

Shanghai - Hong Kong Stock Connect

FIX Trading Community & ASIFMA Implementation Guide

Prepared by:

Asia Pacific Exchanges & Regulatory Subcommittee, FIX Trading Community

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INTRODUCTION and BACKGROUND

Shanghai-Hong Kong Stock Connect, also known as Mutual Market Access or the “through train”, is a pilot programme that signals the continuation of Mainland China’s capital markets’ opening to direct overseas investment. It is the first time offshore investors will be able to access stocks listed on the Shanghai Stock Exchange via their Hong Kong broker without the issues of QFII/RQFII, such as repatriation.

Connect is driven in part by the internationalization of the RMB. By requiring settlement in RMB, the institutional community has had to seek a sufficient supply of the currency and upgrade relevant systems to deliver by the launch date.

Connect consists of a bi-directional link between the Shanghai Stock Exchange (SSE) and the Hong Kong Stock Exchange (SEHK). This document is focused on the **Northbound** Trading Link of the Connect programme, allowing orders on SSE eligible stocks initiated outside China to enter the SSE order book via SEHK.

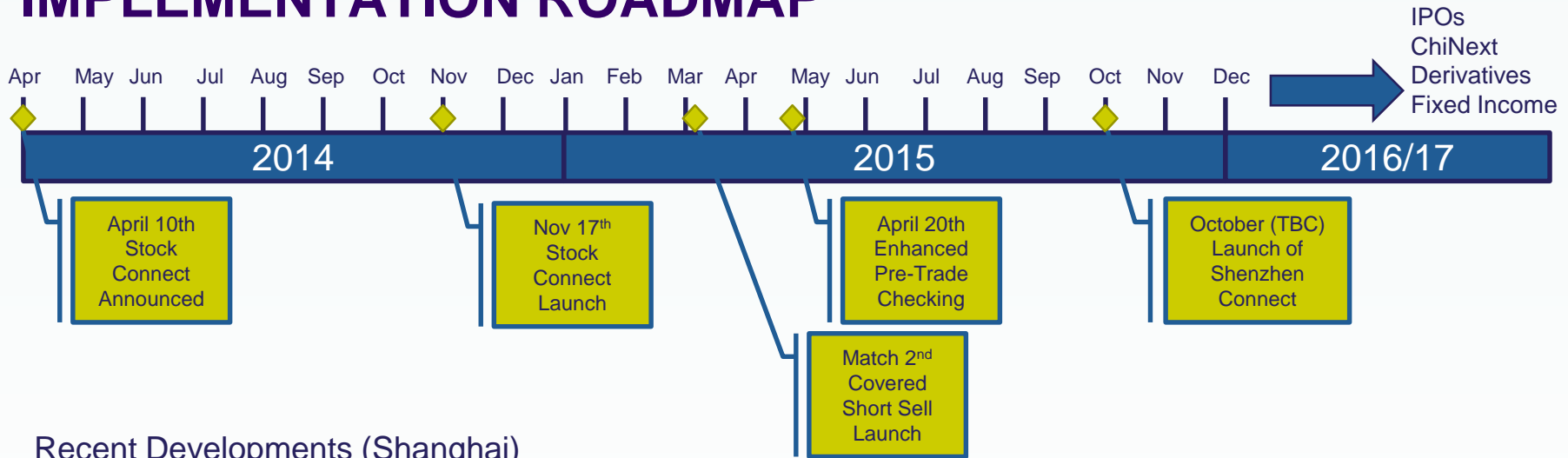
FIX Trading Community, ASIFMA, sell-side, buy-side, vendors, and other market participants joined together over a number of working groups to collaborate on implementation plans. While not all participants are tackling the challenges in the same way, FIX Trading Community feels this document is an accurate representation of the majority of the participants’ expected workflows, both upstream and downstream of their order flow.

