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Asia Pacific Exchanges and Regulatory Subcommittee & Asia Pacific Technical Subcommittee

Hong Kong – Master SPSA
Recommended Practices on the use of FIX

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Document History

Revision	Date	Author/Editor	Revision Comments
0.01	09/03/2020	Winter Chan, JP Morgan	Initial draft derived for technical subcommittee review
0.02	24/03/2020	Hanno Klein, GTC	GTC review
0.03	31/03/2020	Ed Mangles	Inserting points highlighted by HKEx, at section 6.1
0.04	14/04/2020	Hanno Klein, GTC	Addition of sell-side to exchange flows
0.05	12/08/2020	Hanno Klein, GTC	Removal of content related to FIX extension proposal (moved to separate Gap Analysis document).
0.06	09/09/2020	Daniel Shek, AP Tech Committee co-chair	Stating that MSPSA and SPSA is mutually exclusive at the individual order level between the buyside and sellside
0.07	21/09/2020	Daniel Shek, AP Tech Committee co-chair	Adding refer to HKEx spec

1 Executive Summary

(Master) SPSA (Special Segregated Account) IDs were introduced by HKEx for the sole purpose of pre-trade checking for sell orders. However, validation rules will also be applied to buy orders. Once a Master SPSA exists, the exchange moves all positions previously held under one of its SPSAs to the Master SPSA. The settlement process is then conducted on the basis of the SPSA, i.e. not the Master SPSA. Hence, the individual SPSAs are only absent at the exchange level but continue to exist at buy- and sell-side as well as for the settlement.

Buy-side to sell-side workflows may have to be explicit about whether they are sending an SPSA ID or a Master SPSA ID. There is a need to define scenarios that need to be covered by a FIX solution, probably requiring an extension, i.e. FIX Gap Analysis, as well as (an) additional user defined field(s) (UDF(s)) for FIX legacy versions. There are different implementations in place today (using Parties, PreAllocGrp, Account(1), Text(58), UDFs) so that we can expect the introduction of the Master SPSA concept to also yield more than one solution. The solutions include FIX 4.2 with and without the ability to support repeating groups (from higher versions), e.g. PreAllocGrp from FIX 4.4.

2 Objective

The aim of this Recommended Practice document is to not only represent the proposed solution for Master SPSA trade, but also capture feedback and discussion points raised by the industry. To that end, this document will be a working document that can be updated, as the industry moves into the implementation phase.

3 Scope

This guideline comprises the communication of Master SPSA and SPSA allocation breakdown from the buy-side to the sell-side in the context of the regulatory environment controlled by the Hong Kong SFC (Securities and Futures Commission).

4 Target Audience

To help ensure as robust a solution as possible, we hope that a wide group of firms and individuals will view and offer feedback to the proposed use of FIX for facilitation consent. These firms / individuals may include:

- Buy-side traders - Head of Trading, FIX onboarding & implementation personnel

- Sell-side traders - Head of Trading, FIX onboarding & implementation personnel

- Vendor / solution providers, with a focus on EMS product specialists

5 Master SPSA Recommended Practices

5.1 Background

Buy-side to sell-side workflows should be explicit about whether they are sending an SPSA ID or a Master SPSA ID. This proposal outlines the communication of Master SPSA and SPSA allocation breakdown from the buy-side to the sell-side

5.2 Business Requirements

Here are the business requirements:

- Able to specify the ID along the order
- Able to specify that the ID type is a Master SPSA
- Able to specify the pre-trade allocations across one or more funds
- Need to be backward compatible to FIX 4.2
- Need to be supported by "FIX Latest"

5.3 Recommendations

It is recommended to use one or more instances of the Parties component to identify an SPSA and/or Master SPSA whereby PartyID(448) holds the actual ID and PartyRole(452) is set to 5 (Investor ID). The value of PartyIDSource(447) distinguishes SPSA and Master SPSA as follows:

T	SPSA ID
U	Master SPSA ID

It is further recommended to use AllocAccount(79) together with AllocAcctIDSource(661) whenever parts of the order quantity need to be allocated to different SPSAs in the buy-side to sell-side communication. In this case, the Parties component only holds the Master SPSA ID and the PreAllocGrp component is used to hold one or more SPSA IDs. Within each instance of the PreAllocGrp component, the field AllocAccount(79) contains the SPSA ID and the field AllocAcctIDSource(661) is set to 6 (SPSA code).

In order to support backward compatibility for FIX 4.2 users not being able to support repeating groups, it is recommended to utilize user defined fields as follows:

Tag	Field	FIX Msg Types	Description
8019	SPSAID	D, AB, G, AC	Special Segregated Accounts Investor ID that is 6 digitis long without leading zero(s) assigned by CCASS (Hong Kong). HKSCC provides the Master SPSA services to the market to facilitate investors who maintain China Connect Securities with custodians but want to sell their China Connect Securities without having to pre-deliver the securities from their custodians to their executing brokers. The investor may designate at most 20 EPs as executing brokers which are authorised to use its Investor ID to execute orders in China Connect Securities on its behalf. When the designated EP inputs such investor's sell order, it shall also input the Investor ID with the sell order.

