Annex 6:

IRB Approach: Supervisory Requirements on Risk Mitigation

1. General Requirements

1.1 Credit risk mitigation (CRM) refers to a process in which a commercial bank uses eligible collateral, netting, guarantees and credit derivatives to transfer or offset credit risk. For a commercial bank adopting the Internal Ratings-based (IRB) Approach to measure regulatory capital requirement for credit risk, the risk mitigating effect is reflected in the reduction of default probability (DP), loss given default (LGD) or exposure at default (EAD).

1.2 A commercial bank shall observe the following principles in using credit risk mitigation techniques:

1.2.1 Legal certainty: credit risk mitigants shall conform to national laws and be legally enforceable;

1.2.2 Effectiveness: all procedures for making credit risk mitigants valid and effect have been completed, and the mitigants shall be effective substitutes and easily liquidated;

1.2.3 Prudence: the commercial bank shall take into account risks associated with credit risk mitigants and estimate the risk mitigating effect in a conservative manner;

1.2.4 Consistency: if a commercial bank uses its own-estimate haircuts, the bank must do so for the full range of instrument types for which the bank would be eligible to use own-estimates;
1.2.5 Independence: credit risk mitigants should not have materially positive correlations with obligor risks.

1.3 General requirements of credit risk mitigation management:

1.3.1 A commercial bank shall conduct effective legal reviews to ensure that credit risk mitigants are recognized and used on the basis of explicit and enforceable legal documentation that is binding on all parties;

1.3.2 A commercial bank shall specify the coverage of credit risk mitigation in the relevant agreements;

1.3.3 The effects of credit risk mitigation will not be double counted. CRM can only be reflected once in obligor rating, debt rating or EAD estimation;

1.3.4 A commercial bank shall conservatively estimate the correlation between credit risk mitigants and obligor risks, and comprehensively consider such risk factors as currency mismatch and maturity mismatch;

1.3.5 A commercial bank should have in place explicit internal management rules, examination flows and operating procedures, and set up supporting information systems to ensure the effective play of the role of credit risk mitigants.

2. Eligible Collateral

2.1 Eligible collateral includes financial collateral, receivables, commercial property, residential property and others.

For a commercial bank adopting the Foundation IRB approach, eligible collateral is limited to what is specified in Section 6 of this Annex and
satisfies the relevant requirements set forth in paragraphs in 2.2 and 2.3 of this Annex. A commercial bank adopting the Advanced IRB approach may recognize eligible collateral at its own discretion, provided that the collateral satisfies the requirements set forth in paragraphs in 2.2 and 2.3 of this Annex and that there are historical data to prove the risk mitigating effect of the collateral.

Asset re-securitization is not eligible financial collateral.

2.2 Requirements for being recognized as eligible collateral:

2.2.1 The collateral is acceptable property or entitlement as prescribed in the *Real Right Law of the People's Republic of China* or *Guranty Law of the People's Republic of China*;

2.2.2 The ownership of the collateral is undisputable and the collateral is recognized in legal documentation;

2.2.3 The collateral meets the essential conditions for enforceability and has been formally approved by or registered with the relevant government agencies.

2.2.4 There is a high liquidity market for effectively disposing of the collateral at a reasonable market price;

2.2.5 When the obligor defaults, is insolvent or becomes bankrupt, or any other credit event as set out in the lending/transaction contract occurs, the bank can liquidate or dispose of the collateral in a timely manner.

2.3 A commercial bank shall have in place the collateral management system, including the related policies and procedures, collateral valuation methods, workflow for collateral management and the corresponding information system:
2.3.1 A commercial bank shall set up collateral management policies to specify the types of eligible collateral, the collateral rate, the method and frequency for collateral valuation, and the relevant requirements on monitoring, liquidating and disposing of collateral.

2.3.2 A commercial bank shall estimate the value of collateral under the principles of objectiveness, independence and prudence, and ensure that the estimated value does not exceed the current reasonable market value thereof. The bank shall set up procedures for reviewing the estimated value of collateral and determining the re-estimation method and frequency according to the volatility of collateral. Re-estimation shall be made when the market fluctuates sharply. The value of commercial property and residential property shall be re-estimated at least once every year.

2.3.3 A commercial bank shall set up procedures for the investigation and examination of collateral to ensure that all collateral is authentic, legal and valid, and shall set up procedures for the timely and effective liquidation of collateral.

