

## Q&A on Bond CCP Clearing Business

### V2.0

#### Versions Descriptions

Version	Completed Time	Description
V1.0	March 30, 2015	First issue.
V2.0	July 31, 2015	To increase the convenience of market institutions' participation in bond CCP clearing, Shanghai Clearing House has improved some functions after receiving various comments and suggestions after the bond CCP clearing was launched to the market. Questions 20-28, 58, 59 and 70 have been added, questions 54 and 57 have been revised and question 61 was deleted. The relevant contents have been <u>underlined</u> .



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## **I. The Basic Concept of Bond CCP Clearing**

### **1. What types of transactions does the bond CCP clearing cover? What businesses can be incorporated into net clearing?**

Bond CCP clearing business incorporates cash bond transactions, pledged repo transactions, and outright repo transactions into one netting for clearing and settlement.

The bond CCP clearing may be selected among institutions that are eligible for the bond CCP clearing (including General Clearing Members, Direct Clearing Members and non-clearing members) and for bond transactions closed in National Inter-Bank Funding Center. After novation of the obligations and rights of both transactions parties, Shanghai Clearing House calculates the receivable or payable funds and receivable or payable bonds, pledgeable or releasable bonds of each bond CCP clearing member on the same settlement date via multilateral netting method.

### **2. What types of bonds does the bond CCP clearing apply to?**

In regard of cash bond and outright repo transactions, bond CCP clearing is applicable to all the fixed income products registered and in custody in Shanghai Clearing House, mainly including short-term commercial paper, super-short-term commercial paper, medium-term note, SME collective note and non-private placement note.

For pledged repo transactions, Shanghai Clearing House develops and announces the eligible bonds that could be used in pledged bond CCP clearing, as well as the respective haircut rate. Such information may be inquired and exported via the client of Shanghai Clearing House by the clearing members, non-clearing members and those participants that are not eligible for bond CCP clearing but have registered in the client.

### **3. How to conduct netting for bond CCP clearing? Are cash bond and repo put into unified netting treatment?**

The netting of bond CCP clearing can be divided into fund netting and bond netting. Fund netting is conducted according to bond CCP clearing member, settlement date, and the category of the clearing (proprietary or client clearing). Direct Clearing Member produces the proprietary funds netting of the same settlement date. Direct Clearing Member, if funds payable and receivable of proprietary and client clearing business exist in the same time, will produce respectively netting amount of proprietary and client clearing business funds. In regard of bond netting, it is conducted according to accounts, bond categories, settlement date and the items (the bond netting of pledged repo is calculated respectively according to collection/payment and the category of pledged bond). General Clearing Members, clearing members and non-clearing members generate respectively the bond net amount by the same settlement date, bond type and item.

The netting of the transactions of repo and cash bonds of the same settlement date is calculated against each other. For example, if a clearing member buys in A bonds with the denomination of RMB1 million and utilizes them for repo financing, then in the instructions generated for the bond settlement of the same day, the buy-in of cash bonds generates the receivable instruction of RMB1 million A bonds. In the case of pledged repo, the instruction of collection, payment and pledge generated under the name of the repo party--the bonds payable to be RMB1 million and the bonds to be pledged amounting RMB1 million. The collection and payment of bonds are offset to produce instruction of zero netting while the pledge instruction is RMB1 million of A bonds as pledge. At the end of the day, the actual delivery of the bonds at the account level of the institution is determined by the result of the netting of bonds. If the netting result is zero, there is



no need to prepare for bonds. The institution should pledge A bonds of RMB1 million for transfer among internal items instead of actual delivery. Therefore, in actual practice, the institution only needs to prepare for bonds when the instruction of delivery is in place, which includes the bonds payable as pledge. The instruction of fund settlement is calculated by netting against the expenses of cash bonds and the income of repo.

## **II. The Preliminary Preparations for Conducting Business**

### **4. How do former cash bond CCP clearing members apply to be bond CCP clearing members?**

The cash bond CCP clearing members of Shanghai Clearing House can directly become the general bond CCP clearing members. But the written documents of application for general clearing membership, signature card of proprietary business, and application for clearing limit are required and the agreement of bond CCP clearing should be re-signed.

### **5. Is it a mandatory requirement to sign the *Agreement for Bond CCP Clearing*? Is it acceptable to just provide the signed *Agreement for Settlement Members* or *Agreement for Cash bond CCP Clearing*?**

The signing of the *Bond Transaction Netting Clearing Agreement* is a mandatory requirement for the participation in bond CCP clearing, and it cannot be replaced by the formerly signed agreement for settlement members. In the meantime, by virtue of the additional description of types of repo netting clearing and corresponding clauses on the basis of the cash bond CCP clearing, the *Cash Bond Transaction Netting Clearing Agreement* cannot replace the *Bond Transaction Netting Clearing Agreement*. The Agreement is provided by the Member Services Department of Shanghai Clearing House (Tel: 021-23198642).

### **6. How to declare clearing limit?**

The clearing limit should be filed when the institution applies for bond CCP clearing membership. The applicant can measure and calculate the limit according to historical transaction data. Also, the Risk Management Department of Shanghai Clearing House will provide inquiry services anytime (Tel: 021-23198627, 021-23198967). After calculating, the applicant should complete and seal on the *Bond CCP Clearing Member's Filing (Adjustment) of Clearing Limit* before submitting to Shanghai Clearing House. <http://www.shclearing.com/Product/ShowInfo.asp?InfoID=1672>

Shanghai Clearing House will review and determine the clearing limit of the bond CCP clearing members according to their scale of business and credit status. The result of the review will come into force on the next working day.

