CCP MODEL FOR CLEARING AND SETTLEMENT OF VIETNAM SECURITIES MARKET
I. Clearing and settlement model
II. Risk management
III. Clearing and Settlement model for custodian banks
IV. Discussions
CLEARING AND SETTLEMENT MODEL
1. Clearing members at Vietnam Securities Depository (VSD)

- **General clearing member (GCM)**
  - They can clear for:
    - Proprietary trades
    - Their own customers’ trades
    - Trades’ customers from NCM where they mandate clearing through GCM and NCM’s customers.

- **Direct clearing member (DCM)**
  - They can clear for:
    - Proprietary trades
    - Their own customers’ trades

- **Non clearing member (NCM)**
  - They can do trades for:
    - Proprietary trades
    - Customers’ trades
  - Bù trừ thanh toán qua TVBT chung

- **Mandated clearing**
2. Requirements to become clearing members (CM)

- **Membership:**
  - A depository member at VSD;
  - Granted a Certificate of eligibility to provide clearing and settlement services by the State Securities Commission (SSC);

- **Financial requirements:**
  - Meet requirements about chart capital and equity according to Vietnam’s regulations;
  - For securities companies: Fully make provisions according to regulations and have no loss in the last 2 years, minimum liquid capital ratio of 260% in the last 12 months; debt/equity ratio should not exceed 5 times.
  - For commercial banks and branches of foreign banks: Meet the capital adequacy ratio as prescribed by the law on credit institutions within the last 12 months.

<table>
<thead>
<tr>
<th>Debt/Equity Ratio</th>
<th>DCM</th>
<th>GCM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial banks/Branches of foreign banks</td>
<td>≥ 1.000 billion VND</td>
<td>≥ 7.000 billion VND</td>
</tr>
<tr>
<td>Công ty chứng khoán</td>
<td>≥ 250 billion VND</td>
<td>≥ 900 billion VND</td>
</tr>
</tbody>
</table>

- **Other requirements:**
  - Not being in the process of consolidation, merger, dissolution or in a state of control, special control, operation suspension, or contemporary operation suspension under a decision of authorities;
3. Clearing and settlement for CCP model

**TRADE ECHANGES**
- Data transfer from TRADING MEMBER

**CLEARING**
- CCP (VSD)
  - Margin requirement notification to CLEARING MEMBER
  - Post margin

**SETTLEMENT**
- CCP (VSD)
  - Securities settlement to VSD
  - Cash settlement to SETTLEMENT BANK (BIDV)

**INVESTOR**
- Order from TRADING MEMBER

**INVESTOR OR NON CLEARING MEMBER**
- Margin requirement notification from CLEARING MEMBER
- Post margin to CLEARING MEMBER
4. Margin

1. Investors post margin for CM:
   CM ensures that investors can settle before trading:
   a. For sell order: Except for day-trading transactions, investors must have enough securities (securities on trading account, receivable securities)
   b. For buy order: CM decides how much and what time investors post margin based on their credit level.

2. CM post margin for VSD on:
   - For Corporate bond: Day T (Trading day)
   - For stocks, fund certificates, covered warrants: Day T+1
# a. Margin requirement

<table>
<thead>
<tr>
<th>Proprietary margin (P)</th>
<th>Customer margin</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Domestic customer margin (C)</td>
</tr>
</tbody>
</table>

### Initial margin (IM)

Estimate maximum potential losses due to price fluctuations from trading day to settlement day

\[
IM \text{ for each securities} = \text{Net buy trades} \times \text{Close price} \times \text{margin ratio}
\]

\[
IM = (IM \text{ of net buy trades}) \times (1 + \text{cyclicality ratio})
\]

### Variation margin (VM)

Gains/losses between matched price and close price at trading day (T)

\[
VM \text{ for each securities} = (\text{Net buy trades or net sell trades}) \times (\text{Matched price} - \text{Close price})
\]

\[
VM = |VM \text{ of net buy and net sell trades}| \times (1 + \text{cyclicality ratio})
\]

**Margin requirement for unsettled trades of CM (MR)**
## b. Margin for CM - Net buy only

Ex: Customer margin (C) from CM A while trading securities. Assuming that securities is categorized into different indexes which means each securities may have different margin ratio (SSI: 10%, VPS: 6% ...), cyclicality ratio is 5%.

