Annex 2

Part B: CVA Risk Capital Framework

(I) AMENDMENTS TO BE EFFECTIVE ON THE IMPLEMENTATION DATE OF THOSE STANDARDS ASSOCIATED WITH CREDIT RISK, OPERATIONAL RISK, THE OUTPUT FLOOR AND THE LEVERAGE RATIO (A DATE NO EARLIER THAN 1 JANUARY 2024)

Item 1. Amend sections 2, 29, 30 and 31 of the BCR

Existing sections to be amended	Remarks (including references)
(1) Repeal the existing definition of "relevant risk" in section 2(1) of the BCR and substitute the following: "relevant risk, in relation to an authorized institution, means the credit risk, market risk, credit valuation adjustment risk, operational risk or sovereign concentration risk of the institution;"	This is a consequential change as counterparty credit risk (under credit risk) will no longer include the CVA risk.
(2) Repeal the existing definition of "risk-weighted amount" in section 2(1) of the BCR and substitute the following: "risk-weighted amount— (a) in relation to the calculation of the credit risk of a non-securitization	This is a consequential change as counterparty credit risk (under credit risk) will no longer include the CVA risk.

Existing sections to be amended	Remarks (including references)
exposure of an authorized institution, means the amount of the institution's exposure to credit risk calculated in accordance with Part 4, 5 or 6, or Division 4 of Part 6A, as the case requires; (b) in relation to the calculation of the credit risk of a securitization exposure of an authorized institution, means the amount of the institution's exposure to credit risk calculated in accordance with Part 7; (c) in relation to the calculation of the market risk of an authorized institution, means the amount of the institution's exposure to market risk calculated in accordance with Part 8; (d) in relation to the calculation of the credit valuation adjustment risk of an authorized institution, means the amount of the institution's exposure to credit valuation adjustment risk calculated in accordance with the new Part in item 5(1) below; (e) in relation to the calculation of the operational risk of an authorized institution, means the amount of the institution's exposure to operational risk calculated in accordance with Part 9; or	

Existing sections to be amended	Remarks (including references)
in relation to the calculation of the sovereign concentration risk of an authorized institution, means the amount of the institution's exposure to sovereign concentration risk calculated in accordance with Part 10;"	
(3) Amend section 29(1)(a), section 30(1)(a) and section 31(1)(a) of the BCR by adding "credit valuation adjustment risk;" in between sub-paragraph (ii) and (iii).	This is a consequential change as counterparty credit risk (under credit risk) will no longer include the CVA risk.

(II) AMENDMENTS TO BE EFFECTIVE ON A DAY ON OR AFTER 1 JANUARY 2024 TO BE APPOINTED BY THE MONETARY AUTHORITY BY NOTICE PUBLISHED IN THE GAZETTE

Item 1. New definitions

1.1 Add the following new definitions in section 2 of the BCR

New definitions	**Remarks (including references)**
(1) **full basic CVA approach** means the approach of calculating an authorized institution's CVA risk capital charge set out in item 5.5;	
(2) **reduced basic CVA approach** means the approach of calculating an authorized institution's CVA risk capital charge set out in item 5.3;	
(3) **standardized CVA approach** means the approach of calculating an authorized institution's CVA risk capital charge set out in item 5.7.	

Item 2. Existing definitions to be amended

2.1 Amend the following existing definitions in section 2(1) of the BCR

Existing definitions – amendments to be made	**Remarks (including references)**
(1) Repeal the existing definition of "credit valuation adjustment" and substitute the following: "**credit valuation adjustment**, in relation to the calculation by an authorized institution of CVA risk in respect of a counterparty, means an adjustment made by the institution to the default risk-free prices of OTC derivative transactions and SFTs to reflect the potential default of that counterparty;".	Currently, in the BCR, credit valuation adjustment is treated as an element of the "counterparty credit risk". In the new framework, credit valuation adjustment will no longer be a part of the counterparty credit risk; therefore, the definition of "credit valuation adjustment" is amended to align with the Basel framework. Reference: paragraph 7 of CP 20.03 and MAR50.2 of the Basel Framework
(2) Repeal the existing definition of "credit valuation adjustment capital charge" and substitute the following: "**credit valuation adjustment risk capital charge**, in relation to the calculation by an authorized institution of CVA risk in respect of a counterparty, means the amount of regulatory capital that the institution is	The amendment is also aimed to remove the reference to the counterparty credit risk.

Existing definitions – amendments to be made	Remarks (including references)
required to hold for the CVA risk of the counterparty;".	
(3) Repeal the existing definition of "CVA risk" and substitute the following: "**CVA risk** has the meaning given by item 5(1)(b);".	This is a consequential change arising from the proposed amendment to repeal the definition of "CVA risk" in section 226A.
(4) Repeal the existing definition of "CVA capital charge" and substitute the following: "**CVA risk capital charge** means a credit valuation adjustment risk capital charge;".	This is a consequential change arising from the proposed amendment to the definition of "credit valuation adjustment risk capital charge" in section 2(1) of the BCR (see item 2.1(2) above).
(5) Repeal the existing definition of "CVA risk-weighted amount" and substitute the following: "**risk-weighted amount for CVA risk** in relation to an authorized institution and the CVA risk for a counterparty, means— (a) where the institution adopts the approach under item 4.1(1)(a), (b) or (c), the amount calculated by the institution by multiplying the CVA	

Existing definitions – amendments to be made	Remarks (including references)
risk capital charge for the counterparty by 12.5, or (b) where the institution adopts the approach under item 4.1(1)(d), the amount calculated under item 4.1(1)(d);".	
(6) Repeal the existing definition of "eligible CVA hedge" and substitute the following: "**eligible CVA hedge** has the meaning given by item 5.8;".	This is a consequential change arising from the proposed amendment to repeal the entire Division 3 of Part 6A of the BCR.

Item 3. Existing sections of the BCR to be amended or repealed

Existing sections to be amended or repealed	Remarks (including references)
(1) Repeal "CVA risk-weighted amount" throughout the BCR and substitute it with "risk-weighted amount for CVA risk".	This is a consequential change arising from the proposed amendment to rename the phrase "CVA risk-weighted amount" as "risk-weighted amount for CVA risk" (see item 2.1(5) above).
(2) Repeal the definitions of **advanced CVA method** and **standardized CVA**	The definitions are no longer applicable under the new

Existing sections to be amended or repealed	Remarks (including references)
method in section 2 of the BCR	framework.
(3) Repeal section 156(9) and (10) of the BCR.	These two subsections are no longer applicable under the new framework.

Item 4. Prescribed approaches to calculation of CVA risk capital charges

Matters to be provided	Remarks (including references)
(1) To add a new Division after Division 5 and before Division 6 of Part 2 of the BCR.	

4.1 Add a new section to provide for the approaches that an authorized institution shall use to calculate its CVA risk capital charge or its risk-weighted amount for CVA risk

Matters to be provided	Remarks (including references)
(1) To provide that an authorized institution— (a) subject to item 4.1(1)(c) and (d), where the institution includes in	The Basel Committee is of the view that CVA risk is complex and cannot be modelled by banks in a robust and prudent manner. The revised CVA capital framework therefore removes the possibility

Matters to be provided	Remarks (including references)
the calculation of its CVA risk capital charge any eligible CVA hedge, shall use the full basic CVA approach to calculate its CVA risk capital charge; (b) subject to item 4.1(1)(c) and (d), where the institution does not include in the calculation of its CVA risk capital charge any eligible CVA hedge, may use the reduced basic CVA approach to calculate its CVA risk capital charge; (c) may use the standardized CVA approach to calculate its CVA risk capital charge only if it has the approval to do so under item 4.2(3)(a); and (d) subject to item 4.1(4) below, where the total notional amount of the institution's OTC derivative transactions that are not cleared by a CCP never exceeds $1 trillion, may calculate its risk-weighted amount for CVA risk as the aggregate of— (i) the IMM(CCR) risk-weighted amount of the transactions or contracts concerned that are covered by the IMM(CCR) approval;	to use an internally modelled approach. The new framework consists of: (i) the standardized approach (i.e. standardized CVA approach and the use of this approach is subject to the Monetary Authority's approval); and (ii) the basic approach (i.e. basic CVA approach). There are two versions of the basic CVA approach, i.e. a full version (i.e. full basic CVA approach) and a reduced version (i.e. reduced basic CVA approach). An institution using the basic CVA approach may, at its discretion, choose to implement either version. The difference is that the full version recognises the counterparty credit spread hedges, i.e. eligible CVA hedges mentioned in (a) and (b), and is intended for institutions that hedge their CVA risk while the reduced version eliminates the element of hedging recognition. In addition, for institutions with an aggregate notional amount of non-centrally cleared derivatives of less than or equal to HKD 1 trillion, they may disregard the standardized CVA approach and the basic CVA approach, and may calculate their CVA risk capital