### **7. In terms of clearing limit, what are the differences between bond CCP clearing and former cash bond CCP clearing?**

The outright repo and the pledged repo are the two new types of transactions included in the bond netting. Therefore, definition of clearing limit has been renewed, including clearing limit for spot transaction, clearing limit for forward transaction and pledged repo reference value. The clearing limit for spot transaction refers to the limit of the net of funds settled for the day's transactions of cash bonds and outright repo. The clearing limit for forward transaction refers to the limit of the net of funds due for settlement while the outright repo does not yet mature for settlement. What's worth noticing is that the first tranche of the net settlement funds of pledged repo does not fall into the comparison scope of the clearing limit for spot and forward transactions. The pledged repo reference value is the reference value for the first tranche of the net settlement funds of pledged repo. During the early stages of business, the participants of clearing need not declare the reference value of the netting clearing of pledged repo because it will be set by Shanghai

Clearing House.

## **8. How to adjust clearing limit?**

The clearing members can adjust their clearing limits according to their own trade demand, and contact the Risk Management Department of Shanghai Clearing House in advance (Tel: 021-23198627, 021-23198967). The clearing member should complete and seal on the *Bond CCP Clearing Member's Filing (Adjustment) of Clearing Limit* before submitting to Shanghai Clearing House, which will timely feedback and proceed the application. After completion of the process, adjustment notice will be sent to the relevant clearing participants. The adjustment of the clearing limit will also include the adjustments of margin and default funds. <http://www.shclearing.com/Product/ShowInfo.asp?InfoID=1672>

Shanghai Clearing House will conduct assessment and adjustment of the clearing limit on a regular basis (generally at the end of each quarter), non-scheduled adjustment can also be made in line with the practical situation of the limit usage. Based on the assessment or usage, in the case of lowering the clearing limit, Shanghai Clearing House will notify the relevant clearing members, before they voluntarily submit corresponding applications; in the case of increasing the limit, Shanghai Clearing House will directly notify the relevant clearing members with notice of adjustments.

## **9. What is the procedures to be done over the National Inter-Bank Funding Center before participating in bond CCP clearing?**

After becoming the participants of bond CCP clearing (including clearing members or customers of General Clearing Members of Shanghai Clearing House), the institutions need to complete and submit the *Application for Enabling the Permission for Options of Cash Bond Transaction Netting Clearing* (please log on the website of the CFETS >Market Guide > Forms Download >Local Currency Market to download the form).

## **10. How to open a margin account?**

The margin account is automatically opened by Shanghai Clearing House, so the clearing members are not required to provide application for opening a margin account.

When the former cash bond CCP clearing members become bond CCP clearing members, if a margin account already exists for the previous cash bonds, that account can be automatically served as the margin account of bond netting (proprietary). Shanghai Clearing House will notify the clearing members after finishing changing the name.

## **III. Business Handling Procedures**

### **11. What are the preconditions of the institutions participating in bond CCP clearing?**

Both transaction parties are the clearing participants that have obtained the qualifications for bond CCP clearing business, including Direct Clearing Members for bonds, General Clearing Members for bonds, and customers that have gained the approval from the General Clearing Members to conduct netting clearing for them. When the both parties reach a deal, they will choose the method of netting clearing.

### **12. What are the impacts on the operation of the trading desk to participate in the bond CCP clearing business?**

The transactions are completed through the trading system in the National Inter-Bank Funding Center. For the conclusion of bonds transaction, various channels stipulated by Shanghai Clearing House and clearing

methods of gross clearing or netting clearing are the options for the institutions. The STP has been applied to trading system of the National Inter-Bank Funding Center and the custody system of Shanghai Clearing House.

### **13. How does Shanghai Clearing House process the data on transactions with T+1 settlement cycle?**

The clearing system of the Shanghai Clearing House receives the transaction data in real time on T day, including the transaction data in T+0 and T+1 clearing chosen. For the data in T+1 chosen, the clearing system of Shanghai Clearing House will receive the data in real time until the system closes at the end of the T day and the data will be saved in the clearing system. When market opens on day T+1, the clearing system will process the data saved on the day before, along with the newly received data and the clearing data on the very same day.

### **14. What's the difference between the clearing inspection of bond CCP clearing and that of cash bond CCP clearing?**

The clearing inspection is consistent with the cash bond netting inspection, mainly focusing on the clearing limit. But due to the fact that the repo business is included, inspection on clearing limit is divided into the inspection on the spot transaction limit and the forward transaction limit. The spot transaction limit is compared with the cash bond of the same day and the trial clearing limit of the first tranche of the outright repo, while the forward transaction limit is compared with all the trial clearing limit of the outright repo that does not yet mature. There are two points that needs attention: one is the comparison between the netting results of the forward transaction clearing limit positions of all the outright repo with different maturities and the forward transaction limit, and the second one is that the pledged repo transaction is not included in the trial net of the spot or forward transactions.

### **15. How will the system process when the real-time netting amount of transaction by the clearing member outstrips the clearing limit?**

Shanghai Clearing House conducts real-time monitoring on the net of fund in trial calculation and the clearing limit of clearing members. In the case of exceeding the limit, the system will make a margin call for risk monitoring without imposing extra waiting time or rejection of the transaction. In particular, the system will still be instructed to proceed transactions as usual when the net of funds in trial calculation exceeds the clearing limit. When the net of funds in trial calculation exceeds [the clearing limit + tolerance], the system continues to proceed and trigger the margin call. The risk monitoring system has a real-time risk early warning mechanism for indicators such as limit exceeding scenarios, net sales concentration and price deviation index.

### **16. For those transaction data included in CCP clearing, when will Shanghai Clearing House achieve novation and become central counterparty?**

When the transaction data pass the clearing inspection, Shanghai Clearing House achieves novation, taking over the rights and obligations in fund settlement and securities settlement of clearing members of the both parties, and becoming the central counterparty. After the novation, the clearing members can see the transaction status of the data as “waiting for netting” via the client. When the T+0 netting clearing ends at 15:30, the transaction status will automatically become “netting is completed”.

### **17. How to process the bonds and funds at maturity of a repo transaction?**

When outright repo becomes mature, the system will automatically generate receivable and payable instructions of bond settlement, and receivable and payable instructions of fund settlement. Then funds and

bonds with the same settlement date will go through netting process.

