li>Iow at the time</li><li>The frequency during</li></ul>
				the day, and account activity previously in
				the stock
	This alert identifies where two trades are executed within a short period of time for the	<ul> <li>N.B. need to download CSV file for further</li> </ul>	SMARTS	<ul> <li>Account code and trader</li> </ul>
s	same volume and price, where the account references in the first trade are reversed in	details - things to note in CSV file:		<ul> <li>The type of client</li> <li>Size of the</li> </ul>
ti	the second trade. Thus, this alert identifies trading patterns in which there is no change	Time of activity		transaction against
	in beneficial ownership.	Account Code		<ul><li>market volume</li><li>The time the buy and</li></ul>
				sell order was entered into the
				market, Instantaneously
				higher the potential risk
				<ul> <li>If the execution price was at the high or the</li> </ul>
				low at the time The frequency during
				the day, and account activity previously in
				the stock
	This alert identifies where an employee or	N.B. need to download     OSV file for further	• SMARTS	Account code and
	house account trades immediately ahead of a client trade at the same or a better price.	CSV file for further details		<ul><li>trader;</li><li>The time of client and</li></ul>
	This alert is available at two entity levels; Employee and House. It identifies trading by	<ul> <li>Time of order entry</li> <li>Account Code</li> </ul>		proprietary orders were entered into the
	either of these entities in the period	A		market,
	immediately prior to a client trade.	<ul> <li>Average execution price</li> </ul>		Instantaneously
1				
				higher the potential risk
				higher the potential risk If the client order execution price in
				<ul> <li>higher the potential risk</li> <li>If the client order execution price in average was better than proprietary</li> </ul>
				higher the potential risk If the client order execution price in average was better than proprietary If client and proprietary orders
				higher the potential risk If the client order execution price in average was better than proprietary If client and
	This alert looks at the entity's trading over	Account code	• SMARTS	higher the potential risk If the client order execution price in average was better than proprietary If client and proprietary orders were done by two
ti	the course of the day. If the entity has been responsible for a certain percentage of price	Account code     Number and percentage     of price movements	SMARTS     SB – Graphs to see     impact of account over	higher the potential risk If the client order execution price in average was better than proprietary If client and proprietary orders were done by two different traders
ti r s	the course of the day. If the entity has been responsible for a certain percentage of price movements (increases /decreases) in that security, and this percentage is	Number and percentage	• SB – Graphs to see	higher the potential risk If the client order execution price in average was better than proprietary If client and proprietary orders were done by two different traders Account and trader; The stock price movement Operation of any
ti r s c	the course of the day. If the entity has been responsible for a certain percentage of price movements (increases /decreases) in that security, and this percentage is disproportionately larger than its percentage of buying/selling volume on that day, then	Number and percentage of price movements	<ul> <li>SB – Graphs to see impact of account over</li> </ul>	higher the potential risk If the client order execution price in average was better than proprietary If client and proprietary orders were done by two different traders Account and trader; The stock price movement Operation of any algo/program trading Size and price of the
ti r s c	the course of the day. If the entity has been responsible for a certain percentage of price movements (increases /decreases) in that security, and this percentage is disproportionately larger than its percentage	Number and percentage of price movements	<ul> <li>SB – Graphs to see impact of account over</li> </ul>	higher the potential risk If the client order execution price in average was better than proprietary If client and proprietary orders were done by two different traders Account and trader; The stock price movement Operation of any algo/program trading
ti r s c c c t	the course of the day. If the entity has been responsible for a certain percentage of price movements (increases /decreases) in that security, and this percentage is disproportionately larger than its percentage of buying/selling volume on that day, then the details are written to a csv file.	Number and percentage of price movements	<ul> <li>SB – Graphs to see impact of account over</li> </ul>	higher the potential risk If the client order execution price in average was better than proprietary If client and proprietary orders were done by two different traders Account and trader; The stock price movement Operation of any algo/program trading Size and price of the client orders compared to the bid/ask/markets Account and trader
ti r s c ti t	the course of the day. If the entity has been responsible for a certain percentage of price movements (increases /decreases) in that security, and this percentage is disproportionately larger than its percentage of buying/selling volume on that day, then the details are written to a csv file.	<ul> <li>Number and percentage of price movements</li> <li>Change in price</li> </ul>	<ul> <li>SB – Graphs to see impact of account over time in the security</li> </ul>	higher the potential risk If the client order execution price in average was better than proprietary If client and proprietary orders were done by two different traders Account and trader; The stock price movement Operation of any algo/program trading Size and price of the client orders compared to the bid/ask/markets Account and trader Overall traded price by client and proprietary/
ti r s c c t t t t r	the course of the day. If the entity has been responsible for a certain percentage of price movements (increases /decreases) in that security, and this percentage is disproportionately larger than its percentage of buying/selling volume on that day, then the details are written to a csv file. This alert identifies a crossing where a client trades directly with a proprietary / employee account and the client does not achieve a price improvement. If the client is buying from the house, price improvement is	<ul> <li>Number and percentage of price movements</li> <li>Change in price</li> </ul>	<ul> <li>SB – Graphs to see impact of account over time in the security</li> </ul>	higher the potential risk If the client order execution price in average was better than proprietary If client and proprietary orders were done by two different traders Account and trader; The stock price movement Operation of any algo/program trading Size and price of the client orders compared to the bid/ask/markets Account and trader Account and trader Overall traded price by
ti r s c c c c t t f f f a r	the course of the day. If the entity has been responsible for a certain percentage of price movements (increases /decreases) in that security, and this percentage is disproportionately larger than its percentage of buying/selling volume on that day, then the details are written to a csv file. This alert identifies a crossing where a client trades directly with a proprietary / employee account and the client does not achieve a price improvement. If the client is buying from the house, price improvement is achieved if the price is lower than the previous trade price and lower than the mid-	<ul> <li>Number and percentage of price movements</li> <li>Change in price</li> </ul>	<ul> <li>SB – Graphs to see impact of account over time in the security</li> </ul>	higher the potential risk If the client order execution price in average was better than proprietary If client and proprietary orders were done by two different traders Account and trader; The stock price movement Operation of any algo/program trading Size and price of the client orders compared to the bid/ask/markets Account and trader Overall traded price by client and proprietary/ employee
t r s c t t t Price Improvement (Trading Below/Above	the course of the day. If the entity has been responsible for a certain percentage of price movements (increases / increases) in that security, and this percentage is disproportionately larger than its percentage of buying/selling volume on that day, then the details are written to a csv file. This alert identifies a crossing where a client trades directly with a proprietary / employee account and the client does not achieve a price improvement. If the client is buying from the house, price improvement is achieved if the price is lower than the previous trade price and lower than the mid- point of the bid/ask spread immediately prior to the crossing (and vice versa if the client is the client is the client is the rest of the set of the set of the client is the client is the client is the client is the client is the client is the client is different the set of the set of the client is the client is the client is different the set of the client is the client is the client is different the set of the client is the client is different the set of the client is different the client	<ul> <li>Number and percentage of price movements</li> <li>Change in price</li> </ul>	<ul> <li>SB – Graphs to see impact of account over time in the security</li> </ul>	higher the potential risk If the client order execution price in average was better than proprietary If client and proprietary orders were done by two different traders Account and trader; The stock price movement Operation of any algo/program trading Size and price of the client orders compared to the bid/ask/markets Account and trader Overall traded price by client and proprietary/ employee Algo trading or manual release
tt r r c c c c c c t t t t t f f f f f f f f f	the course of the day. If the entity has been responsible for a certain percentage of price movements (increases /decreases) in that security, and this percentage is disproportionately larger than its percentage of buying/selling volume on that day, then the details are written to a csv file. This alert identifies a crossing where a client trades directly with a proprietary / employee account and the client does not achieve a price improvement. If the client is buying from the house, price improvement is achieved if the price is lower than the midpoint of the bid/ask spread immediately prior to the crossing (and vice versa if the client is selling). This alert identifies a crossing where a client to selling).	<ul> <li>Number and percentage of price movements</li> <li>Change in price</li> </ul>	<ul> <li>SB – Graphs to see impact of account over time in the security</li> </ul>	higher the potential risk If the client order execution price in average was better than proprietary If client and proprietary orders were done by two different traders Account and trader; The stock price movement Operation of any algo/program trading Size and price of the client orders compared to the bid/ask/markets Account and trader Overall traded price by client and proprietary/ employee Algo trading or manual release Size and price of client
Price Improvement Best Bid/Ask Midpoint)	the course of the day. If the entity has been responsible for a certain percentage of price movements (increases /decreases) in that security, and this percentage is disproportionately larger than its percentage of buying/selling volume on that day, then the details are written to a csv file. This alert identifies a crossing where a client trades directly with a proprietary / employee account and the client does not achieve a price improvement. If the client is buying from the house, price improvement is achieved if the price is lower than the previous trade price and lower than the mid- point of the bid/ask spread immediately prior to the crossing (and vice versa if the client is selling).	Number and percentage of price movements     Change in price     Account code	<ul> <li>SB - Graphs to see impact of account over time in the security</li> <li>SMARTS</li> </ul>	higher the potential risk If the client order execution price in average was better than proprietary If client and proprietary orders were done by two different traders Account and trader; The stock price movement Operation of any algo/program trading Size and price of the client orders compared to the bid/ask/markets Account and trader Overall traded price by client and proprietary/ employee Algo trading or manual release Size and price of client order