Matters to be provided	Remarks (including references)
(ii) the SA-CCR risk-weighted amount or CEM risk-weighted amount of the transactions or contracts concerned that are not covered by the IMM(CCR) approval; (iii) the SA-CCR risk-weighted amount of the transactions or contracts concerned that fall within section 10B(5) or (7) of the BCR; and (iv) the SFT risk-weighted amount of the SFTs that are not covered by the IMM(CCR) approval or that fall within section 10B(5) or (7) of the BCR.	charge as identical to their counterparty credit risk charge. The Basel Committee set this threshold at EUR 100 billion. However, the MA may remove this option if it is determined that the CVA risk of the AI materially contributes to the AI's overall risk (see item 4.1(4) below). Reference: paragraphs 17–18 of CP20.03 and MAR50.7 and MAR50.9 of the Basel Framework
(2) To provide that item 4.1(1) does not prevent an authorized institution from using a combination of the reduced basic CVA approach and the standardized CVA approach or a combination of the full basic CVA approach and the standardized CVA approach to calculate its CVA risk capital charge for— (a) different counterparties; (b) different netting sets with the same counterparty; and	Reference for item 4.1(2)(c): paragraph 19 of CP20.03 and MAR50.8 of the Basel Framework

Matters to be provided	Remarks (including references)
(c) for different transactions within the same netting set, provided that— (i) such a netting set is split into two synthetic netting sets, where one is subject to the standardized CVA approach and the other one is subject to the reduced basic CVA approach or the full basic CVA approach and; (ii) such a split— (A) is consistent with the treatment of the legal netting set used by the institution for accounting purposes; or (B) results from the fact that the approval under item 4.2(4) does not cover all transactions within the netting set.	
(3) To provide that an authorized institution is not allowed to use a combination of— (a) the reduced basic CVA approach and the approach set out in	

Matters to be provided	Remarks (including references)
item 4.1(1)(d); (b) the full basic CVA approach and the approach set out in item 4.1(1)(d); or (c) the standardized CVA approach and the approach set out in item 4.1(1)(d), to calculate its CVA risk capital charge or risk-weighted amount for CVA risk.	
(4) To provide that the Monetary Authority may prohibit an authorised institution from adopting the approach under item 4.1(1)(d) to calculate its risk-weighted amount for CVA risk, if the Monetary Authority considers that the CVA risk of the institution materially contributes to the overall risk of the institution.	Reference: paragraphs 17 of CP20.03 and MAR50.9(5) of the Basel Framework
(5) To provide that, in item 4.1(1)(d), (a) **SFT risk-weighted amount** has the same meaning in item	

Matters to be provided	Remarks (including references)
31(10) or item 108(8)(a) of the document in the footnote[1]; and (b) **CEM risk-weighted amount** has the same meaning in item 108(8)(b) of the document in the footnote[2].	

4.2 Add a new section to provide that an authorized institution may apply for approval to use standardized CVA approach to calculate its CVA risk capital charge

Matters to be provided	Remarks (including references)
(1) To provide that an authorized institution may apply to the Monetary Authority for approval to use the standardized CVA approach to calculate its CVA risk capital charge in respect of all or some transactions specified in the application.	Reference: paragraph 37 of CP20.03
(2) To provide that the Monetary Authority may grant approval under item 4(1) above if the authorized institution making the application demonstrates to the satisfaction of the Monetary Authority that the	Item 7 sets out the minimum requirements, both qualitative and quantitative, to be satisfied for the approval to use the

[1] https://www.hkma.gov.hk/media/eng/regulatory-resources/consultations/Annex_1_ECAI_mapping_tables_20220630.pdf
[2] https://www.hkma.gov.hk/media/eng/regulatory-resources/consultations/Annex_1_ECAI_mapping_tables_20220630.pdf

Matters to be provided	Remarks (including references)
requirements specified in item 7 applicable to, or in relation to, the institution are satisfied.	standardized CVA approach.
(3) To provide that subject to item 4.2(2) above, the Monetary Authority must determine an application from an authorized institution by— (a) granting approval to the institution to use the standardized CVA approach to calculate its CVA risk capital charge; or (b) refusing to grant the approval.	The provision empowers the MA to approve or reject the AI to use the standardized CVA approach to calculate its CVA risk capital charge.
(4) To provide that the Monetary Authority may grant an approval under item 4.2(3)(a) to an authorized institution to use the standardized CVA approach to calculate its CVA risk capital charge in respect of transactions specified in the approval, beginning on any date, or the occurrence of any event, as specified in the approval.	
(5) To provide that to avoid doubt, an authorized institution that has an approval under item 4.2(3)(a) must use the reduced basic CVA approach or the full basic CVA approach to calculate its CVA risk capital for any	

Matters to be provided	Remarks (including references)
transaction that is not covered by the approval.	
(6) To provide that where an authorized institution has been approved to use the standardized CVA approach to calculate its CVA risk capital charge, the institution shall give notice in writing to the Monetary Authority if the institution— (a) no longer satisfies all of the requirements stated in item 4.2(2) above; or (b) expects that any of the requirements stated in item 4.2(2) above will not be satisfied.	

4.3 Add a new section to provide for the measure which may be taken by Monetary Authority if authorized institution using standardized CVA approach no longer satisfies specified requirements

Matters to be provided	Remarks (including references)
(1) To provide that where—	The provision empowers the MA to prohibit an AI from using the

Matters to be provided	Remarks (including references)
(a) an authorized institution has been approved to use the standardized CVA approach to calculate its CVA risk capital charge; and (b) the Monetary Authority is satisfied that— (i) if the institution were to make a fresh application under item 4.2(1) for approval to use the standardized CVA approach to calculate its CVA risk capital charge, the approval would be refused by virtue of item 4.2(3); or (ii) the institution has contravened a condition attached under section 33A(1) or (2) of the BCR to its approval granted under item 4.2(3)(a); or (c) the institution has given the Monetary Authority a notice referred to in item 4.2(6) above, the Monetary Authority may by notice in writing given to the institution, revoke the approval granted under item 4.2(3)(a) and require the institution to use another approach instead of the standardized CVA approach to calculate its CVA risk capital charge in respect of transactions	standardized CVA approach when the AI no longer fulfils any of the requirements (set out in (b)(i)) or when an AI contravenes any conditions attached to its approval (set out in b(ii)). The AI shall use the reduced basic CVA approach or the full basic CVA approach instead in these situations.

Matters to be provided	Remarks (including references)
as specified in the notice, beginning on such date, or the occurrence of such event, as specified in the notice.	

Item 5. Calculation of CVA risk capital charges

Matters to be provided	Remarks (including references)
(1) To add a new Part in between Part 8 and Part 9 of the BCR and add the following definitions in this new Part. (a) **bucket**, in relation to the standardized CVA approach, means any of the buckets determined by the institution for a risk class under item 5.7(4); (b) **CVA delta** is a sensitivity to capture the changes in CVA values due to movements in non-volatility linear risk factors; (c) **CVA risk** means the risk of mark-to-market losses arising from changes in CVA values in response to changes in counterparty credit spreads and market risk factors that drive	

Matters to be provided	Remarks (including references)
the price of OTC derivative transactions and SFTs; (d) **CVA vega** is a sensitivity to capture the changes in CVA values due to movements in volatility linear risk factors; (e) **risk class**, in relation to the standardized CVA approach—means any of the following classes of risk to which an authorized institution's CVA risk exposures can be allocated— (i) interest rate risk; (ii) counterparty credit spread risk; (iii) reference credit spread risk; (iv) equity risk; (v) commodity risk; and (vi) foreign exchange risk; (f) **risk factor** has the meaning given by section 281 of the BCR.	

