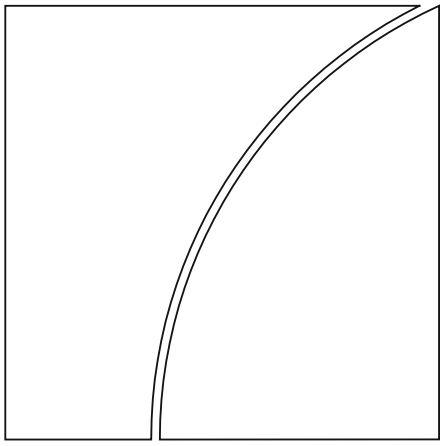
Basel Committee
on Banking Supervision

# Consultative Document

## Cryptoasset standard amendments



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## Contents

# 1. Introduction

In December 2022, the Basel Committee published its standard on the prudential treatment of banks' exposures to cryptoassets.[1] The standard is set out in a new chapter of the consolidated Basel Framework, SCO60,[2] that has an implementation date of 1 January 2025. Given the rapid pace of market developments, the Committee noted in the publication that it would likely issue additional refinements and clarifications to the standard over time in order to ensure a consistent understanding and implementation. It also noted that it had agreed on a set of issues that would be subject to specific monitoring and review. In light of the review work conducted during 2023, the Committee proposes the following amendments to the cryptoasset standard in this consultative document:

- A set of changes to the requirements that determine whether banks can include the stablecoins to which they are exposed in the Group 1b category. These changes relate to the composition of the reserve assets of stablecoins and the use of statistical test by banks to assess the stability of the market value of stablecoins.
- Various technical amendments to help promote a consistent understanding of the cryptoasset standard.

Annex 1 sets out the specific changes to SCO60 to give effect to the proposed changes above. Annex 2 lists a set of frequently asked questions and answers (FAQs) that the Committee has agreed to add to SCO60.

The Committee welcomes comments on all aspects of the proposed amendments to the cryptoasset standard from stakeholders. Comments should be submitted by 28 March 2024 using the following link: https://www.bis.org/bcbs/commentupload.htm. All comments will be published on the website of the Bank for International Settlements unless a respondent specifically requests confidential treatment.

An additional topic that the Committee announced it would review in December 2022 was whether the risks posed by cryptoassets that use permissionless blockchains can be sufficiently mitigated to allow for their inclusion in Group 1. The Committee has completed this review and concluded that the use of permissionless blockchains gives rise to a number of unique risks, some of which cannot be sufficiently mitigated at present. Some of the most significant risks stem from the networks' reliance on third parties to carry out basic operations. Banks have limited ability to conduct due diligence and oversight over those third parties or prevent potential disruptions to the network. Similar analysis applies to political, policy, and legal risks, AML/CFT risks, and risks around settlement finality, privacy, and liquidity. The Committee acknowledges that technical solutions to many of these issues may develop rapidly in the future and would welcome ongoing feedback from industry participants on the risks of permissionless systems and the development of mitigants. At this point, however, the Committee does not propose any adjustments to the cryptoasset standard to allow for the inclusion of cryptoassets that use permissionless blockchains in Group 1.

# 2. Stablecoin exposures

The cryptoasset standard sets out the capital requirements that apply to banks' holdings of cryptoassets, including stablecoins. Under the standard, stablecoins need to meet a set of conditions to be included in

[1] See https://www.bis.org/bcbs/publ/d545.htm

[2] See https://www.bis.org/basel_framework/chapter/SCO/60.htm?inforce=20250101&published=20221216

the Group 1b category. Inclusion in Group 1b category results in the stablecoin exposures being largely subject to the requirements of the existing capital framework. If they do not meet all conditions they are included in the Group 2 category and subject to a new highly conservative capital treatment.

When the Committee published the cryptoasset standard it stated that it would study further two aspects of the classification conditions that determine whether a stablecoin can be included in the Group 1b category, specifically: (i) the appropriate composition of a stablecoin's reserve assets; and (ii) whether there are statistical tests that can be used to reliably identify low-risk stablecoins. Proposals to amend the cryptoasset standard in these two areas are described in the sections below. The specific edits to give effect to the changes within the cryptoasset standard are set out in paragraph SCO60.12 in Annex 1.

## 2.1 Composition of reserve assets

Issuers of stablecoins that are pegged to one or more currencies typically aim to maintain their value relative to the peg by offering redemption on demand to holders of the stablecoins. The reserves assets that are used to cover redemptions can pose various risks that call into question the ability of the stablecoin issuer to meet holders' expectations of redemption on demand. For example, failure to redeem can be caused by credit or market risk losses on the reserve assets, such that the realisable value of the reserve assets is insufficient to cover the claims of stablecoin holders. Even without such losses, in case there is a sudden demand for mass redemptions, the reserve assets may need to be liquidated in a fire sale. Fire sale losses may cause a failure to meet redemption demands and may have wider adverse price effects in traditional markets.