When the pledged repo matures, the system releases pledged bonds for the repo party (financing party), and automatically generates two bond settlement instructions, including releasable and receivable bonds instructions, completing the process where pledged bonds are transferred from the item of netting clearing to be purchased under the repo party to the available item. In the meantime, instruction of fund settlement is generated. The pledged repo bonds on maturity date and the instruction of settlement shall be put through netting with the funds and the bonds that have the same settlement date.

## **18. How to inquire the data detail of closed transactions, the netting results of funds and bonds of the proprietary business?**

a. Query path of detailed transaction data:

Transactions management--transaction data query--transactions of cash bonds, pledged repo and outright repo

b. Query path of real-time netting:

Transactions management--query for netting of netting clearing--net of fund netting in local currency and netting of bond in local currency

c. Query path of day-end netting:

Settlement management--query for instructions for netting clearing in local currency---instructions for fund settlement and bond settlement

## **19. How does Shanghai Clearing House process the end-of-day netting clearing and settlement?**

Bond CCP clearing will be cut off at 15:30, and Shanghai Clearing House conducts the final netting for all the data from T+0 bond CCP clearing and that of T+1 bond CCP clearing from one workday before. The House also calculates the day-end funds payable and receivable, bonds payable and receivable, and bonds pledgeable and releasable of all the clearing members and customers, and forms notice of fund clearing and bonds clearing according to the results of the netting.

At 15:45, Shanghai Clearing House, according to the clearing notices of the day, locks all the bonds payable of the clearing members and customers on that date in the custody system.

At 15:45, Shanghai Clearing House, according to the clearing notices of the day, sends common exchange message to the HVPS, or sends deduction instructions to the fund system of Shanghai Clearing House for locking up the fund payable. Different messages or debit instructions will be produced for settlement fund of proprietary business and that of client business.

16:15 is the time for final clearing. Shanghai Clearing House shall debit the funds payable or bonds payable of the clearing members and customers who have already made full delivery of the bonds and funds.

At this point, the bonds settlement and the funds settlement are completed.

## **20. What kinds of transaction data are qualified for choosing clearing method via the client of Shanghai Clearing House? And how to operate?**

After receiving the data of gross transactions, Shanghai Clearing House will provide options for clearing if the data is judged to meet the following conditions:

a. Both parties of the transaction are eligible for participating in netting clearing.

b. If the transaction is pledged repo, the pledged bonds should be qualified bonds and the pledged value is sufficient;

The participants eligible for netting clearing, including General Clearing Member, Direct Clearing Member and customers can choose the clearing methods according to their needs in the parameter setting interface:

a. Set the method as “apply netting clearing to all”: all the transaction data that meet the conditions above will be processed with netting clearing by default;

b. Set the method as “apply gross clearing to all”: all the transaction data that meet the conditions above will be processed with gross clearing by default, and will be processed at gross, in real-time, in trade for trade clearing and by observing the settlement regulations;

c. Set the method as “choose clearing methods separately”: all the transaction data that meet the conditions above will be processed with the method chosen each time;

If both parties of the transaction have set the parameter as a. or c. (only when both parties have set netting clearing as the method of c.), the data of that transaction is confirmed to be netting clearing and proceed netting clearing inspection; if both parties or one party of the transaction have not set the parameter, or set as b., or set as c, but gross clearing method was chosen for that particular data, or the data that haven't been chosen for the following procedure after the final moment for clearing, grossing will be chosen by default.

## **21. What is the cut-off time of choosing net clearing mentioned in the last question?**

For transaction of T+0, before the netting of day T+0 stops (15:30).

For transaction of T+1, before the netting of day T+1 stops (15:30).

## **22. Under what conditions can the agent's net clearing data be processed with gross settlement method instead? And how to operate?**

The data of netting clearing that meets any of the following conditions can be processed with gross clearing method (annulling the original instruction of netting clearing and switching to instruction of gross settlement) or with netting clearing method (maintaining the result of invalidating the netting data without any following actions)

a. Transactions that General Clearing Member fails to confirm the agent before the netting clearing is cut off

b. Transactions that General Clearing Member agent refuses

## **23. When can the net clearing data that are not yet confirmed by the agent be switched and processed with gross settlement instead? When can the data that can be switched to different processing methods and the switch history be inquired?**

The data rejected by the agent can be switched to different processing method in real-time during the day. And the history can be seen in the screen of method switching in real-time;

The transaction of General Clearing Member that is not yet confirmed by the agent can be switched to different methods after the netting clearing is cut off, and can be seen on the screen of method switching.

**24. What is the cut-off time for the switch from net clearing to gross clearing?**

For transaction of T+0, before the cut-off time of the gross transaction of T+0 (16:55)

For transaction of T+1, before the cut-off time of the gross transaction of T+1 (16:55).

**25. Is the switch from net clearing to gross clearing successful only when both parties of the transaction confirm to use gross clearing method?**

Yes. When the gross clearing method is confirmed by the both parties of the transaction, the switch is successful. The procedure of the gross clearing will be followed until bilateral confirmation of gross clearing.

If one of the both parties of the transaction has chosen to maintain the method of netting clearing, or if one or two parties fail to make the choice, the original instruction of netting clearing will be annulled as the final result without producing new instruction of gross clearing.

**26. Is the switch from netting clearing to gross clearing applicable for the clearing members whose bonds and funds are insufficient after passing bond CCP clearing cut-off time?**

No. The switch from netting clearing to gross clearing is only applicable under the circumstance described by question No. 22.

**27. What are the differences between the interfaces of clearing method switching and that of the inquiring interface for clearing method switching?**

All the data that meets the conditions for switch between methods of netting clearing and gross clearing can be seen on the interface of switch of clearing method, and both methods can be chosen.

And the above-said data that can be switched and switch history record can be inquired in the interface of query for clearing method switch.

**28. How does the institution distribute the internal authority in client for switching between gross clearing and net clearing?**

In practice, the authority can be directly distributed to front-office for query or operation of clearing method switch. In addition, the linking mechanism between the front-office and the back-office can be established so that the operations can be carried out by the back-office in conformity with the instructions from the front-office.