5.1 To add a new section to provide for the transactions to be covered

Matters to be provided	Remarks (including references)
(1) To provide that an authorized institution must calculate the CVA risk capital charge for covered transactions in both the trading book and the banking book. Covered transactions are all its OTC derivative transactions and (if required by the Monetary Authority under item 5.1(2)) SFTs that are fair-valued for accounting purposes, except the transactions and contracts specified in Schedule 1A of the BCR.	Reference: paragraph 9 of CP 20.03 and MAR50.5 of the Basel Framework.
(2) To provide that where the Monetary Authority determines that an authorized institution's CVA risk arising from SFTs that are fair-valued for accounting purposes is material, the Monetary Authority shall, by notice in writing given to the institution, require the institution to calculate the CVA risk capital charge in respect of such SFTs. In case the institution deems such CVA risk is immaterial, the institution can justify its assessment to the Monetary Authority by providing relevant supporting documentation.	Reference: paragraph 9 of CP 20.03 and MAR50.5 of the Basel Framework.
(3) To provide that hedges entered into with external counterparties,	Reference: paragraph 12 of CP 20.03 and MAR50.11(1) of the

Matters to be provided	Remarks (including references)
irrespective of whether the hedges are eligible or not as set out in item 5.8, are covered transactions as set out in item 5.1(1), and the authorized institution must include such hedges in the CVA risk capital charge calculation with respect to the counterparty providing the hedges.	Basel Framework

5.2 Add a new section to provide for the application of item 5.3

Matters to be provided	Remarks (including references)
(1) To provide that item 5.3 applies to an authorized institution that uses the reduced basic CVA approach to calculate its CVA risk capital charge.	

5.3 Add a new section to provide for the reduced basic CVA approach

Matters to be provided	Remarks (including references)
(1) To provide that an authorized institution must calculate its CVA risk capital charge for a portfolio of counterparties as follows—	The basic CVA approach is an improved version of the current standardized CVA method. There are two forms of the basic CVA approach, i.e. the reduced basic CVA approach and the full basic

Matters to be provided	Remarks (including references)
$$BA_CVA_{reduced} = 0.65 \cdot \sqrt{\left(0.5 \cdot \sum_c SCVA_c\right)^2 + 0.75 \cdot \sum_c SCVA_c^2}$$ where— (a) $BA_CVA_{reduced}$ is the CVA risk capital charge under the reduced basic CVA approach; and (b) $SCVA_c$ is the standalone CVA risk capital charge applicable to counterparty "*c*" calculated in accordance with item 5.3(2).	CVA approach. The formula in this item 5.3(1) is in line with paragraph 28 of the CP; the supervisory correlation parameter ρ and the discount scalar *DS* have been replaced by their actual values (0.5 and 0.65, respectively) as indicated in the CP. Unlike for the full basic CVA approach, the formula here does not incorporate the element of hedging recognition. Reference: paragraph 28 of CP 20.03 and MAR50.14 of the Basel Framework
(2) To provide that an authorized institution must calculate the standalone CVA risk capital charge for each counterparty as follows— $$SCVA_c = \frac{1}{1.4} \cdot RW_c \cdot \sum_N M_N \cdot EAD_N \cdot DF_N$$ where— (a) $SCVA_c$ is the stand-alone CVA risk capital charge applicable to	This item 5.3(2) provides for the calculation of $SCVA_c$, which are based on (i) characteristics of counterparties (i.e. the sector and credit quality of a counterparty determines the risk-weight RW_c applied to such a counterparty); (ii) exposures at default calculated according to the counterparty credit risk capital framework (i.e. EAD_N) and (iii) effective maturities used for the counterparty credit risk capital framework (i.e. M_N). Reference: paragraph 29 of CP 20.03 and MAR50.15 of the Basel

Matters to be provided	Remarks (including references)
counterparty "*c*"; (b) RW_c is the risk-weight applicable to counterparty "*c*", which is determined by mapping the sector and credit quality of the counterparty based on its ECAI issuer rating to the risk-weights in Table aa, but, where a counterparty "*c*" does not have an ECAI issuer rating— (i) if the institution uses the IRB approach to calculate its credit risk for non-securitization exposures to the counterparty, it must map the internal rating of the counterparty to one of the ECAI issuer ratings based on a mapping scheme approved in writing by the Monetary Authority in order to determine the risk-weight applicable to the counterparty; (ii) if the institution uses the STC approach or BSC approach to calculate its credit risk for non-securitization exposures to the counterparty, it must consider the counterparty as unrated to assign a risk-	Framework; and paragraph 30 of CP 20.03 and MAR50.16 of the Basel Framework for item 5.3(2)(b) and Table aa

Matters to be provided	Remarks (including references)
weight according to Table aa; (c) M_N is the effective maturity of a netting set "*N*" with counterparty "*c*" and— (i) if the institution has an approval for using the IMM(CCR) approach to calculate the default risk exposure of the netting set, it must calculate M_N as the M calculated in accordance with section 168(1)(ba) of the BCR, with the exception that the five-year cap in section 168(2) of the BCR is not applied; or (ii) if the institution does not have an approval for using the IMM(CCR) approach to calculate the default risk exposure of the netting set, it must calculate M_N as the M calculated in accordance with section 168(1)(b) or (d) of the BCR, as the case requires, with the exception that the five-year cap in section 168(2) of the BCR is not applied; (d) EAD_N is the default risk exposure of a netting set "*N*" with	

Matters to be provided	Remarks (including references)
counterparty "*c*" calculated in such a manner as permitted under the IMM(CCR) approach, the SA-CCR approach or any of the methods set out in Division 2B of Part 6A of the BCR, as the case may be; and (e) DF_N is a supervisory discount factor of a netting set "*N*" and— (i) if the institution does not have an approval for using the IMM(CCR) approach to calculate the default risk exposure of the netting set, DF_N is equal to $\frac{1-e^{-0.05 \cdot M_N}}{0.05 \cdot M_N}$; and (ii) if the default risk exposure of the netting set is calculated by using the IMM(CCR) approach, DF_N is equal to 1.	
(3) To provide that, for the purposes of item 5.3(2)(b), if counterparty "*c*" has—	This item 5.3(3) provides for the basis in determining the risk-weight if there is more than one contradicting ECAI issuer rating for a counterparty. This is a general practice following the

Matters to be provided	Remarks (including references)
(a) two ECAI issuer ratings the use of which would result in the allocation of different risk-weights to counterparty "*c*" under Table aa, an authorized institution must use the higher risk-weight; (b) three or more ECAI issuer ratings, an authorized institution must refer to the two ratings that would result in the allocation of lowest risk-weights to counterparty "*c*" under Table aa, and— (i) if the two lowest risk-weights are the same, the institution must use that risk-weight; or (ii) if the two lowest risk-weights are different, the institution must use the higher risk-weight.	principles set out in CRE21.9–21.11 (see the future version, with effect from 1 January 2023) of the Basel Framework.

Table aa

Risk-Weights to Counterparties under the reduced basic CVA approach

	Credit quality of counterparty	
Sector	Investment grade	Non-investment grade or unrated
Sovereigns including central banks, multilateral development banks	0.5%	2.0%
Local government, government-backed non-financials, education, public administration	1.0%	4.0%
Financials including government-backed financials	5.0%	12.0%
Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying	3.0%	7.0%
Consumer goods and services, transportation and storage, administrative and support service activities	3.0%	8.5%
Technology and telecommunications	2.0%	5.5%
Health care, utilities, professional and technical activities	1.5%	5.0%
Other sector	5.0%	12.0%

5.4 To add a new section to provide for the application of item 5.5

Matters to be provided	Remarks (including references)
(1) To provide that item 5.5 applies to an authorized institution that uses the full basic CVA approach to calculate its CVA risk capital charge.	