	employee account buys from a client account, an alert will be generated if the trade is executed at the best bid: similarly, where the broker executes a crossing where a proprietary / employee account sells to a client account, an alert will be generated if the trade is executed at the best ask. In both cases it can be argued that an improvement in the price was not achieved for the client from trading directly with the broker's proprietary/employee account.			<ul> <li>Algo trading or manual release</li> <li>Size and price of client order</li> </ul>
Proprietary Account Trading with a Client	This is primarily an information alert highlighting any trade where a proprietary account has traded directly with a client. In some markets, where a proprietary account trades directly with a client, reporting or disclosure obligation may be required.	<ul> <li>Account Codes and Traders</li> <li>Order entered time</li> <li>Strategy</li> </ul>	• SMARTS • SONAR	<ul> <li>Trading strategy on buy and sell sides</li> <li>Final allocation to trading accounts</li> <li>Account usage / trading purpose</li> </ul>
Proprietary Crossing	This is primarily an information alert highlighting any trade where two proprietary accounts have traded directly with each other via a crossing. This type of trade could indicate that the trade may not have involved a change in beneficial ownership (that is, a potential wash trade). In some markets 'Wash Trades' are deemed to create a false or misleading appearance of active trading.	<ul> <li>Account Codes and Traders</li> <li>Order entered time</li> <li>Strategy</li> </ul>	<ul> <li>SMARTS</li> <li>SONAR</li> </ul>	<ul> <li>Trading strategy on buy and sell sides</li> <li>Final allocation to trading accounts</li> <li>Account usage / trading purpose</li> </ul>
Rapid Increase in Order Activity	This alert is designed to identify periods where trading activity of the same client reference or trader ID has increased significantly within a short period of time. Significant increase in trading activity may indicate several possible causes, including when automated trading systems have malfunctioned and flooded the market with multiple orders.	<ul> <li>Account Codes and Traders</li> <li>Time of activity</li> <li>Number of orders and size</li> </ul>	• SMARTS	<ul> <li>Account Code and Trader Name</li> <li>Liquidity of security</li> <li>News which may warrant increase in activity</li> <li>Operation of an algorithmic or program trading which serves to act mechanically in</li> </ul>
				achieving trade aim at completion by day end
Short Sale	This alert will generate each time a broker executes a sell trade that is marked/flagged as a short sale.	Account     Volume	• SMARTS	Information alert to assist Short Sell monitoring
Significant Change in Indicative Price	This alert seeks to identify orders entered during an opening or closing auction phase that significantly increase or decrease the indicative clearing price, such that if no further orders were entered or amended the security would trade in the auction at that higher or lower clearing price. Where the alert is being monitored in real time, it may give the user the opportunity to check an order that has significantly moved the indicative price before the order executes in the auction.	<ul> <li>Account code</li> <li>Number and percentage of price movements</li> <li>Change in price</li> </ul>	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of account over time in the security</li> </ul>	<ul> <li>Account and trader;</li> <li>The stock price movement</li> <li>Size and price of the client orders compared to the bid/ask/markets</li> </ul>
		<ul> <li>Volume traded over the day and average price</li> </ul>	<ul> <li>SMARTS</li> <li>SB – Graphs to see the</li> </ul>	<ul> <li>Account(s) Code and Trader(s)</li> </ul>

Significant Volume in Last 2/10 minutes of Trading	This alert identifies where a significant proportion of an entity's volume for a trading day is executed within the last 2 or 10 minutes of trading and includes, where applicable, the closing auction in this time period.	Account     Volume     Change in price	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of account over time in the security</li> </ul>	<ul> <li>Account(s) Code and Trader(s)</li> <li>Pattern of trading over the period and any changes</li> <li>Same account or client activity responsible during the period</li> <li>News items which may affect an activity shift</li> <li>Operation of an algorithmic or program trading which serves to act mechanically in achieving trade aim at close</li> <li>Liquidity of security – volume of trades and value of stock</li> </ul>
Single Board Lot Orders at Open/Close	Alerts when the broker responsible for greater than a certain number of single board lot orders (which generate trades) in the first and/or last x minutes of trading and which have a price impact of moving the price by x or more price spreads. This alert will only fire once per security at the end of the Opening/Closing time.	Account Code     Time of activity     Number of orders	SMARTS	Account Code and Trader Name     Pattern of the account trading activity     Liquidity of the stock     Operation of any algos     Impact on Open/Close price determination
Substantial Shareholding	This alert seeks to identify when the entity's net accumulated position on a security exceeds a certain percentage of a issued capital.	<ul> <li>Volume traded and percentage of issued capital</li> <li>Account details (CSV file)</li> </ul>	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of account over time in the security</li> </ul>	<ul> <li>Account purpose and trader</li> <li>News items which may affect trading volumes</li> </ul>
Trade to Trade	This alert seeks to identify trading behaviour that generates a significant price movement through a single on-market trade or through the reporting of a single Off-market trade (for example a late trade or block trade).	<ul> <li>Time of activity</li> <li>Price movement</li> <li>Prior price spread</li> </ul>	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of account over time in the security</li> </ul>	<ul> <li>Account purpose and trader</li> <li>Liquidity of the stock</li> <li>Pattern of the account trading activity</li> <li>Stock price movement after the trade to trade</li> <li>Operation of any algos Activity in market at the time of alert</li> </ul>
Trading In Excess of Normal Market Share	This alert seeks to identify circumstances in which an entities market share is unusual given (a) the history of the broker's market share in that security and (b) where the securities price has increased or decreased by greater than the price movement parameter.	<ul> <li>Volume traded over the day and average price</li> <li>Percentage of daily trade volume</li> <li>Price movement in ticks and absolute</li> </ul>	SMARTS     SB – Graphs to see     impact of account over     time in the security     HKEX news website	<ul> <li>Account purpose and trader</li> <li>Any internal PSI</li> <li>Trading history in the stock</li> <li>News items which may affect interest.</li> <li>Price &amp; Volume over the day</li> </ul>
Trading outside eligible list	To capture when trades occur in a security outside of eligibility criteria.	Security	SMARTS	Account and Trader
		<ul><li>Time of activity;</li><li>Account Code and</li></ul>	SMARTS	Account purpose and Trader
Unusual Crossing at Month End	This alert seeks to identify where a trader or account may try to disguise a position at the end of month - it is a trading pattern that is sometimes referred to as "warehousing" or "parking".	<ul> <li>Trader</li> <li>Volume and Price of order</li> </ul>		<ul> <li>Activity and intent of proprietary account</li> <li>Volume traded and pattern of trading over the day</li> </ul>