#### **IV. Default management**

**29. How does Shanghai Clearing House process the default on fund settlement?**

In the final moment for settlement, the insufficient funds of the clearing member constitutes the default of fund settlement and trigger the subsequent processing procedures.

a. Shanghai Clearing House sends the real-time default notice, and the defaulting party may inquire the amount of fund in default through the client.

b. Shanghai Clearing House shall collect the default penalty in the one thousandth of the amount of the breached contract each day since the first day of the breach. In the case of less than a day, the fine is imposed with the amount of one full day.

c. Shanghai Clearing House shall launch the bank credit authorization mechanism to complete the funds

settlement of the non-defaulting party.

Please refer to 5.1 “Treatment of default of fund settlement” in the *Guidance for Bond CCP clearing Business* for the detailed subsequent process of the default of fund settlement.

### **30. How does Shanghai Clearing House process the default on bond settlement?**

In the final moment for settlement, the insufficient bond value of the clearing member constitutes the default of bond settlement. If the bonds payable is insufficient on the side of client business, the General Clearing Member should assist the customer in securities loan, and the insufficiency of which will trigger the subsequent processing procedures.

- a. Shanghai Clearing House sends the real-time default notice, and the default clearing member/the customers in its agency may inquire the amount of defaulting fund through the client.
- b. Shanghai Clearing House shall collect the default fine in the one thousandth of the amount of the breached contract each day since the first day of the breach. In the case of less than a day, the fine is imposed as a day. The bond default fine shall be paid by the General Clearing Member that acts as the agent of its client.
- c. Shanghai Clearing House shall launch the bond lending mechanism after the default of day-end bond settlement to complete the bonds settlement of the non-defaulting party.

Please refer to 5.2 “Treatment of default of bond settlement” in the *Guidance for Bond CCP clearing Business* for the detailed subsequent process of the default of bond settlement.

### **31. What are the specific operations concerning the “selling to the market”, “close a position for auction” and “forced settlement of a closed position” mentioned in the disposal for defaults.**

**Selling to the market:** when settlement default is committed by the clearing member, the equivalence of the amount of default should be taken and frozen from its assets receivable that day by Shanghai Clearing House. Selling to the market refers to the obligation of selling the frozen assets to compensate the non-defaulting party or the credit granting party of fund.

**Close a position for auction:** if permanent default is committed by the clearing member or customer, in addition to the disposal of their assets receivable, closing their positions for auctions is necessary to transfer the corresponding repo contracts to other non-defaulting parties who have received the positions.

**Forced settlement:** under the extreme market circumstances, if the repo contracts whose positions were closed for auction but the plan falls through due to many reasons, Shanghai Clearing House will impose forced settlement and rein in the risks through sales of pledge bonds and cash settlement.

### **32. When settlement default occurs, is it allowed to cover the shortage of bonds and funds on the same day?**

Yes. Shanghai Clearing House encourages clearing members to address default as soon as possible. When the settlement default occurs, clearing members still can make up for the shortage of the funds or bonds payable in corresponding fund settlement account of custody account. After making up for the insufficient amount of the day, Shanghai Clearing House will return their funds and bonds receivable.

## **V. The Management of Margin and Default Funds**

### **33. How is the initial margin collected? What is the relationship between initial margin and clearing limit?**

The initial margin should be paid in full by the clearing member before conducting bond CCP clearing business. After the Shanghai Clearing House issues the margin payment notice, the clearing member shall remit full payment of the margin directly to the special margin account designated by Shanghai Clearing House within 10 workdays after receiving the notice. The initial margin is calculated by the clearing limit declared by the clearing member. Different from the cash bond CCP clearing, bond CCP clearing has divided the single clearing limit of cash bond into spot transaction clearing limit, forward transaction clearing limit and pledged clearing limit. Then, different margin rate is set in line with different types of limit. Finally, the initial margin of a clearing member is calculated by adding all the products of the different types of limits.

### **34. What is variation margin? How is it calculated?**

The variation margin is a cash collateral paid by clearing members at the request of Shanghai Clearing House according to the risks monitored, including limit-exceeding margin and mark-to-market margin. Please refer to 6.2.3 “Variation margin” in the *Guidance for Bond CCP clearing Business* for the calculation formula.

Regarding client clearing business, the margin requirements of client clearing are made in line with the summary of respective customer’s fund clearing positions, whose agent is General Clearing Member. It is not allowed to perform netting for the mark-to-market profit and loss among customers to separate the risks among customers.

### **35. During daytime, Shanghai Clearing House calculates the real-time mark-to-market and over-limit margin and issues margin payment notices to clearing members. What is the concept of real-time?**

The intraday real-time calculation is a concept opposite to day-end batch processing, referring to the continuous calculations of mark-to-market and limit-exceeding margins on newly submitted and on-going transactions by Shanghai Clearing House in daytime.

### **36. Is the intraday net position of clearing members allowed to exceed the clearing limit? How to process it?**

Yes. The clearing limit is not the cap of intraday clearing limit. Shanghai Clearing House monitors the real-time netting of all the clearing participants. In case of real-time netting exceeding the clearing limit to a great extent (the current tolerance is set at 200%, which means three times of the clearing limit), margin call will be made for risk management depending on the circumstances.

### **37. Do clearing members need to monitor the margin call on a real-time basis? What will be the consequences of the failure to make timely payment after receiving a margin call? If the margin call has been issued at a certain point during daytime while the margin requirements have been then lowered, will Shanghai Clearing House release the extra margin?**

In principle, the clearing members should appoint personnel for real-time monitoring of margin. Once margin call is made during daytime, in addition to the margin call sent from the system by Shanghai Clearing House, phone calls will also be made to timely inform the clearing members.

In general, Shanghai Clearing House does not issue margin call during daytime. The intraday margin call will only be triggered when the clearing members (including proprietary and client clearing) are hit by huge



mark-to-market loss or when the clearing members have exceeded the limit greatly and exceeded “clearing limit + tolerance”. After receiving the intraday margin call, the clearing members are required to transfer the extra funds to the proprietary or client clearing account within 60 minutes. In the case of day-end margin call, the deadline is before 10:00 a.m. the next workday. Once the margin call is issued, the clearing member must pay the required amount of margin within the time stipulated. Otherwise, it will constitute margin violation. Shanghai Clearing House will contact the clearing members in advance to assist them in preventing the above situations.

