

Shanghai-Hong Kong Stock Connect

Technical Briefing to Participants
May 2014



The implementation of Shanghai-Hong Kong Stock Connect is subject to conditions, including regulatory approvals, completion of all necessary development work and market readiness.

The information provided in this presentation is provided on an “as is” and “as available” basis and may be amended or changed in the course of the implementation of Shanghai-Hong Kong Stock Connect. It is not a substitute for professional advice which takes account of your specific circumstances.

HKEx and its subsidiaries shall not be responsible or liable for any direct, consequential, incidental, indirect or special loss or damage, howsoever caused, of any kind, arising from the use of or reliance upon any information or materials provided in this presentation, or for any errors, omissions or inaccurate information contained in this presentation.

1 Overview of Shanghai-Hong Kong Stock Connect

2 Trading

3 Clearing and Settlement

4 Trading System

5 Clearing System

1 Overview of Shanghai-Hong Kong Stock Connect

2 Trading

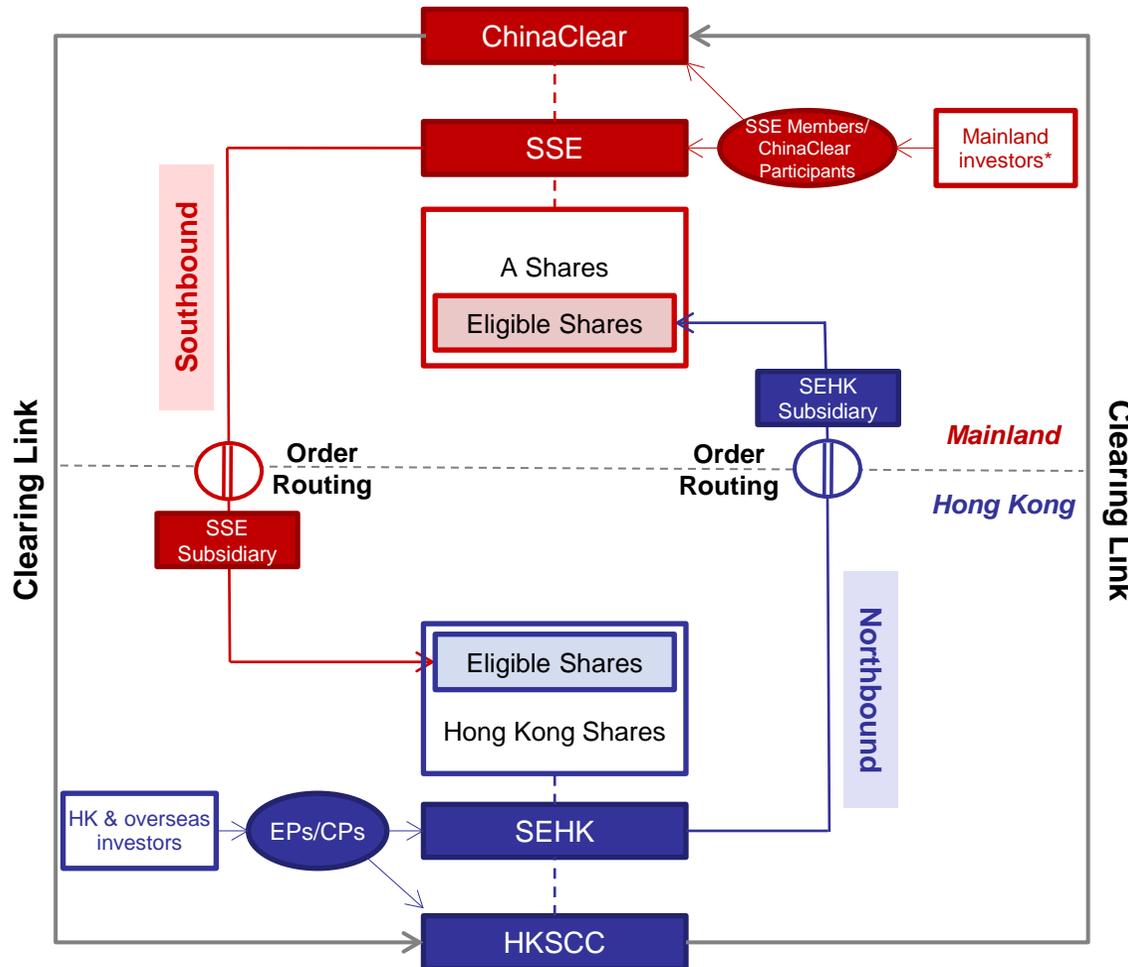
3 Clearing and Settlement

4 Trading System

5 Clearing System

Key Features of Shanghai-Hong Kong Stock Connect

To achieve maximum market efficiency with minimum systemic risks



Order Routing in Gross for Maximum Price Discovery

Clearing and Settlement in Net for Minimum Cross-boundary Fund Flow

All RMB Conversion in HK, Facilitating Offset of Currency Conversion

Closed Loop Cross-Boundary Fund Flow to Achieve Stringent Risk Management

“Home Market” Rules and Laws Apply to the Extent Possible

Reciprocal Structure for Alignment of Interest

Equal Revenue Sharing to Achieve Win-win Solution

Quota Applied for Smooth and Stable Launch

Scalable in Size, Scope and Market in the Future

*Note: Only eligible Mainland investors can participate in Southbound trading

1 Overview of Shanghai-Hong Kong Stock Connect

2 Trading

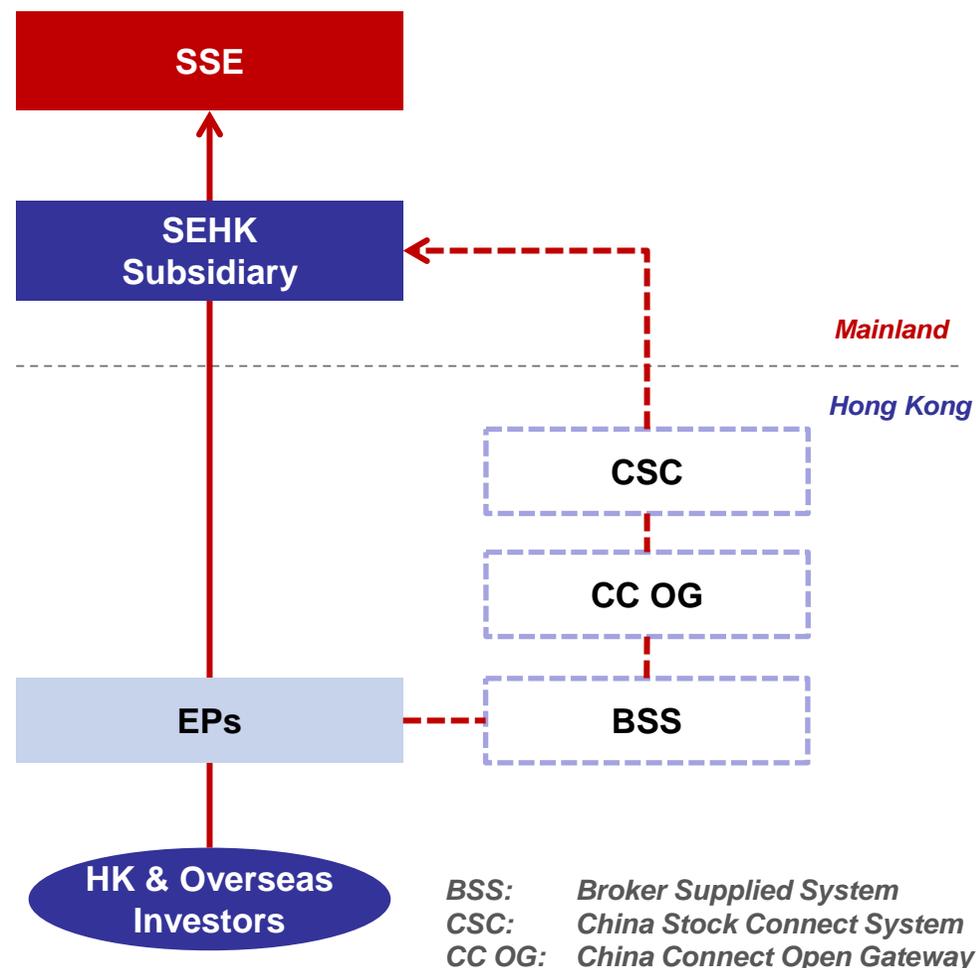
3 Clearing and Settlement

4 Trading System

5 Clearing System

Northbound Trading Flow

- For secondary market trading only
- Investors place orders with EPs
- EPs input orders into their A-share-enabled BSS, which will then send the orders to a new system “CSC” (China Stock Connect System, for basic order checking and quota control) via “CC OG” (China Connect Open Gateway)
- For executed trade, SSE will send trade confirmation to SEHK Subsidiary, which will forward the confirmation to EPs via the CC OG