2.3.4 A commercial bank shall check upon the collateral status on a regular basis and urge collateral providers to fulfill their contractual obligations. Evaluation on returns from collateral shall reflect the scope and effect of liens which take precedence over banks’ claims, and incessant monitoring is required. A commercial bank shall ensure that collateral is fully covered by insurance and prevent collateral providers from using collateral in an unreasonable way that may reduce the value of collateral.

2.3.5 If collateral is held by a custodian, a commercial bank shall ensure that the custodian has separated the collateral from its own assets and managed the assets under its custody and the associated accounts in an effective and dynamic way.
2.3.6 A commercial bank shall set up the information system for collateral management and valuation, which provides the basic information of collateral such as the title, quantity, quality, geographic location and ownership of collateral, the method, frequency and timing for estimating the value of collateral, the correlation between collateral and debts, and the disposal and recovery of collateral.

2.3.7 A commercial bank which recognizes inventory as an eligible credit risk mitigant shall meet all the requirements set forth in 2.3.1 to 2.3.6, and set up the following procedures to monitor inventory risks:

2.3.7.1 Ensuring that the storage company that keeps the inventory or the spot transaction market has a legal capacity, a good business reputation, sound management rules, professional management facilities and expertise, qualified managers and a highly efficient warehouse information transmission system;

2.3.7.2 Sufficiently analyzing the supply-demand relationship and development trend of the market and determining the market value of the inventory; the value shall be estimated by the Lower of Cost or Market method; unsalable goods, overstocked or goods on sale shall be valued according to their recoverable net income; and

2.3.7.3 Periodically conducting the physical inspection on inventory.

2.3.8 A commercial bank which recognizes receivables as an eligible credit risk mitigant shall meet the following risk management requirements in addition to those set forth in 2.3.1 to 2.3.6:

2.3.8.1 Subtracting the bad debt reserves when determining the value of receivables;

2.3.8.2 Setting up a process for recognizing the credit risk of receivables, including periodically analyzing the business operations
and financial standing of the obligor, the condition of the industry to which the obligor belongs, and the category of the obligor. When the bank determines the risk of receivables through the borrower, the reasonability and credibility of the borrower's credit policies shall be examined;

2.3.8.3 Setting up a monitoring system for receivables, including report on the age of account receivables, control over trade documents, control over income from paying accounts, and concentration level. The bank shall also, on a regular basis, examine the fulfillment of loan contracts and whether there are any environmental restrictions or legal requirements;

2.3.8.4 Establishing procedures in writing for collecting receivables. If any borrower encounters any financial difficulty or default, the bank shall have the right to sell or transfer the collateralized receivable without the obligor’s consent. Where the bank collects receivables through borrowers, the relevant methods shall be clearly stipulated as well.

2.3.9 A commercial bank which recognizes the lease of assets as a credit risk mitigant shall fully consider the residue risks of leased assets.

2.4 A commercial bank shall devote sufficient resources to ensure efficient execution of margin agreements in OTC derivative and securities-financing transactions, where the efficiency of execution is measured by the timeliness and accuracy of its outgoing calls and response time to incoming calls. The bank must have collateral management policies in place to control, monitor and report:

2.4.1 Exposures related to margin agreements (such as the volatility and liquidity of the securities used as collateral);
2.4.2 The concentration risk to particular types of collateral;

2.4.3 The reuse of collateral (both cash and non-cash) including the potential liquidity shortfalls resulting from the reuse of collateral received from counterparties; and

2.4.4 The surrender of rights on collateral posted to counterparties.

2.5 For a commercial bank which adopts the Foundation IRB approach, the credit risk mitigating effect of financial collateral is reflected in the adjustment of the standard LGD. The LGD after adjustment can be expressed as follows:

\[ \text{LGD}^* = \text{LGD} \times \left( \frac{E^*}{E} \right) \]

where:
\( \text{LGD} \) is the standard LGD of the senior unsecured exposure before recognition of collateral;
\( E \) is the current value of the exposure; and
\( E^* \) is the exposure value after credit risk mitigation.

\[ E^* = \max \{ 0, [E \times (1 + H_e) - C \times (1 - H_e - H_{\mu})] \} \]

where:
\( H_e \) is the haircut appropriate to the exposure;
\( C \) is the current value of the collateral received;
\( H_{\mu} \) is the haircut appropriate to collateral; and
\( H_{\mu} \) is the haircut appropriate for currency mismatch between the collateral and the exposure.