Given these significant risks, the Committee has agreed to propose (i) a set of enhancements to the asset quality criteria for reserve assets under the redemption risk test; and (ii) a set of additional safeguards for reserve assets. These proposals, which are outlined below, aim to ensure that stablecoins included in Group 1b have reserve assets that enable the issuer to meet redemption requests, including during periods of extreme stress.

### Maturity

Short-term assets are typically considered less risky than longer-term ones as they are less sensitive to changes in market risk factors, eg interest rates, which can have a significant impact on the value of longer-term assets. Reserve assets should therefore be comprised largely of assets with short-term maturities. To restrict exposures to longer-term maturities, supervisors may specify: (i) a maximum maturity limit for individual reserve assets; and/or (ii) a portfolio weighted average maturity limit for a pool of reserve assets. When setting these limits, supervisors should consider the potential impact on the demand and supply of short-dated assets in their jurisdiction.

In case longer-term assets are allowed as reserve assets, the reserve assets must overcollateralise the claims of stablecoin holders. The level of overcollateralisation should be sufficient to cover potential declines in those asset values so that the cryptoassets remains redeemable at all times for the peg value, even during stress periods and volatile markets.

### Credit quality

In order to minimise the credit risk that to which stablecoin holders may be exposed, reserve assets should be invested in assets with high credit quality including:

- central bank reserves to the extent that the stablecoin issuer is eligible and central bank policies allow them to be drawn down in times of stress;
- marketable securities representing claims on or guaranteed by sovereigns and central banks with high credit quality; and

- deposits at high credit quality banks with safeguards, such as: a concentration limit applied at group level that include entities with close links; bankruptcy remoteness of the deposits from any party that issues, manages or is involved in the stablecoin operation; and the banks apply the Basel Framework (including the liquidity coverage ratio).

Under the proposals, national supervisors may permit other types of assets to be included in the reserves of stablecoins if they fulfil the asset quality criteria set out in the standard.

### Repurchase agreements

Regarding the reserves that may be eligible for stablecoins included in the Group 1b category, the Committee has discussed the treatment of securities financing transactions (SFTs), such as repurchase and reverse repurchase agreements (repos and reverse repos) and collateral swaps. Such transactions can facilitate management of reserve assets and associated risks if appropriate safeguards are put in place. However, such transactions could also pose significant risks, including the ability of stablecoin issuers to meet timely requests for redemption. In particular:

- Cash borrowed via repo transactions generally would result in a stablecoin issuer's balance sheet expanding. This would allow the stablecoin to leverage itself and might artificially inflate stablecoin reserves relative to stablecoin claims.
- Where securities are lent through a repo transaction collateralised by securities (ie a collateral swap), the balance sheet does not expand, but the stablecoin's securities lent would be unavailable for the term of the transaction, a particular concern if the securities taken as collateral are of lower quality than the securities lent and/or could be difficult to monetise for a value close to the carrying value. Furthermore, if collateral swaps are used to also allow lower quality and/or less liquid securities to be temporarily exchanged for higher quality and/or more liquid securities, this risks providing a misleading impression of the quality/liquidity of the securities backing stablecoins. When such transactions unwind, the stablecoin issuer will be left holding the original lower quality and/or less liquid securities which could be more difficult to monetise.
- Cash lent via reverse repos is unavailable to meet stablecoin redemptions for the duration of the transaction. Moreover, in some cases stablecoin issuers may not have the legal right or operational capacity to monetise collateral received in reverse repos to meet stablecoin redemptions, or they may not be able to monetise such collateral with sufficient speed during a period of stress. Any recognition of certain SFTs would therefore need to be accompanied by safeguards that the Committee considers would mitigate the resulting risk of failing to meet stablecoin redemptions.

The Committee is hence considering whether, and if so under which conditions, stablecoins that use SFTs could be included in the Group 1b category.

### Low volatility

Assets whose prices remain relatively stable and are less prone to stressed market conditions are more likely to be liquidated rapidly with minimal adverse price effect to meet redemption requests. Therefore, the reserve assets should have a proven record of relative stability of market terms (eg low volatility of traded prices and spreads) even during stressed market conditions.

### Active and sizable market

Reserve assets that are marketable securities should be traded in large, deep and active markets. They should have a proven record as a reliable source of liquidity in the markets even during stressed market conditions.