Eligible Securities



	Northbound: SSE Securities	Southbound: SEHK Securities
Index Constituent Stocks	SSE180 SSE380	HS LargeCap HS MidCap
A+H	SSE-SEHK A+H	SSE-SEHK A+H
Excluding	Shares under risk alert board [風險警示板] Shares that are not traded in RMB	A+H on other Mainland exchange Shares that are not traded in HKD
Total No of Stocks*	568	266
Market Capitalisation*	90%	82%
Average Daily Turnover*	80%	78%

* No. of stocks as of 10 April 2014; MC as at end of March 2014; ADT is for Jan-March 2014

For any SSE security not accepted as an SSE Security upon launch due to its being under risk alert board, if it is subsequently removed from the risk alert board, it will be accepted as an SSE Security if it falls under any of the selection criteria

List of SSE Securities (for reference) is available on the HKEx website and will be updated upon launch

Northbound Trading

- **Only sell orders are allowed if:**
 - ceases to be constituent stocks of relevant indices; and/or
 - subsequently put under risk alert board; and/or
 - corresponding H share of A+H ceases to be traded on SEHK;
as the case may be

- **A share of A+H shares will be accepted as SSE Security after the stabilisation period of:**
 - both A and H shares if both are simultaneously listed
 - H share if it is subsequently listed on SEHK
 - A share if it is subsequently listed on SSE

- **If only the H share of an A+H share is suspended:**
 - whether investors will be allowed to buy and/or sell the A share is being considered by the relevant regulators. The final arrangement will be announced in due course.

- **Entitlement:**
 - if it is an SSE Security, both buy and sell orders are allowed
 - if it is not an SSE Security but is SSE-listed, only sell orders are allowed
 - if it is not SSE-listed, cash options may be offered (to be confirmed)

Southbound Trading

- **Only sell orders are allowed if:**
 - ceases to be constituent stocks of relevant indices; and/or
 - corresponding A share of A+H ceases to be traded on SSE; and/or
 - H share issuer lists its A share on a Mainland exchange other than SSE;
as the case may be

- **H share of A+H shares will be accepted as SEHK Security after the stabilisation period of:**
 - both A and H shares if both are simultaneously listed
 - H share if it is subsequently listed on SEHK
 - A share if it is subsequently listed on SSE

- **If only the A share of an A+H share is suspended:**
 - whether investors will be allowed to buy and/or sell the H share is being considered by the relevant regulators. The final arrangement will be announced in due course

- **Entitlement:**
 - if it is an SEHK Security, both buy and sell orders are allowed
 - if it is not an SEHK Security but is SEHK-listed, only sell orders are allowed
 - if it is not SEHK-listed, buy/sell is not allowed on SEHK (ChinaClear will consider alternative arrangement to handle such entitlement)

Quota

To control initial pace and size of cross-boundary fund flows



	Northbound Trading of SSE Securities	Southbound Trading of SEHK Securities
Aggregate Quota (AQ)	RMB 300b	RMB 250b
Daily Quota (DQ)	RMB 13b	RMB 10.5b

- Key Principles**
- Quota control only applies to buy orders, i.e. **sell orders are always allowed regardless of quota level**
 - Quota is used on a first-come, first-served basis

- Aggregate Quota**
- **When to calculate:** At the end of each trading day
 - **Aggregate Quota Balance:** Aggregate Quota – Aggregate **Buy Trades** + Aggregate **Sell Trades**
 - **If Aggregate Quota Balance < Daily Quota:** Suspend buy order input for the next trading day
 - **If Aggregate Quota Balance increases to Daily Quota level:** Resume buy order input for the next trading day

- Daily Quota**
- **When to calculate:** Real-time during trading hours
 - **Daily Quota Balance:** Daily Quota – **Buy Orders** + **Sell Trades** + Adjustments (e.g. Buy Order cancelled, Buy Order rejected by SSE, Buy Order executed at a better price)
 - **If Daily Quota balance ≤ 0:**
 - During opening call auction [開盤集合競價] (Pre-opening): Reject new buy orders until DQ Balance becomes positive (e.g. due to Buy Order cancellation)
 - During continuous auction [連續競價] (Continuous Trading): Suspend buy order input for the remaining of the day
 - Buy orders already input in CSC before suspension will not be affected

- Quota Info**
- Quota Information will be disseminated on HKEx website at scheduled time

Northbound Trading Hours



- Follow SSE (home market) trading hours
- Once Northbound orders are accepted by SSE, they will be matched in strict price-time priority with all other SSE orders as per SSE current rules
- EPs can start inputting SSE Securities orders **5 minutes** prior to the start of SSE trading session in the morning and in the afternoon

SSE Trading Session	Time	Time for CSC to accept Northbound orders
Opening Call Auction [開盤集合競價]	09:15 – 09:25	09:10 – 11:30
Continuous Auction [連續競價] (Morning)	09:30 – 11:30	
Continuous Auction [連續競價] (Afternoon)	13:00 – 15:00	12:55 – 15:00

Notes:

- (1) 09:20 – 09:25: SSE will not accept order cancellation
- (2) (a) 09:10 – 09:15; (b) 09:25 – 09:30; (c) 12:55 – 13:00: Orders and order cancellations can be input into CSC but will not be processed by SSE until market opens
- (3) Orders that are not executed during the opening call auction session will automatically enter the continuous auction session

Holiday Arrangement



- Initially, Hong Kong and overseas investors will only be allowed to trade SSE Securities on days when:
 - both SEHK and SSE are open for business; and
 - banking services of both markets are open on the corresponding money settlement days

Date	Hong Kong	Mainland	Shanghai-Hong Kong Stock Connect		
			Trading (T-day)	Money Settlement (for T-1 day's trades)	Securities Settlement (for T-day's trades)
16 Apr 2014 (Wed)	Business Day	Business Day	✓	✓	✓
17 Apr 2014 (Thu)	Business Day	Business Day	x [^]	✓	x [^]
18 Apr 2014 (Fri)	Public Holiday	Business Day	x	x	x
21 Apr 2014 (Mon)	Public Holiday	Business Day	x	x	x
22 Apr 2014 (Tue)	Business Day	Business Day	✓	✓#	✓

[^] Although 17 Apr is a business day for both Hong Kong and Mainland, if EPs trade SSE Securities on 17 Apr, CPs may have difficulty settling their money positions with HKSCC on 18 Apr, which is a public holiday in Hong Kong. Hence Northbound trading will not be open on 17 Apr.

There will not be any money settlement for Northbound trades on 22 Apr as 21 Apr is not open for Northbound trading. However, as CCASS is open for business on 22 Apr, it will still process money transactions in relation to nominees activities with respect to SSE Securities, if any.

- Similar arrangement for Southbound trading
(Southbound trading will be opened when the Mainland market is open on the corresponding T-day, and Mainland banking services are available on T+1 and T+2)

Going forward, will explore with the banking industry for banking support on public holidays, such that both Northbound and Southbound trading can follow home market's trading calendar

Severe Weather Conditions

- If SSE notifies the market about the potential service suspension of trading on the following trade day due to severe weather conditions, SEHK will notify the market accordingly
- Initially, in case of Typhoon signal no. 8 or above (T8) or Black rainstorm in Hong Kong:

Scenarios	Northbound Trading of SSE Securities	Hong Kong Market today*
T8 / Black rainstorm issued before HK market opens (i.e. 9:00 a.m.)	Not open	Not open
T8 issued between 9:00 a.m. and 9:15 a.m.	Not open	Trading terminates after Pre-opening Session
T8 issued after SSE market opens (i.e. 9:15 a.m.)	Arrangement to be announced in due course	Trading terminates in 15 minutes
Black rainstorm issued after HK market opens (i.e. 9:00 a.m.)	Trading continues as normal	Trading continues as normal
T8 / Black rainstorm discontinued at or before 12:00 noon	Trading resumes after 2 hours	Trading resumes after 2 hours
T8 / Black rainstorm discontinued after 12:00 noon	Not open	Not open

Going forward, will explore with the banking industry for banking support on typhoon / rainstorm days, such that Northbound trading can follow home market's trading calendar

Northbound Trading: Initial Arrangements (I)



■ Largely follow SSE trading rules

1. Stock Code	6 digits (for order input and trade confirmation)
2. Modify Order	Not available on SSE
3. Day (Turnaround) Trading	Not available on SSE
4. Manual Trade	Not available on SSE (except for block trade)
5. Trading Currency	RMB
6. Board Lot	100 shares (applicable for buy orders only)
7. Odd Lot	Sell orders only
8. Maximum Order Size	1 million shares
9. Spread	Uniform at RMB 0.01
10. Price Limit	±10% on previous closing price (±5% for ST and *ST stocks)

■ But with a few exceptions

	SSE's Current Arrangement	Northbound Trading of SSE Securities
11. Order Types	Limit orders* (whole day); Market orders (continuous auction)	Limit orders only
12. Block Trade	Allowed	Not allowed
13. Short Selling	Allowed (restrictive)	Naked short selling not allowed
14. Margin Financing	Allowed (restrictive)	Not allowed to participate in Mainland's margin trading and securities lending [融資融券]
15. Stock Borrowing & Lending	Allowed (restrictive)	