Where the collateral is a basket of assets, the haircut on the basket is as follows:

\[ H = \sum_i a_i H_i \]

where: \( a_i \) is the weight of the asset in the basket, and \( H_i \) is the haircut applicable to that asset.
A commercial bank can estimate the haircuts of $H_e$, $H_c$ and $H_{fr}$ on its own or use the standard haircuts given by this Annex. See section 6 of this Annex for the standard haircuts of $H_e$ and $H_c$. The standard haircut of $H_{fr}$ is 8% for daily mark-to-market and daily remargining with a minimum holding period of 10 business days, and for transactions subject to different minimum holding periods or reevaluation frequency, $H_{fr}$ shall be adjusted under Part 6 of this Annex.

A commercial bank which meets the requirements for using own-estimate haircuts shall guarantee the reasonability of the estimation process and submit its own estimates to the CBRC for approval. The bank shall estimate the haircut appropriate for collateral instrument and foreign exchange mismatch individually, and, in doing so, the estimated volatilities for each transaction must not take into account the correlation between unsecured exposures, collateral and exchange rates.

2.6 When the maturity of a credit risk mitigant is less than that of the current exposure, a commercial bank shall take into account the effect of maturity mismatch. In the event of maturity mismatch, if the original maturity of the credit risk mitigant is less than one year or the residue maturity thereof is less than three months, it does not have the risk mitigating effect.

2.6.1 When there is a maturity mismatch with recognized credit risk mitigants, the following adjustment will be applied:

$$P_a = P \times \frac{(t - 0.25)}{(T - 0.25)}$$

where:

$P_a$ is the value of credit mitigation adjusted for maturity mismatch;
$P$ is the value of credit mitigation adjusted for any haircuts before adjustment for maturity mismatch;

$T$ is the min (5, residual maturity of the exposure) expressed in years; and

$t$ is the min (T, residual maturity of credit protection) expressed in years.

2.6.2 Maturity mismatch rules are also applicable to netting, guarantees and credit derivatives.

2.7 For a commercial bank adopting the Foundation IRB approach, the credit risk mitigating effect of receivables, commercial property and residential property and other collateral is reflected by the reduction of LGD. The extent of reduction depends on the ratio of the current value of the collateral to that of the exposure and the collateralization level. When a single type of collateral is used, LGD shall be determined as follows:

2.7.1 Where the ratio of the current value of the collateral received to the current level of the exposure is below the minimum collateralization level for the exposure, the collateral shall be treated as nonexistent, and the standard LGD shall be adopted;

2.7.2 Where the ratio of the current value of the collateral received to the current level of the exposure exceeds the level of over-collateralization, the applicable minimum LGD shall be adopted;

2.7.3 Where the ratio of the current value of the collateral to the current value of the exposure is between the minimum collateralization level and the level of over-collateralization, the exposure shall be divided into the fully collateralized portion and uncollateralized portion; the collateralized portion is the current value of the collateral divided by the level of over-collateralization and receives the LGD associated with the type of collateral; the remaining
portion of the exposure is regarded as unsecured and receives the standard LGD.

See Table 1 for the minimum collateralization level, level of over-collateralization and minimum LGD of different types of collateral.

Table 1: Minimum LGD for Secured Portion of Senior Exposures under the Foundation IRB Approach

<table>
<thead>
<tr>
<th>Eligible Financial Collateral</th>
<th>Minimum LGD</th>
<th>Required Minimum Collateralization level of the exposure</th>
<th>Required level of Over-Collateralization for full LGD recognition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible Financial Collateral</td>
<td>0%</td>
<td>0%</td>
<td>n.a</td>
</tr>
<tr>
<td>Receivables</td>
<td>35%</td>
<td>0%</td>
<td>125%</td>
</tr>
<tr>
<td>Commercial Property and Residential Property</td>
<td>35%</td>
<td>30%</td>
<td>140%</td>
</tr>
<tr>
<td>Other Collateral</td>
<td>40%</td>
<td>30%</td>
<td>140%</td>
</tr>
</tbody>
</table>

2.8 In the case where a commercial bank adopting the Foundation IRB approach has obtained multiple forms of CRM, the bank shall divide the exposure into portions each covered by only one CRM type and separately calculate the risk-weighted assets. The exposure shall be divided into the portion covered by financial collateral, the portion covered by receivables, the portion covered by commercial property and residential property, and
the portion covered by other collateral. The value of the exposure after adjustment for financial collateral ($E^-$) shall be sub-divided into the portion fully covered by receivables, the portion fully covered by commercial property and residential property, the portion fully covered by other collateral, and the portion uncovered.