As this programme continues to develop, the FIX Trading Community will look to support the buy-side, sell-side and their vendors with constructive suggestions on how to implement the various regulatory requirements. If you would like to be more directly involved with this voluntary work, **please contact:**

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IMPLEMENTATION ROADMAP



Recent Developments (Shanghai)

- Covered Short Sell Model (Live: 2nd March 2015)
 - Introduction of a covered short sell model and Stock Borrowing and Lending (SBL) into the Northbound link of the Hong Kong Shanghai Connect Program
 - Naked short selling is not possible through the Connect Program.
- Enhanced Pre-Trade Checking Model (Setup: 30th May 2015 / Live: 20th April 2015)
 - Optional Enhanced Pre-Trade Checking Model based on Investor ID's, allowing improved multi-broker model and removal of signaling risk to executing brokers
 - Custodians must open Special Segregated Accounts (SPSA) in CCASS. CCASS will generate a unique Investor ID
 - Investors IDs specified on China Connect EP orders for the purposes of pre-trade checking on SELL orders.
 - Custodians and General Clearing Participants may open Stock Segregated Accounts from 30th March 2015.
 - Custodian Participants and non-EP General Clearing Participants are required to designate the Investor ID's on SPSA accounts and the executing brokers authorized to sell China Connect Securities through a form filed with the HKSCC.
 - http://www.hkex.com.hk/eng/market/sec_trading/chinaconnect/Documents/Special%20Segregated%20Account%20and%20Designated%20Executing%20Broker%20Maintenance%20Final.pdf
 - Covered Short Sell Model (Live: 2nd March 2015)



RESOLVED ISSUES

- **Recognition of Beneficial Ownership**
 - Has been resolved through recognition of CCASS and nominee holder on the mainland on behalf of investors
- **Identification of Beneficial Owners**
 - HKEx will soon present a step-by-step guide for legal endorsement in China
 - Certificates will be provided to A-share investors to prove ownership in Chinese legal system
- **Segregation of Assets**
 - CCASS (Nominee) is obligated to open sub-accounts for each actual owner of the rights and benefits held by it or the secondary nominal owner
- **Capital Gains Taxes**
 - Capital gains taxes waived for foreign investors to help boost participation.



Workflow Implementation – northbound (1) Instrument Level

Example trade flow from buy-side OMS (right) to Connect (left)



Hierarchy	Risk Check / Factor	Details	Exchange/ Connect	Broker	Vendor (EMS)	Vendor (OMS)
Instrument Level	Eligible Stocks (SSE 180, SSE 380 & SSE-SEHK A+H) Excluded Stocks (Risk Alert, non-RMB)	<ul style="list-style-type: none"> Validate stocks are eligible for Northbound trading 	Rejects ineligible securities	Likely to reject ineligible securities		<ul style="list-style-type: none"> Most vendors relying on market data vendors for securities lists, not “scraping” the HKEX website for eligibility lists and building manually
	Sell Only Stocks (“Special Securities”)	<ul style="list-style-type: none"> Allow SELLS for <i>Risk Alert Board</i> stocks, even if no longer in eligible BUY universe 	Rejects ineligible securities	Likely to reject ineligible securities		<ul style="list-style-type: none"> If vendors block ineligible symbols, they should concatenate Risk Alert Board stocks to the list of permissible securities in case a user needs to sell a previously eligible BUY security that is now SELL-ONLY
	Stock Borrowing and Lending / Covered Short Selling Excluded Stocks for Short Sell (only SELL available)	<ul style="list-style-type: none"> Eligible stocks published on exchange website Allowed for an investor borrowing and selling through a China Connect EP or Trade-Through EP Non-registered EP’s may only lend to registered EP’s Naked short selling is prohibited 	Will be subject to the tick rule on short-sell flagged orders Subject to Short Selling Ration Limits <ul style="list-style-type: none"> Daily Limit: 1% Cumulative Limit: 5% for rolling period of 10 CSC trading days Subject to short selling suspension if open short positions in instrument reaches 25%	Will need to flag a short sell order Must file a weekly report to the HKEx on short selling activities per security. Must file a weekly Large Open Short Position Report Must file a monthly report to HKEX on details of SBL activities Must perform an uptick check when performing a LONG SELL when a client has not returned borrowed shares		<ul style="list-style-type: none"> Vendors will need to implement a solution for long sell orders which include an unreturned borrow for short sell. Solution may be to split the parent order into a short-sell and long-sell child orders and manage fills. Solution may be to route parent order to the exchange and perform a price uptick check as per exchange rule 14A17(10). <u>To effectively implement an uptick price check a tick by tick data feed will be required.</u>



Workflow Implementation – northbound (2) Order Level

Example trade flow from buy-side OMS (right) to Connect (left)



