Guideline

Subject: Capital Adequacy Requirements (CAR)

Chapter 7 – Securitization

Effective Date: November 2018 / January 2019[1]

The Capital Adequacy Requirements (CAR) for banks (including federal credit unions), bank holding companies, federally regulated trust companies, federally regulated loan companies and cooperative retail associations are set out in nine chapters, each of which has been issued as a separate document. This document, Chapter 7 – Securitization, should be read in conjunction with the other CAR chapters which include:

Chapter 1	Overview
Chapter 2	Definition of Capital
Chapter 3	Credit Risk – Standardized Approach
Chapter 4	Settlement and Counterparty Risk
Chapter 5	Credit Risk Mitigation
Chapter 6	Credit Risk- Internal Ratings Based Approach
Chapter 7	Securitization
Chapter 8	Operational Risk
Chapter 9	Market Risk

Please refer to OSFI's *Corporate Governance Guideline* for OSFI's expectations of institution Boards of Directors in regards to the management of capital and liquidity.

[1] For institutions with a fiscal year ending October 31 or December 31, respectively.

Chapter 7 – Securitization

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Chapter 7 – Securitization

1. This chapter is drawn from the Basel Committee on Banking Supervision (BCBS) Basel II and III frameworks entitled *"International Convergence of Capital Measurement and Capital Standards – June 2006", "Revisions to the securitisation framework – December 2014 (rev. July 2016)*", and "*Capital treatment for short-term "simple, transparent and comparable" securitisations – May 2018*". For reference, the Basel text paragraph numbers that are associated with the text appearing in this chapter are indicated in square brackets at the end of each paragraph[2].

2. The securitization framework is to be applied in determining the risk-weighted capital treatment applicable to all securitization exposures that meet the definitions and operational requirements below regardless of accounting treatment.

3. For greater clarity, and to ensure consistency with paragraph 5 below, all exposures to mortgage-backed securities that do not involve tranching with associated subordination of credit risk (e.g. NHA MBS) will not be considered securitization exposures for risk-based capital purposes under the securitization framework. Such exposures are to be treated for risk-based capital purposes according to the applicable sections of Chapter 3 or Chapter 6 of this guideline.

7.1. Scope and definitions of transactions covered under the securitization framework

4. Institutions must apply the securitization framework for determining regulatory capital requirements on exposures arising from traditional and synthetic securitizations or similar structures that contain features common to both. Since securitizations may be structured in many different ways, the capital treatment of a securitization exposure must be determined on the basis of its economic substance rather than its legal form. Similarly, OSFI will look to the economic substance of a transaction to determine whether it should be subject to the securitization framework for purposes of determining regulatory capital. Institutions are encouraged to consult with OSFI when there is uncertainty about whether a given transaction should be considered a securitization. [BCBS July 2016 par 1]

5. A *traditional securitization* is a structure where the cash flow from an underlying pool of exposures is used to service at least two different stratified risk positions or tranches reflecting different degrees of credit risk. Payments to the investors depend upon the performance of the specified underlying exposures, as opposed to being derived from an obligation of the entity originating those exposures. The stratified/tranched structures that characterize securitizations differ from ordinary senior/subordinated debt instruments in that junior securitization tranches can absorb losses without interrupting contractual payments to more senior tranches, whereas subordination in a senior/subordinated debt structure is a matter of priority of rights to the proceeds of liquidation. [BCBS July 2016 par 2]

6. A *synthetic securitization* is a structure with at least two different stratified risk positions or tranches that reflect different degrees of credit risk where credit risk of an

[2] Following the format: [BCBS June 2006 par x]],[BCBS July 2016 par y], and [BCBS May 2018 par z]

underlying pool of exposures is transferred, in whole or in part, through the use of funded (e.g. credit-linked notes) or unfunded (e.g. credit default swaps) credit derivatives or guarantees that serve to hedge the credit risk of the portfolio. Accordingly, the investors' potential risk is dependent upon the performance of the underlying pool. Operational requirements applicable to synthetic securitizations are detailed in Section 7.3.2 below. [BCBS July 2016 par 3]

7. Institutions' exposures to a securitization are hereafter referred to as "securitization exposures". Securitization exposures can include but are not restricted to the following: asset-backed securities, mortgage-backed securities, credit enhancements, liquidity facilities, loans to securitization vehicles to fund the acquisition of assets, interest rate or currency swaps, credit derivatives and credit protection bought or sold, where the risk transferred and the risk retained on an exposure are of different seniority. After assets are securitized, any reserve accounts, such as cash collateral accounts, recorded as an asset by the originating institution must also be treated as securitization exposures. [BCBS July 2016 par 4]

8. A resecuritization exposure is a securitization exposure in which the risk associated with an underlying pool of exposures is tranched and at least one of the underlying exposures is a securitization exposure. In addition, an exposure to one or more resecuritization exposures is a resecuritization exposure. An exposure resulting from the retranching of a securitization exposure is not a resecuritization if the institution is able to demonstrate that the cash flows to and from the institution can be replicated in all circumstances and conditions by an exposure to the securitization of a pool of assets that contains no securitization exposures.
[BCBS July 2016 par 5]

9. Underlying instruments in the pool being securitized may include but are not restricted to the following: loans, commitments, asset-backed and mortgage-backed securities, corporate bonds, equity securities, and private equity investments. The underlying pool may include one or more exposures. [BCBS July 2016 par 6]

7.2. Definitions and general terminology

7.2.1.1. Originating institution

10. For risk-based capital purposes, an institution is considered to be an originator with regard to a certain securitization if it meets either of the following conditions:

(a) The institution originates directly or indirectly underlying exposures included in the securitization; or

(b) The institution serves as a sponsor of an asset-backed commercial paper (ABCP) conduit or similar programme that acquires exposures from third-party entities. In the context of such programmes, an institution would generally be considered a sponsor and, in turn, an originator if it, in fact or in substance, manages or advises the programme, places securities into the market, or provides liquidity and/or credit enhancements.