After recognizing the effect of financial collateral and receivables, if the ratio of the total value of the other types of collateral to the value of the exposure after deduction is less than 30%, the corresponding portion of the loan shall be deemed as uncovered, to which the standard LGD shall be assigned; if the ratio exceeds 30%, the applicable minimum LGD shall be assigned to the portion fully covered by each type of collateral accordingly.

2.9 For a commercial bank adopting the Advanced IRB approach, the risk mitigating effect of collateral is reflected in the valuation of LGD. The bank shall use their own estimates of collateral recovery rate to separately estimate LGD for exposures covered by different types of collateral.

3. Eligible Netting

3.1 Recognition requirements for eligible netting:

3.1.1 There is a netting agreement which is legally enforceable regardless of whether the counterparty is insolvent or bankrupt;

3.1.2 The assets and liabilities of a same counterparty can be determined under the netting agreement under any circumstances; and

3.1.3 The relevant exposures can be monitored and controlled on the basis of net positions.

3.2 Eligible netting includes on-balance sheet netting under valid netting agreements, netting of repo-style transactions under master netting
agreements, and netting of over-the-counter (OTC) derivatives under valid netting agreements.

3.3 A commercial bank which uses eligible netting to mitigate credit risk shall continuously monitor and control the follow-up risks, and monitor and control the relevant exposures on the basis of net positions. A commercial bank adopting the Advanced IRB approach shall set up procedures for estimating the off-balance sheet EAD to estimate the EAD adopted for each off-balance-sheet item.

3.4 For a commercial bank adopting the IRB approach, the risk mitigating effect of on-balance sheet netting is reflected in the decrease of EAD, and net exposure ($E^*$) is calculated as follows:

$$E^* = \max \{0, \text{on-balance sheet exposures} - \text{on-balance sheet debts} \times (1 - H_{fs})\}$$

where:

On-balance sheet exposures and on-balance sheet debts are the on-balance sheet assets and liabilities of a commercial bank against a same counterparty under a valid netting agreement; and

$H_{fs}$ is the haircut in the event of currency mismatch between on-balance sheet exposures and on-balance sheet debts.

3.5 For a repo-style transaction under a master netting agreement, the repurchased financial assets can be deemed as financial collateral, to which Section 2.5 of this Annex applies, or the transaction can be subject to netting if the requirements under Section 3.1 are satisfied.

3.5.1 The bank shall separately subject the banking book and the trading book to netting and make sure that only when all transactions are marked to market daily and all collateral is eligible financial
collateral in the banking book may netting be made to the offset balance position between the banking book and the trading book.

3.5.2 If the repo-style transaction is subject to netting, the EAD shall be calculated as follows:

$$E^* = \max\{0, [\sum (E) - \sum (C)] + \sum (E_s \times H_s) + \sum (E_{fs} \times H_{fs})]\}$$

where:

- $E^*$ is the exposure value after risk mitigation;
- $E^*$ is the current value of the exposure;
- $C$ is the current value of the collateral received;
- $E_s$ is the absolute value of the net position in a given security;
- $H_s$ is the haircut appropriate to $E_s$;
- $E_{fs}$ is the absolute value of the net position in a currency different from the settlement currency; and
- $H_{fs}$ is the haircut appropriate for currency mismatch.

3.5.3 The bank meeting the requirements of the Internal Model Approach for market risk may, by considering the correlation between securities positions, use the Risk Value Model to calculate exposures in the repo-style transactions and price fluctuations of collateral. Exposures ($E^*$) under the risk value model is calculated as follows:

$$E^* = \max\{0, [\sum E - \sum C] + VaR]\}$$

where:

VaR is the risk value on the previous business day.

A commercial bank which fails to meet the requirements for adopting the Internal Model Approach for market risk may apply to the CBRC for using the Internal Risk Value Model Approach to calculate exposures and collateral’s potential price fluctuations in repo-style transactions, and
conduct back-testing based on data of the previous 250 business days to prove the quality of the model.