### Ease and certainty of valuation

An asset's liquidity increases if market participants are more likely to agree on its valuation. Assets with more standardised, homogenous and simple structures tend to be more fungible, promoting liquidity. If the price of a reserve asset is determined by a pricing formula, the formula must therefore be easy to calculate and not depend on strong assumptions. The inputs into the pricing formula must also be publicly available. In practice, this should rule out the inclusion of most structured or exotic products.

### Bankruptcy remoteness

Reserve assets should be placed in structures that are bankruptcy remote from any party that issues, manages or is involved in the stablecoin operations. This means that other creditors of those parties as well as any creditors of the custodian must have no claims on the reserve assets, except where such parties are also stablecoin holders. It also means that the value of the reserve assets should not have any significant correlation with the creditworthiness of the issuer. For example, the reserve assets cannot include a bond issued by the stablecoin issuer.

### Daily liquidity requirement

Reserve assets should be sufficiently liquid to meet reasonably foreseeable redemptions. To ensure this, supervisors could specify that at least a certain percentage of the reserve assets are invested in assets that can provide daily liquidity, ie assets that can be liquidated or withdrawn by giving a prior notice of one working day.

### Risk management framework

Stablecoin issuers should have in place an appropriate risk management framework to assess and monitor the risks of reserve assets, including but not limited to market risk, credit risk, concentration risk and liquidity risk. Examples include on-going monitoring of deposit counterparties and custodians, daily valuation of reserve assets, and stress testing.

### Transparency and audit requirements

The cryptoasset standard currently requires the value of reserve assets and the composition to be disclosed at least daily and weekly respectively. An explicit requirement to disclose the amount of cryptoassets in circulation will be added to the framework as this is needed to assess the sufficiency of reserve assets.

The standard also requires the reserve assets to be subject to an independent external audit at least annually to confirm that they match the disclosed reserves and are consistent with the mandate. These requirements will be strengthened to include a requirement for the disclosed reserve assets to be verified by an independent third party at least semi-annually.

### Stablecoins not pegged to currencies

Reserve assets of Group 1b stablecoins that are not pegged to currencies should largely include assets with the same risk profile as the reference asset(s) and therefore should predominantly consist of the reference asset(s). This can ensure the best correlation between the market value of the cryptoasset and the reference asset(s). For example, the reserve asset of a stablecoin referencing only gold could be composed only of gold, except for a de minimis portion of the reserve assets may be held in cash or bank deposit, provided that the holding is necessary for the operation of the cryptoasset arrangement.

## 2.2 Statistical tests

The Committee examined whether there are statistical tests that could be used by banks and/or supervisors as part of the assessment of the effectiveness of the stabilisation mechanisms used by stablecoins to which the banks are exposed. It proposes to amend the cryptoasset standard to require banks to perform due diligence to ensure that they have an adequate understanding, at acquisition and thereafter on a regular basis, of the stabilisation mechanism of the cryptoasset and of its effectiveness. As part of that due diligence, banks would be required to conduct statistical or other tests demonstrating that the cryptoasset maintains a stable relationship in comparison to a reference asset. Under the proposals banks would be required to make available to their supervisors upon request the results of such tests, and the supervisors may override the classification of the cryptoasset based upon the test results.

# 3. Technical amendments

The Committee proposes to make a set of technical amendments to the cryptoasset standard (SCO60) that are described below. The specific edits are set out in Annex 1.

### Evidence of stabilisation mechanism effectiveness

The requirement to provide evidence to supervisors on the effectiveness of the stabilisation mechanism of stablecoins will be adjusted to reflect the fact that in the final standard, it is banks that must perform this assessment. The current wording is based on the June 2022 consultation proposal that required supervisory pre-approval of classification decisions. [See edits to SCO60.11]

### Settlement finality

The requirement for applicable legal frameworks to ensure settlement finality for cryptoassets to be included in Group 1 will be adjusted to make clear that it covers settlement in both primary and secondary markets, not just settlement at issuance and redemption. [See edits to SCO60.14]

The current text relating to settlement finality may create confusion by implying that "the point in time at which transactions are irrevocable" may be a separate concept to settlement finality. The text will be revised to avoid this confusion. [See edits to SCO60.15(2)]

### Entities that execute settlement

The standard requires that for cryptoassets to be included in Group 1, entities that execute redemptions, transfers, storage or settlement of cryptoasset to be subject to risk management standards and have in place a comprehensive governance framework. The text will be adjusted to make clear that this requirement applies to all such entities. [See edits to SCO60.18]