5.5 To add a new section to provide for the full basic CVA approach

Matters to be provided	Remarks (including references)
(1) To provide that an authorized institution must calculate its CVA risk capital charge for a portfolio of counterparties as follows— $$BA_CVA_{full} = 0.25 \cdot BA_{CVA_{reduced}} + 0.75 \cdot BA_CVA_{hedged}$$ $$BA_CVA_{hedged} = 0.65 \cdot \sqrt{\left(0.5 \cdot \sum_c (SCVA_c - SNH_c) - IH\right)^2 + 0.75 \cdot \sum_c (SCVA_c - SNH_c)^2 + \sum_c HMA_c}$$ where— (a) BA_CVA_{full} is the CVA risk capital charge under the full	The full basic CVA approach recognises counterparty credit spread hedges and is intended for banks that hedge their CVA risk. The first formula is in line with paragraph 32 of the CP; the supervisory parameter β has been replaced by the value of 0.25 directly as indicated in the CP. AIs using the full basic CVA approach must calculate the capital charge under the reduced basic CVA approach as well, which is one of the inputs to the formula. The second formula (which forms the second item of the first formula) is in line with paragraph 33 of the CP; the supervisory

Matters to be provided	Remarks (including references)
basic CVA approach; (b) $BA_CVA_{reduced}$ is the CVA risk capital charge under the reduced basic CVA approach calculated in accordance with item 5.3(1); (c) $SCVA_c$ is the standalone CVA risk capital charge applicable to counterparty "*c*" calculated in accordance with item 5.3(2); (d) SNH_c is a quantity that gives recognition to the reduction in CVA risk of counterparty "*c*" arising from single-name eligible CVA hedges and is calculated in accordance with item 5.5(2); (e) IH is a quantity that gives recognition to the reduction in CVA risk across the portfolio of counterparties arising from index eligible CVA hedges and is calculated in accordance with item 5.5(3); and (f) HMA_c is a quantity that characterises the hedging misalignment of indirect eligible CVA hedges where the hedges do not directly reference counterparty "*c*" and is	correlation ρ and the discount scalar *DS* have been replaced by their actual values (0.5 and 0.65, respectively) as indicated in the CP. This part recognises the reduction of CVA risk resulting from eligible CVA hedges. The first term, $(0.5 \cdot \sum_c (SCVA_c - SNH_c) - IH)^2$, aggregates the systematic components of CVA risk arising from the counterparties, which is then reduced by single-name eligible CVA hedges and index eligible CVA hedges. The second term, $0.75 \cdot \sum_c (SCVA_c - SNH_c)^2$, aggregates the idiosyncratic components of CVA risk arising from the counterparties, which is then reduced by single-name eligible CVA hedges. The third term, $\sum_c HMA_c$, aggregates the components of indirect eligible CVA hedges that are not aligned with counterparties' credit spreads. Reference: paragraphs 32 and 33 of CP 20.03 and MAR50.20 and MAR50.21 of the Basel Framework

Matters to be provided	Remarks (including references)
calculated in accordance with item 5.5(4).	
(2) To provide that an authorized institution must calculate the quantity SNH_c for single-name eligible CVA hedges purchased for hedging CVA risk of counterparty "*c*" as follows— $$SNH_c = \sum_{h \in c} r_{hc} \cdot RW_h \cdot M_h^{SN} \cdot B_h^{SN} \cdot DF_h^{SN}$$ where— (a) r_{hc} is set at— (i) 100% if the single-name eligible CVA hedge "*h*" directly references the counterparty "*c*"; (ii) 80% if the single-name eligible CVA hedge "*h*" has legal relationship with counterparty "*c*"; or (iii) 50% if the single-name eligible CVA hedge "*h*" shares the same sector and region with counterparty "*c*"; (b) RW_h is the risk-weight applicable to the reference name	This item 5.5(2) provides for the calculation of the quantity SNH_c, which is a summation across all single-name eligible CVA hedges h that an AI has taken out to hedge the CVA risk of a particular counterparty *c*. Reference: paragraph 34 of CP 20.03 and MAR50.23 and MAR50.26 of the Basel Framework

Matters to be provided	Remarks (including references)
under a single-name eligible CVA hedge "*h*", which is determined in the same manner as the risk-weight applicable to counterparty "*c*" is determined in item 5.3(2)(b); (c) M_h^{SN} is the remaining maturity of the single-name eligible CVA hedge "*h*", expressed in years; (d) B_h^{SN} is the notional amount of the single-name eligible CVA hedge "*h*", except that in the case of a single-name contingent credit default swap, B_h^{SN} is the current market value of the reference obligation specified in the contract; and (e) DF_h^{SN} is a supervisory discount factor that is equal to $\frac{1-e^{-0.05 \cdot M_h^{SN}}}{0.05 \cdot M_h^{SN}}$.	
(3) To provide that an authorized institution must calculate the quantity IH for index eligible CVA hedges purchased for hedging CVA risk as follows—	This item 5.5(3) provides for the calculation of the quantity IH, which is a summation across all index eligible CVA hedges *i* that an AI has taken out to hedge its overall CVA risk. Reference: paragraph 35 of CP 20.03 and MAR50.24 of the Basel

Matters to be provided	Remarks (including references)
$$IH = \sum_i RW_i \cdot M_i^{ind} \cdot B_i^{ind} \cdot DF_i^{ind}$$ where— (a) RW_i is the risk-weight applicable to index eligible CVA hedge "*i*", where— (i) all the index constituents belong to the same sector and are of the same credit quality, the authorized institution must determine the risk-weight in the same manner as the risk-weight applicable to counterparty "*c*" is determined in item 5.3(2)(b), and then multiply the risk-weight by 0.7; (ii) the index spans multiple sectors or with a mixture of investment grade constituents and non-investment grade or unrated constituents, the authorized institution must determine the weighted average of risk-weights attributable to each constituent determined in the same manner as the risk-weight applicable to counterparty "*c*"	Framework

Matters to be provided	Remarks (including references)
in item 5.3(2)(b), and then multiply the weighted average risk-weight by 0.7; (b) M_i^{ind} is the remaining maturity of index eligible CVA hedge "i", expressed in years; (c) B_i^{ind} is the notional amount of index eligible CVA hedge "i"; and (d) DF_i^{ind} is a supervisory discount factor that is equal to $\frac{1-e^{-0.05 \cdot M_i^{ind.}}}{0.05 \cdot M_i^{ind}}$.	
(4) To provide that an authorized institution must calculate the quantity HMA_c that characterises the hedging misalignment of indirect single-name eligible CVA hedges as follows— $$HMA_c = \sum_{h \in c} (1 - r_{hc}^2) \cdot (RW_h \cdot M_h^{SN} \cdot B_h^{SN} \cdot DF_h^{SN})^2$$ where—	This item 5.5(4) provides for the calculation of the quantity HMA_c, which captures the basis risk of indirect single-name eligible hedges (as reflected in r_{hc}, as r_{hc} equals 100% for single-name eligible hedges that references the counterparty c directly). Reference: paragraph 36 of CP 20.03 and MAR50.25 of the Basel Framework

Matters to be provided	Remarks (including references)
(a) r_{hc} is calculated in accordance with item 5.5(2)(a); (b) RW_h is calculated in accordance with item 5.5(2)(b); (c) M_h^{SN} is calculated in accordance with item 5.5(2)(c); (d) B_h^{SN} is calculated in accordance with item 5.5(2)(d); and (e) DF_h^{SN} is calculated in accordance with item 5.5(2)(e).	

5.6 To add a new section to provide for the application of item 5.7

Matters to be provided	Remarks (including references)
(1) To provide that item 5.7 applies to an authorized institution that has been approved to use the standardized CVA approach to calculate its CVA risk capital charge under item 4.2(3)(a).	