3.6 When a commercial bank uses the OTC derivatives netting to mitigate credit risk, the net exposure of the counterparty shall be the sum of the current net exposure and the potential net exposure:

3.6.1 The current net exposure is the larger of the net replacement cost obtained by marking to market, or zero.

\[ A_{Net} = 0.4 \times A_{Gross} + 0.6 \times NGR \times A_{Gross} \]

3.6.2 The potential net exposure \( A_{Net} \) is calculated as follows:

\[ A_{Net} = 0.4 \times A_{Gross} + 0.6 \times NGR \times A_{Gross} \]

where:

\( A_{Gross} \) is the sum of the potential net exposures of all contracts concluded with a same counterparty under the netting agreement, which equals the total of the contractual principal of each transaction multiplied by the appropriate add-on. See Annex 8 of the Rules for add-on.

\( NGR \) is the ratio of net replacement cost to gross replacement cost under the netting agreement. Upon the CBRC approval, NGR can be calculated based on a single counterparty or all transactions covered by the netting agreement. Without the CBRC approval, a commercial bank may not alter its calculation approach.

A commercial bank can also calculate the net exposures of counterparties by the Standardized Approach or the Internal Models Approach, provided that the bank has obtained the approval of the CBRC.
4. Eligible Guarantees and Credit Derivatives

4.1 A commercial bank which adopts the Foundation IRB approach shall recognize eligible guarantees and credit derivatives according to Section 6 of this Annex, and satisfy the recognition requirements in paragraphs in 4.2 to 4.4. For a commercial bank which adopts the Advanced IRB approach, the scope of eligible credit derivatives shall be the same as that applying to the bank adopting the Foundation IRB approach, while the eligible guarantees may be recognized by the bank itself as long as the requirements in paragraphs in 4.2 to 4.4 are met and the bank has historical data to back the risk mitigating effect of such guarantees.

4.2 Minimum requirements for eligible guarantees:

4.2.1 The guarantor shall satisfy requirements prescribed in the *Guarantee Law of the People's Republic of China* and be able to pay off the principal and interest of the loan guaranteed. For a commercial bank which adopts the Advanced IRB approach, there is no restriction on the type of eligible guarantors, but the bank shall specify the standards and procedures for recognizing the type of guarantors in writing;

4.2.2 Guarantees shall be made in writing and guarantee amount shall be valid within the guarantee period;

4.2.3 For a commercial bank which adopts the Foundation IRB approach, guarantees shall be unconditionally irrevocable; for a commercial bank which adopts the Advanced IRB approach, guarantees can be conditional but the potential on reducing the credit risk mitigation effect shall be taken into consideration;

4.2.4 A commercial bank shall examine and evaluate the credit standing and repaying capacity of the guarantor so as to ensure the
reliability of the guarantee. There shall be no foreign exchange control in the host country or country of registration of the guarantor; if there is, the bank shall ensure that the guarantor has the permit for inward or outward remittance of capital for the purpose of fulfilling obligations;

4.2.5 A commercial bank shall strengthen the management of the guarantor’s files, and shall, during the valid period of the guarantee contract, check the guarantor’s credit standing, repaying capacity and performance of the guarantee contract at least once every year;

4.2.6 A commercial bank shall strictly control the mutual guarantee and cross guarantee among affiliated companies or companies in a same group, and guarantees materially correlated in terms of risks shall not be taken as eligible credit risk mitigants;

4.2.7 Capital requirements after using credit risk mitigants shall not be lower than the requirement for the direct exposures to the guarantor.

4.3 Only credit default swaps and total return swaps that provide credit protection equivalent to guarantees can be recognized as eligible credit derivatives. To use eligible credit derivatives to mitigate credit risk, a commercial bank shall meet the following requirements in addition to those stipulated in 4.2:

4.3.1 The credit protection provided by credit derivatives must be regarded as a direct claim on the credit protection provider;

4.3.2 Unless for reasons of the credit protection purchaser, the payment obligation as stipulated in the contract is irrevocable;

4.3.3 The credit events specified by the contracting parties must at a minimum cover:
4.3.3.1 Failure to fully pay the amounts due under terms of the underlying obligation on the final payment day, and still failing to pay within the appropriate grace for the underlying obligation;

4.3.3.2 Bankruptcy, insolvency or inability of the obligor to pay its debts, or admission in writing of its inability to pay its debts as they become due, and analogous events;

4.3.3.3 Restructuring of the underlying obligation involving forgiveness or postponement of principal, interest or fees that results in a credit loss event. When restructuring is not specified as a credit event, the risk mitigating effect shall be recognized in accordance with the requirements stipulated in 4.3.9