### Group 2a hedging recognition criteria

To be included in Group 2a, cryptoassets need to meet the hedging recognition criteria. The criteria can be met by cryptoassets referenced by derivatives or ETFs/ETNs when they are traded on a "regulated exchange". It can also be met by derivatives and ETFs/ETNs that reference cryptoasset related reference rates published by a regulated exchange. In both cases the standard will be clarified to add a requirement that the regulated exchange clears the relevant trades through a qualifying central counterparty (QCCP). [See edits to SCO60.55(1)]

### Use of SA-CCR to calculate replacement cost for Group 2b

The current test on calculating counterparty credit risk for derivative exposures that have Group 2b cryptoasset as their underlying is not sufficiently clear that the standardised approach to counterparty credit risk (SA-CCR) must be used for this purpose. The text will be updated to make it clear that SA-CCR must be used. [See edits to SCO60.99]

### Calculation of capital requirements on breach of 1% Group 2 exposure limit

Group 2 cryptoasset are subject to a limit set at 1% of Tier 1 capital. Banks' exposures that are in excess of the threshold will be subject to the capital requirements that apply to Group 2b cryptoasset exposures. The calculation of this requirement, however, could be interpreted in different ways. To ensure greater consistency, the standard will be updated to include a formula that specifies the method of calculation of capital requirements for banks that have breached the 1% Group 2 exposure limit. [See edits to SCO60.118]

# Annex 1: Proposed edits to the Basel Framework

Set out below are the set of proposed edits to the cryptoasset chapter (SCO60) of the Basel Framework.

SCO60.11

Cryptoassets that have a stabilisation mechanism will only meet classification condition 1 if they satisfy all of the following requirements:

(1) […]

(2) […]

(3) The stabilisation mechanism enables risk management similar to the risk management of traditional assets, based on sufficient data or experience. For newly established cryptoassets, there may be insufficient data and/or practical experience to perform a detailed assessment of the stabilisation mechanism. Banks must document and make available to supervisors on request the assessment they conducted and the evidence used to determine ~~Evidence must be provided to satisfy supervisors of~~ the effectiveness of the stabilisation mechanism, including the composition, valuation and frequency of valuation of the reserve asset(s) and the quality of available data.

(4) […]

(5) The cryptoasset passes the redemption risk test set out in SCO60.12 and the issuer is supervised and regulated by a supervisor that applies prudential capital and liquidity requirements to the issuer. ~~The Committee considered also requiring cryptoassets with stabilisation mechanisms to meet a "basis risk test", but as yet has chosen not to implement this test.[3] The Committee will further study whether there are statistical tests that can reliably identify low-risk stablecoins, and if such a test is identified, will consider it as an additional requirement.~~

*Footnotes*

~~*[3] For a description of the basis risk test, see the second consultative document on bank exposures to cryptoasset: https://www.bis.org/bcbs/publ/d533.htm*~~

SCO60.12

Redemption risk test. The objective of this test is to ensure that the reserve assets are sufficient to enable the cryptoassets to be redeemable at all times for the peg value, including during periods of extreme stress. To pass the redemption risk test, the bank must ensure that the cryptoasset arrangement meets the following conditions:

(1) *Value and composition of backing assets*. The value of the reserve assets (net all non-cryptoasset claims on these assets) must at all times, including during periods of extreme stress, equal or exceed the aggregate peg value of all outstanding cryptoassets. If the reserve assets expose the holder to risk in addition to the risks arising from the reference assets,[4] the value of the reserve assets must sufficiently overcollateralise the redemption rights of all outstanding cryptoassets. The level of overcollateralisation must be sufficient to ensure that even after stressed losses are incurred on the reserve assets, their value exceeds the aggregate value of the peg of all outstanding cryptoassets.

(2) *Asset quality criteria for reserve assets for cryptoassets pegged to currencies.* For cryptoassets that are pegged to one or more currencies, the following requirements must be met.

(a) The reserve assets must be comprised of assets with minimal market and credit risk where:

(i) the reserve assets should mainly consist of assets with short-term maturities [5] and high credit quality [6]; and

(ii) the reserve assets have a proven record of relative stability of market terms (eg low volatility of traded prices and spreads) even during stressed market conditions.

(b) The reserve assets ~~shall~~ must be capable of being liquidated rapidly with minimal adverse price effect where:

(i) the reserve assets have a proven record as a reliable source of liquidity in the markets even during stressed market conditions, and those that are marketable securities are traded in large, deep and active markets;

(ii) if the price of a reserve asset is determined by a pricing formula, the formula must be easy to calculate and not depend on strong assumptions. The inputs into the pricing formula must also be publicly available;

(iii) the reserve assets provide sufficient daily liquidity to meet "instant" redemption requests from the cryptoasset holders; and

(iv) the reserve assets are placed in structures that are bankruptcy remote from any party that issues, manages or involved in the stablecoin operation, or custodies the reserve assets.