[BCBS July 2016 par 7]

7.2.1.2. Asset-backed commercial paper (ABCP) programme

11. An ABCP programme predominately issues commercial paper to third-party investors with an original maturity of one year or less and is backed by assets or other exposures held in a bankruptcy-remote, special purpose entity.
[BCBS July 2016 par 8]

7.2.1.3. Clean-up call

12. A clean-up call is an option that permits the securitization exposures (e.g. asset-backed securities) to be called before all of the underlying assets or securitization exposures have been repaid. In the case of traditional securitizations, this is generally accomplished by the originator repurchasing the remaining assets in the securitization structure once the pool balance or outstanding securities have fallen below some specified level. In the case of a synthetic transaction, the clean-up call may take the form of a clause that extinguishes the credit protection that created the synthetic securitization. [BCBS July 2016 par 9]

7.2.1.4. Credit enhancement

13. A credit enhancement is a contractual arrangement in which the institution or third party retains or assumes a securitization exposure and, in substance, provides some degree of added protection to other parties to the transaction. [BCBS July 2016 par 10]

7.2.1.5. Credit-enhancing interest-only strip

14. A credit-enhancing interest-only strip *(I/O)* is an on-balance sheet asset that (i) represents a valuation of cash flows related to future margin income, and (ii) is subordinated.
[BCBS July 2016 par 11]

7.2.1.6. Early amortization

15. An early amortization provision is a mechanism that, once triggered, accelerates the reduction of the investor's interest in the underlying exposures of a securitization of revolving credit facilities and allows investors to be paid out prior to the originally stated maturity of the securities issued. A securitization of revolving credit facilities is a securitization in which one or more underlying exposures represent, directly or indirectly, current or future draws on a revolving credit facility. Examples of revolving credit facilities include but are not limited to credit card exposures, home equity lines of credit, commercial lines of credit and other lines of credit. [BCBS July 2016 par 12]

7.2.1.7. Excess spread

16. Excess spread (or future margin income) is defined as gross finance charge collections and other income received by the trust or special purpose entity (SPE, as defined below) minus certificate interest, servicing fees, charge-offs, and other senior trust or SPE expenses.
[BCBS July 2016 par 13]

7.2.1.8. Implicit support

17. Implicit support arises when an institution provides support to a securitization in excess of its predetermined contractual obligation. Implicit support is discussed further in section 7.7. [BCBS July 2016 par 14]

7.2.1.9. Internal Ratings-Based (IRB) pool

18. For risk-based capital purposes, an IRB pool means a securitization pool for which an institution is able to use an IRB approach to calculate capital requirements for all underlying exposures given that it has approval to apply IRB for the type of underlying exposure (including the asset class and geography of those exposures) and it has sufficient information to calculate IRB requirements for these exposures (from a type of data source that is consistent with the IRB approval). OSFI expects institutions that have IRB approval for an underlying pool of exposures to treat that pool as an IRB pool. An institution that cannot treat an underlying pool, for which it has an OSFI-approved IRB approach, as an IRB pool is expected to demonstrate to OSFI why it cannot calculate capital requirements for the underlying pool of exposures using an IRB approach. However, in transactions that have highly complex loss allocations, tranches whose credit enhancement could be eroded for reasons other than portfolio losses, or tranches of portfolios with high internal correlations (such as portfolios with high exposure to single sectors or with high geographic concentration) institutions must consult with OSFI prior to treating an IRB pool as such. [BCBS July 2016 par 15]

7.2.1.10. Mixed pool

19. For risk-based capital purposes, a mixed pool means a securitization pool for which an institution is able to calculate IRB parameters for some, but not all, underlying exposures in a securitization. [BCBS July 2016 par 16]

7.2.1.11. Standardized Approach (SA) pool

20. For risk-based capital purposes, an SA pool means a securitization pool for which an institution does not have approval to calculate IRB parameters for any underlying exposures, or for which, while the institution has approval to calculate IRB parameters for some or all of the types of underlying exposures, it is unable to calculate IRB parameters for any underlying exposures due to lack of relevant data, or is prohibited by OSFI from treating the pool as an IRB pool pursuant to paragraph 18. [BCBS July 2016 par 17]

7.2.1.12. Senior securitization exposure (tranche)

21. A securitization exposure (tranche) is considered to be a senior exposure (tranche) if it is effectively backed or secured by a first claim on the entire amount of the assets in the underlying securitized pool[3]. While this generally includes only the most senior position within a securitization transaction, in some instances, there may be other claims that, in a technical sense, may be more senior in the waterfall (e.g. a swap claim) but may be disregarded for the purpose

[3] If a senior tranche is retranched or partially hedged (i.e. not on a pro rata basis), only the new senior part would be treated as senior for capital purposes.

of determining which positions are treated as senior for risk-based capital purposes. Different maturities of several senior tranches that share pro rata loss allocation shall have no effect on the seniority of these tranches, since they benefit from the same level of credit enhancement. The material effects of differing tranche maturities are captured by maturity adjustments on the risk weights to be assigned to the securitization exposures.