5.7 To add a new section to provide for the standardized CVA approach

Matters to be provided	Remarks (including references)
(1) To provide that an authorized institution shall calculate its CVA risk capital charge as the sum of— (a) its CVA delta risk capital charge in all risk classes; and (b) its CVA vega risk capital charge in all risk classes except the counterparty credit spread risk class.	The standardized CVA approach is an adaptation of the new STM approach under the revised market risk framework. The new STM approach relies primarily on sensitivities of prices of traded instruments to market risk factors. From the CVA perspective, prices of traded instruments are replaced with CVA, so CVA sensitivities are critical elements of the standardized CVA approach. However, since CVA sensitivities to market risk factors are computationally expensive, unlike for the new STM approach,

Matters to be provided	Remarks (including references)
	curvature risk is not included in the calculation. Reference: paragraphs 73, 74 and 76 of CP 20.03 and MAR50.42, MAR50.43 and MAR50.45 of the Basel Framework
(2) To provide that an authorized institution shall calculate its CVA delta risk capital charge separately for each risk class. Specifically, for each risk class, an authorized institution shall— (a) determine a CVA delta sensitivity $delta_k^{CVA}$ for each CVA delta risk factor k as defined in item 5.7(5) as follows (unless the institution is able to otherwise demonstrate to the satisfaction of the Monetary Authority that alternative formulations are conceptually sound and yield results very close to those produced by the formulae below)— (i) $delta_k^{CVA} = \frac{CVA(k+0.0001)-CVA(k)}{0.0001}$ for interest rate, counterparty credit spread and reference credit spread risk factors; or	This item 5.7(2) provides for a step-by-step approach for calculating the CVA delta risk capital charges for each risk class, which are inputs for calculating the CVA risk capital charge under item 5.7(1)(a). The below explains the mechanism for calculating CVA delta capital charges in each risk class. The logic applies to CVA vega capital charges as well. • Prescribed shocks are applied to calculate the CVA delta sensitivity (and fair value delta sensitivity for eligible CVA hedges) for each risk factor. A covered transaction could be subject to capital charges for several risk factors within the same risk class or even under different risk classes. • For each risk factor, a risk-weighted CVA delta sensitivity

Matters to be provided	Remarks (including references)
(ii) $delta_k^{CVA} = \frac{CVA(1.01k) - CVA(k)}{0.01}$ for equity, commodity and foreign exchange risk factors, where $CVA(\boldsymbol{k})$ is the aggregate CVA as a function of the CVA delta risk factor k; (b) in relation to all eligible CVA hedges, determine a fair value delta sensitivity $delta_k^{Hdg}$ for each CVA delta risk factor k as defined in item 5.7(5) as follows (unless the institution is able to otherwise demonstrate to the satisfaction of the Monetary Authority that alternative formulations are conceptually sound and yield results very close to the formulae below)— (i) $delta_k^{Hdg} = \frac{V(k+0.0001) - V(k)}{0.0001}$ for interest rate, counterparty credit spread and reference credit spread risk factors; or (ii) $delta_k^{Hdg} = \frac{V(1.01k) - V(k)}{0.01}$ for equity, commodity and	and a risk-weighted fair value delta sensitivity are calculated by multiplying the CVA delta sensitivity and the fair value delta sensitivity by a prescribed risk-weight respectively. • A net risk-weighted CVA delta sensitivity is calculated for each risk factor. • The net risk-weighted CVA delta sensitivities are aggregated within each bucket, using a prescribed correlation applied within a prescribed aggregation formula. • The resulting "bucket level" capital charges are then aggregated to determine the "risk class-level" CVA delta capital charge. (Note: $k \in b$ appearing in the formula in item 5.7(2)(f) means the delta risk factor k is in the CVA delta bucket b.) Reference in general: paragraphs 74, 78 and 84, of CP 20.03 and MAR50.43, MAR50.47, MAR50.51–MAR50.53 of the Basel Framework Reference for item 5.7(2)(a) and (b): paragraphs 102 and 103 of

Matters to be provided	Remarks (including references)
foreign exchange risk factors, where $V(\boldsymbol{k})$ is the market value of all eligible CVA hedges as a function of the CVA delta risk factor k; (c) calculate the risk-weighted CVA delta sensitivity $WS_delta_k^{CVA}$ for each CVA delta risk factor k as the product of $delta_k^{CVA}$ as set out in item 5.7(2)(a) and the risk-weight as set out in item 5.7(6); (d) calculate the risk-weighted fair value delta sensitivity $WS_delta_k^{Hdg}$ for each CVA delta risk factor k as the product of $delta_k^{Hdg}$ as set out in item 5.7(2)(b) and the risk-weight as set out in item 5.7(6); (e) calculate the net risk-weighted CVA delta sensitivity WS_delta_k for each CVA delta risk factor k as follows— $$WS_delta_k = WS_delta_k^{CVA} - WS_delta_k^{Hdg};$$ (f) calculate the capital charge for each CVA delta bucket b, K_{b_delta}, by aggregating the net risk-weighted CVA delta sensitivities	CP 20.03 and MAR50.56(2), MAR50.57(2), MAR50.61(2), MAR50.65(2), MAR50.68(2), MAR50.72(2), MAR50.76(2) of the Basel Framework Reference for item 5.7(2)(g)(i): paragraph 43 of CP 20.03 and MAR50.41 of the Basel Framework

Matters to be provided	Remarks (including references)
within the same bucket as follows— $K_{b_delta} = \sqrt{\sum_{k\in b} WS_delta_k^2 + \sum_{k\in b}\sum_{l\in b, l\neq k} \rho_{kl} \cdot WS_delta_k \cdot WS_delta_l + 0.01 \cdot \sum_{k\in b} (WS_delta_k^{Hdg})^2}$ where ρ_{kl} is the correlation parameter between two net risk-weighted CVA delta sensitivities within the same bucket such that it appropriately captures the extent to which the two CVA delta risk factors are related, ρ_{kl} should be set at a level specified by the Monetary Authority; (g) calculate the CVA delta risk capital charge by aggregating across the CVA delta buckets within the risk class as follows— $K_{CVA\ \ delta} = m_{CVA} \cdot \sqrt{\sum_b K_{b_delta}^2 + \sum_b \sum_{c\neq b} \gamma_{bc} \cdot S_{b_delta} \cdot S_{c_delta}}$ where— (i) m_{CVA} is 1 or such greater number as may be assigned by the Monetary Authority by notice in writing given to the	

Matters to be provided	Remarks (including references)
institution, taking into account the level of model risk for the calculation of the CVA sensitivities; (ii) γ_{bc} is the correlation parameter between two CVA delta buckets such that it appropriately captures the extent to which the two CVA delta buckets are related and should be set at a level specified by the Monetary Authority; (iii) $S_{b_delta} = \max\left[-K_b,\ \min\left(\sum_k WS_delta_k\ , K_{b_delta}\right)\right]$ for all CVA delta risk factors in bucket b; and (iv) $S_{c_delta} = \max\left[-K_c,\ \min\left(\sum_k WS_delta_k\ , K_{c_delta}\right)\right]$ for all CVA delta risk factors in bucket c.	
(3) To provide that an authorized institution shall calculate the CVA vega risk capital charge separately for each risk class except the counterparty credit spread risk class. Specifically, for each risk class, an authorized institution shall— (a) determine a CVA vega sensitivity $vega_k^{CVA}$ for each CVA vega risk factor k as defined in item 5.7(5) as follows (unless the	This item 5.7(3) provides for a step-by-step approach to calculate the CVA vega risk capital charges for each risk class, except the counterparty credit spread risk class, which are inputs for calculating the CVA risk capital charge under item 5.7(1)(b). Reference: in general: paragraphs 76, 78 and 84 of CP 20.03 and MAR50.45, MAR50.47 and MAR50.51–MAR50.53 of the