(c) Eligible types of reserve assets include, but not limited to:

(i) central bank reserves to the extent that the stablecoin issuer is eligible and the central bank policies allow them to be drawn down in times of stress;

(ii) marketable securities representing claims on or guaranteed by sovereigns and central banks with high credit quality[7]; and

(iii) deposits at high credit quality banks with safeguards, such as: a concentration limit applied at group level that include entities with close links; bankruptcy remoteness of the deposits from any party that issues, manages or is involved in the stablecoin operation; and the banks apply the Basel Framework (including the liquidity coverage ratio).

National supervisors may include other types of assets which fulfil the asset quality criteria for reserve assets as outlined above.

(d) The reserve assets must be denominated in the same currency or currencies in the same ratios as the currencies used for the peg value. A de minimis portion of the reserve assets may be held in a currency other than the currencies used for the peg value, provided that the holding of such currency is necessary for the operation of the cryptoasset arrangement and all currency mismatch risk between the reserve assets and peg value has been appropriately hedged.[8]

(3) *Asset quality criteria for reserve assets for cryptoassets not pegged to currencies.* For cryptoassets that are not pegged to currencies, the reserve assets must largely include asset(s) presenting the same risk profile of the reference assets. That means, the reserve assets should only include the reference assets, except for a de minimis portion of the reserve assets may be held in cash or bank deposit, provided that the holding is necessary for the operation of the cryptoasset arrangement.

(4) *Management of reserve assets*. The governance arrangements relating to the management of reserve assets must be comprehensive and transparent. They must ensure that:

(a) The reserve assets are managed and invested with an explicit legally enforceable objective of ensuring that all cryptoassets can be redeemed promptly at the peg value, including under periods of extreme stress.

(b) A robust operational risk and resilience framework exists to ensure the availability and safe custody of the reserve assets.

(c) A mandate that describes the types of assets that may be included in the reserve must be publicly disclosed and kept up to date.

(d) An appropriate risk management framework exists to assess and monitor the risks of reserve assets, including but not limited to market risk, credit risk, concentration risk and liquidity risk. Examples include on-going monitoring of deposit counterparties and custodians, daily valuation of reserve assets, and stress testing.

(e) The composition and value of the reserve assets are publicly disclosed on a regular basis. The value and the outstanding amount of cryptoassets in circulation must be disclosed at least daily and the composition must be disclosed at least weekly. This disclosed information must be verified by an independent third party at least semi-annually to confirm its completeness, fairness of valuation and accuracy.

(f) The reserve assets are subject to an independent external audit at least annually to confirm they match the disclosed reserves and are consistent with the mandate.

*Footnotes*

*[4] For example, consider a cryptoasset that is redeemable for a given currency amount (ie the currency amount is the reference asset) but is backed by bonds denominated in the same currency (ie the bonds are the reserve asset). The reserve assets will give rise to credit, market and liquidity risks that may result in losses relative to the value of the reference asset.*

*[5] Supervisors may specify: (i) a maximum maturity limit for individual reserve assets; and/or (ii) a portfolio weighted average maturity limit for a pool of reserve assets. In case supervisors allow longer-term assets as reserve assets, the level of overcollateralisation should be sufficient to cover potential declines in those asset values so that the cryptoassets remains redeemable at all times for the peg value, even on stress period and volatile markets.*

*[6] These include: (i) marketable securities representing claims on or guaranteed by sovereigns or central banks with a low risk of default (eg subject to a 0% risk weight under the standardised approach to credit risk or equivalent; or subject to a non-0% risk weight to the extent that the cryptoasset is pegged to the domestic currency of the sovereign or central bank); and (ii) deposits at highly-rated banks with a low risk of default.*

*[7] For example, securities referred to under LCR30.41(3) can be considered, as well as securities representing claims on or guaranteed by sovereign or central bank with a non-0% risk weight under the standardised approach to credit risk, to the extent that the cryptoasset is pegged to the domestic currency of that sovereign or central bank.*

*[8] In case of hedging, the collateral used in credit support annex agreements should be encumbered and be subtracted from what is considered the reserve asset funds.*

SCO60.14

Classification condition 2: All rights, obligations and interests arising from the cryptoasset arrangement are clearly defined and legally enforceable in all the jurisdictions where the asset is issued and redeemed. In addition, the applicable legal framework(s) ensure(s) settlement finality in both primary and secondary markets. Banks are required to conduct a legal review of the cryptoasset arrangement to ensure this condition is met, and make the review available to their supervisors upon request.