		<ul> <li>Previous best and closing prices</li> </ul>		<ul> <li>Order price in relation to bid/ask price</li> <li>Frequency of the sales person, DTR, DMA</li> </ul>
Watchlist Trade	This is a real-time information alert that identifies any trade in a security that is on the user's watchlist.	<ul> <li>Security</li> <li>Volume traded</li> <li>Buy/Sell</li> </ul>	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of any intraday patterns.</li> <li>SONAR to review activity</li> </ul>	<ul> <li>Account purpose and trader;</li> <li>Operation of any algos / program trading instructions</li> <li>Any Over the wall approval required if applicable</li> <li>Restricted list or Grey list</li> </ul>
Watchlist Volume	This is a real time, informational alert which identifies trades in watchlist securities that exceed a pre- determined volume threshold.	Security     Volume traded	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of any intraday patterns.</li> <li>SONAR to review activity</li> </ul>	<ul> <li>Account purpose and trader</li> <li>Any internal PSI</li> <li>Trading history in the stock</li> <li>News items which may affect interest.</li> <li>Price &amp; Volume over the day</li> </ul>
Wide Bid/Ask Spread	This alert looks at the market making obligations of the liquidity provider and seeks to identify when the spread (difference between best bid and best ask) in a security exceeds the maximum tick limit for that derivative. This would indicate that the designated market maker (liquidity provider) is not fulfilling their obligations.	<ul> <li>Security</li> <li>Bid/Offer spread</li> <li>Volume of order</li> </ul>	<ul> <li>SMARTS</li> <li>SB – Graphs to see impact of any intraday patterns.</li> </ul>	<ul> <li>Market making responsibilities of the Liquidity Provider</li> </ul>

## 26. Appendix IV – Indonesia Equities Benchmark Algo Controls

Indonesia			
Control	Upper Limit	Trading Phases	Action
Max Spread	16 * historical	Continuous	Algo limits price, but continues to trade. Alert fired.
Max from Last	5%	Continuous	Algo limits price, but continues to trade. Alert fired.
Max from Last	7%	Close Auction	Algo limits price, but continues to trade. Alert fired.
Max from Open	19%	Continuous Close Auction	Algo limits price, but continues to trade. Alert fired.
Max from Prev. Close	20%	Pre-Open	Algo limits price, but continues to trade. Alert fired.
Max Child Order Size (lots)	50000	All	Algo restricts size to limit
Max Child Order Frequency	120 operations / 60 secs 600 operations / 300 secs	All	Algo will stop Trading and Alert. All orders on Mkt cancelled.

#### Max % Volume

Strategy	Default Limit	Upper Limit (trader override)	Action
SNIPER / STEALTH / SDMA /	100%	100%	Algo caps Participation
STAMPEDE overlay /			
ICEBERG / PEG			
TWAP / VWAP / DYNAMIC /	33%	50%	Algo caps Participation
POV / ARID / IS / AQUA			
AQUA_GLOBAL	50%	50%	Algo caps Participation
MOC	33%	33%	Algo caps Participation
CLOSE	33%	40%	Algo caps Participation

# 27. Appendix V – Quarterly KRI Report, Email Request and Approval

old

Risk Champion	Inherent Risk Detaile	Level	Key Control	Quality of RM Implementation	
Retno Wulandari	Fail to deliver what of institutional clients/hyperades value of institutional clients: Nil     Fail to deliver Prequency of institutional clients: Nil     Fail to deliver Prequency of institutional clients: Nil     Fail to deliver frequency to other broker. Nil     Preding fail to deliver Prequency to other broker: Nil     Preding fail to deliver Prequency to other broker: Nil     Preding fail to deliver Prequency to other broker: Nil     Preding fail to deliver Prequency to other broker: Nil	Low(1)	<ul> <li>Ops team perform pre-matching until SD and raise any un-matched settlement instruction on SD-1 to FO and ROC team, or DM and Compliance and to find solution as pre amilable failed mechanics provided by exchange</li> <li>JPMSAFL settle any fails for foreign clients on SD</li> </ul>	Satisfactory(2)	Very Low(1)
Edmond Imelda Saerang	- Average haircut value/Average fair market value of portfolio: 86% - Unrealized loss/Total Assets: 0.0001%	Low(1)	JPMSI only maintain Portfolio for facilitating client of odd lot orders	Satisfactory(2)	Very Low(1)
Rudy Kusumo Dahlia Akiah	Current Ratio 4.19 Current Ratio 4.19 Cash Ratio 3.20 (Cash Ratio 3.20 (Cash Ratio 3.20 (Cash Ratio 3.20 (Cash Ratio 3.20 (Cash Ratio 3.20 (Cash Ratio 2.20 (Cash Rat	Low(1)	- Bettlement team monitors daily cash position, trades psychlas and receivables - Links with LEC if there is any finding or capital increase requirement - Settlement team will request JPMSAPL to cover any fails for foreign clients	Satisfactory(2)	Very Low(1)
	- Internal Audit: N/A		Each LOB will ensure the compliance to internal policy and regulations     Each LOB will undate and implement SOB consistently		
	- Business Complexity: No new product/sales trading's issues - Know Your Client (new COB and reserval): - Pending 1 new parant account and 1 sub account - 4 accounts are in the process of KVC remediation. Target of completion is Dec 2016, pending WCOB review	-	- Soft Action Statistication and a statistication of the statistication and the statistis conducted statistication and the statistication an	KYC urrent is in s local sction	
- System failures:     - A bit diday near market closed on 30 Nov - MSCI Rebalance, it's expected because large amount of orders     - Capacity issue on CBST server - CIRI WRAI created: +1601854     - A network flaging between Indonesia and Singapore. P183 - 16122000029 - Local Indonesia traders are seeing delay in the     releases reflecting in NEO     - WRAI for CIRI Created     - Completed-Wraid, Check already sent to Exchange (BOYIB standardization is completed)     - Completed-Wraid, Check already sent to Exchange (BOYIB standardization is completed)     - Rol to monitor the trading limit during trading hour and escalate if the blocked					
Rudy Kusumo Dahlia Akiah	- Trading limit: Highest percentage of blocked collateral - blocked collateral amount/total offline collateral: 53% - blocked collateral amount/outstanding RO trade value : 24%	Low(1)	<ul> <li>RM to monitor the trading limit during trading hour and escalate if the blocked collateral -30% of there is any requirement to increase TL due to high trade volume, based on information from Sales Trader</li> <li>RM will rook with Cps team to calculate and prepare cash collateral injection, LEC will provide sign off</li> <li>Settlement team to send list of 0/s error and facilitation to Sales cc</li> </ul>	trade	Very Low(1)
	Trading Error and Facilitation:     10 trading errors with P/L UBD 176 and 4 facilitation with P/L (UBD 2,023), no pending reporting and 2 pending approval		Compliance and RM - RM will help chasing Sales Trader and Dealer to complete the reporting in error database - BM will help chasing Sales Trading Manager to approve the error report		
	- Client Trading Limit Breach: Breach trading limit JPMSAPL USD 31 mm, temporary limit increase for JPMSAPL IDR 1 trillion = USD 74mm until settlement date		<ul> <li>Client Trading Limit Breach report is generated automatically on SOD</li> <li>RM review the report and request Sales Trader to raise the request if any breach limit</li> <li>RM follow up the request with Credit team</li> </ul>	Implementation         Implementation         Iverial           rms pre-matching until 5D and nize any un-matched settlement walkable failed anchanics provided by exchange e any fails for foreign clients on DD         Batisfactory(D)         Very Low(I)           name Portfolio for facilitating client of odd lot orders         Setisfactory(D)         Very Low(I)           name Portfolio for facilitating client of odd lot orders         Setisfactory(D)         Very Low(I)           name Portfolio for facilitating client of odd lot orders         Setisfactory(D)         Very Low(I)           name Portfolio for facilitating client of odd lot orders         Setisfactory(D)         Very Low(I)           ensure the compliances to internal policy and regulations update and implement SDP consistent?         Setisfactory(D)         Very Low(I)           ensure the compliances to internal policy and regulations update and implement SDP consistent?         Setisfactory(D)         Very Low(I)           ensure MC orphing CDD performs client on-boarding and XCV Very regulation allow SUP ofform client on-boarding and XCV Very regulation allow CDP KYC regains         Setisfactory(D)         Very Low(I)           escalate any system issue to technology team an unit lollow up with word and or ergonal AD         Setisfactory(D)         Very RM           in the ord if a error and facilitation to Setse to RM         In the ord if a error and facilitation to Setse to RM         Setisfactory(D)         Very RM           and III	
	- Timelines of Escalation: Nil		All LOBs to comply with the Escalation Standard and Reporting Timeline		
	- Customer Complaints: Nil		<ul> <li>FO and Settlement team will escalate to RM/Compliance if there is any complaint to be raised by client verbally and/or formally</li> <li>Compliance will follow up with respective LOB and advise follow up actions</li> <li>LEC will ensue any complaint is reported to OK on monthly basis</li> </ul>		
	- Operating Committee Meeting (OCM): To be scheduled Jan 2017 for Q4 2010, OCM pack will distibuted property via email		<ul> <li>CAO mark each participant's calendar in advance for 1 year period</li> <li>CAO populate updates from each support function 1 week before next schedule and distribute the OCM pack 1 day before the meeting</li> </ul>		
	- Tax: Overpayment tax on 2008, 2009 and 2014, waiting for Supreme Court and DOT		and resolving any tax matters - Each LOB has the responsibility to be in compliance with internal policies		
	- Regulatory / Legislative Audit / Review Grades - OJK/IDX/KSEI: Nil		<ul> <li>Each LOB has the responsibility to escalate any potential breach to Compliance</li> </ul>		
			outstanding/missing accounts Ops team perform pre-matching until SD and raise any un-matched settlement		
	- FO to BO Reconciliations: Nil		Ops team perform trade reconciliation after market closed and to raise any issue to FO team		
	- Nostro: Nil		Ops team perform nostro reconciliation after market closed and to raise any issue to LEC team Ops team perform trade reconciliation after market closed and to raise any issue		
Myrna Hamid	Later separate to these. In: Later separate to fooding on PPATK audit that was conducted in Jun 2016 and wait meeting in Dec 2016 Audit Reading: No fooding on PPATK audit that was conducted in Jun 2016 and wait meeting in Dec 2016 Audit Reading: No fooding on PPATK audit that was conducted in Jun 2016 and wait meeting in Dec 2016 Corrective Action: N/A Corrective Action: N/A Decare that and the provide the set of the provide that the provide the provided that the provide the provided that the provided the provided that the provided the provided that the provided the provided that the provided the provided that the pro	Low(1)	to FO team - Each LOB will ensure the compliance to regulations and internal policies - Each LOB will update and implement SUP consistently	Satisfactory(2)	Very Low(1)
	Retno Wulandari Edmond Inelda Saerang Rudy Kusumo Dahlis Akiah	Fact         Details           Parto Scherr Halt Generational Cleants (Not Scher Factorisational Cleants (Not Scher Halt Scher Ha	Kat. Clampion         Design         Design           Rest         P-10 U deform that of institutional climits, 192         P-10 U deform that of institution U deform that institu	Interaction         Name         Cont         Description           Answerstein         Projection         Control         Provide the second se	In Tange         Interaction         Interaction