4.3.4 The credit derivative shall not terminate prior to expiration of any grace period required for a default on the underlying obligation to occur as a result of a failure to pay;

4.3.5 Credit derivatives allowed for cash settlement shall have a robust valuation process in place to estimate loss reliably. There must be a clearly specified period for obtaining post-credit-event valuations of the underlying obligation;

4.3.6 If the protection purchaser’s right/ability to transfer the underlying obligation to the protection provider is required for settlement of the credit derivative, the terms of the underlying obligation must provide that any required consent to such transfer may not be unreasonably withheld;

4.3.7 The identity of the parties responsible for determining whether a credit event has occurred must be clearly defined. The protection purchaser must have the right and ability to inform the protection provider of the occurrence of a credit event;
4.3.8 A mismatch between the underlying obligation of the credit derivative and the reference obligation used for purposes of determining whether a credit event has occurred is permissible if (1) the latter obligation ranks pari passu with or is junior to the underlying obligation, and (2) the underlying obligation and reference obligation share the same obligor and legally enforceable cross-default or cross-acceleration clauses are in place;

4.3.9 When the restructuring of the underlying obligation is not covered by the credit derivative, but requirements stipulated in 4.3.3 to 4.3.8 are met, partial recognition of the credit derivative will be allowed. If the amount of the credit derivative is less than or equal to the amount of the underlying obligation, 60% of the amount of the hedge can be recognized as covered. If the amount of the credit derivative is larger than that of the underlying obligation, then the amount of eligible hedge is capped at 60% of the amount of the underlying obligation.

4.4 A commercial bank adopting the Advanced IRB approach may reflect the risk mitigating effect of guarantees and credit derivatives through either adjusting PD or LGD, while the bank failing to meet the requirements for using its own-estimates of LGD may only reflect the risk mitigating effect through adjusting LGD.

Whether adjustments are done through PD or LGD, they must be done in a consistent manner between different guarantees or credit derivatives for a given period of time.

4.5 A commercial bank adopting the Foundation IRB approach shall deal with exposures covered by guarantees or credit derivatives via the Substitution Approach:
4.5.1 adopting the risk-weight function appropriate to the type of guarantor;

4.5.2 adopting the PD appropriate to the guarantor’s borrower grade, or some grade between the obligor and the guarantor’s grade if the bank deems a full substitution treatment not to be warranted.

4.5.3 replacing the LGD of the underlying transaction with the LGD applicable to the guarantee taking into account seniority and any collateralisation of a guaranteed commitment.

4.5.4 if the currency used for credit protection is different from that for exposure, i.e. a currency mismatch between credit protection and exposure, it shall be deemed that the exposure of the portion under protection will be reduced by the haircut $H_{\beta}$.

$$G_a = G \times (1 - H_{\beta})$$

where:
- $G_a$ is the exposure covered by credit protection after currency mismatch is adjusted;
- $G$ is the nominal value of the portion under protection; and
- $H_{\beta}$ is the haircut applicable to the currency mismatch between credit protection and underlying obligation.

4.6 A commercial bank which adopts the Advanced IRB approach may apply the Substitution Approach to the portion covered by guarantees or credit derivatives, or use the obligor’s own PD and bank’s own internal estimates of LGD regarding the exposure of the guarantee provided by guarantors of this category.

Under either approach, banks must not include the effect of double default in such adjustments. The capital requirements calculated by using the
bank’s internal estimates of LGD must not be less than those of a comparable direct exposure to the guarantor.

4.7 If a same exposure is guaranteed by two or more guarantors and their guarantee liabilities are not clearly divided, the contribution of all guarantors to the mitigation of credit risk will not be considered simultaneously under the Foundation IRB approach, but a commercial bank has the discretion to select a guarantor with the best credit rating and risk mitigating effect for credit risk mitigation.

For a commercial bank which adopts the Advanced IRB approach, if historical data shows that the credit risk mitigating effect of a same exposure with two or more guarantors is better than that with only one guarantor, the bank may consider the contribution of each guarantor to the mitigation of risks, which is reflected in the reduction of LGD.

5. Pools of Credit Risk Mitigants

5.1 In the case where a commercial bank has multiple credit risk mitigants covering a single exposure, if the bank adopts the Foundation IRB approach, it will be required to subdivide the exposure into portions covered by each type of credit risk mitigants, and the risk-weighted assets of each portion must be calculated separately. When credit protection provided by a single protection provider has differing maturities, it must be subdivided into separate protection as well.