* SSE limit orders may be executed at the input price or at a better price

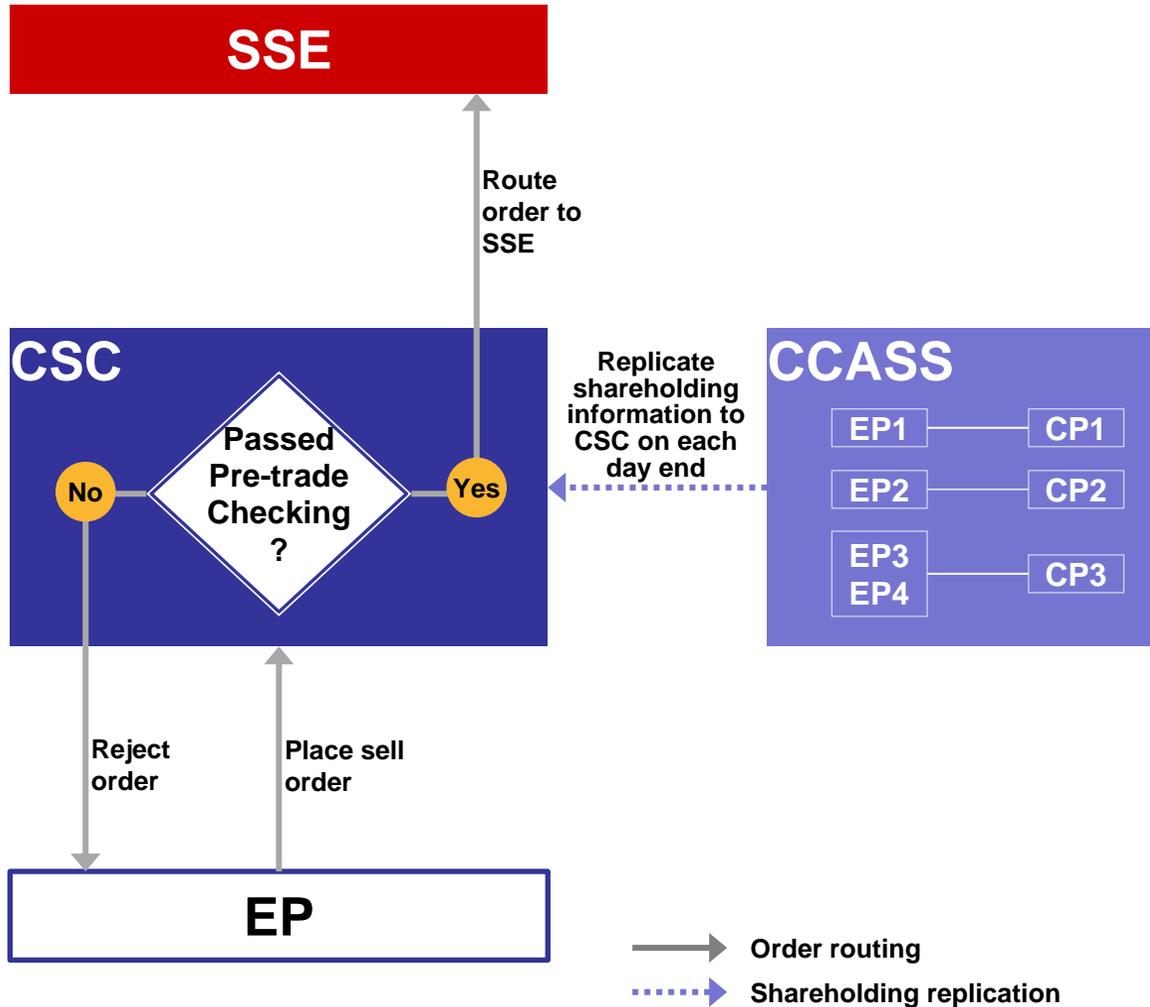
Northbound Trading: Initial Arrangements (II)



- Note the following are not available for Northbound trading:

	Northbound Trading of SSE Securities
1. Central Trade Feed (CTF)*	Not available (Retrieve trade reports through ECP)
2. Broker Bulk Cancel Order	Not available (Orders need to be cancelled one by one)
3. Cross Trading Device Functions	Not available (Under emergency condition, EP may request the Exchange to submit order cancellation requests on its behalf to cancel all of its outstanding orders)
4. Price / Consideration Warning	Not available
5. 24-spread rules	Not available (Orders will be subject to SSE rules (e.g. $\pm 10\%$ price limit))
6. Modify Order	Not available (EP needs to cancel the original order and insert a new one)
7. Trading Support Facility (TSF)	Not available

* EPs can download the trade reports through ECP (Electronic Communication Platform) around 3:30 pm on T day, the same system for stamp duty reporting. EPs can login to the ECP by inputting the user ID with the "TO" user group (i.e. user ID of MXXXXXTXXXX) and Password. TO user group is for downloading trade files such as Callable Bull/Bear Contract (CBBC) Post Mandatory Call Event (MCE) trade files and other trade files distributed to EPs under contingency for reconciliation purpose. Report format is the same as CTF



What is Pre-trade checking?

- A mechanism to ensure EPs will have sufficient shares to settle their sell trades

How is it done?

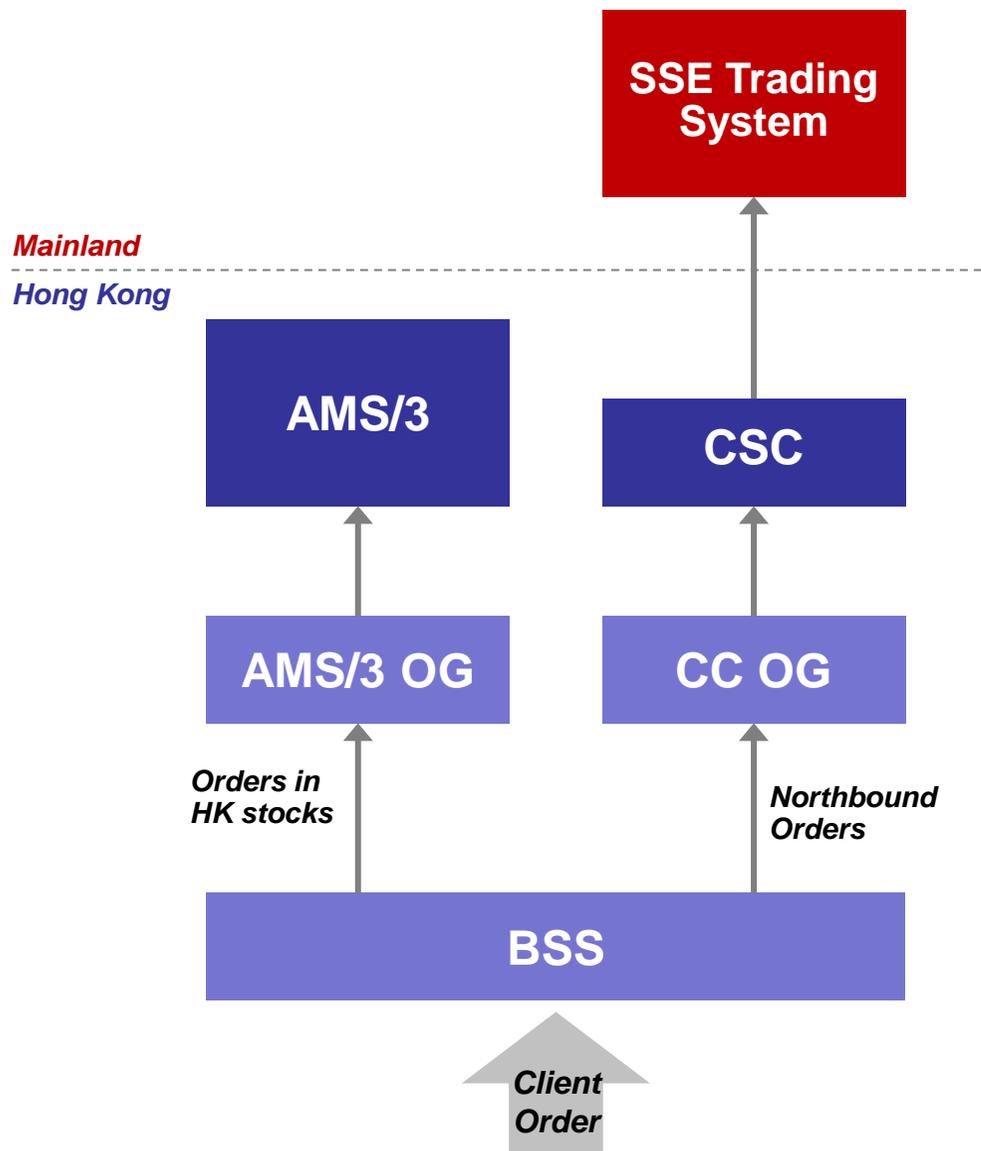
- CCASS will take snapshot of each CP's SSE Securities holdings at the end of each business day and replicate to CSC to facilitate pre-trade checking of SSE Securities on the next day
- Sell orders by an EP will be rejected by CSC if the EP's cumulative sell quantity in that stock for the day is higher than its stockholdings at market open

Who to ensure investors will not oversell?