SCO60.15(2)

At all times the cryptoasset arrangements are properly documented. For cryptoassets with stabilisation mechanisms, cryptoasset arrangements must clearly define which parties have the right to redeem; the

obligation of the redeemer to fulfil the arrangement; the timeframe for this redemption to take place; the traditional assets in the exchange; and how the redemption value is determined. These arrangements must also be valid in instances where parties involved in these arrangements may not be located in the same jurisdiction where the cryptoasset is issued and redeemed. At all times, settlement finality in cryptoasset arrangements must be properly documented such that it is clear when the cryptoasset has become irrevocably and unconditionally transferred, transferring key financial risks ~~are transferred~~ from one party to another~~, including the point at which transactions are irrevocable~~. The documentation described in this paragraph must be publicly disclosed by the cryptoasset issuer. If the offering of the cryptoasset to the public has been approved by the relevant regulator on the basis of this public disclosure, the condition in SCO60.15(2) will be considered fulfilled. Otherwise, an independent legal opinion would be needed to confirm SCO60.15(2) has been met.

SCO60.18

All entities ~~Entities~~ that execute redemptions, transfers, storage or settlement ~~finality~~ of the cryptoasset, or manage or invest reserve assets, must: (i) be regulated and supervised, or subject to appropriate risk management standards; and (ii) have in place and disclose a comprehensive governance framework.

SCO60.20

Banks, on an ongoing basis, are responsible for assessing whether the cryptoassets to which they are exposed are compliant with the classification conditions set out in [SCO60.6] to [SCO60.19] and the hedging recognition criteria set out in [SCO60.55]. These assessments will determine whether the cryptoassets are classified as Group 1a, Group 1b, Group 2a or Group 2b. To this end, banks must have in place the appropriate risk management policies, procedures, governance, human and IT capacities to evaluate the risks of engaging in cryptoassets and implement these accordingly on an ongoing basis and in accordance with internationally accepted standards. Banks must fully document the information used in determining compliance with the classification conditions and make this available to supervisory authorities on request. In addition:

(1) […]

(2) […]

(3) For cryptoassets that are classified as Group 1b, a bank must perform due diligence to ensure that they have an adequate understanding, at acquisition and thereafter on a regular basis (at least [monthly/quarterly/annually]), of the stabilisation mechanism of the cryptoasset and of its effectiveness. As part of that due diligence, a bank must conduct statistical or other tests demonstrating that the cryptoasset maintains a stable relationship in comparison to a reference asset (basis risk test). Banks must make available to their supervisors upon request the results of such tests, and the supervisors may override the classification based upon the test results.

SCO60.55(1)

The bank's cryptoasset exposure is one of the following:

(a) A direct holding of a spot Group 2 cryptoasset where there exists a derivative or exchange-traded fund(ETF)/exchange-traded note (ETN) that ~~is traded on a regulated exchange that~~ solely references the cryptoasset and that is traded on a regulated exchange that clears these trades through a QCCP.

(b) A derivative or ETF/ETN that references a Group 2 cryptoasset, where the derivative or ETF/ETN has been explicitly approved by a jurisdiction's markets regulators for trading or the derivative is cleared by a qualifying central counterparty (QCCP).

(c) A derivative or ETF/ETN that references a derivative or ETF/ETN that meets criterion (b) above.

(d) A derivative or ETF/ETN that references a cryptoasset-related reference rate published by a regulated exchange that clears trades using this reference rate through a QCCP.

SCO60.99

For the purpose of calculating counterparty credit risk for derivative exposures that have Group 2b cryptoassets as the underlying or that are priced in units of a Group 2b cryptoasset, the exposure will be the Replacement Cost (RC)[11] plus the Potential Future Exposure (PFE), both multiplied by the alpha factor specified in CRE52.1, where the PFE is to be calculated as 50% of the gross notional amount. The RC must be calculated using the requirements specified in the SA-CCR framework (ie the rules set out in the credit risk standard [CRE52]), with the exception that ~~When calculating the RC,~~ netting is permitted within eligible and enforceable netting sets only between exposures to the same Group 2b cryptoassets. Netting sets containing both derivatives related to Group 2b cryptoassets and other asset transactions, must be split into two: one containing the derivatives related to cryptoassets; and one containing derivatives related to the other asset transactions. When calculating the PFE for Group 2b cryptoassets, the 50% of the gross notional amount must be applied per transaction - Group 2b cryptoassets must not form part of any hedging set.