<ul> <li>Reputation</li> <li>9 Intra-group Transaction</li> </ul>	Imelda Saerang Myrna Hamid	member of Commensent Byrakih Bonds (Buhuki), and joint lead underwriter of global honds where JTMII has an important role in the underwriting process had been revoked. There was no impact to JTMII's business licenses, but the Firm keeps monitoring any presential risk closely. - Complaints/negative news handling/follow up action: The same has handled properly blocal main entity (BCO and Country Risk Officer) and regional communication LOB. Details of the matter had been communicated all employee. - Intra-group nosto balance: UBD 1.6 mm - Credit line amount and utilization: IDR 160 hn, nil utilization Composite Rating	Moderate (3) Low(1)	any complaint to be raised by client verbally and/or formally - Complance will follow up with repetitive LOB and advise follow up actions - LEC will ensure any complaint is reported to OJK on monthly basis LEC and operations team monitor the nostro balance at minimum amount only to cover general expenses for several months	Satisfactory(2) Satisfactory(2)	Low(2
	Edmond	- Varbal compliants from clients: Nil - Varbal compliants from clients: Nil - Written/formal compliants from clients: Nil - Negative news being published by local media: - Regative news their published by local media: - Regative regotive set of the set		- FO and Settlement team will ensure escalation to RM/Compliance if there is		
7 Compliance	Myrna Hamid	Free Release:         - 7,721 executions of 12% of total executions flagged as free release executions in NEO         - 7,800 cause:         Dealer created duamy order for delayed instructions via Fix.         Common practice within /PL.         Clarification from IDX: order execution is valid and in compliance when below criteria is fulfilled:         Clarification from IDX: order execution is valid and in the system         Clarification for is validated in termed / laster         Clarification is properly on-boarded is. client data is available in the system         Clarification is validated in termed / laster         Clarification for is validated in termed / laster         Clarification interd capabilities:         - Trade Hontoring and Surveillance:         - Trade Hontoring and Surveillance:         - Total 1,138 dates         - Possible wash trade TD 13 and 21-Oct and 2/22/24/29/30 Nov 16/22 Dec (confirmed the allocation to different sub         accounts)         - Pice changes on NG board TD 7/11 Nov and 30 Dec (all can be justified)         - Attion Plan: N/A	Low(1)	<ul> <li>FM to monitor executions in NEO on TD, to escalate findings to Compliance and technology team for further investigation and follow up action</li> <li>RM, Compliance, and Tech team to keep track delivery of the solution</li> <li>Monitoring of trade alert using Smarts Broker, analysis done by regional monitoring and surveillance (MAS) team and review by RM on T+1</li> <li>Testalation to banda to Compliance, if any</li> <li>MAS, RM, and Compliance will ensure the escalations will be followed up by respective team (Dealer/Sales Trader/Technology team)</li> </ul>	Satisfactory(2)	Ver Low()
		Trading ID:		- FM to check Trading ID on TD, to escalate any un-matched Trading ID to FO and Tech team - RM and Tech team to keep track delivery schedules of the solution		
<sup>6</sup> Strategic	Edmond Imelda Saerang	- Product naiose: Securities Brokerage on IDX with DVP [Delivery Versus Pergment] settlement, including Advisory, M&A [Merger and Acquisition]. CLR (Paytic Organic Material, and DCM [Delivery Versus Pergment] settlement, including Advisory, M&A [Merger - Duriness strategr - Client focus: For Equity, regionally we have identified 30 superior clients that we focus on as a firm. - Target of revenue: 10% Year on Year. - Trated interaction: Profit Margin Ratio [Del Income/Net Sales]: -5% - Note Thofit Margin Ratio [Del Income/Net Sales]: -5% - Note Thofit Margin Ratio [Del Income/Net Sales]: -1% - Root Ratio [Del Income/Average of Total Assets]: -1% - Root Ratio [Del Income/Average of Total Assets]: -1% - Revenue/Other Income: 4.44 - The achievement of yorkit target in the last 3 years: N/A - 2016 revenue target 15% of 2015 was achieved - Policy of divident repatriation: To be discussed in annual BOD meeting - Retained Earning: UDD 3 mm of edition culture - Policy of divident repatriation: To be discussed in annual BOD meeting - Retained Earning: UDD 3 mm of edition culture - Policy for Year Bordent - 96% (YeY C3)	Low(1)	<ul> <li>Client focus and revenue target is set and socialized properly from top management to local sales team</li> <li>Regular meeting is conducted to monitor the status and any issue on achieving business target</li> <li>NBLA process is set properly and involved local LOBs</li> </ul>	Satisfactory(2)	Ver Lowi