8029	MasterSPSAID	D, AB, G, AC	Master Special Segregated Accounts Investor ID that is 6 digits long without leading zero(s) assigned by CCASS (Hong Kong).
			HKSCC provides the Master SPSA services to the market to facilitate investors who maintain China Connect Securities with custodians but want to sell their China Connect Securities without having to pre-deliver the securities from their custodians to their executing brokers. The investor may designate at most 20 exchange participants (EPs) as executing brokers who are authorised to use their Investor ID to execute orders in China Connect Securities on his behalf. When the designated EP inputs such investor's sell order, it shall also input the Investor ID with the sell order.

5.4 Scenarios

This section describes use cases involving multiple SPSAs and Master SPSAs. The basis for the scenarios is:
- SPSA IDs A and B that are part of Master SPSA ID X
- SPSA ID C that is not part of any Master SPSA
- SPSA IDs D and E that are part of Master SPSA ID Y
- A business order for 100 is to be sent from the buy-side to the sell-side for one or more SPSAs, i.e. the total quantity may have to be split explicitly across SPSAs and more than one FIX message may be needed if no repeating groups are supported

The assumptions are:
- The validation of the exchange checks if a Master SPSA Service is in place and expects either an SPSA ID (no service in place) or a Master SPSA ID (service in place).
- The buy-side can continue to send SPSA IDs to the sell-side and optionally add the related Master SPSA ID(s). This is then up to bilateral agreement and will not be explicitly distinguished in the scenarios.
- Alternatively, the buyside can either send SPSA or MSPSA at the individual order level depending on the service in place.
- Buyside can potentially link some of their SPSA accounts to their MSPSA and leave some unlinked
- Master SPSAs will always have two or more SPSAs and a BCAN on the fund *manager* level (instead of the individual fund level).
- It is not recommended (and not depicted) to have a semantic where only a Master SPSA is provided and the sell-side breaks the total order quantity down evenly across all of its SPSAs.
- NewOrderSingle(35=D) is not intended to provide reference data, i.e. to explicitly identify which SPSA belongs to which Master SPSA. FIX offers a distinct set of parties reference data messages for this purpose. It is assumed that the sell-side receives this information out-of-band and knows the relationships between SPSAs and Master SPSAs.
- Exchange does not accept FIX 4.2, only FIX 5.0 and above (BeginString(8) = "FIXT.1.1").
- ClOrdLinkID(583) can optionally be used to logically group together multiple orders from the buy-side to the sell-side.
- It is not allowed to send more than one Master SPSA with a single order message from the sell-side to the exchange.

The following recommended message flow scenarios are from the buy-side to the sell-side with the NewOrderSingle(35=D) message.

5.4.1 Order is for A (X), i.e. total quantity is to be allocated to A

Buy-Side to Sell-Side
FIX 4.4 or above / FIX 4.2 with repeating group support
Parties component (Master SPSA optional) NoParties(453)=1 > PartyID(448)=X > PartyIDSource(447)=U (Master SPSA) > PartyRole(452)=5 (Investor ID) OrderQty(38)=100
FIX 4.2 without repeating group support
8029 =X (Master SPSA) OrderQty(38)=100

5.4.2 Order is for C, i.e. total quantity is to be allocated to C

Buy-Side to Sell-Side
FIX 4.4 or above / FIX 4.2 with repeating group support
Parties component NoParties(453)=1 > PartyID(448)=C > PartyIDSource(447)=T (SPSA) > PartyRole(452)=5 (Investor ID) OrderQty(38)=100
FIX 4.2 without repeating group support
8019=C (SPSA) OrderQty(38)=100

5.4.3 60% of the Order is for A (X) and 40% for B (X)

Buy-Side to Sell-Side
FIX 4.4 or above / FIX 4.2 with repeating group support
Parties component (optional) NoParties(453)=1 > PartyID(448)=X > PartyIDSource(447)=U (Master SPSA) > PartyRole(452)=5 (Investor ID) PreAllocGrp component NoAllocs(78)=2 > AllocAccount(79)=A > AllocAccountIDSource(661)= 6(SPSA) > AllocQty(80)=60 > AllocAccount(79)=B > AllocAccountIDSource(661)= 6 (SPSA) > AllocQty(80)=40

OrderQty(38)=100

FIX 4.2 without repeating group support

First NewOrderSingle(35=D) message:
8029 =X (Master SPSA)
OrderQty(38)=60
ClOrdLinkID(583)=XYZ (optional)

Second NewOrderSingle(35=D) message:
8029 =X (Master SPSA)
OrderQty(38)=40
ClOrdLinkID(583)=XYZ (optional)

5.4.4 60% of the Order is for A (X) and 40% for C

Buy-Side to Sell-Side

FIX 4.4 or above / FIX 4.2 with repeating group support

Parties component (optional)
NoParties(448)=1
> PartyID=X
> PartyIDSource(447)= U (Master SPSA)
> PartyRole(452)=5 (Investor ID)