5.2 A commercial bank which adopts the Advanced IRB approach may apply two or more credit risk mitigants to a same exposure. The bank adopting such an approach shall prove the efficacy of this approach in offsetting risks, and set up reasonable procedures and approaches for applying multiple credit risk mitigants.

6. Eligible Credit Risk Mitigants under the Foundation IRB
**Approach**

Table 2: Eligible Credit Risk Mitigants under the Foundation IRB approach

<table>
<thead>
<tr>
<th>Credit Risk Mitigants</th>
<th>Types</th>
</tr>
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<tbody>
<tr>
<td>6.1 Collateral</td>
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<tr>
<td>6.1.1 Financial Collateral</td>
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<tr>
<td>a. cash specialized in the form of special accounts, sealed money or margin;</td>
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<tr>
<td>b. gold;</td>
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<tr>
<td>c. certificates of deposit issued by banks;</td>
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<tr>
<td>d. treasury bonds issued by the Ministry of Finance of China;</td>
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<tr>
<td>e. bills issued by the People’s Bank of China;</td>
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<tr>
<td>f. debt securities issued or bills of exchange accepted by Chinese policy banks, PSEs and commercial banks;</td>
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<tr>
<td>g. debt securities privately placed by the AMCs to acquire the State-owned banks’ non-performing loans;</td>
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<tr>
<td>h. debt securities issued by central governments and central banks in other jurisdictions, by multilateral development banks, the Bank of International Settlements and the International Monetary Fund, with the rating of BB- and above; debt securities issued by other entities, with the rating of BBB- and above; and short-term debt instruments with the rating of A-3/P-3 and above;</td>
<td></td>
</tr>
<tr>
<td>i. the unrated debt securities but satisfy the following conditions:</td>
<td></td>
</tr>
<tr>
<td>1. issued by banks;</td>
<td></td>
</tr>
<tr>
<td>2. traded on exchanges;</td>
<td></td>
</tr>
<tr>
<td>3. classified as senior debts;</td>
<td></td>
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<tr>
<td>4. highly liquid; and</td>
<td></td>
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<tr>
<td>5. although not rated by external agencies, all rated issues of the same seniority by the issuer of the unrated debt securities are rated at least BBB- or A-3/p-3.</td>
<td></td>
</tr>
</tbody>
</table>
| 6.1.2 Receivables | Financial receivables with an original maturity of less than or equal to one year:  
|                  | a. claims arising from sale;  
|                  | b. claims arising from lease; and  
|                  | c. claims arising from services.  
|                  | Eligible receivables do not include those associated with securitizations, sub-participations or credit derivatives.  |
| 6.1.3 Commercial property and residential property | a. The right to use and dispose of the State-owned land, and the commercial and residential property built on such land, excluding industrial property; and  
|                  | b. The land use right obtained by transfer and the land used for building commercial property or residential property.  |
| 6.1.4 Other collateral | Other collateral recognized by the CBRC as satisfying the criteria for being eligible credit risk mitigants, in addition to financial collateral, receivables, commercial property and residential property.  |
| 6.2 Netting | a. On-balance sheet netting;  
|             | b. Netting of repo-style transactions; and  
| 6.3 Guarantees | a. Sovereigns, financial institutions and ordinary companies with a lower risk weight than the counterparty;  
|               | b. If credit protection is exclusively provided for asset securitization |
exposure, the external credit assessment result of the entity is at least BBB- at present and reaches at least A- at the time when providing credit protection.

| 6.4 Credit Derivatives | a. Credit default swaps; and  
b. Total return swaps. |

In the absence of corresponding external ratings, a commercial bank may map the internal ratings to external ratings so as to assess the eligibility of credit risk mitigants, but such mapping process shall have been approved by the CBRC.