Examples:

(a) In a typical synthetic securitization, an unrated tranche would be treated as a senior tranche, provided that all of the conditions for inferring a rating from a lower tranche that meets the definition of a senior tranche are fulfilled.

(b) In a traditional securitization where all tranches above the first-loss piece are rated, the most highly rated position would be treated as a senior tranche. When there are several tranches that share the same rating, only the most senior tranche in the cash flow waterfall would be treated as senior (unless the only difference among them is the effective maturity). Also, when the different ratings of several senior tranches only result from a difference in maturity, all of these tranches should be treated as a senior tranche.

(c) Usually a liquidity facility supporting an ABCP programme would not be the most senior position within the programme; the commercial paper, which benefits from the liquidity support, typically would be the most senior position. However, a liquidity facility may be viewed as covering all losses on the underlying receivables pool that exceed the amount of overcollateralization/reserves provided by the seller and as being most senior if it is sized to cover all of the outstanding commercial paper and other senior debt supported by the pool, so that no cash flows from the underlying pool could be transferred to the other creditors until any liquidity draws were repaid in full. In such a case, the liquidity facility can be treated as a senior exposure. Otherwise, if these conditions are not satisfied, or if for other reasons the liquidity facility constitutes a mezzanine position in economic substance rather than a senior position in the underlying pool, the liquidity facility should be treated as a non-senior exposure.

[BCBS July 2016 par 18]

7.2.1.13. Servicer cash advances or facilities

22. An institution may be contractually obligated to provide funds to an SPE to ensure an uninterrupted flow of payments to investors in the SPE's securities, solely under the unusual circumstance that payments from the underlying assets have not been received due to temporary timing differences. An institution that provides such support is typically referred to as a servicing agent and the funds provided are typically referred to as servicer advances.

23. Servicer cash advances or facilities must meet the following requirements;

(a) The servicers are entitled to full reimbursement and this right is senior to other claims on cash flows from the underlying pool of exposures,

(b) Servicer advances may not be made to offset shortfalls in cash flows that arise from defaulted assets,

(c) The total value of cash advances is limited to the total amount transferable for that collection period,

(d) The servicing agent must perform an assessment of the likelihood of repayment of the servicer advances based on prudent lending standards.

7.2.1.14. Special purpose entity (SPE)

24. An SPE is a corporation, trust, or other entity organized for a specific purpose, the activities of which are limited to those appropriate to accomplish the purpose of the SPE, and the structure of which is intended to isolate the SPE from the credit risk of an originator or seller of assets or exposures held by the SPE. SPEs, normally a trust or similar entity, are commonly used as financing vehicles in which assets or exposures are sold to the SPE in exchange for cash or other assets funded by debt issued by the SPE. [BCBS July 2016 par 21]

7.2.1.15. Tranche maturity

25. For risk-based capital purposes, tranche maturity (M_T) is the tranche's remaining effective maturity in years and can be measured at the institution's discretion in either of the following manners:

(a) As the dollar weighted-average maturity of the contractual cash flows of the tranche :

$$M_T = \sum_t t\, CF_t \Big/ \sum_t CF_t$$

where CF_t denotes the cash flows (principal, interest payments and fees) contractually payable to the tranche in period t.

The contractual payments must be unconditional and must not be dependent on the actual performance of the securitized assets. If such unconditional contractual payment dates are not available, the final legal maturity shall be used.

(b) On the basis of the final legal maturity of the tranche, as:

$M_T = 1 + (M_L - 1) * 80\%$ Where M_L is the final legal maturity of the tranche.

In all cases, M_T will have a floor of one year and a cap of five years. The legal final maturity does not include any time periods defined by law solely for purpose of instituting legal action by an investor or against an obligor in the asset pool. [BCBS July 2016 par 22]

26. When determining the maturity of a securitization exposure, institutions should take into account the maximum period of time they are exposed to potential losses from the securitized assets. In cases where an institution provides a commitment, the institution should calculate the maturity of the securitization exposure resulting from this commitment as the sum of the contractual maturity of the commitment and the longest maturity of the asset(s) to which the institution is exposed after a draw has occurred. If those assets are revolving, the longest

contractually possible remaining maturity of the asset that might be added during the revolving period would apply, rather than the (longest) maturity of the assets currently in the pool.
The same treatment applies to all other instruments where the risk of the commitment/protection provider is not limited to losses realized until the maturity of that instruments (e.g. total return swaps).

For credit protection instruments that are only exposed to losses that occur up to the maturity of that instrument, an institution would be allowed to apply the contractual maturity of the instrument and would not have to look through to the protected portion. [BCBS July 2016 par 23]

7.3. Operational requirements for the recognition of risk transference

7.3.1. Operational requirements for traditional securitizations

27. An originating institution may exclude securitized exposures that are reported on their balance sheet from the calculation of risk-weighted assets only if all of the following conditions have been met. Institutions meeting these conditions must still hold regulatory capital against any securitization exposures they retain.