Hierarchy	Risk Check / Factor	Details	Exchange/ Connect	Broker	Vendor (EMS)	Vendor (OMS)
Order Placement	Eligible trading days and hours (holidays, etc.)	Reject orders on “closed” trading days or outside market hours	Will reject	Varies; some brokers and vendors may offer pre-market queuing		
	Acceptable order types	Only limit orders accepted	Rejects non-limit orders	May block market orders, or accept and convert to marketable limit orders (e.g. “Smart DMA”)	Vendors likely allowing all order types to flow to the brokers. Brokers may accept/reject based on Smart DMA abilities, whether via algo conversion or internal DMA → Smart DMA conversion.	
	Order Amendment	Order amendment rejected; requires cancel/replace	N/A	May reject amends or accept and cancel/replace	May send amend or cancel/replace messages depending on broker<->vendor arrangement	
	Odd Lot handling	<ul style="list-style-type: none"> • Buys: 100 shares • Sells: Odd lot quantities • Short Sell: 100 shares 	Will reject invalid quantity orders	Likely to reject non-board lot for BUYS and SHORT SELL and accept odd lots for SELL.	Vendors may/may not reject non-board lots on BUYS and SHORT SELL, but likely to allow odd lots for all SELL orders.	
				All odd lots held by a client must be sold in a single order.		
	Price Limit	<ul style="list-style-type: none"> • +/- 10% for normal stocks • +/- 5% for risk alert stocks (sell only) • 3% dynamic price check on buys 	Rejects orders submitted outside price limits	Orders likely to go to exchange and reject unless broker utilizing “Smart DMA” style queuing and releasing when in limit	<ul style="list-style-type: none"> • Most vendors likely to pass order to broker regardless of price limits at any given point in time • Automated-strategy vendors may be an exception 	
Margin Trading	<ul style="list-style-type: none"> • Individual stocks margin trading level published on SSE website • Eligibility for margin trading on A shared and suspension/resumption publishes on SSE website 	<p>SSE will suspend margin trading per stock when stock reaches 25% margin trading indicator (MTI)</p> <p>SSE will resume margin trading per stock when stock falls below 20% MTI</p>	Will be required to suspend margin trading activities when A-Share stock placed on suspension list	<ul style="list-style-type: none"> • Some vendors may automate the indication of suspension or resumption of margin trading eligibility and status 		



Workflow Implementation – northbound (3) Order Level

Example trade flow from buyside OMS (right) to Connect (left)



Hierarchy		Risk Check / Factor	Details	Exchange/ Connect	Broker	Vendor (EMS)	Vendor (OMS)
On-trade pre-allocation messages	Buys	<ul style="list-style-type: none"> Most brokers agree tag 1 (account) should be populated for buys and sells 	N/A	Brokers likely to reject BUY order without account unless CFD/swap trade, depending on execution channel (e.g., salestrading vs. DMA)	<ul style="list-style-type: none"> Some vendors require Account populated prior to trade, others do not Support varies by vendor for multi-account allocation on orders For Investors utilizing the SPSA model, Investor ID must be pre-populated on both long and short SELL orders 	<ul style="list-style-type: none"> OMS's may be able to reject BUYS for accounts with insufficient funds 	
	Sells	<ul style="list-style-type: none"> Check against order placers's position based on T-1 / T morning holding Multiple accounts on single order preferable for best ex purposes / missed fill scenarios Multiple accounts on single orders will typically not be implemented with the SPSA model. 	<p>Investors may optionally choose the SPSA model.</p> <p>For Investors under SPSA model, exchange will perform pre-trade check on position based on SPSA T-1 / T morning holding</p> <p>Pre-trade position check also applies to short selling orders</p>	<p>Brokers may reject a SELL order without pre-trade allocations due to requirement to check stock position on non-SPSA accounts.</p> <p>For Investors not under SPSA model, broker will perform pre-trade check on position based on T-1 / T morning holding</p> <p>Pre-trade check also applies to short selling orders</p>	<ul style="list-style-type: none"> OMS's may be able to reject SELLS for accounts without share inventory 		



Workflow Implementation – northbound (4) Compliance

Example trade flow from buy-side OMS (right) to Connect (left)