Matters to be provided	Remarks (including references)
institution is able to otherwise demonstrate to the satisfaction of the Monetary Authority that an alternative formulation is conceptually sound and yields results very close to the formula below)— $$vega_k^{CVA} = \frac{CVA(1.01k) - CVA(k)}{0.01}$$ where $CVA(\boldsymbol{k})$ is the aggregate CVA as a function of the CVA vega risk factor k; (b) in relation to all eligible CVA hedges, determine a fair value vega sensitivity $vega_k^{Hdg}$ for each CVA vega risk factor k as defined in item 5.7(5) as follows (unless the institution is able to otherwise demonstrate to the satisfaction of the Monetary Authority that alternative formulations are conceptually sound and yield results very close to the formula below)— $$vega_k^{Hdg} = \frac{V(1.01k) - V(k)}{0.01}$$ where $V(\boldsymbol{k})$ is the market value of all eligible CVA hedges as a	Basel Framework Item 5.7(3)(a) and (b): paragraph 104 of CP 20.03 and MAR50.58(2), MAR50.62(2), MAR50.69(2), MAR50.73(2), MAR50.77(2) of the Basel Framework Item 5.7(3)(g)(i): paragraph 43 of CP 20.03 and MAR50.41 of the Basel Framework

Matters to be provided	Remarks (including references)
function of the CVA vega risk factor k; (c) calculate the risk-weighted CVA vega sensitivity $WS_vega_k^{CVA}$ for each CVA vega risk factor k as the product of $vega_k^{CVA}$ as set out in item 5.7(3)(a) and the risk-weight as set out in item 5.7(6); (d) calculate the risk-weighted fair value vega sensitivity $WS_vega_k^{Hdg}$ for each CVA delta risk factor k as the product of $vega_k^{Hdg}$ as set out in item 5.7(3)(b) and the risk-weight as set out in item 5.7(6); (e) calculate the net risk-weighted CVA vega sensitivity WS_vega_k for each CVA delta risk factor k as follows— $$WS_vega_k = WS_vega_k^{CVA} - WS_vega_k^{Hdg}$$ (f) calculate the capital charge for each CVA vega bucket b, K_{b_vega}, by aggregating the risk-weighted CVA vega sensitivities within the same bucket as follows—	

Matters to be provided	Remarks (including references)
$K_{b_vega} = \sqrt{\sum_{k\in b} WS_vega_k^2 + \sum_{k\in b}\sum_{l\neq k} \rho_{kl} \cdot WS_vega_k \cdot WS_vega_l + 0.01 \cdot \sum_{k\in b} (WS_vega_k^{Hdg})^2}$ where ρ_{kl} is the correlation parameter between two net risk-weighted CVA vega sensitivities within the same bucket such that it appropriately captures the extent to which the two CVA vega risk factors are related and should be set at a level specified by the Monetary Authority; (g) calculate the CVA vega risk capital charge by aggregating between the CVA vega buckets within the risk class as follows— $K_{CVA_vega} = m_{CVA} \cdot \sqrt{\sum_b K_{b_CVA}^2 + \sum_b \sum_{c\neq b} \gamma_{bc} \cdot S_{b_vega} \cdot S_{c_vega}}$ where— (i) m_{CVA} is 1 or such greater number as may be specified by the Monetary Authority by notice in writing given to the institution, taking into account the level of model risk for the calculation of the CVA sensitivities;	

Matters to be provided	Remarks (including references)
(ii) γ_{bc} is the correlation parameter between two CVA vega buckets such that it appropriately captures the extent to which the two CVA vega buckets are related and should be set at a level specified by the Monetary Authority; (iii) $S_{b_vega} = \max\left[-K_b,\ \min\left(\sum_k WS_vega_k\ , K_{b_vega}\right)\right]$ for all CVA vega risk factors in bucket b; and (iv) $S_{c_vega} = \max\left[-K_c,\ \min\left(\sum_k WS_vega_k\ , K_{c_vega}\right)\right]$ for all CVA vega risk factors in bucket c.	
(4) To provide that an authorized institution shall, in respect of a risk class, determine buckets as specified by the Monetary Authority for such risk class that appropriately distinguish the risk characteristics of risk factors across different buckets and allocate each risk-weighted sensitivity calculated under item 5.7(2)(e) and item 5.7(3)(b) to an appropriate bucket.	This item 5.7(4) provides for buckets to be determined in respect of each risk class. The intention is that authorized institutions should by default adopt the same buckets as those specified in a new Supervisory Policy Manual where the guidance on the bucket set up is the same as that required under the Basel Framework.
(5) To provide that, an authorized institution shall, in respect of a risk class and at a level of granularity specified by the Monetary Authority, define—	This item 5.7(5) provides for the types of CVA delta risk factors and CVA vega risk factors to be included in each risk class.

Matters to be provided	Remarks (including references)
(a) CVA delta risk factors as— (i) risk-free yields for interest rate risk; (ii) foreign exchange rates between HKD and each foreign currency for foreign exchange risk; (iii) credit spreads for counterparty credit spread risk and reference credit spread risk; (iv) equity prices for equity risk; and (v) commodity prices for commodity risk; and (b) CVA vega risk factors as the simultaneous relative change of all relevant volatilities of the underlying exposure.	The intention is that authorized institutions should by default follow a new Supervisory Policy Manual regarding the level of granularity of the CVA delta risk factors and CVA vega risk factors where the guidance set out in the Supervisory Policy Manual adopt the standards set out under the Basel Framework. Reference: paragraphs 85–98 of CP 20.03 and MAR50.56(1), MAR50.57(1), MAR50.58(1), MAR50.61(1), MAR50.62(1), MAR50.65(1), MAR50.68(1), MAR50.69(1), MAR50.72(1), MAR50.73(1), MAR50.76(1) and MAR50.77(1) of the Basel Framework
(6) To provide that an authorized institution shall assign a risk-weight for each CVA delta risk factor and each CVA vega risk factor at a level specified by the Monetary Authority that sufficiently represents stressed market conditions.	This item 5.7(6) provides for the determination of risk-weights for CVA delta risk factors and CVA vega risk factors. The intention is that authorized institutions should follow the guidance specified in a new Supervisory Policy Manual to adopt risk-weights that are the same as those specified under the Basel

Matters to be provided	Remarks (including references)
	Framework, except for an intended deviation for the currency pair USD/HKD explained below. The risk-weight for the currency pair USD/HKD (i.e. a CVA delta risk factor under the foreign exchange risk class) would be set at 1.3%. The rationale is explained in paragraph 114 of the CP 20.03. Reference: paragraphs 107–108, 113–114, 116, 123, 128, 136 and 139 of CP 20.03 and MAR50.56(3), MAR50.57(3), MAR50.58(3), MAR50.61(3), MAR50.62(3), MAR50.65(3), MAR50.68(3), MAR50.69(3), MAR50.72(3), MAR50.73(3), MAR50.76(3) and MAR50.77(3) of the Basel Framework

5.8 Add a new section to provide for the eligible CVA hedges

Matters to be provided	Remarks (including references)
(1) To provide that, when calculating a CVA risk capital charge, an authorized institution may take hedges into account only if—	The CVA risk depends on the counterparty credit spreads as well as on the market risk factors that drive the price of the derivative

Matters to be provided	Remarks (including references)
(a) the hedges are entered into with external counterparties or subject to item 5.8(2), entered internally with the trading book; (b) where the institution uses the full basic CVA approach to calculate its CVA risk capital charge, the hedges are used and managed for the purpose of mitigating the counterparty credit spread component of CVA risk and the hedging instruments used in the hedges are— (i) subject to item 5.8(3), single-name credit default swaps; (ii) subject to item 5.8(3), single-name contingent credit default swaps; or (iii) index credit default swaps; (c) where the institution uses the standardized CVA approach to calculate its CVA risk capital charge, the hedges are used and managed for the purpose of mitigating the CVA risk and the hedging instrument— (i) is not split into several effective transactions; (ii) hedges either the counterparty credit spread component	contracts or SFTs. Hedges in the full basic CVA approach captures only the counterparty credit spread component while the standardized CVA approach captures both the credit spread and the exposure components. Compared with the current framework, item 5.8(1)(a) includes the possibility that an internal CVA hedge is also an eligible CVA hedge. Item 5.8(1)(b) and (c) set out some restrictions on the hedging instruments used in an eligible CVA hedge in the full basic CVA approach and the standardized CVA approach respectively. Reference for: Item 5.8(1)(a): paragraphs 12 and 14 of CP 20.03 and MAR50.11 of the Basel Framework Item 5.8(1)(b): paragraph 31 (first bullet) of CP 20.03 and