(a) Significant credit risk associated with the underlying exposures has been transferred to third parties. An originating institution is required to establish policies and procedures to ensure that significant credit risk is being assessed and all operational requirements met for all securitized assets if the originating institution intends to exclude the securitized assets from the calculation of risk-weighted assets. These policies must include how the risk transfer will be assessed on an ongoing basis and should be available for review by OSFI upon request.

(b) In addition to the policies and procedures noted above, originating institutions must meet the following quantitative test in order to determine that significant credit risk has been transferred to third parties;

- The capital required for exposures retained by the originating institution in the securitization structure following issuance must be no more than 40% of the capital required for the pool of assets supporting all tranches of the securitization structure, that is, a reduction in risk-weighted assets of at least 60%, including an EL-adjustment for IRB pools. The risk-weighted assets for the exposures retained should be calculated in accordance with this chapter, including the application of any relevant risk weight caps, but excluding any risk weight floors.
- For purposes of this test, the pool of assets supporting all tranches is defined as the assets associated with one or more series of notes issued by the SPE. For clarity, the pool of assets generally excludes the retained interest or seller's interest in a pool of assets including the undrawn balances of revolving facilities where only drawn balances have been securitized.
- Under this test, the risk-weighted asset amounts for the retained positions and for the pool of assets must be calculated by using consistent risk-based approaches. In particular, if the standardized credit risk approach is utilized by the originating institution for the asset pool, the institution must calculate capital required for the

retained positions under the SEC-SA. If the internal ratings-based approach is used for the asset pool, the SEC-IRBA must be used for the retained positions. The hierarchy of approaches should be followed when risk weighting the exposure outside of this test.

- Once met, this assessment of significant risk transfer will also apply for the purposes of the capital floor without a separate test being required.

(c) The quantitative test specified in (b) does not need to be met if all positions retained by the institution are risk-weighted at 1250%.

(d) The originating institution does not maintain effective or indirect control over the transferred exposures. The exposures are legally isolated from the institution in such a way (e.g. through the sale of assets or through subparticipation) that the exposures are put beyond the reach of the institution and its creditors, even in bankruptcy or receivership. Institutions should obtain a legal opinion[4] that confirms true sale.

(e) The originating institution is deemed to have maintained effective control over the transferred credit risk exposures if it: (i) is able to repurchase from the transferee the previously transferred exposures in order to realize their benefits; or (ii) is obligated to retain the risk of the transferred exposures. The originating institution's retention of servicing rights to the exposures will not necessarily constitute indirect control of the exposures.

(f) The securities issued are not obligations of the originating institution. Thus, investors who purchase the securities only have claim to the underlying pool of exposures.

(g) The transferee is an SPE and the holders of the beneficial interests in that entity have the right to pledge or exchange them without restriction.

(h) Clean-up calls must satisfy the conditions set out in section 7.3.4.

(i) The securitization does not contain clauses that (i) require the originating institution to alter the underlying exposures such that the pool's credit quality is improved unless this is achieved by selling exposures to independent and unaffiliated third parties at market prices; (ii) allow for increases in a retained first loss position or credit enhancement provided by the originating institution after the transaction's inception; or (iii) increase the yield payable to parties other than the originating institution, such as investors and third-party providers of credit enhancements, in response to a deterioration in the credit quality of the underlying pool.

(j) There must be no termination options/triggers except eligible clean-up calls, termination for specific changes in tax and regulation or early amortization provisions such as those set out in paragraph 30.

(k) The originating institution must not own any share capital in a company, nor may it be the beneficiary of a trust, used as an SPE for purchasing and securitizing financial assets. For this purpose, share capital includes all classes of common and preferred share capital.

[4] Legal opinion is not limited to legal advice from qualified legal counsel, but allows written advice from in-house lawyers.

(l) The originating institution's name must not be included in the name of a company or trust used as an SPE, nor may any connection be implied with the institution by, for example, using a symbol closely associated with the institution. If, however, the institution is performing a specific function for a particular transaction or transactions (e.g., collecting and transmitting payments or providing enhancement), this may be indicated in the offering circular (subject to the Name Use Regulations).

(m) The originating institution must not have any of its directors, officers or employees on the board of directors of a company used as an SPE, unless the SPE's board has at least three members. Where the board consists of three or more members, the institution may not have more than one director. Where the SPE is a trust, the beneficiary and the indenture trustee and/or the issuer trustee must be third parties independent of the institution.

(n) The originating institution does not lend to the SPE on a subordinated basis. An exception to this criterion is available if the subordinated loan is provided by an institution to an SPE to cover initial transaction or set-up costs. Such a loan may be risk-weighted 1250% as long as the loan is capped at its original amount; amortized over the life of the securities issued by the SPE; and the loan is not available as a form of enhancement to the assets or securities issued.

(o) The institution must not support, except as provided elsewhere in this guideline, any losses suffered by the SPE, or investors in it, or bear any of the recurring expenses of the SPE.

[BCBS July 2016 par 24]

7.3.2. Operational requirements for synthetic securitizations

28. For synthetic securitizations, the use of credit risk mitigation (CRM) techniques (i.e. collateral, guarantees and credit derivatives) for hedging the underlying exposure may be recognized for risk-based capital purposes only if the conditions outlined below are satisfied:

(a) Credit risk mitigants must comply with the requirements as set out in Chapter 5 of this guideline.