Hierarchy	Risk Check / Factor	Details	Exchange/ Connect	Broker	Vendor (EMS)	Vendor (OMS)
Market Quota	Aggregate Quota	<ul style="list-style-type: none"> If aggregate quota hit intra-day, further buy orders will be rejected. Sell orders will be accepted. Buy orders will continue to be rejected until the Aggregate Quota has reduced by at least one times Daily Quota by the start of a trading day 	Rejects buys when aggregate quota has been reached	Likely to reject buys orders when aggregate quota has been reached	<ul style="list-style-type: none"> Vendors may display quota statistics and indicators 	
	Daily Quota	<ul style="list-style-type: none"> Only Sell order allowed if breached Trading will not be reopened if trading falls below Daily Quota level through the day 	<p>Buy orders rejected for remainder of day EXCEPT when Daily Quota is reached during auction, when cancellations may free up quota</p>	Likely to pass through buy and sell orders regardless of current daily quota figures	<ul style="list-style-type: none"> Vendors may display quota statistics and indicators 	
Foreign Ownership	30% Threshold across all programs	<ul style="list-style-type: none"> SSE will check in totality and inform SEHK once foreign ownership (including QFII and RQFII trades) reaches 26% 	Once the market reaches 28% foreign ownership, further Northbound buy orders in security will be rejected until aggregate is sold down below 26%	Brokers will not implement ownership restrictions as unable to see full picture of all programs.	<ul style="list-style-type: none"> Unlikely to restrict orders, but could display ownership statistics 	



FIX implementation notes (1)

Northbound Trading	Supported Features	FIX Support
Supported Market Routes – QFII/CC	<ul style="list-style-type: none"> China Connect is modeled as a separate market due to different trading calendar, charge rules, risk checks and positions/trade management To determine market route, a group of attributes will be used. 	<ul style="list-style-type: none"> Tag 48 (SecurityID) = SEDOL / ISIN / RIC / Exchange Symbol / BBG Tag 22 (SecurityIDSource): 2=SEDOL, 4=ISIN, 5=RIC, 8=Exchange Symbol, A=Bloomberg Symbol Tag 100 (Exchange Destination) = SHSC (Stock Exchange of Hong Kong Limited) or XSSC (Shanghai Stock Exchange)
Supported Security Identifiers	<ul style="list-style-type: none"> China Connect will use separate identifiers from Bloomberg/RIC and within trading platforms No separate ISIN/CUSIP will be created If using ISIN, it will require exchange code qualifiers 	<ul style="list-style-type: none"> Recommended to use SEDOL and RIC Bloomberg has launched new market codes e.g. Shanghai A share code: 601398 CH Equity, Northbound Trading code: 601398 C1 Equity Reuters have launched a new market code , e.g. Shanghai A share code: XXXXXX.SS, Northbound Trading code: XXXXXX.SH China Connect will have unique SEDOL's mapped to the same ISIN.
Supported Messages (Order)	<ul style="list-style-type: none"> Single Order FIX messages will be supported Requirement to support Basket level FIX messages 	<ul style="list-style-type: none"> Execution Report <8> Order Cancel Reject <9> New Order - Single <D> Order Cancel Request <F> Order Cancel/Replace Request <G> (queue priority will be lost on exchange) Order Status Request <H> Don't Know Trade <Q>
Special Segregated Account Model	<ul style="list-style-type: none"> Indicate InvestorID for pre-trade checking when placing SELL orders Required for Investors participating in SPSA model Needs to be provided by the buy-side to Stock Connect Exchange participants Needs to be provided to Stock Connect Exchange Participants authorized for execution visa SPSA model. 	<ul style="list-style-type: none"> Required to support both pre-delivery and SPSA models concurrently, therefore it is suggested that a blended model is used Tag 1 (Account) = <FundID> Pre FIX 4.3 Custom Tag 12041 (InvestorID) = <Investor ID> Post FIX 4,3 Tag 453 (NoPartyIDs) = 1 / Tag 448 (PartyID) = <InvestorID> / Tag 447 (PartyIDSource) = <New Value for Stock Connect>



FIX implementation notes (2)