<table>
<thead>
<tr>
<th>Securities</th>
<th>Initial Margin for net buy trades</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSI</td>
<td>6.000 (2,000 securities x 50,000 VND x 6%)</td>
</tr>
<tr>
<td>VPS</td>
<td>6.000</td>
</tr>
<tr>
<td>TCB</td>
<td>5.000</td>
</tr>
<tr>
<td>VCS</td>
<td>2.000</td>
</tr>
<tr>
<td>AAA</td>
<td>3.000</td>
</tr>
<tr>
<td>ACB</td>
<td>1.000</td>
</tr>
<tr>
<td><strong>Tổng</strong></td>
<td><strong>10,000</strong></td>
</tr>
</tbody>
</table>

Initial margin (Net buy trades x Close price x Margin ratio for each securities)

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<td><strong>10,000</strong></td>
</tr>
</tbody>
</table>

Variation margin (Average matched price – Close price)

<table>
<thead>
<tr>
<th>Securities</th>
<th>Net buy value</th>
<th>Net sell value</th>
<th>Gain/Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSI</td>
<td>10,000</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>VPS</td>
<td>6,000</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>TCB</td>
<td>5,000</td>
<td>(950)</td>
<td></td>
</tr>
<tr>
<td>VCS</td>
<td>2,000</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>AAA</td>
<td>3,000</td>
<td>(650)</td>
<td></td>
</tr>
<tr>
<td>ACB</td>
<td>1,000</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Tổng</strong></td>
<td><strong>10,000</strong></td>
<td><strong>17,000</strong></td>
<td><strong>(100)</strong></td>
</tr>
</tbody>
</table>

**Unit: Thousand VND**

\[ IM = 10,000 \times (1+0.5\%) = 10,500 \]
\[ VM = 100 \times (1+0.5\%) = 105 \]

**Customer margin (C) for CM A = 10,500,000 + 105,000 = 10,605,000**
RISK MANAGEMENT
1. Risk management

- Asset of VSD (CCP)
- Reserve fund
- Clearing fund
- Clearing margin
- Managing requirements for CM
2. Cash default

- Legal financial sources of VSD/CCP
- CCP’s Reserve Fund (from operational revenue of VSD/CCP)
- Contributions of other CMs
- Contribution of defaulted CM
- Clearing margin of defaulted CM

Asset of CCP
 Reserve Fund
 Clearing Fund (non-defaulter)
 Clearing Fund (Defaulter)
 Clearing Margin
3. Securities default

Even though there is 1 day left for buy-in, still portion left (50) will be forced to be settled in cash on the next day of Ex-day for Stock split and Stock merge.
4. BUY - IN

- A separate trading session at stock exchanges which compulsorily require defaulted CM to buy in securities to settle.

- The information of Buy-in trading session is sent to stock exchanges and CMs right after deferred settlement. Buy-in trading session will be open in the next working day morning.
- Trading hours: from 8h30 ~ 9h00 (before official trading session).
- Price for Buy-in = 1.15 x close price (can change based on the agreement between stocks exchanges and VSD).
- VSD get the Buy-in trading result right after the session ends.
- Buy-in trade will be settled together with trades whose settlement date coincides with the Buy-in execution date (T+0). Securities from buy-in trade will be cleared with inadequate securities because of CNS.
5. Cash settlement

If CMs are still inadequate of securities to settle even if after deferred settlement, VSD will apply cash settlement mechanism:

- VSD calculate compensation amount of money of sellers for buyers based on settlement value and delay time and then enter the data into the system.
- At this time, the inadequate securities and the settlement value between the two parties will be replaced by the amount that the seller must pay to the buyer.
- This settlement will be updated for related CMs at cash settlement day.
CLEARING AND SETTLEMENT MODEL FOR CUSTODIAN BANKS
1. Trading and Settlement for custodian banks (CB) being CMs

- Sec. company A
- CB(CM)
- VSD - CCP
- BIDV

**Margin confirmation with CB before trading**

- Investor
- Margin confirmation of investor
- Order
- Adequate
- Inadequate

- Stock Exchange

**Sec.**

- Cash

**Sec. Settlement**

- VSD acc
  - Member’s sell acc
  - Debit
  - Investor’s sell acc
- Member’s buy acc
  - Credit
  - Investor’s buy acc

**Cash Settlement**

- Payable Member’s acc
- VSD acc
- Receivable Member’s acc

**DVP – Delivery vs Payment**
2.1 Trading and Settlement for custodian banks (CB) not being CMs – Case 1

1. Margin before trading
2. Transfer sec. before trading
2.1 Trading and Settlement for custodian banks (CB) not being CMs – Case 1
3. Post margin (T afternoon for Corporate bonds, T+1 for Sec., Fund Cert.)
4. Block delivered sec
5. Cash settlement in T+2 morning
6. Make payment (T+2 morning)
7. Transfer sec./cash after settlement

Sec. — Security
Cash — Cash
CB — Custodian Bank
VSD — Vietnam Securities Depository
BIDV — Bank for Investment and Development of Vietnam

2: Sec. transfer is complete through message of VSD system and no documents required. CBs and sec. companies are responsible for the accuracy of transfer transaction.
2.1. Trading and Settlement for custodian banks (CB) not being CMs – Case 1

- Step 1: Investor opens trading and margin acc at a securities company as a CM.
- Step 2: Investor requires CB to transfer sec. and cash (one by one trade) to margin acc at the securities company before securities company makes an order.
- Step 3: Based on trading result and notification of VSD, securities company posts margin for VSD;
- Step 4: Sec. and cash settlement for investor’s acc at the securities company.
- Step 5: After completion of trading and settlement, investor can require securities company to transfer sec. to his/her acc at CB.

No agreement or documents required between securities company and CB. Investor, as a customer of CB, open trading and margin acc and settle like other customers and meet the margin requirement at securities company.
2.2 Trading and Settlement for custodian banks (CB) not being CMs – Case 2

1. Confirm and block sec. before trading
2. Confirm and block margin before trading
3. Inform trading results
4. Transfer sec. to margin acc to settle (latest in T+1 morning)
5. Block delivered sec.
6. Post margin (T afternoon for Corporate bond, T+1 for sec., fund cert)
7. Make payment (T+2 morning)

4: Sec. transfer is complete through message of VSD system and no documents required. CBs and sec. companies are responsible for the accuracy of transfer transaction.
2.2 Trading and Settlement for custodian banks (CB) not being CMs – Case 2

- Step 1: Investor opens trading and margin acc at a securities company as a CM.
- Step 2: Investor makes order through that securities company. Sec. company cooperates with CB to confirm the account balance and block sec. and margin on the investor’s account before trading.
- Step 3: Sec. company informs CB of trading results as well as margin requirement and settlement to be posted to VSD after matching orders.
- Step 4: Based on notification from investor and sec. company, CB will:
  + Transfer sec. (net) from investor account at CB to his/her depository account at sec. company.
  + Transfer margin to margin account of sec. company in the name of VSD opened at BIDV (on day T, T+1) and transfer cash to settlement account of sec. company opened at BIDV (on day T+2).
- Step 5: After completion of settlement, investor can require sec. company to transfer securities to investor’s account at CB.

Agreement or documents required to clarify the responsibility between securities companies and CBs to confirm, manage collateral, correct error trades and how to deal with defaulted investors’ cases.
DISCUSSIONS
Q&A
Thank you