(b) Eligible collateral is limited to that specified in section 5.1.3 of Chapter 5. Eligible collateral pledged by SPEs may be recognized.

(c) Eligible guarantors are defined in section 5.1.5 of Chapter 5. Institutions cannot recognize SPEs as eligible guarantors in the securitization framework.

(d) Institutions must transfer significant credit risk associated with the underlying exposure to third parties, consistent with paragraph 27(a).

(e) The instruments used to transfer credit risk cannot contain terms or conditions that limit the amount of credit risk transferred, such as those provided below:

- Clauses that materially limit the credit protection or credit risk transference (e.g. an early amortization provision in a securitization of revolving credit facilities that effectively subordinates the institution's interest; significant materiality thresholds below which credit protection is deemed not to be triggered even if a

credit event occurs; or clauses that allow for the termination of the protection due to deterioration in the credit quality of the underlying exposures);

- Clauses that require the originating institution to alter the underlying exposures to improve the pool's average credit quality;
- Clauses that increase the institutions' cost of credit protection in response to deterioration in the pool's quality;
- Clauses that increase the yield payable to parties other than the originating institution, such as investors and third-party providers of credit enhancements, in response to a deterioration in the credit quality of the reference pool; and
- Clauses that provide for increases in a retained first loss position or credit enhancement provided by the originating institution after the transaction's inception.

(f) An institution should obtain a legal opinion that confirms the enforceability of the contract.

(g) Clean-up calls must satisfy the conditions set out in section 7.3.4.

[BCBS July 2016 par 25]

7.3.3. Operational requirements for early amortization provisions

29. A securitization is deemed to fail the operational requirements set out in paragraphs 27 or 28 if the institution:

(i) originates/sponsors a securitization transaction that includes one or more revolving credit facilities, and

(ii) the securitization transaction incorporates an early amortization or similar provision that, if triggered, would:

(a) subordinate the institution's senior or pari passu interest in the underlying revolving credit facilities to the interest of other investors;

(b) subordinate the institution's subordinated interest to an even greater degree relative to the interests of other parties; or

(c) in other ways increase the institution's exposure to losses associated with the underlying revolving credit facilities.

[BCBS July 2016 par 26]

30. If a securitization transaction meets the operational requirements set forth in paragraphs 27 and 28 and contains one of the following types of early amortisation provisions, an originating institution may exclude the securitized portion of the underlying exposures associated with such a transaction from the calculation of risk-weighted assets, but must still hold regulatory capital against any securitization exposures it retains in connection with the transaction:

(a) replenishment structures where the underlying exposures do not revolve and the early amortisation ends the ability of the institution to add new exposures;

(b) transactions of revolving credit facilities containing early amortization features that mimic term structures (i.e. where the risk on the underlying revolving credit facilities does not return to the originating institution) and where the early amortisation provision in a securitization of revolving credit facilities does not effectively result in subordination of the originator's interest;

(c) structures where an institution securitizes one or more revolving credit facilities and where investors remain fully exposed to future drawdowns by borrowers even after an early amortisation event has occurred; or

(d) the early amortization provision is solely triggered by events not related to the performance of the underlying assets or the selling institution, such as material changes in tax laws or regulations.

[BCBS July 2016 par 27]

7.3.4. Operational requirements and treatment of clean-up calls

31. For securitization transactions that include a clean-up call, no capital will be required due to the presence of a clean-up call if all the following conditions are met:

(i) the exercise of the clean-up call must not be mandatory, in form or in substance, but rather must be at the discretion of the originating institution;

(ii) the clean-up call must not be structured to avoid allocating losses to credit enhancements or positions held by investors or otherwise structured to provide credit enhancement; and

(iii) the clean-up call must only be exercisable when 10% or less of the original underlying portfolio, or securities issued remains, or, for synthetic securitizations, when 10% or less of the original reference portfolio value remains.

[BCBS July 2016 par 28]

32. Securitization transactions that include a clean-up call that does not meet all of the criteria stated in paragraph 31 result in a capital requirement for the originating institution. For a traditional securitization, the underlying exposures must be treated as if they were not securitized. Additionally, institutions must not recognise in regulatory capital any gain-on-sale, as defined in paragraph 39. For synthetic securitizations, the institution purchasing protection must hold capital against the entire amount of the securitized exposures as if they did not benefit from any credit protection. If a synthetic securitization incorporates a call (other than a clean-up call) that effectively terminates the transaction and the purchased credit protection on a specific date, the institution must treat the transaction in accordance with paragraph 153. [BCBS July 2016 par 29]

33. If a clean-up call, when exercised, is found to serve as a credit enhancement, the exercise of the clean-up call must be considered a form of implicit support provided by the institution and must be treated in accordance with the supervisory guidance on implicit support pertaining to securitization transactions described in section 7.8. [BCBS July 2016 par 30]

7.4. Due diligence requirements

34. For an institution to use the risk weight approaches of the securitization framework, it must have the information specified in paragraphs 35 to 37. Otherwise the institution must assign a 1250% risk weight to any securitization for which it cannot perform the required level of due diligence. [BCBS July 2016 par 31]