The conditions for releasing margin include:

- a. Lowered clearing limit or margin rate causing lowered initial margin;
- b. The margin will be released after the fund settlement is completed normally the same day when the variation margin call has been made.
- c. The clearing members deregister its membership; and
- d. Other situations stipulated by the Rules and the Guidance.

The clearing members are able to inquire the withdrawable margin (released margin) in the interface of withdrawal margin of the client, and are also able to inquire the withdrawable amount in the breakdown list of netting clearing business in the client.

**38. After issuing the intraday and end-of-day margin call, Shanghai Clearing House will debit the required amount from the proprietary or client margin account of the clearing members. Does debit mean freezing the fund within the account or transferring the fund out of the account?**

After issuing the notice of intraday and day-end margin call, Shanghai Clearing House will freeze the amount in the clearing member’s proprietary or client margin account. After issuing the margin call by Shanghai Clearing House, if the proprietary or client margin account has insufficient balance, the system will automatically transfer the indicated amount of fund from the fund settlement account (HVPS account or the special fund account with Shanghai Clearing House) of the clearing member to its margin account. The clearing member should supply sufficient amount of fund to its proprietary or client margin account within the indicated time.

The clearing member can inquire the status of margin call via the client. Query path: risk monitoring--the interface of margin call monitoring: when the instruction of margin call has been issued, the call/release field will display “call”. If the margin call is answered, the call/release field will display “call answered”; otherwise, it will display “call unanswered”.

**39. If a clearing member has sufficient funds in the settlement fund account to make sure transactions will be settled normally, is it still necessary to issue margin call to the clearing member and debit the amount?**

The margin and the settlement funds have different use, thus the separate account management is necessary to avoid mixed use. The calculation of requirements for variation margin does not take the balance of the settlement treasury account of the clearing member into consideration.

## **VI. Related Questions on Agent Client Clearing**

### **40. What preparations are necessary before conducting the bond CCP clearing business as a General Clearing Member?**

The preparations include applying for becoming General Clearing Member for bond netting, establishing the internal risk control mechanism for the clients, developing internal client system, applying for proprietary and client clearing limits, signing the *Agreement on Bond Transaction Netting Clearing of Inter-Bank Market Clearing House* and supplementary agreements, signing the *Agreement on Client Clearing for Customers in Bond Transaction Netting Clearing* and reporting to Shanghai Clearing House for records, opening or appointing proprietary or client clearing account for fund settlement, making full payment of initial margin and default funds for proprietary business or client business and arranging training for personnel.

### **41. What is a customer?**

The participants that have obtained qualifications for inter-bank market trading, after obtaining the consent from General Clearing Member to act as its agent for netting clearing business and reporting to Shanghai Clearing House for records, can participate in bond CCP clearing business through its agent. The customer must pass the inter-bank market trading review by the People's Bank of China to obtain the status of settlement member.

### **42. Are unincorporated products such as funds and trusts allowed to engage in bond CCP clearing business?**

Yes. Those products can participate in bond CCP clearing after becoming the customer of General Clearing Member and receiving agent service provided by it. The customers include incorporated and unincorporated products that have not obtained qualifications of clearing membership.

### **43. How do unincorporated products under custody participate in bond CCP clearing?**

For the custodian banks that have obtained General Clearing Membership, they can participate in netting clearing on behalf of its custody products. Regarding legal relationship, an agreement on client clearing is signed between the General Clearing Member and Shanghai Clearing House to act as the agents of legal persons and non-legal persons to participate in bond CCP clearing. Regarding the realization of system, to meet the need of custodian bank's separation of assets, custody and non-custody client clearing accounts are opened by General Clearing Member. Treatments of netting, inquiry, margin call, and receipts generation are carried out in separate accounts to achieve the complete separation of custody combination and the proprietary business of the bank, and the custody combination and the agent business.

For the custodian banks that have not obtained General Clearing Membership, Shanghai Clearing House will conduct comprehensive assessment of the business scale of custody and the transaction scale and choose the competitive banks as limited General Clearing Member to act as the agent of its products to participate in netting clearing. There are two ways for the unincorporated products under custody to participate in netting clearing. The first is resorting to other General Clearing Member to act as the agent. The second is that the custodian bank receiving the limited General Clearing Membership from Shanghai Clearing House to act as an agent (only for the unincorporated products under custody).

### **44. What are the major advantages of customers participating in net clearing?**

a. Increasing the efficiency of fund use and simplifying the settlement process. By enriching the netting

types of products, bond CCP clearing conducts netting on repo and cash bonds to increase the netting efficiency of funds. The combination of cash bond and repo transaction can derive more transaction models. The funds arrangements will be more flexible and efficient because cash bonds buy-in for repo on the same day, bonds sales at repo maturity date and the rolling renewal of repo are available.

b. Expanding the scope of counterparties to increase transaction competitiveness and bargaining power. The scope of transactions is relatively small due to restrictions from qualifications when small customers participate in bond transaction of inter-bank market. Through client clearing, the customer's transaction risks are transferred to the mutual assumption of General Clearing Member and Shanghai Clearing House of tremendous strength. This will relieve the doubts from counterparty, build up positive image and word-of-mouth and improve the transaction competitiveness of small customers.

c. Effectively reducing transaction cost. The gross clearing business charges customers with the book-transfer fees on a trade for trade transaction basis, while the netting clearing charges customers with the book-transfer fees and clearing fees on the day-end netting results basis. For the market member that has frequent transactions, the scale effect can form to reduce transaction cost.

**45. After the customers participating in net clearing through agents, is bilateral gross clearing still available?**

The customer can still submit its transaction by itself through the transaction system in National Inter-Bank Funding Center. Both parties of the transaction can choose netting clearing or bilateral gross clearing when they reach a deal. The gross clearing and settlement business are implemented as the current operation.