- EP's responsibility to ensure they have in place procedures and systems to prevent their clients from day trading and overselling of SSE securities

EPs should remind investors to transfer shares to the selling EP on T-1 day

Northbound Trading: Technical Set-up Overview



- Northbound trading must be conducted through BSS and CC OG
- Hosting services for CC OG is available
- No MWS and terminal for Northbound trading
- CC OG as interface between EP BSS and CSC
 - Exclusive for trading in SSE Securities
 - Similar protocol to existing AMS/3 OG
 - No smart card required
 - No SSE market data provided
 - Need to acquire new throttles (existing throttles used for AMS/3 trading cannot be transferred to CC OG for Northbound trading, and vice versa)

Costs of Participating in Northbound Trading

Fees & Taxes



■ Fees and taxes applicable to a Northbound trade:

Items	Rate	Charged by
Handling Fee (經手費)	0.00696% of the consideration of a transaction per side	SSE
Securities Management Fee (證管費)	0.00200% of the consideration of a transaction per side	CSRC
Transfer Fee (過戶費)	0.06000% on face value per side	ChinaClear
Stamp Duty (交易印花稅)	0.10000% of the consideration of a transaction on the seller	SAT

Note : The above fees and taxes-will be collected via day end DDI on T Day

■ Fees and taxes to be confirmed with the relevant regulators/authorities:

Items	Description	Charged by
New CCASS Fee	<ul style="list-style-type: none"> A new fee for providing depository and nominee services to CPs for SSE Securities Subject to SFC's approval 	HKSCC
Dividend Tax	<ul style="list-style-type: none"> Applicable to cash dividend and bonus issue Subject to clarification with SAT 	SAT
Capital Gain Tax	<ul style="list-style-type: none"> Applicable to share disposal Subject to clarification with SAT 	SAT

Note: Mainland taxes will be rounded to the nearest cent. New CCASS Fee will be rounded up to two decimal places

SAT: State Administration of Taxation

Costs of Participating in Northbound Trading

Throttles and Hardware Charging Scheme



- In principle, follow the same charging scheme as that for trading in AMS/3 (subject to SFC's approval):

Item	Proposed Charges
One-off Throttle Fee	HKD50,000 per throttle (same as current)
Throttle Monthly Fee	HKD960 per throttle (HKD480 per backup throttle) (same as current)
CC OG Hardware	HKD28,000 (Standard) / HKD115,000 (High Availability)
CC OG Monthly Fee	HKD1,250 per CC OG

- No entitlement throttle, need to purchase new throttles to trade Northbound
- Lower hardware costs for CC OG compared with AMS OG as security card is not required
- Procurement of CC OG (except for hosting service) through HKEx

Market Data for Trading

- **Data feed**
 - **Directly from China Investment Information Services Limited (CIIS)*中國投資信息有限公司 (http://www.ciis.com.hk/New_Web/eng/index.html)**
 - **Indirectly from CIIS' licensed Information Vendors (more than 20 IVs providing Level-1, Level-2 or A+H collaboration services; see CIIS' website for IV list)**
- **View data only**
 - **Level-1 real-time SSE market data also available through internet of Mainland IVs (full list: <http://ywtb.sseinfo.com/ywtb/show.do>) or websites such as Google Finance and Yahoo**

Issuer Announcements

- **In Chinese only**
- **Through these channels:**
 - **SSE website**
 - **Issuer's websites**
 - **HKEx website – China Stock Market Web (only displayed up to T-1 day) (<http://www.hkex.com.hk/eng/csm/homepage.asp?LangCode=en>)**
 - **Four official appointed newspapers and their websites**
 - **Shanghai Securities News 上海證券報**
 - **Securities Times 證券時報**
 - **China Securities Journal 中國證券報**
 - **Securities Daily 證券日報**