new

-							
0	Risk Type	<b>Risk Champion</b>	Inherent Risk Details	Level	Key Control	Quality of RM Implementation	Net Ris
T			Fail to deliver value of institutional clients/buy trades value of institutional clients: Nil	Level		Beed documents	
			Fail to deliver value to other broker/sell trades value to other broker: Nil     Fail to deliver Frequency of institutional clients: Nil		- Ops team perform pre-matching until SD and raise any un-matched settlement		
c	redit		Fail to deliver Frequency to other broker: Nil     Pending fail to deliver Frequency of institutional client: Nil	Low(1)	instruction on SD-1 to FO and ROC team, cc RM and Compliance and to find solution as per available failed mechanics provided by exchange	Satisfactory(2)	Very Low(1)
L			- Pending fail to deliver Frequency to other brokers: Nil - Mighest value of trades done on negotiation board: USD 96 mm = 183% nostro balance		<ul> <li>settle any fails for foreign clients on SD</li> </ul>		
L			The highest value of trades done on NG board (not guaranteed by KPEI) > nostro balance, but all settled				
M	larket		Average haircut value/Average fair market value of portfolio: 88%     Unrealized loss/Total Assets: 0.0001%	Low(1)	JPMSI only maintain Portfolio for facilitating client of odd lot orders	Satisfactory(2)	Very
1			The concentrated portfolio value/Total paid in capital: 0.01%     Current Ratio: 4.78				1000(1)
			- Cash Ratio: 3.73				
			<ul> <li>(NAWC Excess Value x 4)/Underwriting portion: N/A</li> <li>(Average Cash + Cash Equivalents + Deposit + Collateral in KPEI)/Average payables to KPEI: 11.06</li> </ul>				
			- (Average Cash + Cash Equivalents) / Average fail to receive of Institutional Clients (NK): 4741.79 - (Average Cash + Cash Equivalents) / Average fail to receive of Institutional Clients (NK): 4741.79 - (Average Cash + Cash Equivalents) / Average fail to receive of Institutional Clients (NK): 4741.79 - (Average Cash + Cash Equivalents) / Average fail to receive of Institutional Clients (NK): 4741.79 - (Average Cash + Cash Equivalents) / Average fail to receive of Institutional Clients (NK): 4741.79 - (Average Cash + Cash Equivalents) / Average fail to receive of Institutional Clients (NK): 4741.79 - (Average Cash + Cash Equivalents) / Average fail to receive of Institutional Clients (NK): 4741.79 - (Average Cash + Cash Equivalents) / Average fail to receive of Institutional Clients (NK): 4741.79 - (Average Cash + Cash Equivalents) / Average fail to receive of Institutional Clients (NK): 4741.79 - (Average Cash + Cash Equivalents) / Average fail to receive of Institutional Clients (NK): 4741.79 - (Average Cash + Cash Equivalents) / Average fail to receive of Institutional Clients (NK): 4741.79 - (Average Cash + Cash Equivalents) / Average fail to receive of Institutional Clients (NK): 4741.79 - (Average Cash + Cash Equivalents) / Average fail to receive of Institutional Clients (NK): 4741.79 - (Average Cash + Cash Equivalents) / Average fail to receive of Institutional Clients (NK): 4741.79 - (Average Cash + Cash				
			Fail to receive value of Institutional Clients (NK): USD 10 m = 0.02% liquid asset				
	iquidity		Fail to receive frequency of Institutional Clients (NK): 1     Frequency of pending fail to receive of Institutional Clients (NK): Nil	Lowit)	<ul> <li>Settlement team monitors daily cash position, trades payables and receivables</li> <li>Liaise with LEC if there is any funding or capital increase requirement</li> </ul>	Satisfactory(2)	Very
Ĩ	quarty		- (Average Cash + Cash Equivalents)/Average fail to receive from other broker: Nil		- Settlement team will request JPMSAPL to cover any fails for foreign clients		Low(1)
			Value of fail to receive from other broker: Nil     Frequency of fail to receive from other broker: Nil				
			Frequency of pending fail to receive from other broker: Nil				
L			- Liquidity ratio: 100%				
ŀ			- Internal Audit: N/A		- Each LOB will ensure the compliance to internal policy and regulations		
			Business Complexity: No new product/sales trading's issues		- Each LOB will update and implement SOP consistently - NBIA proces is performed that include all LOBs before new product is launched		
			Construction of the second s		- New process has been applied i.e. KYC operations provided by WCOB		
					(Wholesale Client On-Boarding) who will perform client on-boarding and KYC activities. The KYC regulation allowing CDD performed by third party as current		
			Know Your Client (new COB and renewal):		arrangement between JPMSI and JPM regional WCOB/KYC regional, SLA is in		
			- Pending 1 new parent account and 1 sub account		place but not to include direct communication to local client. JPMSI forms local KYC Team to administer KYC process to include communication and collection		
			- 4 accounts are in the process of KYC remediation. Target of completion is Dec 2016, pending WCOB review		of KYC document for further process by regional WCOB/KYC team		
					- KYC updates is being discussed in OCM - KYC Committee will ensure KYC principles and procedures are implemented		
					- KYC Committee will ensure that audit is conducted regularly		
1			System failures:     A bit delay near market closed on 30 Nov - MSCI Rebalance, it's expected because large amount of orders				
			- Capacity issue on CBEST server - CIRT WRM created: #16018894				
			- A network flapping between Indonesia and Singapore. PIS3 - 161220000929 - Local Indonesia tradets are seeing delay in the releases reflecting in NEO		<ul> <li>Each LOB will escalate any system issue to technology team</li> <li>Technology team will follow up with vendor and/or regional AD</li> </ul>		
			- WRM for CIRT Created - Completed-PWC RFI already submitted				
			Completed-PwC RF1 already submitten     Completed-Hash Check already sent to Exchange (BOFIS standardization is completed)				
			- Trading Limit:		- RM to monitor the trading limit during trading hour and escalate if the blocked collateral >30% or if there is any requirement to increase TL due to high trade		
4 Opera			Highest percentage of blocked collateral - blocked collateral amount/total offline collateral: 53%		volume, based on information from Sales Trader		
	operational		- blocked collateral amount/outstanding RO trade value : 24%	Low(1)	- RM will work with Ops team to calculate and prepare cash collateral injection, LEC will provide sign off	Satisfactory(2)	Very
	S.				<ul> <li>Settlement team to send list of o/s error and facilitation to Sales cc Compliance and RM</li> </ul>		Total(2)
Ш			Trading Error and Facilitation:     10 trading errors with P/L USD 176 and 4 facilitation with P/L (USD 2,025), no pending reporting and 2 pending approval		- RM will help chasing Sales Trader and Dealer to complete the reporting in		
			to streng streng streng to one to make a menuture strength (one store), to be setting taket reading and a between able at		error database - BM will help chasing Sales Trading Manager to approve the error report		
			Client Trading Limit Breach: Breach trading limit     USD 31 mm, temporary limit increase for     IDR 1 trillion *		Client Trading Limit Breach report is generated automatically on SOD     RM review the report and request Sales Trader to raise the request if any		
			USD 74mm until settlement date		breach limit		
					- RM follow up the request with Credit team		
			Client Trading Limit Breach: Breach trading limit USD 31 mm, temporary limit increase for IDR 1 trillion =     USD 74mm until settlement date		<ul> <li>RM review the report and request Sales Trader to raise the request if any breach limit</li> </ul>		
					- RM follow up the request with Credit team		
			- Timelines of Escalation: Nil		All LOBs to comply with the Escalation Standard and Reporting Timeline		
1		1			<ul> <li>FO and Settlement team will escalate to RM/Compliance if there is any complaint to be raised by client verbally and/or formally</li> </ul>		
L			- Customer Complaints: Nil		- Compliance will follow up with respective LOB and advise follow up actions		
			Operating Committee Meeting (OCM):		LEC will ensure any complaint is reported to OJK on monthly basis     CAO mark each participant's calendar in advance for 1 year period		
			To be scheduled Jan 2017 for Q4 2016, OCM pack will distibuted properly via email		<ul> <li>CAO populate updates from each support function 1 week before next schedule and distribute the OCM pack 1 day before the meeting</li> </ul>		
L			- Tax:		LEC liaise with Regional Tax team and external tax consultant in monitoring		
L					and resolving any tax matters - Each LOB has the responsibility to be in compliance with internal policies		
L		0	Regulatory/Internal Compliance Policy Breach: Nil		including SOP and relevant regulations - Each LOB has the responsibility to escalate any potential breach to		
L		1	Regulatory / Legislative Audit / Review Grades - OJK/IDX/KSEI: Nil		Compliance		
L			- OLRS: Nil		LEC and Ops will receive email notification if GLRS can be started, or if any outstanding/missing accounts		
			- Unconfirmed/Unaffirmed Trades: Nil		Ops team perform pre-matching until SD and raise any un-matched settlement		
			- FO to BO Reconciliations: Nil		instruction on SD-1 to FO and ROC team, cc RM and Compliance Ops team perform trade reconciliation after market closed and to raise any issue		
					to FO team Ops team perform nostro reconciliation after market closed and to raise any		
			- Nostro: Nil		issue to LEC team		
L			- Late capture of trades: Nil		Ops team perform trade reconciliation after market closed and to raise any issue to FO team		
t			- Audit Findings: No finding on PPATK audit that was conducted in Jun 2016 and exit meeting in Dec 2016				
L			- Audit Result: Nil - PPATK could not do sampling to assess money laundering activities because JPMSI doesn't have end clients' data but rely on KWC Statement from clients				
L			- Corrective Action: N/A - Litigation amount: N/A				
	egal		Ratio of litigation value/excess NAWC value: N/A	Lowit)	- Each LOB will ensure the compliance to regulations and internal policies	Satisfactory(2)	Very
Γ			Assignment of legal attorney or representation in court: N/A     Pulfilment of the legal agreement terms: Fully		- Each LOB will update and implement SOP consistently		Law(1)
L			- Standardization of all agreements: Adjustment to CSAA is in progress. Adjustment is made to align JPM standard, deletion of				
			invalid terms/clauses e.g. custody.deposit - The use of the dispute resolution forum: N/A				
+			- The number and nominal value of products which have not been regulated by rules: N/A	_		_	
Γ			Product choices: Securities Brokerage on IDX with DVP (Delivery Versus Payment) settlement, including Advisory, M&A (Merger and Acquisition), ECM (Equity Capital Market), and DCM (Debt Capital Market).				
L			- Business strategy				
ſ			- Client focus: For Equity, regionally we have identified supertier clients that we focus on as a firm.     - Target of revenue: 10% Year on Year.				
			- Fiscal/monetary changes: Nil				
			- The impact to business: Nil		- Client focus and revenue target is set and socialized properly from top		
s	trategic		- Profitability: Red - Net Profit Margin Ratio (Net Income/Net Sales): -8%	Low(1)	management to local sales team - Regular meeting is conducted to monitor the status and any issue on	Satisfactory(2)	Very
ľ			- Costs/Revenue: -127%		achieving business target		Low(1)
L			<ul> <li>ROA Ratio (Net Income/Average of Total Assets): -1%</li> <li>ROE Ratio (Net Income/Shareholders' Equity): -1%</li> </ul>		<ul> <li>NBIA process is set properly and involved local LOBs</li> </ul>		
			ROE Ratio (Net Income/Shareholders' Equity): -1%     Revenue/Other Income: 4,44				
			- The achievement of profit target in the last 3 years: N/A - 2016 revenue target 15% of 2015 was achieved				
			<ul> <li>Policy of dividend repatriation: To be discussed in annual BOD meeting</li> <li>Retained Earnings: USD 39 mm &lt; daily net outflow</li> </ul>				
		1 3	Profit Increase: -96% (YoY Q3)	1			