**46. Can a customer choose more than one General Clearing Member to process the bond CCP clearing business?**

The customer can only choose one General Clearing Member to process netting clearing, and has the right to choose or change the General Clearing Member that acts as its agent.

**47. How does customer determine and adjust the clearing limit?**

The customers can, according to historical statistics and netting of funds, submit application for the clearing limit to the General Clearing Member that acts as its agent of clearing. The General Clearing Member has the authority to directly set the customer's clearing limit depending on actual business. General Clearing Member should submit the *Registration (Filing) Form of Non-Clearing Member's Information (Changes) to Participate in Bond Netting* and the *Application for Declaring (Adjusting) Clearing Limit of Bond Netting by General Clearing Member* to Shanghai Clearing House for registration. Shanghai Clearing House should timely feedback and register the results of filing and recording after receiving the materials provided by General Clearing Member regarding customers' clearing limit. The clearing limit that has been successfully filed will come into force on the next workday.

If the customer needs to adjust the clearing limit, he should apply to the General Clearing Member that acts as his agent. The General Clearing Member has the authority to adjust directly. After the adjustments, *Registration (Filing) Form of Non-Clearing Member's Information (Changes) to Participate in Bond Netting* and *Application for Declaring (Adjusting) Clearing Limit of Bond Netting by General Clearing Member* should be submitted to Shanghai Clearing House for filing by General Clearing Member.

**48. How does General Clearing Member determine the client clearing limit?**

The sum of the clearing limits of all customers under the agent service of General Clearing Member

constitute its client clearing limit.

**49. What accounts should General Clearing Member designate or open to participate in bond CCP clearing as an agent?**

It is required to designate or open fund settlement account, client clearing margin account and client default funds account.

**50. Do all the customers of a General Clearing Member share one fund settlement account?**

All customers of a General Clearing Member share one client clearing master account of fund. In addition, a client fund master account can be opened for all the customers that have purchased custody service in response to the requirement put forward by custodian bank for independent accounting of fund under custody.

**51. Do customers need to open bond custody account?**

Yes. All the bond custody accounts are primary accounts. The bond settlements are completed respectively in customers' accounts, and both the gross and netting clearing are completed in the same bond custody account.

**52. Can the proprietary and client business of the General Clearing Member share the same fund settlement account?**

The proprietary and client business of the General Clearing Member can use in the meantime in one account in HVPS or be processed in different fund settlement accounts with the clearing house, or high-value account for proprietary business and special fund settlement account for client business. Under no circumstances can the General Clearing Member misappropriate the settlement fund paid by the customers under its agent service.

**53. Can the proprietary and client business of the General Clearing Member share the same margin settlement account?**

Shanghai Clearing House has opened special margin account for the client business which is separated from the margin account for the proprietary business.

**54. Regarding the business procedures, what are the differences of client net clearing compared to proprietary net clearing?**

The business procedures of client netting clearing and proprietary netting clearing are basically the same. The only additional procedure is the client clearing confirmation.

Three types of client clearing confirmation are provided for General Clearing Member by Shanghai Clearing House. They are trade-for-trade confirmation, limit-exceeding confirmation and confirmation of all by default:

a. **Trade-for-trade confirmation** means that the General Clearing Member needs to confirm the transactions initiated by the customers one by one.

b. **Limit-exceeding confirmation** means that the General Clearing Member is only required to conduct client confirmation on the transactions initiated by the customers that exceed their clearing limit. As for the transactions within the limit, the system will confirm by default.

c. **Confirmation of all by default** means that all the netting clearing transactions initiated by the customers

will be confirmed by default without requiring the confirmation from the General Clearing Member.

In the case of type a. and b., the transactions initiated by customers but rejected by the General Clearing Member will lead to the annulment of the instruction. The transactions will be transferred to intraday gross breakdown. The initiator of the transaction will reselect the clearing method. If the General Clearing Member fails to conduct client confirmation after the deadline of netting clearing, that instruction of netting clearing will be annulled. The initiator of the transaction can initiate gross clearing process before its deadline.

**55. Under client bond clearing, will each customer's transaction go through netting with each other?**

The netting process of the customers can be divided into fund netting and bond netting. For fund netting, the customers' funds of the same General Clearing Member will go through netting with each other and become a position. As for bond netting, it will proceed respectively for different customers. With each new transaction, the clearing system will update the real-time information of the payable and receivable funds of the clearing member and the payable and receivable bond denomination netting of the customers.

**56. Does Shanghai Clearing House provide details of the fund netting of each customer? Is the monitoring of fund settlement done on customers' level?**

Shanghai Clearing House provides details of fund netting of each customer to General Clearing Members, and the General Clearing Members need to properly monitor customers' fund delivery on their initiative. After summarizing the fund netting receivable and payable of all customers of the day, Shanghai Clearing House generates a client business fund settlement instruction, and transfers the funds payable from the account (high-value account or fund settlement account) designated by the General Clearing Members to the special clearing account opened by Shanghai Clearing House with the HVPS or the clearing fund account opened with the Fund System. The fund settlement between the General Clearing Members and their clients is not conducted through the clearing system of Shanghai Clearing House, so the fund delivery monitoring of agency business in clearing only covers the General Clearing Members, but not each customer.

**57. What functions will be provided in client of General Clearing Members for agent business?**

Shanghai Clearing House provides special client authority to General Clearing Members, and the authority of the clients for client and proprietary business is separated. General Clearing Members may inquire the details of each customer's funds and bond transaction netting as well as settlement details of day-end fund and bond clearing in a real-time manner through the client.