35. As a general rule, an institution must, on an ongoing basis, have a comprehensive understanding of the risk characteristics of its individual securitization exposures, whether on- or off-balance sheet, as well as the risk characteristics of the pools underlying its securitization exposures. [BCBS July 2016 par 32]

36. Institutions must be able to access performance information on the underlying pools on an ongoing basis in a timely manner. Such information may include, as appropriate, exposure type; percentage of loans 30, 60 and 90 days past due; default rates; prepayment rates; loans in foreclosure; property type; occupancy; average credit scope or other measures of credit worthiness; average loan-to-value ratio; and industry and geographical diversification. For resecuritizations, institutions should have information not only on the underlying securitization tranches, such as the issuer name and credit quality, but also on the characteristics and performance of the pools underlying the securitization tranches. [BCBS July 2016 par 33]

37. An institution must have a thorough understanding of all structural features of a securitization transaction that would materially impact the performance of the institution's exposures to the transaction, such as the contractual waterfall and waterfall-related triggers, credit enhancements, liquidity enhancements, market value triggers, and deal-specific definitions of default. [BCBS July 2016 par 34]

7.5. Treatment of securitization exposures

7.5.1. Calculation of capital requirements and risk-weighted assets

38. Regulatory capital is required for institutions' securitization exposures, including those arising from the provision of credit risk mitigants to a securitization transaction, investments in asset-backed securities, retention of a subordinated tranche, and extension of a liquidity facility or credit enhancement, as set forth in the following sections. Repurchased securitization exposures must be treated as retained securitization exposures. Institutions whose only involvement in securitization transactions is the collection of interest and principal and is under no obligation to remit funds unless received to the SPE or trustees, is not required to hold capital for performing this role. [BCBS July 2016 par 35]

39. Institutions must deduct from Common Equity Tier 1 capital any increase in equity capital resulting from a securitization transaction, such as that associated with expected future margin income (FMI) resulting in a gain-on-sale that is recognized in regulatory capital. Such an increase in capital is referred to as a "gain-on-sale" for the purposes of the securitization framework. [BCBS July 2016 par 36]

40. For the purposes of the expected loss (EL) provision calculation as set out section 6.7 of Chapter 6 of this guideline, securitization exposures do not contribute to the EL amount. Similarly, neither general nor specific allowances[5] against securitization exposures or underlying assets still held on the balance sheet of the originator are to be included in the measurement of eligible allowances. However, originating institutions can offset 1250% risk-weighted securitization exposures by reducing the securitization exposure amount by the amount of their specific allowances on underlying assets of that transaction and non-refundable purchase price discounts on such underlying assets. Specific allowances on securitization exposures will be taken into account in calculating the exposure amount, as defined in paragraphs 42 and 43. General allowances on underlying securitization exposures are not to be taken into account in any calculation. [BCBS July 2016 par 37]

41. The risk-weighted amount of a securitization exposure is computed by multiplying the exposure amount, as defined in paragraphs 42 and 43, by the appropriate risk weight determined in accordance with the hierarchy of approaches in paragraphs 47 to 53. Risk weight caps for senior exposures in accordance with paragraphs 128 and 129 or overall caps in accordance with paragraphs 130 to 135 may apply. Overlapping exposures will be risk-weighted as defined in paragraphs 44 to 46. [BCBS July 2016 par 38]

7.5.1.1. Securitization exposure amount

42. For risk-based capital purposes, the exposure amount of a securitization exposure is the sum of the on-balance sheet amount of the exposure, or carrying value – which takes into account purchase discounts or writedowns/specific provisions taken by the institution on this securitization exposure – and the off-balance sheet exposure amount, where applicable. [BCBS July 2016 par 19]

43. An institution must measure the exposure amount of its off-balance sheet securitization exposures as follows:

- For credit risk mitigants sold or purchased by the institution, use the treatment set out in paragraphs 144 to 150; for derivative contracts other than credit risk derivatives contracts, such as interest rate or currency swaps sold or purchased by the institution, use the measurement approach that the institution would use under the counterparty credit risk framework as outlined in Chapter 4 of this guideline.
- For facilities that are not credit risk mitigants, use a credit conversion factor (CCF) of 100%.
- The undrawn portion of servicer cash advances or facilities that are unconditionally cancellable without prior notice may receive a CCF of 0%.

[BCBS July 2016 par 20]

[5] Under IFRS 9, Stage 3 allowances and partial write-offs are considered to be specific allowances, while Stage 1 and Stage 2 allowances are considered to be general allowances.

7.5.1.2. Treatment of overlapping exposures

44. For the purpose of calculating capital requirements, an institution's exposure A that overlaps another exposure B if in all circumstances the institution will preclude any loss for the institution on exposure B by fulfilling its obligations with respect to exposure A. For example, if an institution provides full credit support to some notes and holds a portion of these notes, its full credit support obligation precludes any loss from its exposure to the notes. If an institution can verify that fulfilling its obligations with respect to exposure A will preclude a loss from its exposure to B under all circumstances, the institution does not need to calculate risk-weighted assets for its exposure to B. [BCBS July 2016 par 39]

45. To arrive at an overlap, an institution may, for purposes of calculating capital requirements, split or expand[6] its exposures. For example, a liquidity facility may not be contractually required to cover defaulted assets or may not fund an ABCP programme in certain circumstances. For capital purposes, such a situation would not be regarded as an overlap to the notes issued by the ABCP conduit. However, the institution may calculate risk-weighted assets for the liquidity facility as if it were expanded (either in order to cover defaulted assets or in terms of trigger events) to preclude all losses on the notes. In such a case, the institution would only need to calculate capital requirements on the liquidity facility. [BCBS July 2016 par 40]