1 Overview of Shanghai-Hong Kong Stock Connect

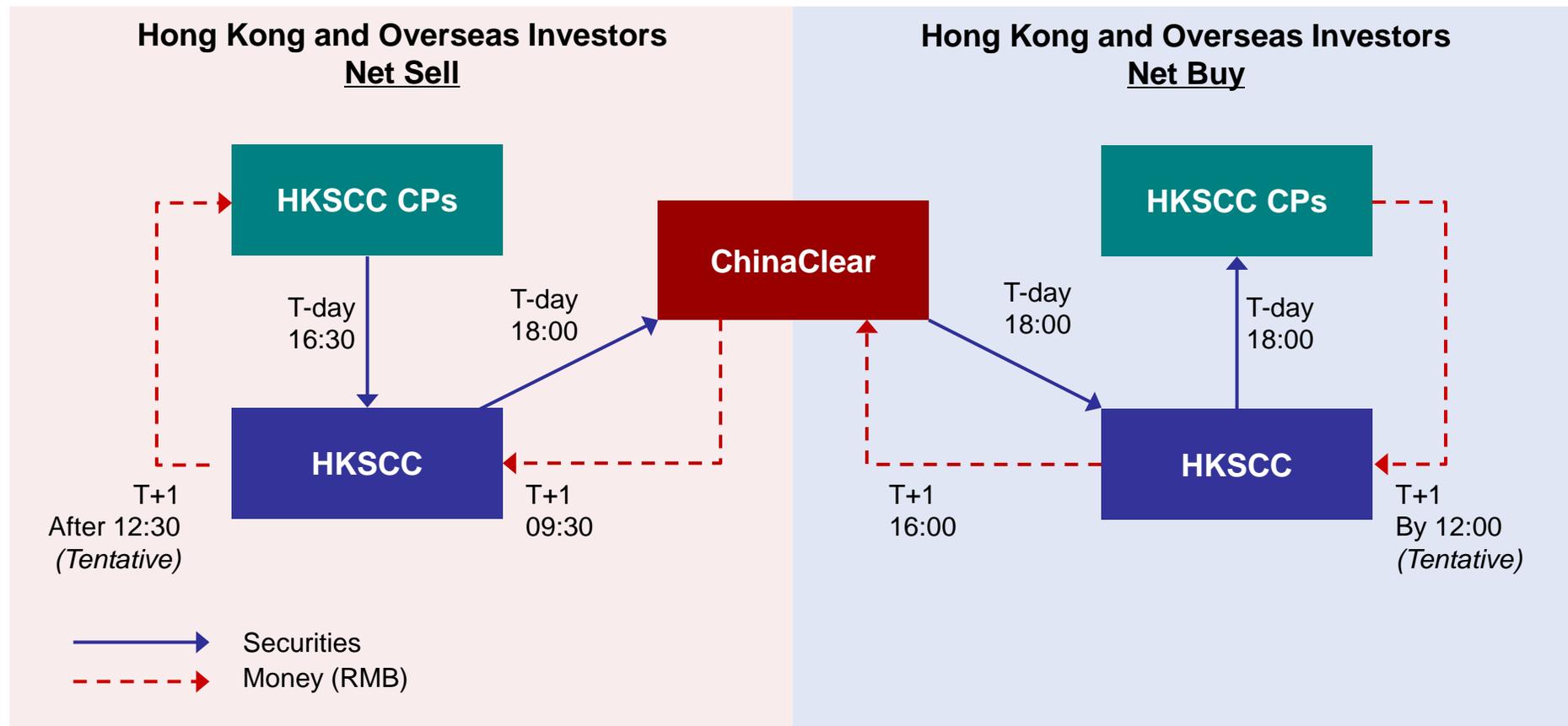
2 Trading

3 Clearing and Settlement

4 Trading System

5 Clearing System

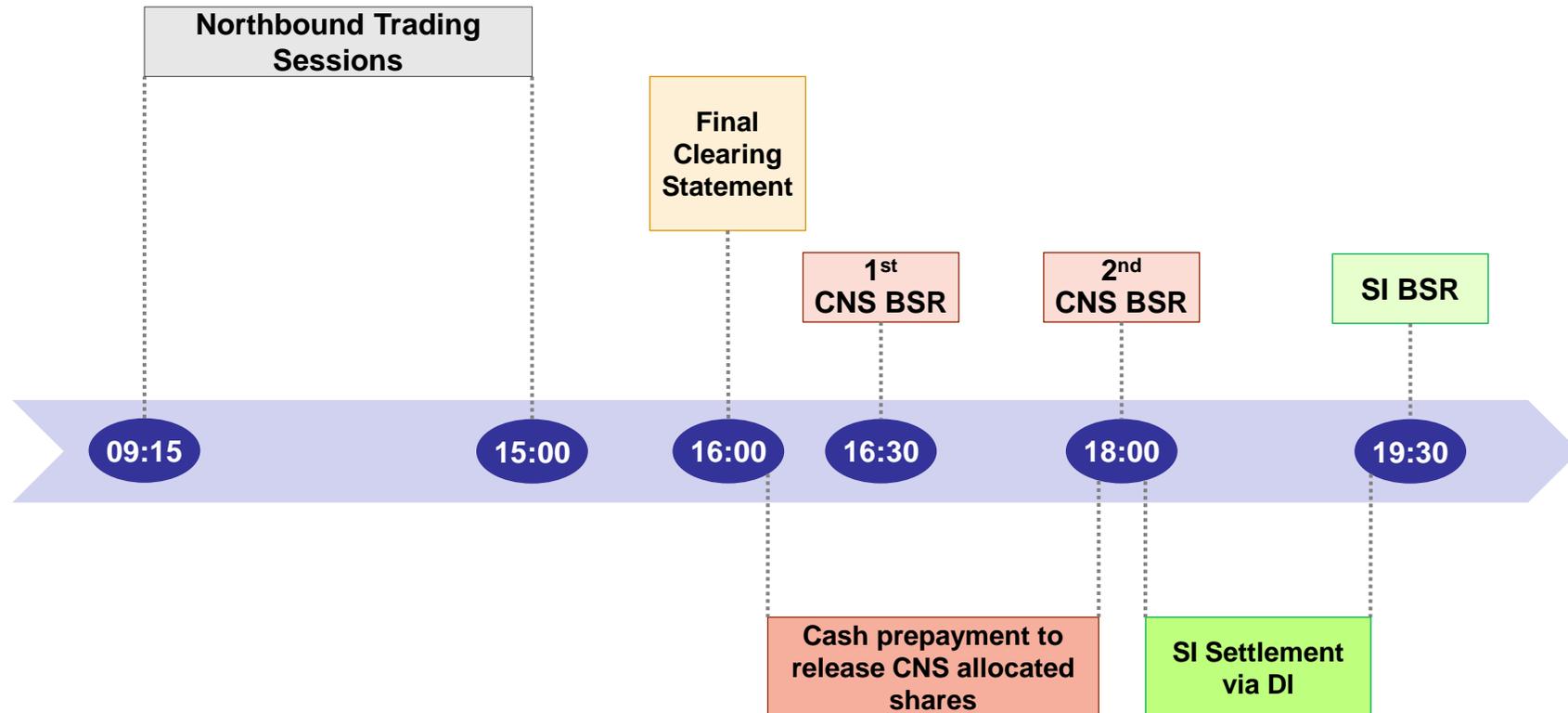
Settlement of Northbound Trades between ChinaClear, HKSCC and CPs



- Stock settlement on T-day, and money settlement on T+1
- HKSCC will collect RMB from ChinaClear and Net Buy CPs before paying RMB to Net Sell CPs and ChinaClear, if applicable
- Detailed money settlement arrangement is subject to discussion with banks

Settlement of Northbound Trades in CCASS

Securities Settlement on T day

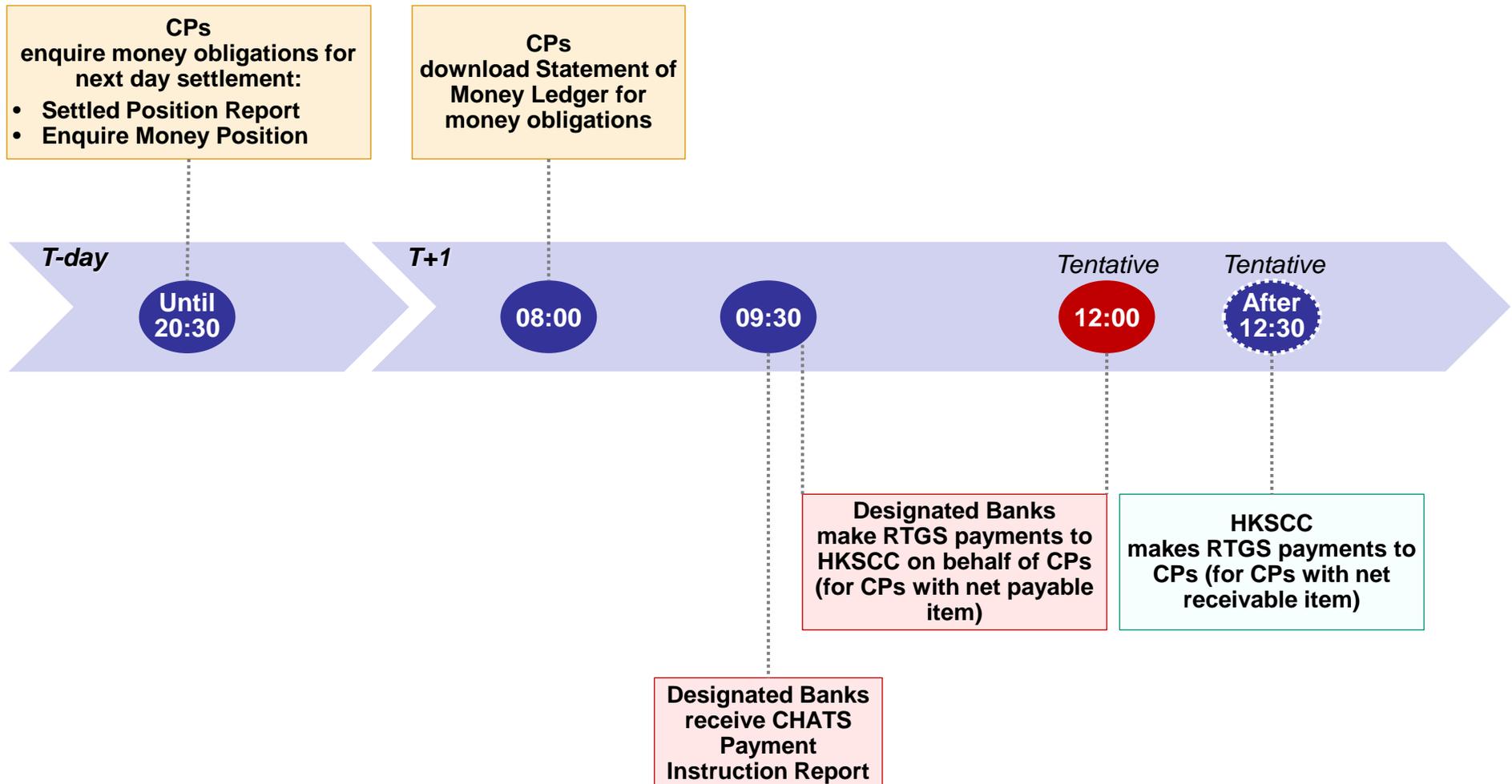


- ❑ **Two Batch Settlement Runs for settling CNS Positions (CNS BSRs)**
- ❑ **SI Settlement will only be allowed after the completion of ALL CNS BSRs at around 18:00**
- ❑ **Only one Batch Settlement Run for settling SI Positions (SI BSR) at around 19:30**

Note: Provisional Clearing Statement (PCS) will not be applicable for Northbound trades

Settlement of Northbound Trades in CCASS

Money Settlement on T+1, in RMB via RTGS



Transfer SSE Securities within CCASS

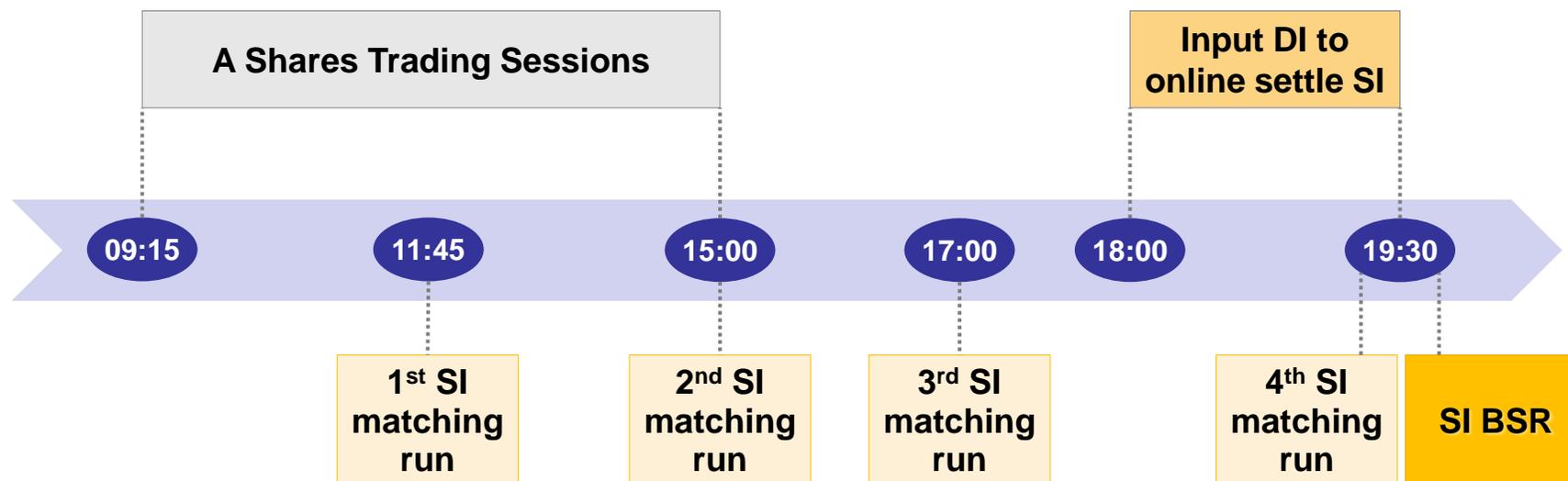
A. Within CCASS Participants' own stock accounts