*Footnotes*

*[11] The replacement cost is subject to a floor of zero.*

*SCO60.118*

SCO60.118: Breaches of the Group 2 exposure limit threshold of 1% should not generally occur and banks must have arrangements in place to ensure compliance with the limit. Any breach that does occur must be communicated immediately to the supervisor and must be rapidly rectified. Until compliance with the 1% limit is restored, the bank's exposures that are in excess of the threshold will be subject to the capital requirements that apply to Group 2b cryptoasset exposures (as set out in SCO60.83 to SCO60.85). If a bank's exposures exceed 2% of its Tier 1 capital, all Group 2 cryptoasset exposures will be subject to the capital requirements that apply to Group 2b cryptoasset exposures. Regarding a breach of the 1% limit, banks must calculate the RWA arising from its Group 2 cryptoassets using the following formula[14], where:

(1) *A* refers to the RWA for the bank's exposure to Group 2 cryptoassets ignoring the impact of the breach of the 1% Group 2 exposure limit.

(2) *B* refers to the RWA for the bank's exposures to Group 2 cryptoassets assuming all exposures (ie both Group 2a and Group 2b) are subject to the requirements that apply for Group 2b exposures, as set out in SCO60.83 to SCO60.86.

(3) *Group 2 exposure* refers to the exposure amount that is calculated in accordance with SCO60.119.

$$RWA = A + (B - A) \times \frac{Group\,2\,exposure - 1\%\,of\,Tier\,1\,capital}{2\%\,of\,Tier\,1\,capital - 1\%\,of\,Tier\,1\,capital}$$

*Footnotes*

*[14] As an illustrative example of the formula set out in SCO60.118, consider a bank that has:*

- *Group 2 exposures of $100, consisting of:*
  - *Group 2a exposures of $20 with RWA of $200 (ie average RW of 1000%)*
  - *Group 2b exposures of $80 with RWA of $1000 (ie average RW of 1250%)*
- *Total Group 2 RWA ignoring application of the 1% limit is $1200*
- *All exposures above measured using the SCO60.119 (ie the Group 2b approach, except derivatives that use the delta equivalent methodology)*

- *Tier 1 capital of $8,500 (ie the 1% Group 2 limit = $85)*

*Applying the formula set out in SCO60.118 to this bank:*

- *A = $1200 (ie total RWA ignoring the application of the cap)*
- *B = $1250 = ($20 * 1250%) + $1000 (ie total RWA if all of Group 2a were treated as Group 2b)*
- *Total Group 2 RWA after the cap is $1209, calculated as: 1200 + (1250-1200)*[(100-85)/(170-85)]*

# Annex 2: FAQs added to the Basel Framework

Set out below are a set of FAQs that the Committee has agreed to add to the Basel Framework. As clarifications, these FAQs are final and not subject to consultation. They will be added to the Basel Framework shortly after the publication of this consultative document.

SCO60.15(2)

At all times the cryptoasset arrangements are properly documented. For cryptoassets with stabilisation mechanisms, cryptoasset arrangements must clearly define which parties have the right to redeem; the obligation of the redeemer to fulfil the arrangement; the timeframe for this redemption to take place; the traditional assets in the exchange; and how the redemption value is determined. These arrangements must also be valid in instances where parties involved in these arrangements may not be located in the same jurisdiction where the cryptoasset is issued and redeemed. At all times, settlement finality in cryptoasset arrangements must be properly documented such that it is clear when key financial risks are transferred from one party to another, including the point at which transactions are irrevocable. The documentation described in this paragraph must be publicly disclosed by the cryptoasset issuer. If the offering of the cryptoasset to the public has been approved by the relevant regulator on the basis of this public disclosure, the condition in SCO60.15(2) will be considered fulfilled. Otherwise, an independent legal opinion would be needed to confirm SCO60.15(2) has been met.

*FAQ1: SCO60.15(2) requires the public disclosure of the documentation outlined in the paragraph. How should this public disclosure requirement be understood in the case of cryptoassets that are not sold to the public (eg issued via private placements)?*

*In such cases the documents outlined in SCO60.15(2) must be made available to all potential investors, including those that become investors via secondary market sales, and the supervisory authority of any bank that is permitted to become an investor.*

SCO60.113

Consistent with the leverage ratio standard, cryptoassets are included in the leverage ratio exposure measure according to their value for financial reporting purposes, based on applicable accounting treatment for exposures that have similar characteristics. For the cases where the cryptoasset exposure is an off-balance sheet item, the relevant credit conversion factor set out in the leverage ratio framework will apply in calculating the exposure measure. Exposures for cryptoasset derivatives must follow the treatment of the risk-based capital framework.