46. Overlap could also be recognized between relevant capital charges for exposures in the trading book and capital charges for exposures in the banking book, provided that the institution is able to calculate and compare the capital charge for the relevant exposures. [BCBS July 2016 par 41]

7.5.2. Hierarchy of approaches

47. Securitization exposures will be treated differently depending on the type of underlying exposures and/or type of information available to the institution. Securitization exposures to which none of the approaches laid out in paragraphs 48 to 53 can be applied must be assigned a 1250% risk weight. [BCBS July 2016 par 42]

7.5.2.1. Securitization exposures of IRB pools

48. An institution must use the Securitization Internal Ratings-Based Approach (SEC-IRBA) as described in paragraphs 54 to 101 for a securitization exposure of an IRB pool as defined in paragraph 18, unless otherwise determined by OSFI. [BCBS July 2016 par 43]

7.5.2.2. Securitization exposures of SA pools

49. If an institution cannot use the SEC-IRBA, it must use the Securitization External Ratings-Based Approach (SEC-ERBA) as described in paragraphs 102 to 108 for a securitization

[6] That is, splitting exposures into portions that overlap with another exposure held by the institution and other portions that do not overlap; and expanding exposures by assuming for capital purposes that obligations with respect to one of the overlapping exposures are larger than those established contractually. The latter could be done, for instance, by expanding either the trigger events to exercise the facility and/or the extent of the obligation.

exposure to an SA pool as defined in paragraph 20 provided that the institution has an external credit assessment that meets the operational requirements for an external credit assessment in paragraph 109 or there is an inferred rating that meets the operational requirements for inferred ratings in paragraphs 110 and 111. [BCBS July 2016 par 44]

50. Institutions may use an Internal Assessment Approach (IAA) as described in paragraphs 112 to 115 for an unrated securitization exposure (e.g. liquidity facilities and credit enhancements) to an SA pool within an ABCP programme. In order to use an IAA, an institution must have OSFI approval to use the IRB approach. An institution must obtain OSFI's agreement on whether and when it can apply the IAA to its securitization exposures, especially where the institution can apply the IRB for some, but not all, underlying exposures. To ensure appropriate capital levels, OSFI may review an institution's use of the IAA. [BCBS July 2016 par 45]

51. An institution that cannot use the SEC-ERBA or an IAA for its exposures to an SA pool may use the Standardized Approach (SEC-SA) as described in paragraphs 116 to 127. [BCBS July 2016 par 46]

7.5.2.3. Securitization exposures of mixed pools

52. Where an institution can calculate K_{IRB} on at least 95% of the underlying exposure amounts of a securitization, the institution must apply the SEC-IRBA calculating the capital charge for the underlying pool as:

$$d*K_{IRB} + (1-d)*K_{SA}$$

where

- d is the percentage of the exposure amount of underlying exposures for which the institution can calculate K_{IRB} over the exposure amount of all underlying exposures; and
- K_{IRB} and K_{SA} are as defined in paragraphs 55 and 117, respectively.

53. Where the institution cannot calculate K_{IRB} on at least 95% of the underlying exposures, the institution must use the hierarchy for securitization exposures of SA pools as set out in paragraphs 49 to 51. [BCBS July 2016 par 47]

7.6. Approaches

7.6.1. Internal Ratings-Based Approach (SEC-IRBA)

54. To calculate capital requirements for a securitization exposure to an IRB pool, an institution must use the SEC-IRBA and the following institution-supplied inputs: the IRB capital charge had the underlying exposures not been securitized (K_{IRB}), the tranche attachment point (A), the tranche detachment point (D) and the supervisory parameter p, as defined below. Where the only difference between exposures to a transaction is related to maturity, A and D will be the same. [BCBS July 2016 par 48]

7.6.1.1. Definition of K_{IRB}

55. K_{IRB} is the ratio of (a) the IRB capital requirement (including the expected loss portion and, where applicable, dilution risk as discussed in paragraphs 87 to 89) for the underlying exposures in the pool to (b) the exposure amount of the pool (e.g. the sum of drawn amounts related to securitized exposures plus the EAD associated with undrawn commitments related to securitized exposures)[7,8]. K_{IRB} is expressed in decimal form (e.g. a capital charge equal to 15% of the pool would be expressed as 0.15). [BCBS July 2016 par 49]

56. Notwithstanding the clarification in paragraph 52 for mixed pools, quantity (a) above must be calculated in accordance with applicable minimum IRB standards as set forth in Chapter 6 of this guideline as if the exposures in the pool were held directly by the institution. This calculation should reflect the effects of any credit risk mitigant that is applied on the underlying exposures (either individually or to the entire pool), and hence benefits all of the securitization exposures. [BCBS July 2016 par 49]