7. Standard Haircuts for Financial Collateral under the Foundation IRB Approach

7.1 Standard Haircuts for $H_c$ and $H_e$ (%), presumptive daily mark-to-market, daily re-margining and 10 business days of holding period)

<table>
<thead>
<tr>
<th>Issue Rating</th>
<th>Residue Maturity</th>
<th>Sovereigns (excluding PSEs)</th>
<th>Other Issuers</th>
<th>Securitization Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasury bonds issued by the Ministry of Finance of China; bills issued by the People’s Bank of China; and Debt securities issued or bills of exchange accepted by Chinese policy banks, PSEs and commercial banks</td>
<td>$\leq 1$ year</td>
<td>0.5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$&gt; 1$ year, $\leq 5$ years</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$&gt; 5$ years</td>
<td>4</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>AAA to AA-/A</td>
<td>$\leq 1$ year</td>
<td>0.5</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>$&gt; 1$ year, $\leq 5$ years</td>
<td>2</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>

Table 3: Standard Haircuts for $H_c$ and $H_e$
### Table 4: Minimum Holding Period

<table>
<thead>
<tr>
<th>Transaction type</th>
<th>Minimum holding period</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+ to BBB-/A 2/A-3/P-3 and unrated debt securities among the financial collateral specified in 6.1.1.i of this Annex</td>
<td>&gt; 5 years</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>≤ 1 year</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>&gt; 1 year, ≤ 5 years</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>&gt; 5 years</td>
<td>6</td>
</tr>
<tr>
<td>BB+ to BB-</td>
<td>All</td>
<td>15</td>
</tr>
<tr>
<td>Life insurance policies with cash value or similar wealth management products that are eligible to be used as collateral</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Main index equities, convertible bonds and gold</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Other equities and convertible bonds listed on a recognized exchange</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Convertible fund shares</td>
<td>Highest Haircut applicable to any financial instrument in which the fund can invest</td>
<td></td>
</tr>
<tr>
<td>Cash margins or other similar instruments denominated in the same currency</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

### 7.2 Adjustments for different holding periods, non-daily mark-to-market or non-daily remargining

The framework for collateral haircuts distinguishes among three categories, i.e. repo-style transactions, “other capital-market-driven transactions” and secured lending. The size of haircut for each transaction depends on the frequency of mark-to-market or remargining as well as the minimum holding period of the underlying transaction.
<table>
<thead>
<tr>
<th>Repo-style transactions</th>
<th>10 business days</th>
<th>daily remargining</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other capital-market-driven transactions</td>
<td>10 business days</td>
<td>daily remargining</td>
</tr>
<tr>
<td>Secured lending</td>
<td>20 business days</td>
<td>daily reevaluation</td>
</tr>
</tbody>
</table>

When the holding period of a transaction is different from the specified minimum holding period of 10 business days, or the transaction is not re-margined or reevaluated on a daily basis as required for using the standard supervisory haircuts, the haircut shall be adjusted depending on the type of transaction and the frequency of remargining or reevaluation using the formula below:

$$ H = H_{10} \times \sqrt{\frac{N_R + (T_M - 1)}{10}} $$

where:

$H$ is the haircut;

$H_{10}$ is the 10-business day standard supervisory haircut for instrument;

$N_R$ is the actual number of business days between remargining for capital market transactions or reevaluation for secured transactions; and

$T_M$ is the minimum holding period for the type of transaction.

7.3 Conditions for zero $H$

7.3.1 For repo-style transactions where the following conditions are satisfied, and the counterparty is a core market participant, a haircut of 0% may be applied:
7.3.1.1 Both the exposure and the collateral are cash, or debt securities issued by sovereigns rated at least AA-;

7.3.1.2 Both the exposure and the collateral are denominated in the same currency;

7.3.1.3 Either the transaction is overnight or both the exposure and the collateral are marked-to-market daily and are subject to daily remargining;

7.3.1.4 Following a counterparty’s failure to remargin, the time that is required between the last mark-to-market before the failure to remargin and the liquidation of the collateral is considered to be no more than four business days;

7.3.1.5 The transaction is settled across a settlement system proven for that type of transaction;

7.3.1.6 The documentation covering the agreement is standard market documentation for repo-style transactions in the securities concerned;

7.3.1.7 The transaction is governed by documentation specifying that if the counterparty fails to deliver cash or securities or to deliver margin or otherwise defaults, then the transaction is immediately terminable;

7.3.1.8 Upon any default event, regardless of whether the counterparty is insolvent or bankrupt, the bank has the unfettered, legally enforceable right to immediately seize and liquidate the collateral for its benefit.

7.3.2 Core market participants may include:

7.3.2.1 Sovereigns, central banks and policy banks;
7.3.2.2 A commercial bank;

7.3.2.3 Regulated mutual funds that are subject to certain capital or leverage requirements;

7.3.2.4 Regulated pension funds; and

7.3.2.5 Recognized clearing organizations.