Matters to be provided	Remarks (including references)
or the exposure component of the CVA risk; (iii) in relation to the credit spread delta risk, is assigned entirely to the counterparty credit spread risk class or the reference credit spread risk class; and (iv) is not a securitisation exposure or a collective investment scheme that cannot be looked through but are assigned to the trading book.	MAR50.17–18 of the Basel Framework Item 5.8(1)(c): paragraphs 42 and 75 of CP 20.03 and MAR50.37–39 and MAR50.44 of the Basel Framework
(2) To provide that where the authorized institution enters into an internal CVA hedge with its trading book and the hedge involves an instrument that is subject to the SBM curvature risk, SA-DRC or RRAO under the STM approach, the hedge is eligible only if the trading book additionally enters into a hedge with an external counterparty that exactly offsets the trading book leg of the internal CVA hedge.	This item 5.8(2) provides for a specific restriction for an internal CVA hedge to be recognized as an eligible CVA hedge. Reference: paragraph 16 of CP 20.03 and MAR50.11(5) of the Basel Framework
(3) To provide that where an authorized institution uses the full basic CVA approach to calculate its CVA risk capital charge, the institution may include single-name credit default swaps or single-name contingent credit	This item 5.8(3) restricts the reference entity of the single-name credit default swaps and single-name contingent credit default swaps to be recognized as eligible CVA hedges under the full basic

Matters to be provided	Remarks (including references)
default swaps as eligible CVA hedges in the calculation only if the swap references— (a) the counterparty concerned directly; (b) an entity legally related to the counterparty concerned, where legally related refers to cases where the reference name and the counterparty concerned are either a holding company and its subsidiary or two subsidiaries of a common holding company; or (c) an entity that belongs to the same sector and region as the counterparty concerned.	CVA approach. Reference: paragraph 31 (second bullet) of CP 20.03 and MAR50.19 of the Basel Framework
(4) To provide that where an authorized institution has included— (a) eligible CVA hedges obtained from external counterparties in its CVA risk capital charge calculation, the institution must exclude the hedges from its market risk capital charge calculation; and (b) the CVA leg of eligible hedges obtained from its trading book internally in its CVA risk capital charge calculation, the institution must include the trading book leg of the hedges in its market risk	This item 5.8(4) provides for the treatment for the eligible hedges under the market risk capital charge calculation. Reference: paragraphs 13 and 15 of CP 20.03 and MAR50.11(2) and (4)(b) of the Basel Framework

Matters to be provided	Remarks (including references)
capital charge calculation.	
(5) To provide that an authorised institution shall include all ineligible CVA hedges in the trading book, irrespective of whether the CVA hedge is obtained from an external counterparty or from its trading book. For an ineligible CVA hedge obtained from the trading book, both the CVA leg and the trading book leg shall be included in the trading book.	Reference: paragraphs 13 and 15 of CP 20.03 and MAR50.11(3) and (4)(a) of the Basel Framework

Item 6. Existing Schedule 1A to the BCR (Transactions and Contracts not Subject to CVA Capital Charge) to be amended

Matters to be provided	Remarks (including references)
(1) Repeal "section 226N" and substitute with the section corresponding to item 5.1 in section 1 of Schedule 1A to the BCR.	
(2) To repeal the title of the schedule and substitute it by "Transactions and Contracts not Subject to CVA Risk Capital Charge".	

Item 7. Add a new Schedule to the BCR to provide for the minimum requirements to be satisfied for approval under item 4.2 above to use standardized CVA approach

Matters to be provided	Remarks (including references)
(1) To add a new Schedule after Schedule 1A, and before Schedule 2, to the BCR.	
(2) To provide that an authorized institution that makes an application under item 4.2 to use the standardized CVA approach must demonstrate to the satisfaction of the Monetary Authority that— (a) the senior management of the institution is actively involved in the CVA risk control process with sufficient resources to be allocated for the purpose of the institution's CVA risk control; (b) the institution uses the exposure models used in the calculation of its CVA risk capital charge (referred to in this item as "exposure models") for its CVA risk management framework that includes the identification, measurement, management, approval and internal reporting of the institution's CVA risk;	This item 7(2) provides for the qualitative requirements for the use of the standardized CVA approach. This includes the following elements: - involvement of senior management as set out in item 7(2)(a), reference: paragraph 63 of CP 20.03 and MAR50.36(2) of the Basel Framework - use of the exposures models in CVA risk capital charge calculations as part of the CVA risk management framework as set out in item 7(2)(b), reference: paragraph 62 of CP 20.03 and MAR50.36(1) of the Basel Framework - CVA trading desk as set out in item 7(2)(c), reference: paragraph 41 (the second bullet) of CP 20.03 and

Matters to be provided	Remarks (including references)
(c) the institution has a CVA desk (or a similar dedicated function) which is responsible for the risk management and hedging of CVA; (d) the institution has a risk control unit— (i) which is functionally independent of the institution's business credit and trading units (including the CVA desk); (ii) which reports directly to the institution's senior management; and (iii) which has a sufficient number of staff who are qualified and trained to conduct the testing, validation and implementation of the institution's exposure models used for the calculation of CVA; (e) the institution— (i) clearly documents the exposure models and the internal policies, controls and procedures relating to the	MAR50.30(2) of the Basel Framework - CVA risk control unit as set out in item 7(2)(d), reference: paragraph 65 of CP 20.03 and MAR50.36(4) of the Basel Framework - documentation of the exposure models and the related controls as set out in item 7(2)(e), reference: paragraph 64, 66 and 69 of CP 20.03 and MAR50.36(3), MAR 50.36(5) and MAR50.36(8) of the Basel Framework - independent review of the soundness and adequacy of the CVA risk framework as set out in item 7(2)(f) and (g), reference: paragraph 68 of CP 20.03 and MAR 50.36(7) of the Basel Framework

Matters to be provided	Remarks (including references)
operation of the exposure models, including— (A) the calculation of the exposures generated by the models with sufficient details for a third party to understand the operation, limitations and key assumptions and to re-create the analysis; (B) the model validation process, including frequency and methodologies of validation and analyses used; and (C) criteria and process to assess the performance of the exposure models including the model inputs and process to remedy any unacceptable performance. (ii) has a system for monitoring and ensuring compliance with those internal policies, controls and procedures; (f) an independent review of the soundness and adequacy of the institution's CVA risk management process and the institution's compliance with internal policies, controls and	

Matters to be provided	Remarks (including references)
procedures, including the requirements specified in this Schedule, is conducted regularly by the institution's internal auditors; and (g) the review or audit referred to in item 7(2)(f) include the activities of the CVA desk and the independent risk control unit.	
(3) To provide that, for the purpose of determining the CVA for each counterparty and without limiting item 7(2), an authorized institution must adhere (and must demonstrate to the satisfaction of the Monetary Authority that it adheres) to the following principles— (a) the institution calculates the CVA for each counterparty with at least one covered transaction as specified in item 5.1(1) above as the expectation of future losses resulting from the default of such a counterparty under the assumption that the institution itself is free from default risk; (b) the institution calculates the CVA based on sets of inputs	In contrast to the existing standardized CVA method or advanced CVA method, the definition of CVA under the standardized CVA approach is based on a set of principles rather than on a regulatory formula (note: the prescribed formulae in item 5 are only related to the calculation of the CVA sensitivities and their aggregation). This item 7(3) provides for the principles in determining the CVA for a counterparty under the standardized CVA approach. References: Item 7(3)(a): paragraphs 44 and 45 of CP 20.03 and MAR50.31 and MAR50.32(1) of the Basel Framework