R         R	Very Low(1)				Composite Rating	
* 19* executions of 00% of total executions having unamable trading ID       • MA to check Trading ID on TD, to exclute any un-matched Trading ID to 70 and Tech team         * Compliance       • Free Release:       • MA to check Trading ID on TD, to exclute any un-matched Trading ID to 70 and Tech team to beep track delivery schedules of the solution       • MA to check Trading ID on TD, to exclute any un-matched Trading ID to 70 and Tech team to beep track delivery schedules of the solution       • MA to check Trading ID on TD, to exclute any un-matched Trading ID on TD, to exclute any United ID on TD, to exclute an	Very Low(1)	Satinfactory(2)	to cover general expenses	1.ew(1)		
8     Replace     Image: Provide securities of 0.0% of total executions hanging unmatched trading ID     Securities of the solution of 1.0, the scalate any unmatched trading ID or 70, and Tech team     Set of the solution of the solu					The issue has been handed properly by local main entity (SCO and Country Risk Officer) and regional communication LOB.	
<sup>7</sup> Compliance <sup>7</sup> Compliance <sup>8</sup> Interface Address of the solution of 0.05% of total executions hange unmatched trading ID <sup>9</sup> And text the frequencies of 0.05% of total executions hange unmatched trading ID <sup>9</sup> And text the frequencies of 0.05% of total executions fraged as free release the booking entity manually before sunt is and tech team. <sup>9</sup> Pree Release: <sup>9</sup> Compliance <sup>1</sup> Pree Release: <sup>1</sup> Pree Release: <sup>1</sup> Pree Release: <sup>1</sup> Pree Release: <sup>1</sup> Compliance in the solution of 1.2% of total executions flagged as free release executions in NEO <sup>1</sup> Rel canter than define to 1.2% of total executions flagged instructions via Fix: Compliance in the solution of 1.2% of total executions flagged instructions via Fix: Compliance in the solution of 1.2% of total executions flagged instructions via Fix: Compliance in the solution of 1.2% of total executions in NEO <sup>1</sup> Pree Release: <sup>1</sup> Pree Release: <sup>1</sup> Compliance, and tech team to keep track delivery achedules of the solution <sup>1</sup> Pree Release: <sup>1</sup> Pree Release: <sup>1</sup> Pree Release: <sup>1</sup> Compliance, and tech team to keep track delivery achedules of the solution <sup>1</sup> Pree Release: <sup>1</sup> Pree Rele	Low(2)	Satisfactory(2)	any complaint to be raised by client verbally and/or formally - Compliance will follow up with respective LOB and advise follow up actions		• Written/Formal compliants from clients: Nil • Negative news being publicable by local media functions and the search of the	8 Reputation
<ul> <li><sup>1</sup> Nompliance</li> <li><sup>1</sup> Compliance</li> <li><sup>2</sup> Compliance<td></td><th></th><td>monitoring and surveillance (M&amp;S) team and review by RM on T+1 - Escalation to be made to Compliance, if any - M&amp;S, RM, and Compliance will ensure the escalations will be followed up by</td><td></td><td><ul> <li>Trade Monitoring and Surveillance:</li> <li>Trade Monitoring and Surveillance:</li> <li>Total 1,353 Aerts</li> <li>Excelation:</li> <li>Foundation:</li> <li>Founda</li></ul></td><td></td></li></ul>			monitoring and surveillance (M&S) team and review by RM on T+1 - Escalation to be made to Compliance, if any - M&S, RM, and Compliance will ensure the escalations will be followed up by		<ul> <li>Trade Monitoring and Surveillance:</li> <li>Trade Monitoring and Surveillance:</li> <li>Total 1,353 Aerts</li> <li>Excelation:</li> <li>Foundation:</li> <li>Founda</li></ul>	
- 196 executions or 0.03% of total executions having unmatched trading ID     - Root cause:     - RM to check Trading ID on TD, to escalate any un-matched Trading ID to 70     Tot client with foreign and demestic fluids having only 1 ID. Sales Trader didn't change the booking entity manually before sent     it to 3478.     - RM and Tech team to keep track delivery athefules of the solution	Very Low(1)	Satisfactory(2)	and technology team for further investigation and follow up action	Low(1)	- 7.721 executions or 1.2% of total executions Slaged as fee release executions in NEO     - Busic cause:     Dealer created dummy order for delayed instructions via Fix.     Common practice within VPM.     Clarification from IDX: Creder execution is valid and in compliance when below criteria is fulfilled.     Clarification from IDX: Creder execution is valid and in compliance when below criteria is fulfilled.     Creder is received by authorize trader/sealer     Clarification is properly on-boarded is a client data is available in the system     C. Client: Order is wildated in terms of limit checking - available if to for outsody client     The understanding to caucify (lummy) offer and feed order from IVX after execution on spot order is not a concern from IDX as	7 Compliance
			and Tech team		<ul> <li>- 196 executions or 0.03% of total executions having unmatched trading ID</li> <li>- Boot cause:</li> <li>- Foot cause:</li> <li>- For client with foreign and densestic funds having only 1 ID, Sales Trader dish't change the booking entity manually before sent its to JATS.</li> </ul>	