PreAllocGrp component
NoAllocs(78)=2
> AllocAccount(79)=A
> AllocAccountIDSource(661)= 6 (SPSA)
> AllocQty(80)=60
> AllocAccount(79)=C
> AllocAccountIDSource(661)= 6 (SPSA)
> AllocQty(80)=40

OrderQty(38)=100

FIX 4.2 without repeating group support

First NewOrderSingle(35=D) message:
8029 =X (Master SPSA)
OrderQty(38)=60
ClOrdLinkID(583)=XYZ (optional)

Second NewOrderSingle(35=D) message:
8019=C (SPSA)
OrderQty(38)=40
ClOrdLinkID(583)=XYZ (optional)

5.4.5 60% of the Order is for A (X) and 40% for D (Y) [Advanced]

Buy-Side to Sell-Side

FIX 4.4 or above / FIX 4.2 with repeating group support

Parties component (optional)
NoParties(453)=2
> PartyID(448)=X
> PartyIDSource(447)=U (Master SPSA)
> PartyRole(452)=5 (Investor ID)
> PartyID(448)=Y
> PartyIDSource(447)=U (Master SPSA)
> PartyRole(452)=5 (Investor ID)

PreAllocGrp component
NoAllocs(78)=2
> AllocAccount(79)=A
> AllocAccountIDSource(661)= 6 (SPSA)
> AllocQty(80)=60
> AllocAccount(79)=D
> AllocAccountIDSource(661)= 6 (SPSA)
> AllocQty(80)=40

OrderQty(38)=100

FIX 4.2 without repeating group support

First NewOrderSingle(35=D) message:
8029 =X (Master SPSA)
OrderQty(38)=60
ClOrdLinkID(583)=XYZ (optional)

Second NewOrderSingle(35=D) message:
8029 =Y (Master SPSA)
OrderQty(38)=40
ClOrdLinkID(583)=XYZ (optional)

5.4.6 50% of the Order is for A (X), 40% for B (X) and 10% for C

Buy-Side to Sell-Side

FIX 4.4 or above / FIX 4.2 with repeating group support

Parties component
NoParties(453)=1
> PartyID(448)=X
> PartyIDSource(447)=U (Master SPSA)
> PartyRole(452)=5 (Investor ID)

PreAllocGrp component
NoAllocs(78)=3
> AllocAccount(79)=A
> AllocAccountIDSource(661)= 6 (SPSA)
> AllocQty(80)=50
> AllocAccount(79)=B
> AllocAccountIDSource(661)= 6 (SPSA)
> AllocQty(80)=40
> AllocAccount(79)=C
> AllocAccountIDSource(661)= 6 (SPSA)
> AllocQty(80)=10

OrderQty(38)=100

FIX 4.2 without repeating group support

First NewOrderSingle(35=D) message:

8029 =X (Master SPSA)
OrderQty(38)=50
ClOrdLinkID(583)=XYZ (optional)

Second NewOrderSingle(35=D) message:

8029 =X (Master SPSA)
OrderQty(38)=40
ClOrdLinkID(583)=XYZ (optional)

Third NewOrderSingle(35=D) message:
8019=C (SPSA)
OrderQty(38)=10
ClOrdLinkID(583)=XYZ (optional)

Please note that HKEx requires additional parties (tag 453) to be specified in the messages to the exchange. For details, refer to the link: https://www.hkex.com.hk/Mutual-Market/Stock-Connect/Reference-Materials/Technical-Documents/CCCG-Specifications?sc_lang=en

6 Issues and Discussion Points

This section contains discussions amongst members in the Asia Pacific FIX Trading Community, a few points have been raised and highlighted:

6.1   Points highlighted during discussions with HKEx

For further information on the Master SPSA service, please refer to the *Master SPSA FAQ* published by HKEX: https://www.hkex.com.hk/-/media/HKEX-Market/Mutual-Market/Stock-Connect/Reference-Materials/Master-SPSA-Service/Master_Spsa_Service_FAQ_Eng.pdf?la=en

As detailed in the detailed in Sections 4.1/4.2 of the *Master SPSA FAQ*, it is a requirement for the Master SPSA holder (fund manager) to send pre-allocation information to the CCEP prior to trade, but this information is not to be used during the settlement process by the Master SPSA holder.

As detailed in Sections 1.3/1.4 of the *Master SPSA FAQ*, SPSA accounts that have BCANs assigned at both the fund manager AND fund level are both eligible to be assigned to a Master SPSA ID. However, they cannot be mixed within the same Master SPSA ID.

6.2   Grouping of Master SPSA IDs

Master SPSA ID groups SPSA IDs, respective groups for Master SPSA IDs may not be meaningful. It depends on the implementation of the buy side firm that may have various account groupings or entities. In such a grouping (e.g. legal entity level), a repeating group of Master SPSA IDs allows buy-side firm sending one NewOrderSingle(35=D) message instead of multiple.