Northbound Trading	Supported Features	FIX Support									
Stock Borrowing and Lending	<ul style="list-style-type: none"> Indicate a buy order is to cover an open short sell position 	<ul style="list-style-type: none"> Tag 54 (Side) = 3 (Buy Minus) OR Tag 77 (PositionEffect) = C + Tag 54 (Side) = 1 Value C (Close) can be used in equity flow to indicate a Buy-to-cover order when used with Tag 54 = 1 									
Covered Short Selling	<ul style="list-style-type: none"> Indicate the order is a covered short sell order 	<ul style="list-style-type: none"> Tag 54 (Side) = 5 Tag 114 (LocateReqd) = Y OR Tag 114 (LocatedReqd) = N 									
	<ul style="list-style-type: none"> Perform a price uptick check against a LONG SELL with an outstanding borrow. 	<ul style="list-style-type: none"> Require mechanism in FIX to indicate quantity of outstanding borrow for order tranching or suitability for uptick check 									
Margin Trading	<ul style="list-style-type: none"> SSE has reserved the right to request Margin Trading orders to be flagged when routed to the SSE system 	<ul style="list-style-type: none"> Not currently implemented, potential Day 3 requirement 									
Last Market	<ul style="list-style-type: none"> Execution Venue Reporting 	<ul style="list-style-type: none"> Tag 30 (LastMkt) = 30 Recommend to use Standard MIC code – XSSC 									
Currency	<ul style="list-style-type: none"> Currency codes used for trading and settlement 										
		<table border="1"> <thead> <tr> <th></th> <th>Currency (tag 15)</th> <th>SettlCurrency (tag 120)</th> </tr> </thead> <tbody> <tr> <td>Physicals</td> <td>CNY</td> <td>CNH</td> </tr> <tr> <td>Synthetics</td> <td>CNY</td> <td>Varies</td> </tr> </tbody> </table>		Currency (tag 15)	SettlCurrency (tag 120)	Physicals	CNY	CNH	Synthetics	CNY	Varies
	Currency (tag 15)	SettlCurrency (tag 120)									
Physicals	CNY	CNH									
Synthetics	CNY	Varies									
Allocation/Settlement Instructions	<ul style="list-style-type: none"> Best practice is use of Tag 1 for account pre-allocation on single-account orders See Open Questions for practices involving multiple pre-allocations per single order. 										



Further Considerations and Open Questions

Miscellaneous Questions:

- Will there be implementation issues on an uptick price check (long sell with outstanding borrow) if the broker does NOT have a tick by tick price feed?
- Are there issues with the current technical proposal for buy to cover? Is there a single session conflict with the use of Tag 77 (PositionEffect) = C + Tag 54 (Side) = 1 with swaps? Is it preferable to use Tag 54 (Side) = 3 (Buy Minus)?
- Will the exchange reject non-board lot short sell flagged orders?

Multi-account, single order allocations:

- Most brokers want repeating fields (78, 79, 366)
- Alternative is to use Parties Block available from FIX 4.3 covering actors and accounts through various roles (field PartyRole tag 452)
- Tag 58 (text) is *not* recommended as a standard, but may be used by some vendors on ad hoc basis
- Multiple allocations will be required for Stock Segregated Account Model when SPSA is used at Omnibus level

Account (Tag 1)

- Most brokers agree synthetic (CFD/swap) orders will not require tag 1 value, as they can be allocated post-trade
- Lack of consensus on whether account will be required on orders under different scenarios (buys vs. sells, DMA vs. salestrading, etc.)
- The usage of Tag1 is NOT recommended for InvestorID for the Stock Segregated Account Model

Special Segregated Account Model

- Most brokers agree that the InvestorID is required only on SELL orders through the SPSA model
- The use of Tag1 is insufficient for the purpose of specifying InvestorID. The recommendation will be to use a Custom Tag pre-FIX 4,3 and Party Group post-FIX 4,3
- E.g. (Tag 453 (NoPartyIds) = 1 / Tag 448 (PartyID) = <InvestorID> / Tag 447 (PartyIDSource) = <New Value for Stock Connect>)

Pre-allocation mechanisms

- Varied vendor support on submitting T-1 delivery requests; expectation is that most of this will be done manually (email/chat/phone) in early phases

Comments

- For comments and suggestions, please contact: barbara.law@fixtrading.org



Useful links

- SFC CSRC Memorandum of Understanding agreement
 - <http://www.sfc.hk/edistributionWeb/gateway/EN/news-and-announcements/news/doc?refNo=14PR127>
- Shanghai Stock Exchange
 - <http://english.sse.com.cn/investors/shhkconnect/introduction/definition/>
- Hong Kong Exchanges and Clearing Limited
 - <http://www.hkex.com.hk/eng/csm/chinaConnect.asp?LangCode=en>
- FIX Trading Community
 - <http://www.fixtradingcommunity.org>
 - [FIX Repository](#)
 - [FIXimate FIX Interactive Message And Tag Explorer](#)
 - FIXWiki