### old

From:	Efendi, Johan
ſo:	🗷 Wulandari, Retno X
Ce	
Subject:	RE: KRI - Dec 2016

#### Hi Bu Retno,

#### Please find the KRI for Dec

<b>Risk Stripe</b>	No	Indicator (Issues/Updates)	Details (or Nil/NA)
	1	Succession Plan	N/A
	2	Training	N/A
	3	License	N/A
	4	Capacity	N/A
	5	Human Error	N/A
	6	Fraud	N/A
	7	Sending order to JATS	N/A
Operational Risk	8	Network	There's a network flapping between Indonesia and Singapore. P1S3 - 161220000929 - Local Indonesia traders are seeing delay in the releases reflecting in NEO
	9	System Access	N/A
	10	Manual intervention	N/A
	11	Projects updates	WRM for CIRT Created Completed-PWC RFI already submitted Completed-Hash Check already sent to Exchange
	12	Other main systems issues (network/access/manual intervention issues, etc.)	N/A

#### Thanks

Regards, Johan Efendi

From: Wulandari, Retno X Sent: Monday, January 02, 2017 11:00 AM To: Efendi, Johan Subject: KRI - Dec 2016

#### Hi Johan,

Appreciate if you can provide data as listed below for KRI Dec 2016.

Risk Stripe	No	Indicator (Issues/Updates)	Details (or Nil/NA)
	1	Succession Plan	N/A
	2	Training	N/A
	3	License	N/A
	4	Capacity	N/A
	5	Human Error	N/A
	6	Fraud	N/A
	7	Sending order to JATS	N/A
			There's a network flanning between Indonesia and

new

From: To: Cc: Subject: RE: KRI - Dec 2016

#### HI BU

#### Please find the KRI for Dec

Risk Stripe	No	Indicator (Issues/Updates)	Details (or Nil/NA)
	1	Succession Plan	N/A
	2	Training	N/A
	3.	License	N/A
	4	Capacity	N/A
	5	Human Error	N/A
	6	Fraud	N/A
	7	Sending order to JATS	N/A
Operational Risk	8	Network	There's a network flapping between Indonesia and Singapore. PIS3 - 16122000929 - Local Indonesia traders are seeing delay in the releases reflecting in NEO
	9	System Access	N/A
	10	Manual intervention	N/A
	11	Projects updates	WRM for CIRT Created Completed-PWC RFI already submitted Completed-Hash Check already sent to Exchange
	12	Other main systems issues (network/access/manual intervention issues, etc.)	N/A

Thanks

Regards,

From: ' Sent: Monday, January 02, 2017 11:00 AM To: Subject: KRI - Dec 2016

Hi Johan,

Appreciate if you can provide data as listed below for KRI Dec 2016.

Risk Stripe	No	Indicator (Issues/Updates)	Details (or Nil/NA)
	1	Succession Plan	N/A
	2	Training	N/A
	3	License	N/A
	4	Capacity	N/A
	5	Human Error	N/A
	6	Fraud	N/A
	7	Sending order to JATS	N/A
		and and a second and a second and a second	Thera's a natural flancing hatmass indonesis and

## 28. Appendix VI – Semi-annual Risk Profile Report and Email Approval

PENILAIAN FAKTOR PROFIL RISIKO							RISK PROFILE FA	CTOR ASSESSMENT					
NAMA PT J.P. Morgan Securities Indonesia POSISI 30-December-2016								PT J.P.Morgan Securit 30-December-2016	es Indonesia				
	Per	nilaian per Posi	si	Penil	aian Sebelumn	ya		Asses	sment by Positi	on	Pre	evious Assessme	ent
Profil Risiko	Peringkat Risiko Inheren	Peringkat Kualitas Manajemen Risiko	Peringkat Profil Risiko	Peringkat Risiko Inheren	Peringkat Kualitas Manajemen Risiko	Peringkat Profil Risiko	Risk Profile	Inherent Risk Rating	Quality of Risk Management Rating	Risk Profiles Ranking	Inherent Risk Rating	Quality of Risk Management Rating	
Risiko Kredit	Rendah (1)	Memadai (2)	Sangat Rendah (1)	Rendah (1)	Memadai (2)	Sangat Rendah (1)	Credit Risk		Satisfactory (2)			Satisfactory (2)	
Risiko Pasar	Rendah (1)	Memadai (2)	Sangat Rendah (1)	Rendah (1)	Memadai (2)	Sangat Rendah (1)	Market Risk	Low (1)	Satisfactory (2)	Very Low (1)	Low (1)	Satisfactory (2)	Very Low (1)
Risiko Likuiditas	Rendah (1)	Memadai (2)	Sangat Rendah (1)	Rendah (1)	Memadai (2)	Sangat Rendah (1)	Liquidity Risk	Low (1)	Satisfactory (2)	Very Low (1)	Low (1)	Satisfactory (2)	Very Low (1)
Risiko Operasional	Rendah (1)	Memadai (2)	Sangat Rendah (1)	Rendah ke Moderat (2)	Memadai (2)	Rendah (2)	Operational Risk	Low (1)	Satisfactory (2)	Very Low (1)	Low to Moderate (2)	Satisfactory (2)	Low (2)
Risiko Hukum	Rendah (1)	Memadai (2)	Sangat Rendah (1)	Rendah (1)		Sangat Rendah (1)	Legal Risk	Low (1)	Satisfactory (2)	Very Low (1)	Low (1)	Satisfactory (2)	Very Low (1)
Risiko Strategis	Rendah (1)	Memadai (2)	Sangat Rendah (1)	Rendah (1)	Memadai (2)	Sangat Rendah (1)	Strategic Risk	Low (1)	Satisfactory (2)	Very Low (1)	Low (1)	Satisfactory (2)	Very Low (1)
Risiko Kepatuhan	Rendah (1)	Memadai (2)	Sangat Rendah (1)	Rendah ke Moderat (2)	Memadai (2)	Rendah (2)	Compliance Risk	Low (1)	Satisfactory (2)	Very Low (1)	Low to Moderate (2)	Satisfactory (2)	Low (2)
Risiko Reputasi	Moderat (3)	Memadai (2)	Rendah (2)	Rendah (1)	Memadai (2)	Sangat Rendah (1)	Reputational Risk	Moderate (3)	Satisfactory (2)	Low (2)	Low (1)	Satisfactory (2)	Very Low (1)
Risiko Intra-group	Rendah (1)	Memadai (2)	Sangat Rendah (1)	Rendah (1)	Memadai (2)	Sangat Rendah (1)	Intra-group Risk	Low (1)	Satisfactory (2)	Very Low (1)	Low (1)	Satisfactory (2)	
Profil Risiko			Sangat Rendah (1)			Sangat Rendah(1)	Risk Profile			Very Low (1)			Very Low (1)