Follow the existing practice and schedules (including function times and file validation runs)

- ATI to transfer among stock segregated accounts without statements
- STI to transfer into or out of stock segregated accounts with statements (SSA)

B. Between Counterparties

- SI to transfer between Counterparties, *with new schedules*
- SI in SSE Securities must be executed on an FOP basis



Determine Sellable Shares for Pre-Trade Checking



(1) DCP / GCP serving ONE EP only

CCASS: SSE Securities Balance on T-1 Day end

CCASS Stock Accounts of B12345*		SSE Securities Balance
01	Clearing A/C	100
02	Entitlement A/C	200
03	Stock Segregated A/C	300
20	Collateral Control A/C	400
21	Stock Segregated A/C	500
22	Stock Segregated A/C	600

1,700

Total Balance, except those in A/C 20



CSC: Sellable Shares for Pre-Trade Checking on T-day

EP	Sellable Shares
12345	1,700
XXXXX	XXX
XXXXX	X,XXX
XXXXX	XXX
XXXXX	XX,XXX
XXXXX	XXX

* A DCP, or a GCP clears for itself or for one EP only

DCP: Direct Clearing Participant

GCP: General Clearing Participant

NCP: Non-Clearing Participant (being an Exchange Participant)

CCMS Collateral Account is a Control Account for safekeeping of Stock Collateral Only

Determine Sellable Shares for Pre-Trade Checking

(2) GCP serving multiple EPs



CCASS: SSE Securities Balance on T-1 Day end

CSC: Sellable Shares for Pre-Trade Checking on T-day

CCASS Stock Accounts of B54321*		SSE Securities Balance
01	Clearing A/C	100
02	Entitlement A/C	200
03	Stock Segregated A/C	300
20	Collateral Control A/C	400
21	Stock Segregated A/C – NCP1	500
22	Stock Segregated A/C – NCP1	600
23	Stock Segregated A/C	700
24	Stock Segregated A/C – NCP2	800

300

1,100

800

Total Balances of the mapped accounts only

EP	Sellable Shares
12345	1,700
54321	300
NCP1	1,100
NCP2	800
XXXXX	XX,XXX
XXXXX	XXX

* A GCP clears for itself and multiple EPs

Note :

- On T day, after securities settlement, GCPs need to transfer the settled SSE Securities to each NCP's designated CCASS stock segregated accounts before day end
- GCPs may need to execute cash prepayment to release on-hold CNS allocated A shares before transfer of shares
- For GCP serving multiple EPs, SSE Securities Balance in CCASS Accounts 01, 02, 17, 18, 19 will not be allowed to map to any EP

Stock Code for Northbound Trading

- EPs need to input **6-digit** SSE Securities codes in their orders
- CCASS will use **5-digit** stock codes in its reports and on-line function

General Rules

Existing SSE-listed stock codes:	SSE Securities code for Northbound Trading:	Mapped to CCASS:
6-digit Start with "60"	Same as SSE's	5-digit Replace "60" with "9"
<u>60</u>XXXX	<u>60</u>XXXX	<u>9</u>XXXX

Exceptions

- There may be exceptions, for example, in cases of benefit entitlement stocks with stock code not starting with "60" may be distributed
- Participants will be informed of the detailed arrangement via circulars when that happens

1 Overview of Shanghai-Hong Kong Stock Connect

2 Trading

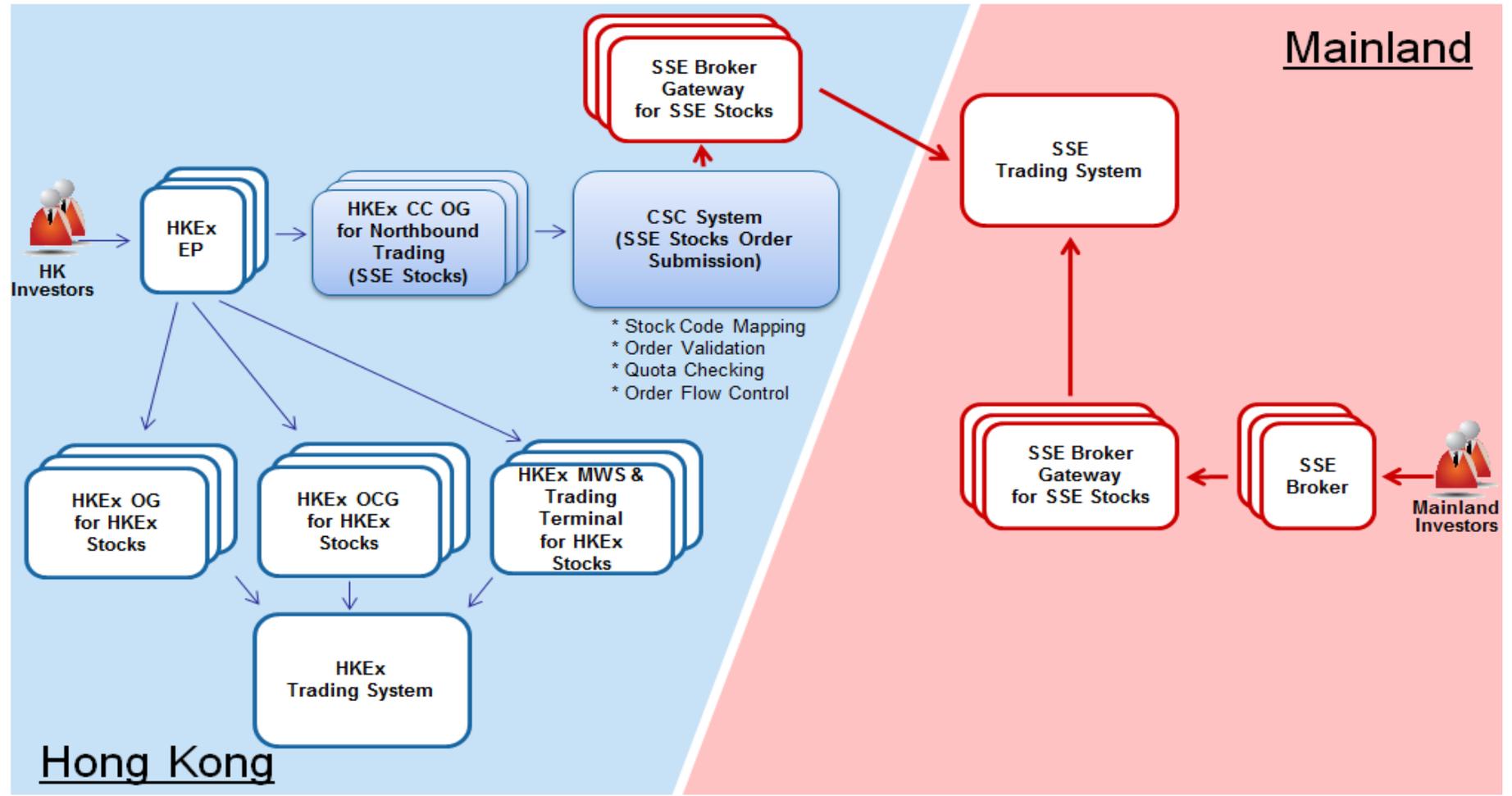
3 Clearing and Settlement

4 Trading System

5 Clearing System

- 1** China Stock Connect system (CSC): the centralised gateway for Northbound trading under Shanghai-Hong Kong Stock Connect
- 2** China Connect Open Gateway (CC OG): for trading session establishment between Broker Supplied System (BSS) and CSC
- 3** Open Message protocol changes
- 4** CC OG connectivity arrangement
- 5** Rollout arrangement

China Stock Connect (CSC) High Level Architecture



Major Elements of CSC Infrastructure



China Stock Connect System (CSC)

- Support the collection and submission of orders in SSE Securities
- Two major components:
 - a) order capturing & consolidation from BSS operated by EPs; and
 - b) order submission to the SSE's gateway devices and relay of order and trade confirmations returned by SSE

China Connect OG (CC OG)

EP Interface

- A separate version of OG (i.e. CC OG) to be used by EPs to handle orders in SSE securities
- No SSE market data will be provided through the CC OG
(note: Currently SSE is providing market data to Hong Kong information vendors through its subsidiary in Hong Kong, i.e. China Investment Information Services Limited. EPs can obtain such data from Hong Kong information vendors)

Network Connectivity

- For CC OG installed at EPs' offices: EPs are required to install new dedicated SDNet circuits to connect their CC OG to CSC
- For CC OG installed at HKEX's hosting service data center: the existing HSN connection can be used

What does it do?