The main functions include: client clearing confirmation, emergency transaction entry, customer's bond account balance, inquiry of customer's netting transaction data, real-time netting query, inquiry of day-end settlement instruction, client settlement funds, withdrawal and related inquiry function of client margin, inquiry of mark-to-market profit or loss of non-clearing members, inspection of pledged bonds' value, inquiry of related fees of client netting, and downloading of related documents (such as client clearing notice, client settlement notice, client margin statement and client payment notice)

**58. Can General Clearing Members choose the clearing method for their customers and switch to gross processing and inquiry of netting data that is failed in verification?**

No. General Clearing Members only have the authority to confirm inquiry and client of the netting transactions of their customers, but cannot inquire or operate the gross transaction data of their customers. According to this principle, Shanghai Clearing House will directly send the data that meets the conditions for choosing clearing methods and switching to gross processing and inquiry of netting data that is not yet

confirmed to the customers' client for conversion operations and inquiries.

Selection of clearing methods: only after the customers' transaction data successfully selects netting clearing method can the General Clearing Members see such netting clearing data of their customers.

Switching netting data that is not yet confirmed to gross processing: after the data is subject to the follow-up gross processing, the General Clearing Members still see that the original netting instruction is invalid and cannot see the follow-up gross data and processing.

**59. What is the role of inquiry function of mark-to-market profit or loss of non-clearing members?**

This function allows General Clearing Members to inquire and monitor their customers' mark-to-market profit or loss. A positive number indicates profit, whereas a negative number suggests loss.

If a single customer's mark-to-market loss exceeds the threshold for mark-to-market loss, mark-to-market margin call shall be made to customers. The threshold for mark-to-market loss shall be provided by Shanghai Clearing House (the threshold for mark-to-market loss of non-clearing members is RMB100,000).

**60. How to inquire the details of client business transaction data, funds and bond netting?**

The client business funds and details of bond netting can be inquired through the client of General Clearing Members, and the inquiry route is the same as that specified in "inquiry of fund and bond netting details of proprietary business".

**61. Can customers inquire the data of concluded transactions and the netting of the bond CCP clearing business?**

Customers can inquire their real-time transaction data as well as the real-time netting results of the funds and bonds through the client of Shanghai Clearing House.

**62. Can the General Clearing Members inquire about the bond holdings of their customers?**

Yes. Query path: Integrated inquiry--position-holding balance query--select the account of customer holder.

**63. If the net trial amount of transaction of a customer exceeds the limit at a time point, but another round of reverse hedging transaction is initiated at the next point to make the net amount of the trial less than the limit. Is it necessary to make a client confirmation of the original excess transaction?**

No. Shanghai Clearing House has a real-time trial calculation of the net of funds of customers. If the next transaction submitted by the customer makes the net position of funds in trial calculation less than the amount of liquidation, the transaction that needs client transaction confirmation can be passed directly. The transaction interface of client confirmation is updated in real time.

**64. When a customer is short of bonds, how does the General Clearing Member deal with it? Is it necessary to cover for the customer from the proprietary bond account of General Clearing Member?**

Where Shanghai Clearing House handles the default of the General Clearing Member, it will not pay or freeze the bonds of the propriety account of the General Clearing Member without the approval of the General Clearing Member.

Shanghai Clearing House will monitor the custody accounts of clearing participants based on the real-time results of netting during daytime; if the customer's bonds under custody are found inadequate near the point of clearing start, General Clearing Member will be promptly informed, and General Clearing Members will hasten and handle the situation. From the time point to the final settlement point, the General Clearing

Members may perform the duties and obligations of performing the security in the following ways:

a. Proprietary custody account of clearing members who hold bonds payable and are willing to give priority to the customer margin can help customers to complete in the following ways: 1) clearing members sell bonds to customers using gross settlement; 2) clearing members lend bonds to customers in credit granting; and 3) clearing members authorize Shanghai Clearing House to directly pay bonds from the proprietary custody account. Only in the case of 3) can Shanghai Clearing House is authorized to pay bonds from the proprietary custody accounts of General Clearing Members.

b. The proprietary accounts of clearing members who have no enough balance or fail to provide margin securities can help customers to complete the bond settlement in the following ways: 1) bond lending. Clearing members try their best to assist their customers in bond lending. During this process, the clearing member may apply to Shanghai Clearing House for assistance. If the bond lending is completed in customers' name finally, Shanghai Clearing House deducts bonds payable from the bond custody accounts of customers, and the settlement is completed; if the bond lending is completed in clearing members' name, they can help customers complete the settlement through paragraph a. Shanghai Clearing House will build a central counterparty guarantee lending mechanism, and provide systematic, fully automated lending services to further solve the difficulty in borrowing bonds of market institutions. 2) Reverse hedging after the cut-off time of transaction. Shanghai Clearing House is studying the reverse hedging mechanism after the cut-off of transaction and before the cut-off of settlement to further reduce the risk of short sales.

**65. If the funds or bonds of a customer under a General Clearing Member are in default, will it affect the counterparty's asset settlement?**

No. If the default of fund settlement of clearing members is found, Shanghai Clearing House will immediately start the bank credit mechanism, financing through bank credit to complete the settlement of observant clearing members. Shanghai Clearing House has signed the bank credit agreement with major commercial banks and can obtain the funds within half an hour to ensure the completion of fund settlement.

After default of bond settlement is found, Shanghai Clearing House will immediately start the bond lending mechanism, borrowing the corresponding bonds from main market institutions to complete the settlement of observant clearing members. Shanghai Clearing House has signed a bond lending agreement with major market institutions to ensure the completion of bond settlement.

At the same time, Shanghai Clearing House plans to establish an automatic lending mechanism of the system to provide more convenient and flexible borrowing service for the market institutions.

**66. How to determine the permanent default of a General Clearing Member. Does Shanghai Clearing House transfer the holdings for all customers who comply with the agreements?**

A permanent default is the highest level of the default level in Shanghai Clearing House for General Clearing Members. Only when General Clearing Members of Shanghai Clearing House cannot be a qualified clearing member because of their own reasons (such as bankruptcy) and fulfill their obligations, a permanent default will be determined. The determination is determined by the Risk Management Committee, the highest risk decision-making institution of Shanghai Clearing House.