*FAQ1: Regarding the treatment of cryptoasset exposures in the leverage ratio, what is the specific treatment for exposures for cryptoasset derivatives? Does it depend on their Group based on the classification condition outlined in SCO60?*

*For determining the leverage ratio exposure measure of cryptoasset derivatives, all LEV30 rules apply together with the specifications below. This means that, in particular, the recognition of collateral is subject to the criteria set out in LEV30. The following specifications apply when defining the leverage exposure for a cryptoasset derivative, depending on their assigned group based on the classification conditions, as set out in SCO60.6:*

- ***Derivatives referencing Group 1a and 1b cryptoassets:*** *the leverage ratio exposure measure is calculated according to the rules set out in LEV30 that would apply to a derivative referencing the equivalent (ie non-tokenised) traditional asset (for Group 1a cryptoassets) or to a derivative referencing the traditional asset or pool of traditional assets that the cryptoasset references (for Group 1b cryptoassets).*

- ***Derivatives referencing Group 2a cryptoassets****: the leverage ratio exposure measure is calculated according to the rules set out in LEV30 together with the specifications below. The potential future exposure (PFE) add-on is calculated according to SCO60.98(2), which creates a new asset class "crypto" in the SA-CCR. The PFE multiplier is calculated according to the rules set out in LEV30. Moreover, when calculating the replacement cost (RC), the netting criteria specified in SCO60.98 must be applied.*

  ***Derivatives referencing Group 2b cryptoassets****: the leverage ratio exposure measure is calculated according to the rules set out in LEV30 together with the specifications below. The PFE add-on is calculated according to SCO60.99, which defines the calculation of the PFE for Group 2b cryptoassets in the SA-CCR. The PFE multiplier is calculated according to the rules set out in LEV30. Moreover, when calculating the replacement cost (RC), the netting restrictions specified in SCO60.99 must be applied.*

SCO60.115

For large exposures purposes, the treatment for cryptoassets will follow the same principles as for other exposures as set out in LEX. Consistent with the requirements set out in [LEX], cryptoasset exposures that give rise to a credit risk exposure are included in the large exposure measure according to their accounting value as set out in LEX30.3. The bank must identify and apply the large exposure limits to each specific counterparty or group of connected counterparties to which it is exposed under the risk-based capital framework. Where the cryptoasset exposes the bank to the risk of default of more than one counterparty, the bank must compute for each counterparty the respective amount to which it is exposed to default risk for large exposure purposes. When the cryptoasset also entails a default risk of reference assets, these will be considered for the purpose of the large exposures framework and the bank must follow the existing large exposures rules applicable to transactions with underlying assets (see LEX30.41 to LEX30.53). Cryptoassets that do not expose banks to default risk (such as physical exposures of gold, other commodities or currencies, and exposures of some forms of cryptoassets with no issuer) do not give rise to a large exposures requirement; however, the counterparty credit risk exposures arising from derivative contracts that reference cryptoassets with no issuer will fall in the scope of the large exposure requirement.

*FAQ1: How should Group 1a be treated under LEX?*

*Group 1a cryptoasset exposures should be treated the same way under LEX as the non-tokenised traditional versions of the assets. For example, if a bank holds tokenised and non-tokenised bonds of a specific counterparty, both sets of bonds must be combined for the purposes of assessing compliance with the large exposure limits.*

*FAQ2: Does the reference to "accounting value as set out in LEX30.3" mean that the requirements set out in LEX30.4 to LEX30.6 are not applicable to exposures to cryptoassets?*

*No. The reference to "accounting value as set out in LEX30.3" is intended to convey the treatment of simple direct exposures to cryptoassets. It is not intended to result in the disapplication of the rest of the LEX framework. LEX30.4 to LEX30.6 remain applicable for exposures that give rise to counterparty credit risk and off balance sheet exposures. Similarly, LEX30.7 to LEX30.14 remain applicable regarding the application of eligible credit risk mitigation techniques.*

CRE55.2

In the trading book, for repo-style transactions, all instruments, which are included in the trading book, may be used as eligible collateral. Those instruments which fall outside the banking book definition of eligible collateral shall be subject to a haircut at the level applicable to non-main index equities listed on recognised exchanges (as noted in CRE22.49 and CRE22.50). Where banks are using a value-at-risk approach to measuring exposure for securities financing transactions, they also may apply this approach in the trading book in accordance with CRE32.39 to CRE32.42 and CRE51.

*FAQ1: Can cryptoassets used in repo-style transactions be used as eligible collateral when they are included in the trading book?*

*SCO60.94 address the calculation of counterparty credit risk for SFTs involving cryptoassets. It states that banks must apply the comprehensive approach formula set out in the credit risk mitigation section of the standardised approach to credit risk. Furthermore, it states that Group 1b, Group 2a and Group 2b cryptoassets are not eligible forms of collateral in the comprehensive approach. These requirements apply to SFTs irrespective of whether they are in the banking book or trading book.*