- Support order capturing & consolidation from HKEx Participants for order submission to SSE
- Performs order validation and daily quota checking

The data flow

- Valid orders: forward to SSE trading system via SSE's provided gateway
- Order input acknowledgement: send to BSS when it is accepted by CSC
- Order and trade confirmations returned by SSE trading system: forward to BSS via CSC and CC OG
- Various timing:
 - ❖ Order confirmation: will be returned only after the market is open
 - ❖ Order input time: support order input 5 minutes prior to SSE market open and during mid-day close
 - ❖ Order cancellation request: can be submitted prior to market open but will not be executed and acknowledgement will not be returned to BSS until market is open due to the SSE trading system behaviour

Via BSS and CC OG

- Can only access CSC via BSS and CC OG
- CSC converts the CC OG message protocol (similar to the OG protocol used for AMS) to the format used by the SSE trading system
- CSC does not support MWS and Trading Terminals

China Connect Open Gateway (CC OG)



- **Separate OG:** CC OG is separate from the existing AMS OG
- **Location:** At EP's office or HKEx's data centre (hosting service)
- **Hardware:** Order new hardware from HKEx or reuse OG hardware released as a result of OCG migration
- **BSS/CSC interface:** Allows EP's BSS to establish a trading session with CSC for order submission in a manner similar to that of OG for AMS
- **Similar protocol:** A special version of OG, uses a protocol similar to that of AMS with minor changes (e.g. 6 digit stock code)
 - ❖ Supports limit orders and cancel orders only
 - ❖ Provides static reference data download
 - ❖ Stock price update messages will not be supplied, EPs have to source a separate market data feed for SSE securities
- **No smartcard device:**
 - ❖ Adopts software based data encryption and authentication mechanism
 - ❖ Lower cost of ownership and ease of operation
- **Separate throttles:** EPs have to subscribe separate CC OG throttles specific for the SSE market

Open Message Changes (I)



	Areas of Change	Open Message Affected	Impact on BSS / EP
1	<p>CSC only supports the following order related transactions:</p> <ul style="list-style-type: none"> • Order Input (limit order only) • Order cancel • Order activity enquiry 	-	<ul style="list-style-type: none"> • Limit order at SSE is able to match multiple price queues. • Other order/trade related transactions such as Modify Order, Odd Lot Order Input, Manual Trade, Cross Trading Device Functions and etc. are not supported. • Mass order cancel has to be done by HKEx upon EP request.
2	Support 6-digit SSE stock code.	<ul style="list-style-type: none"> • 1500 O-COI (BS Order Input) • 1572 O-ROA (Order Activity Enquiry Response) • 2101 O-BCS (Security Static Information) • 2221 O-MOC (OG Configuration) • 3570 O-EOA (Order Activity Enquiry) • 1500 O-COI (BS Order Input) • 1572 O-ROA (Order Activity Enquiry Response) • 2101 O-BCS (Security Static Information) • 2221 O-MOC (OG Configuration) • 3570 O-EOA (Order Activity Enquiry) 	Enhancement on BSS and its backend applications may be required to support 6-digit security code.

Open Message Changes (II)



	Areas of Change	Open Message Affected	Impact on BSS / EP
3	The optional field LONG-OSN-SUPPORT-FLAG (tag 99863) in message 9009 is ignored by CSC	<ul style="list-style-type: none"> 9009 O-ESL (BS Session Logon to OG) 	The Open Message protocol still supports this optional field but it has no effect on CSC
4	CSC will not provide dynamic market data and closing price	-	EP should subscribe market data from SSE market information provider if required
5	No price warning and consideration warning checking on order input	<ul style="list-style-type: none"> 1500 O-COI (BS Order Input) 	CNFM-FLAG (tag 99045) must be set to 'N' in Order Input message
6	Changes in reference data download	<ul style="list-style-type: none"> 2120 O-BTT (Market Trading Timetable) 2122 O-BMS (Market Static Information) 2124 O-BPM (Page Map Information) 	<ul style="list-style-type: none"> The market trading time table is empty Index code in market static information message is always set to blank Page map information message is removed
7	CSC will not provide market trading status update	<ul style="list-style-type: none"> 2106 O-BTM (Market Trading Status Update) 	CSC will not notify BSS of market status change (i.e. market open, current trading session and market close). EP should subscribe market data from SSE market information provider if such information is required
8	CSC will not support Central Trade Feed (CTF) service	<ul style="list-style-type: none"> 9017 O-CNR (Host Notification Recovery) 	BSS should not send message 9017 with CTF-INDICATOR (tag 99445) set to 'Y'. The Exchange will provide trade files in existing format via Electronic Communication Platform (ECP)

For CC OG installed at EP's premises:

- SDNet/2 will be used for connection to CSC. A pair of circuits is required
- A SDNet bandwidth of 2 Mbps is required for CC OG connection
- EPs are required to subscribe a new pair of SDNet/2 circuits dedicated for CC OG
- The installation fee and monthly subscription fee are listed below for reference only. For new circuit installation, an additional network switch rental of HK\$100 per switch is required

	One-off Installation Fee (2 circuits)	Additional Monthly Fee (2 circuits)
Install one pair of 2M SDNet/2 circuits	Not applicable	≤ HK\$3,800

For CC OG installed at HKEx's data center (hosting service):

- The existing HSN connection can be used without any additional setup

Support EPs' Technical Preparation and Testing



- **CC OG message specifications** – already published on HKEx Website. EPs have to enhance their broker supplied system (BSS) and their backend systems for various minor changes associated with CC OG
- **CC OG Simulator Package** – to be supplied in mid May 2014 to facilitate EP's offline testing of their BSS enhancement
- **BSS Certification Test Package** – to be distributed to EPs in mid May 2014. The package specifies various functional test cases that need to be successfully executed by EPs under CSC End-to-End testing environment before market rehearsals
- **CSC End-to-End test sessions** – to be provided in early June 2014. EPs will be requested to return their declaration by mid August 2014 on their system readiness before they can participate in the market rehearsal scheduled for September 2014
- **Market rehearsals** will be conducted in September 2014. It will last for several weekends to cover functional, performance and disaster recovery tests
- **Line Installation** – EP should complete installation of the new SDNet/2 circuit prior to the installation of CC OG
- **CC OG installation** – EP should place the order for installation of new CC OG (or reconfiguration of redeployed OG hardware) and subscription of CC OG throttles prior to the market rehearsals

1 Overview of Shanghai-Hong Kong Stock Connect

2 Trading

3 Clearing and Settlement

4 Trading System

5 Clearing System

Overview of CCASS System Modifications



Access Requirement

- No additional requirement for CCASS access, i.e. leverage on existing infrastructures with CCASS Terminals, Participant Gateways (PG) and SDNet/2 lines

CCASS System Modifications

- Multiple markets capability

CCASS System Modifications

Multiple Market Capability



■ New market code “MAMK” for A-share market

- “MAMK” will be shown in online functions, reports, data files and PG messages.
- Separate report folder “MAMK” when downloading reports via online function “Report download (ECQC)”
- Separate set of reports and data files for A-share market
- Separate set of broadcast messages with new market code “MAMK”

■ CCASS stock codes remain in five digits with following conversion guideline



Note: May have exceptions (e.g. distribution of non-SSE-listed entitlement stocks); suggest to build in flexibility for different conversion in the future

■ New settlement cycle and processing schedule for A-share market

CCASS System Modifications

On-line functions under multiple markets



- Same online function is used for accessing data of both Hong Kong and A-share markets.
- Different online function service time will be setup for the new A-share market
- New value “MAMK – MAINLAND A-SHARE MARKET” for the MARKET field for various on-line functions:

Market :

ALL
ALL
HKMK - HONG KONG MARKET
MAMK - MAINLAND A-SHARE MARKET

CCASS System Modifications

Report / Data File under Multiple Markets



■ 2 categories of reports (existing design):

- Global – single report showing information of all markets (e.g. Statement of Money Ledger)
- Market – show information of a specific market (e.g. FCS for A-share market will be generated separately from HK market), i.e. one set for HK market and one set for A-share market

■ New reports introduced:

- 3 global reports for information on Mainland Settlement Deposit, Mainland Security Deposit and the associated interests
- 24 reports for A-share market: 23 are existing reports for HK market, 1 new report for new CCASS Fee with data download file (subject to SFC approval)

■ Changes of existing reports:

- Current ATI and STI Batch Input Control Reports will be changed from market reports to global reports
- New market code information shown in Report download function (ECQC) and Broadcast Message Listing (CETMB01)

■ Change the market code of the following money ledger transactions from global to market in report and data download file of “Statement of Money Ledger (CSEMA08/CSEMS08)” :

M/L Transaction Type	Description
73	INTERESTS ON DR BALANCES
74	MANUAL ADJUSTMENT (EMSI GENERATION)
77	MANUAL ADJUSTMENT

CCASS System Modifications

Participant Gateway (PG) Message Template



■ Changes on PG message templates:

- New value “MAMK” will be added for Market field in both input and output messages
- New sections will be added in “Enquire Money Position / Instruction” output message for A-market position statuses
- A separate set of Market reports and broadcast messages will be generated for A-share market (e.g., FCS)

■ Same PG for both markets:

- The existing PGs installed by participants can be used to handle clearing and settlement activities of both HK and A-shares

■ PG End-to-End test:

- Can conduct PG End-to-End test tentatively 1 month before market rehearsal

Technical Preparation by CPs for Participating in Shanghai-Hong Kong Stock Connect



For CPs using CCASS Terminals

- Handle 5-digit to 6-digit stock code mapping for A-share market
- Handle separate set of reports and data files for A-share market
- Change market code of the money ledger transactions from global to market in report and data download file of “Statement of Money Ledger (CSEMA08/CSEMS08)”
- New report for collection of new CCASS fee with data download file (subject to SFC approval)

For CPs using PG

- Handle new market code “MAMK” for Market field in both input and output messages
- Handle broadcast/notification messages with new market code “MAMK” for A-share market (MA191_T27B)
- Handle new sections added in “Enquire Money Position / Instruction” output message for A-share market position statuses (MT536_T02G)

Possible Impacts to those CPs who do NOT Participate in Shanghai-Hong Kong Stock Connect



■ For those CPs who use CCASS Terminals

- Change market code of money ledger transactions from global to market in report and data download file of “Statement of Money Ledger (CSEMA08/CSEMS08)”

OLD	:	05JAN15	05JAN15	M00536102	77GLOB	MANUAL	ADJUSTMENT
NEW	:	05JAN15	05JAN15	M00536102	77HKMK	MANUAL	ADJUSTMENT

■ For those CPs who use PG

- Handle broadcast/notification messages with new market code “MAMK” for A-share market (MA191_T27B)
- Handle new sections added in “Enquire Money Position” output message for A-share market position statuses (MT536_T02G)

Support CPs' Technical Preparation and Testing



- ***Sample Reports, Data Files and PG message specifications*** – already published on HKEx Website. CPs shall assess if they will enhance their backend systems for various minor changes associated with CCASS
- ***PG End-to-End Test Package*** – to be distributed to CPs in mid Jun 2014. The package specifies various functional test cases that need to be successfully executed by CPs under PG End-to-End testing environment before market rehearsals
- ***PG End-to-End test sessions*** – to be provided in July 2014. All PG participants, whether joining Shanghai-Hong Kong Stock Connect or not, are required to join this test session. CPs will be requested to return their declaration by mid August 2014 on their system readiness before their PGs can participate in the market rehearsal
- ***Market rehearsals*** – will be organized in September 2014. It will last for several weekends to cover functional, performance and disaster recovery tests
- ***Soft launch*** – considering to roll-out CCASS related changes shortly before the start of Northbound trading. CPs need to align their system rollout with CCASS and may be required to prepare for system fallback if necessary

More Information on the Website



Visit Shanghai-Hong Kong Stock Connect Web Corner at

www.hkex.com.hk/chinaconnect



Questions and Answers



Appendix

Appendix 1:

CCASS - List of A-share Market Reports



Report ID	Report Description	Report ID	Report Description
CCLID01	Intra-Day Trade File (available in data file format only)	CSESM01	Statement of Stock Movement (By Stock) Report
CCLSI01	SI Status Report	CSESM02	Statement of Stock Movement (By Account) Report
CCLSI02	SI Activity Report	CSESP01	Settled Position Report
CCLTN05	Final Clearing Statement	CSESP04	Intra-Day Settled Position Report
CCLUS01	Unmatched SI Report	CCNAN05	Corporate Announcement Master Data File
CFIBI01	Buy-In Notification Report	CCNAN06	Corporate Announcement Maintenance Activities Report
CSEAT02	STI Activity Report	CCNPT01	Nominee Functions Input Activities Report
CSEAT03	STI Status Report	CCNPT02	Entitlement Statement
CSEOP01	Next Settlement Day Due / Overdue Position Report	CCNPT03	Participant Voted Quantity Exception Report - On Voting Deadline
CSESB01	Daily Stock Balance Report	CCNPT04	Participant Voted Quantity Exception Report - Before Voting Deadline
CSESE01	Settlement Report	CCNPT06	Nominee Fees Refund Report
CSESI02	Intra-Day ISI / SI Full List	CCDPC01*	Monthly New CCASS Fee Collection Report

Total 24 A-share Market Reports

Note *: Newly added report *subject to SFC approval*

Appendix 2: CCASS - List of Global Reports



Report ID	Report Description	Report ID	Report Description
CCLEI01	SI Batch Input Control Report	CSEMA29 / CSEMS29	Settlement Related EPI Listing
CCMSS05	Collateral Security Batch Input Control Report	CSEMP02	CCASS Funding Projection Report for Participant
CCSSG01	Stock Segregated Account with Statement Service Master Listing	CSEPI01	Payment Instruction Input Activity Report
CCSSG02	Stock Segregated Account with Statement Service Maintenance Activity Report	CSETF13	TSF Exception Handling Report
CCSSU01	SSA Batch Input Control Report	CRMIM01	Intra-day Marks and Collateral Collection Report
CETMB02	Broadcast Message Listing	CFIPM01	Marks and Collateral Collection Report
CIPCL03	Monthly ISI Counterparty List	CRMMG01	Intra-day Margin Payable Report
CIPEI01	ISI Batch Input Control Report	CRMMG02	Margin Payable Report
CSEAT01**	STI Batch Input Control Report	CRMNP01/2	NCP Marks Projection Report
CSEBA01**	ATI Batch Input Control Report	CRMNP03/4	NCP Margin Projection Report
CSECP03	Cash Prepayment / TSF Payment / Intra-Day Payment Instruction Maintenance A/T Report	CCNVT08	CRP Batch Input Control Report
CSEMA08 / CSEMS08	Statement of Money Ledger	CFIMC01	Monthly Stock Balance Report
CSEMA28 / CSEMS28	DDI / DCI / EPI Summary for Participant	CCMPS01	Maintain Preferred Single Settlement Currency Activity Report

Note **: Reports change from market to global

Appendix 2: CCASS - List of Global Reports (con't)



Report ID	Report Description	Report ID	Report Description
CRMSD01***	Mainland Settlement Deposit Payable Report	CCMDS01	Statement of Collateral Account
CRMGF01***	Mainland Security Deposit Payable Report	CCJCC12	Corporate Communications Event List
CCMIA12***	Quarterly Interest Report for Mainland Settlement Deposit and Mainland Security Deposit	CCJCC13	Recipient Master Maintenance Activity Report
CCMSC01	Specific Cash Collateral Instruction Activity Report	CCJCC14	Corp Comm Event Recipient List Activity Report
GFR608	Statement of Guarantee Fund Contributions	CCJCC15	Corp Comm Recipient Batch Input Control Report
GFR616	NCP(s) Guarantee Fund Contribution Projection By Position	CCJCC21	Monthly Recipient Master List
CCMPY01	Posting / Collateralisation Result Report	CEFUV01	Tender Instruction Batch Input Control Report
CCMPY02	Posting / Collateralisation Result Report	CEPAA01	New Issues Application Input Activities Report
CCMCA02	Collateral Account Balance Report	CEPAB01	New Issues Application Input Activities Report
CCMMV01	Participant Collateral Account Movement Report	CEPBE01	New Issues Entitlement Report
CCMSU04	Special-Use Collateral Balance Report	CEPBV01	EIPO Batch Input Control Report
CCMIR02	Collateral Parameters Information List	CEPBV02	EIPO Confirmation Batch Input Control Report
CCMIA02	Monthly Interest & Accommodation Fee Report - Detail	CEPSA01	Yellow Form Share Allotment Report

Total 57 Global Reports

Note *** : Newly added reports

Appendix 3: CCASS - List of PG Messages with Changes



PG Message	Description	PG Message	Description
MA191_T27B	Broadcast / Notification Messages	MC559_T04I/ MC560_T03B	Enquire SI Unmatched Reason
MC550_T04A/ MT537_T06A	Enquire Due/Overdue Position	MC551_T04B/ MT536_T02B	Enquire Stock Account Balance (By Account)
MC304_T11F/ MC305_T11G	Enquire ISI (multiple)	MC552_T04C/ MT536_T02C	Enquire Stock Account Balance (By Stock)
MC303_T11E	Enquire ISI (single)	MC553_T04D/ MT536_T02D	Enquire Stock Account Movement (By Account)
MC913_T31D/ MC914_T31E	Enquire Report Master/Availability List	MC554_T04E/ MT536_T02E	Enquire Stock Account Movement (By Stock)
MC911_T31B/ MC912_T31C	Enquire Report Profile	MC901_T28A	Online Report
MC555_T04F/ MT536_T02F	Enquire Settlement Activity	MC910_T31A	Update Report Profile
MC557_T04J/ MC558_T03C	Enquire SI (multiple)	MT536_T02G****	Enquire Money Position / Instruction
MT548_T03A	Enquire SI (single)		

Note : All with value "MAMK" added for the market code

**** With new section added