Analisa	Analysis
Secara umum, peringkat Profil Risiko Perusahaan untuk semester 2 tahun 2016berada di level 1 (Sangat Rendah). Hal tersebut dikarenakan inherent risik yang rendah dan kualitas Manajemen Risiko yang memadai di hampir semua jenis risiko.	In general, Firm's risk profile for H2/2016 was at level 1 (Very Low-risk) driven by low inherent risk and a satisfactory risk management quality for almost all of the risk stripes.
Perusahaan memiliki visi menjadi Perusahaan Elek terdepan dan 3 besar /nvesment Bank yang berkelanjutan di Indonesia. serta memiliki misi untuk mempromosikan Pasar Modai Indonesia ke kancah global melalui penelitan dan konferensi, dan mengembangkan bisnis Perantara Pedagan Elek di Monesia. Untuk mencapai visi dan misi tersebut, Perusahaan memutuskan untuk beroperasi dengan tingkat risiko yang rendah, dengan menatpakan risik appetite terendah pada Risika Strategi dan Risiko Repatas melalup pemilian jasa pelagnan yang terbatas pada Penantara Pedagang Elek di Bursa Elek Indonesia dengan penyelesiaan secara DVP (Deliney Versus Payment), termasuk kegiatan Advisory, M&A (Merger and Acquiston), ECM (Equiv Capital Market), dan DCM (Jebc Lagital Market), dan hanya menerima nasabah institusi dengan latar belakang yang solid serta rekam jejak reputasi yang jetas dan bensiti.	The Firm has a vision to be a leading securities house and be in a top 3 sustainable investment bank in Indonesia, and has a mission to promote Indonesian capital market to the global arena through research and conferences, and to develop securities brokerage business in indonesia. In order to accomplish the vision and mission, the Firm decided to operate at low level of risk, by setting lowest risk appetite to Strategic and Reputation risk through the choices of services that are limited to Securities Brokerage on IDX with DVP (Delivery Versus Payment) settlement, including Advisory, NA (Meger and Accustion), ECM (Equit) Capital Market, and DCM (Det Capital Market), and onboarding only institutional clients with a solid background, also a clear and clean reputation track record.
Peringkat inherent risk untuk Risiko Operasional dan Risiko Kepatuhan menjadi Sangat Rendah di semester 2 tahun 2016 dikarenakan hasi penlaian <i>Erokerago Office System</i> (BOCKS) per 10 Agutus 2016 dinyatakan meruaskan oleh Euras Etek Indonesia (EB) dengan pengcusulan 6 temuan untuk dikarifikasi temasuk hava ode yang banus segera dikirimaha ke EEI FT J-D. Mogan Sekuntas Indonesia (PMRS) telah memberikan klarifikasi dam buki ata 6 termaut tersebut, dan pada 20 Oktober 2016, EEI termyutakan bahwa JPMSI telah merremisti senudiosasi BOPG), envihang pada hardu code telah dikinimah bepada EEI pada 20 teremidu 2016 di kata 6 telah merremisti senudisasi ata 6 termau tersebut, dan pada 20 Oktober 2016, EEI termyutakan bahwa JPMSI telah merremisti senudiosasi BOPG), envihang pada hardu code telah dikinimah bepada EEI pada 20 teremidu 2016 di keta	The inherent risk level of Operational Risk and Compliance Risk became Very Low in H2/2016 due Indonesia Stock Exchange (DX) has marked us as satisfied with Brokerage Office System (BOFR) assessment as per 10 August 2016 with exception of six findings, - clanification including hash code that has to be submitted to IDX. JMSN bas provided clanification and evidences on these 6 findings, and on 20 Colober 2016, IDX stated that we have fulfiled the BOFRS standardization, and the hash code has been submitted to IDX on 29 December 2016.
Risiko Reputasi memiliki peringkat inherenf risk yang lebih tinggi di semester 2 tahun 2016, dikarenakan terdapat satu kejadian Risiko Reputasi dimana laporan riset yang diterbitan oleh Global Emerging Market Eguih Research yang menurunkan peringkat pasa valutas indonesia secura ganda dari overnegih ke undhonegih tekah manaki naskati nagati dari Kenentetari Kesungan bindonesia. Selanjutnya e empat kerjasama binsi dengan Entitas Utama sebagai bank persepi, dealer utama Surat Utang Negara (SUN), peserta lelang Sotat Utang Syarah Negara (Suluk), pering Marketor unik menarohisan jolosi bool dimas JPMG memilip perana pening datam prose projeminan tersebut dibatakan. Tidak ada penganth gada ijin usaha JPNGS, akan tetap Penusahaan tetap mengawasi segala petersi risilo secara ketat.	Inherent risk level of Reputation Risk was rated higher in H2/2016, because there was one Reputation Risk event where research report that was released by Global Emerging Market Equity Research that double downgaded Indonesia equity from overweight to underweight has imoled a negative response from Indonesia Ministry of France. Furthermore, 4 business partmership as tax payment bank (bark persepsi), primary dealer of Government Bonds (SUN), auction member of Government Systah Bonds (Sukuk), and joint lead underwriter of global bonds where J-NSI has an important role in the underwriting process had been revoked. There was no impact to JPMS/fs business licenses, but the Firm keeps monitoring any potential risk closely.
Berdasarkan analisa yang dilakukan Perusahaan, tidak terdapat eksposur yang material terhadap jenis risiko lainnya. Hal tersebut * dikarenakan strategi bisnis dan karakteristik Perusahaan sebagai berikut:	Based on the analysis performed by the Firm, there is no material exposure on other risk stripes. It is driven by following business strategies and the Firm's characteristics:
Poduk yang terbatas pada Perantara Pedagang Efek termasuk kegiatan Advisory, M&A (Merger and Acquisition), ECM (Equity Capital Market), dan DCM (Debt Capital Market);	Products are limited to securities brokerage including Advisory activities, M&A (Merger and Acquisition), ECM (Equity Capital Market), and DCM (Debt Capital Market) activities;
- Jenis nasabah institusi dengan latar belakang yang solid serta rekam jejak reputasi yang jelas dan bersih;	- Institutional type of client with a solid background, also a clear and clean reputation track record;
- Penyelesaian transaksi saham secara DVP (Delivery Versus Payment);	- DVP (Delivery Versus Payment) trade settlement;
Kepemilikan aset likuid berkualitas tinggi yang merupakan sumber utama penyelesaian transaksi, serta akses yang memadai pada " sumber pendanaan dari Entitas Utama dan beberapa bank dalam negeri lainnya;	The ownership of high-quality liquid asset as main source of trade settlement, and an adequate access to some sources of funds from main entity and other local banks;
- Perusahaan merupakan bagian dari organisasi JPMorgan yang memiliki brand yang solid secara global.	- The Firm is part of JPMorgan organization that has a solid brand globally.

#### old

Yom: ☐ Saerang, Imdda Yon: ☞ Wulandari, Retho X; ⓓ X, Edmond X Cr Iubject: RE: Risk Profile Report H2/2016 (Market Risk, Strategic Risk, Reputation Risk)

#### Confirm Retno, thank you

imedia Seerang | Head of Equity Distribution - Indonesia | J.P. Morgan | The Energy Building SF SCBD Lot 11A, JI. Jend. Sudirman Kav 52-53, Jakarta 12190, Indonesia | T. +62 21 52918451 | imedia saeranc@iomorgan.com | iomorgan.com Alternate contact: Arya Darmawan | T: +62 21 5291 8452 | arya.darmawan@jpmorgan.com

Hi Edmond and Imelda,

I have finalized the Risk Profile Report for H2/2016 for Market Risk, Strategic Risk, and Reputation Risk based on our discussion this week and further review.

I would appreciate if you could provide your signoff by end of day today at the latest.

Kindly advise if you have any questions on the details or other concern.

#### Thanks & Rgds.

Retro Wulandari | Indonesia Cash Equity Risk Management | J.P. Morgan Securities Indonesia, PT.J.P. Morgan | The Energy Building 6th FL SEB Lot 11A, JL. Jend. Sudirman Kav 52-53 Jakarta 12190 | T. (62 21) 5291 8264 | F. (62 21) 5291 8265 | retrox vulandari@jumorgan.com | www.jamorgan.com JPMC INTERNAL USE ONLY

#### new

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	Retno, thank you		
Atterne			LARR
Alterne			
To: Subject	iday, January 13, 2017 11:11 A : Risk Profile Report H2/2016 (M Ince: High	t arket Risk, Strategic Risk, Reputation Risk)	
HI			
there fi	nalized the Risk Profile Report	or H0/2016 for Market Risk, Strategic Risk, and Reputation Risk based on our discussion this week and further review.	
I woold	appreciate if you could provide	your signoff by end of day today at the latest.	

Kindly advise if you have any questions on the details or other concern.

#### Thanks & Reds

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