Matters to be provided	Remarks (including references)
which must include at a minimum— (i) the term structure of market implied probability of default, which is determined based on the credit spread of market instruments of the counterparty but, if no market instrument of the counterparty is available— (A) a proxy credit spread must be determined based on credit spreads of market instruments of the liquid peers of the counterparty via an algorithm that discriminates on variables which must include at a minimum the credit quality, industry and region of the counterparty; (B) a proxy credit spread may be determined based on a single liquid reference name with proper justification; or (C) where no credit spreads of any liquid peers of the counterparty are available due to the specific type of the counterparty, a fundamental analysis of	Item 7(3)(b): paragraph 46 of CP 20.03 and MAR50.32(2) of the Basel Framework Item 7(3)(b)(i): paragraph 47–50 of CP 20.03 and MAR50.32(3) of the Basel Framework Item 7(3)(b)(ii): paragraph 51 of CP 20.03 and MAR50.32(4) of the Basel Framework Item 7(3)(b)(iii): paragraph 52 of CP 20.03 and MAR50.32(5) of the Basel Framework Item 7(3)(c)(i): paragraph 53 of CP 20.03 and MAR50.32(6) of the Basel Framework Item 7(3)(c)(ii): paragraph 54 of CP 20.03 and MAR50.32(7) of the Basel Framework Item 7(3)(c)(iii): paragraphs 58 and 60 of CP 20.03 and MAR50.33 and MAR50.35 of the Basel Framework Item 7(3)(c)(iv): paragraph 59 (the third bullet) of CP 20.03 and

Matters to be provided	Remarks (including references)
credit risk may be conducted to proxy the credit spread of the counterparty on the condition that the resulting proxy credit spread must relate to credit markets; (ii) market-consensus expected loss given default values that are consistent with the ones used to calculate the probability of default in item 7.3(3)(b)(i) above and take into account the seniority of the exposure; and (iii) simulated paths of discounted future exposures that are calculated by pricing all exposures with the counterparty along simulated paths of relevant market risk factors and discounting the prices back to the reporting date using risk-free rates along the path; (c) in relation to the calculation of the simulated paths of discounted future exposures set out in item 7.3(3)(b)(iii) above, such exposure models— (i) capture and accurately reflect, on a continuing basis, all	MAR50.34(3) of the Basel Framework Item 7(3)(c)(v): paragraph 70 of CP 20.03 and MAR50.36(9) of the Basel Framework Item 7(3)(c)(vi): paragraph 71 of CP 20.03 and MAR50.36(10) of the Basel Framework Item 7(3)(d): paragraph 62 of CP 20.03 and MAR50.36(1) of the Basel Framework Item 7(3)(e): paragraph 67 of CP 20.03 and MAR50.36(6) of the Basel Framework Item 7(3)(f) and (g): paragraph 72 of CP 20.03 and MAR50.36(11) of the Basel Framework

Matters to be provided	Remarks (including references)
material market risk factors affecting the pricing of the exposures and such factors must be simulated as stochastic processes appropriately; (ii) take into account any significant level of dependence between an exposure and the credit quality of the counterparty; (iii) are consistent with the exposure models used for the calculation of front office or accounting CVA (including, but not limited to, the netting recognition), with adjustments if needed, to fulfil other requirements specified in this Schedule; (iv) account for the possible non-normality of the distribution of exposures in the distribution of risk factors being modelled; and (v) capture transaction-specific information in order to aggregate exposures at netting set level; and (vi) reflect transaction terms and specifications in a timely,	

Matters to be provided	Remarks (including references)
complete, and conservative manner; (d) the exposure models have a proven track record of acceptable accuracy in measuring the CVA and CVA sensitivity to the market risk factors; and (e) the option pricing models embedded in the exposure models account for the non-linearity of option value with respect to market risk factors; (f) the exposure models use current and historical data acquired in a timely and complete manner, and independently of the business lines and be compliant with the relevant financial reporting standards; and (g) the use of any proxy market data provides a conservative representation of the underlying risk factor under adverse market conditions.	
(4) To provide that, without limiting item 7(2) and 7(3), an authorized institution must demonstrate to the satisfaction of the Monetary Authority	This item 7(4) provides for the additional requirements for capturing the effects of margin agreements in simulating the future

Matters to be provided	Remarks (including references)
that, if the exposure models used by the institution capture the effects of margin agreements when estimating the simulated paths of discounted future exposure— (a) the institution has a collateral management unit specified in section (1)(e) of Schedule 2A of the BCR; (b) all documentation used in collateralized transactions are binding on all parties and legally enforceable in all relevant jurisdictions; and (c) the exposure models— (i) include transaction-specific information in order to capture the effects of margining along each exposure path; and (ii) account for the nature of margin agreements (including whether the agreement concerned is unilateral or bilateral), the frequency of margin calls, the type of collateral, the margin thresholds, the independent amounts, the initial margins, the minimum transfer	exposures, i.e. to recognize the collateral under a margin agreement as a risk mitigant along each simulated exposure path. Reference: paragraph 55 and 56 of CP 20.03 and MAR50.32(8) and MAR50.32(9) of the Basel Framework

Matters to be provided	Remarks (including references)
amounts, and the margin period of risk.	

Items 8 and 9 are consequential changes on sections in relation to CCyB Ratio in Division 4 of Part 1B of the BCR, which are arising from the revised market risk capital framework and the revised CVA risk capital framework.

Item 8. Amend section 3N (Interpretation of Division 4) - amend existing definitions

Amendments to be made	**Remarks**
(1) ***private sector credit exposures*** (a) After "in accordance with Part 4, 5 or 6, or Division 4 of Part 6A;" add the text "as the case require;". (b) Repeal the text "or" at the end of paragraph (b). (c) Replace paragraph (c) of the definition with the following paragraph: "(c) exposures for which the institution calculates a market risk capital charge in accordance with Part 8 for (i) SA-DRC under the STM approach; or (ii) specific risk under the SSTM approach; as the case requires; or".	(a) The proposed change is to clarify that the calculation should be made in accordance with the BCR requirement (in accordance with the prescribed approach in Part 2). (b) Consequential change arising from the revised market risk framework and clarify that calculation should be made in accordance with the BCR requirement (in accordance with the prescribed approach in Part 2). (c) Consequential change arising from reclassification of CVA risk-weighted amount from the part of credit risk to a standalone CVA risk.

Amendments to be made	Remarks
(d) Add a new paragraph (d) as follows: "(d) exposures for which the institution calculates a CVA risk capital charge in accordance with the new Part in item 5(1) above; as the case requires,"	
(2) ***JCCyB ratio*** Replace the text "document entitled "Basel III: A global regulatory framework for more resilient banks and banking systems" published by the Basel Committee in December 2010 (revised in June 2011)" with "current Basel Framework".	Consequential change arising from the new term "current Basel Framework" to which the reference needs to be updated.

Item 9. Amend section 3O (CCyB ratio) - amend definition of the component used in the formula

Amendments to be made	Remarks
(1) In **Formula 1A**, Replace the text defining the notation **RWAj** with the following: "RWAj = the sum of—	Consistent with item 1, consequential change arising from the revised market risk framework and revised CVA risk framework. Proposed changes also clarifies that the calculation should be made in accordance with the BCR requirement (in accordance with the prescribed approach in

Amendments to be made	Remarks
(a) the risk-weighted amounts for credit risk that relate to the institution's private sector credit exposures in jurisdiction j calculated in accordance with— (i) Part 4, 5 or 6, or Division 4 of Part 6A; and (ii) Part 7; as the cases requires; (b) the risk-weighted amount for market risk that relates to the institution's private sector credit exposures in jurisdiction j derived by multiplying by 12.5 the aggregate of the market risk capital charge calculated in accordance with Part 8 for (i) SA-DRC under the STM approach; or (ii) specific risk under the SSTM approach; as the case requires; and (c) the risk-weighted amount for CVA risk that relates to the institution's private sector credit exposures in	Part 2).

Amendments to be made	Remarks
jurisdiction j calculated in accordance with the new Part in item 5(1) above (Note: if the institution is exempted by the Monetary Authority under section 22(1) from calculating its market risk under section 17, paragraph (b) is to be disregarded);”	