**67. How to keep the margin for agent bond CCP clearing? Is it stored in Shanghai Clearing House, or in banks arranged by Shanghai Clearing House, or the margin obtained by General Members is deposited at the General Clearing Members?**

a. Margin deposit. Shanghai Clearing House opens a general client margin account for each General

Clearing Member of bond CCP clearing for depositing the margin required for the client business. The margin account is opened with Shanghai Clearing House, and is the internal fund account of Shanghai Clearing House deposited in the settlement bank in cooperation with Shanghai Clearing House.

b. Calculation and collection of the margin of customers. A General Clearing Member must pay the client business margin to Shanghai Clearing House in full accordance with the client margin requirement of Shanghai Clearing House. The margin collected by General Clearing Members can be higher than the requirements of the Shanghai Clearing House, and the surplus portion can be retained by General Clearing Members. Shanghai Clearing House calculates the margin for the General Clearing Members and provides the margin detail requirements for the sub-customers.

#### **68. Does the customer involve the collection of default funds?**

Default funds refer to the cash paid by a General Clearing Member before participating in the client netting clearing business to compensate for the loss that the margins are insufficient to cover in case of the default of the General Clearing Members.

Customers do not have to pay the default funds and are not involved in the loss allocation. But General Clearing Members shall pay the default funds in full to Shanghai Clearing House in accordance with the requirements of Shanghai Clearing House, and the default funds deposited in Shanghai Clearing House belong to General Clearing Members.

The default funds for the client clearing business shall be determined according to the clearing limit and the ratio of the default funds. The ratio of the default funds of the client clearing business and the proprietary business shall be consistent.

### **VII. Questions on Pledged Repo**

#### **69. Is there any specific requirement on the value of pledged bond in the case of net clearing for pledged repo?**

In bond CCP clearing, the value of the pledged bonds of each pledged repo shall not be less than the amount of settlement of repo at maturity, otherwise the business cannot be checked by the system. Shanghai Clearing House calculates the value of eligible bonds in accordance with the following formula:

Pledged bond value =  $\Sigma$  bond denomination  $\times$  full bond valuation  $\times$  discount rate / 100. = 券种质押券面额  $100 \times$  质押券估值 (全价)  $\times$  折扣率

Among them, the discount rate of pledged bonds is calculated as per the credit rating, historical price fluctuation and market liquidity by Shanghai Clearing House, and is announced and effective with the latest list of eligible pledged bonds.

#### **70. For the pledged bond value calculation function provided in the client, is it the rechecking of the value of the pledged bond on the pledged repo transactions received by Shanghai Clearing House for CCP clearing?**

No. This function is to provide convenience for the value calculation of pledged bonds transactions by the transaction party to judge whether repo value of the pledged bonds included in the netting clearing is full. It is an independent pledged bonds value calculator, rather than one process in the netting clearing treatment. Institutions can choose manual algorithms and bond-prioritized algorithms according to their own needs.



**71. At present, being the reversed repo party in repo business, some institutions do not accept credit bonds as the pledged bonds due to internal risk control reasons. What will be the changes on pledged repo with credit bonds after repo CCP clearing business being launched by Shanghai Clearing House?**

Some institutions proposed that bilateral pledged repo transactions involve the issues of credit granting of counterparties, issuers and venture capital occupancy. The introduction of repo netting clearing business, through the intervention of the central counterparty, essentially changed the counterparty of the contract. The central counterparty interposes the repo party who provided the pledge of unsecured bonds in the original transaction, and became a participant in the transaction. If the original financing party defaults, reverse repo party will no longer hold unsecured bonds passively. The central counterparty disposes unsecured bonds instead, and assumes the responsibility for repayment to the reverse repo party, which effectively solves the credit granting and venture capital occupation problems.

**72. Are pledged bonds permitted to be replaced within the duration period of a repo transaction done by CCP clearing?**

For pledged repo transaction in which the first tranche of the settlement is completed, but the settlement at maturity is not, clearing members can replace the pledged bonds through the Shanghai Clearing House's client; the application of customer pledged bond replacement can be submitted through the General Clearing Members who act as agent. Replacement of pledged bonds should be carried out with single pledged repo transactions. Clearing members submit the types and quantity of eligible bonds for the replacement to the Shanghai Clearing House, and replace the corresponding types and quantity of bonds in the condition of full amount of pledge.

**73. Can the pledged bonds be replaced when the pledged repo bond is in default on the near date?**

Yes. Shanghai Clearing House encourages clearing members to resolve the issue of default as soon as possible. Where the corresponding bonds or funds are fully paid up on the day of default, Shanghai Clearing House may transfer the funds and bonds payable on the same day.

**74. How to deal with the default of clearing settlement at maturity of pledged repo? Do reverse repo parties, that is, contributors obtain compensation for default in the form of funds or bonds?**

In the repo netting mechanism, due to novation, original counterparty's risk changes into central counterparty's risk; at the same time, since the central counterparty guarantees delivery, even if the original counterparty defaults, reverse repo party will not bear the related risk.

When default occurs in the settlement at maturity of pledged repo, the central counterparty will first guarantee the payment to the reverse repo party. Through the bank credit mechanism, the reverse repo party will receive the expected maturity settlement funds from Shanghai Clearing House, and Shanghai Clearing House, as the central counterparty, is responsible for disposing pledged bonds to solve the principal risk. The losses arising from the disposal shall be compensated in the order of margin, default funds, risk reserves of Shanghai Clearing House.

## **VIII. Fees**

**75. How is the bond CCP clearing business charged?**

The charges for bond CCP clearing include clearing fees and settlement transfer fees. The clearing fee is charged according to the millionth of each transaction amount before netting. For repo transactions (including outright repo and pledged repo), only the first tranche is charged. Settlement transfer fee is

charged according to the results of bond CCP clearing in a lump-sum according to the actual results of bond transfer based on the netting of the cash bonds and outright repo bonds. Transfer fee is RMB150 for each bond.

**76. Is discount offered in the early stage of business development?**

In the early stage of bond CCP clearing business, that is, since March 30, 2015, the discount of the relevant charges is as follows: in the first quarter of the launch of business (March 30 - June 30), the business fee is exempted, and is 50% off in the second quarter (July 1- September 30).