57. For structures involving an SPE, all of the SPE's exposures related to the securitization are to be treated as exposures in the pool. Exposures related to the securitization that should be treated as exposures in the pool could include assets in which the SPE may have invested a reserve account, such as a cash collateral account or claims against counterparties resulting from interest swaps or currency swaps. In particular, in the case of swaps other than credit derivatives, the numerator of K_{IRB} must include the positive current market value multiplied by the risk weight of the swap provider multiplied by 8%. In contrast, the denominator should not take into account such a swap, as such a swap would not provide a credit enhancement to any tranche. The institution may exclude the SPE's exposures from the pool for capital calculation purposes if the institution can demonstrate to OSFI that the risk of the SPE's exposures does not affect the institution's securitization exposure or is immaterial (for example, because it has been mitigated). [BCBS July 2016 par 49]

58. Certain best market practices can eliminate or at least significantly reduce the potential risk from a default of a swap provider. Examples of such features could be:

- cash collateralisation of the market value in combination with an agreement of prompt additional payments in case of an increase of the market value of the swap; and
- minimum credit quality of the swap provider with the obligation to post collateral or present an alternative swap provider without any costs for the SPE in the event of a credit deterioration on the part of the original swap provider.

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[7] K_{IRB} must also include the unexpected loss and the expected loss associated with defaulted exposures in the underlying pool.

[8] A scaling factor of 1.06 is applied to the unexpected loss portion of the calculation of K_{IRB}. The calculation of K_{IRB} as described in this paragraph and the calculation of caps as determined in paragraphs 128 to 135 are the only occurrence of use of the scaling factor in the securitization framework, i.e. the risk-weighted assets resulting from the different approaches (Internal Ratings-Based Approach, External Ratings-Based Approach or Standardized Approach) are not subject to the scaling factor.

59. If OSFI is satisfied with these risk mitigants and accepts that the contribution of these exposures to the risk of the holder of a securitization exposure is insignificant, OSFI may allow the institution to exclude these exposures from the K_{IRB} calculation. [BCBS July 2016 par 49]

60. In the case of funded synthetic securitizations, any proceeds of the issuances of credit-linked notes or other funded obligations of the SPE that serve as collateral for the repayment of the securitization exposure in question and for which the institution cannot demonstrate to OSFI that it is immaterial must be included in the calculation of K_{IRB} if the default risk of the collateral is subject to the tranched loss allocation. As in the case of swaps other than credit derivatives, the numerator of K_{IRB} (i.e. quantity (a)) must include the exposure amount of the collateral multiplied by its risk weight multiplied by 8%, but the denominator should be calculated without recognition of the collateral. [BCBS July 2016 par 49]

61. In cases where an institution has set aside a specific provision or has a non-refundable purchase price discount on an exposure in the pool, both the IRB capital requirement and the exposure amount of the pool as defined by quantity (a) and quantity (b) in paragraph 55 must be calculated using the gross amount of the exposure without the specific provision and/or non-refundable purchase price discount. [BCBS July 2016 par 51]

7.6.1.2. The top-down approach to calculating K_{IRB} for purchased receivables

62. To calculate K_{IRB} for any securitized exposure or portion thereof, the treatment described in paragraphs 63 to 78 may be used, if according to IRB minimum requirements:

(i) for non-retail assets, it would be an undue burden on an institution to assess the default risk of individual obligors; and

(ii) for retail assets, an institution is unable to primarily rely on internal data.

All other IRB minimum requirements must be met by the institution. [BCBS July 2016 par 50]

63. OSFI may deny the use of a top-down approach for eligible purchased receivables for securitized exposures depending on the institution's compliance with minimum requirements. The top-down approach is not eligible to be applied to any pool of concentrated exposures where any single asset or group of assets lent to the same obligor or guaranteed by the same guarantor represents more than 4% of the pool of assets. [BCBS July 2016 par 50(b)]

64. Eligible purchased receivables are divided into retail and corporate receivables as defined below. [BCBS June 2006 par 239]

65. Purchased retail receivables, provided the purchasing institution complies with the IRB rules for retail exposures, are eligible for the top-down approach as permitted within the existing standards for retail exposures. The institution must also apply the minimum operational requirements as set forth in sections 6.6 and 6.8 of Chapter 6 of this guideline. [BCBS June 2006 par 240]

66. In general, for purchased corporate receivables, institutions are expected to assess the default risk of individual obligors as specified in section 6.3.1 of Chapter 6 of this guideline

consistent with the treatment of other corporate exposures. However, the top-down approach may be used for an entire securitized pool or a sub-pool, provided that the purchasing institution's programme for corporate receivables complies with both the criteria for eligible receivables and the minimum operational requirements of this approach. The use of the top-down purchased receivables treatment is limited to situations where it would be an undue burden on an institution to be subjected to the minimum requirements for the IRB approach to corporate exposures that would otherwise apply. Primarily, it is intended for receivables that are purchased for inclusion in asset-backed securitization structures, but institutions may also use this approach, with OSFI approval, for appropriate on-balance sheet exposures that share the same features. [BCBS June 2006 par 241]

67. In general, for any pool or sub-pool of securitized non-retail exposures, to be eligible for the top-down approach, the following conditions must be met:

- The assets are purchased from unrelated, third party sellers, and as such, the institution has not originated the receivables either directly or indirectly.
- The assets must be generated on an arm's-length basis between the seller and the obligor. As such, intercompany accounts receivable and receivables that are subject to contra-accounts between firms that buy and sell to each other are ineligible[9].
- The institution must have a claim on all proceeds from the pool of securitized exposures that have been allocated to the institution's exposure in the securitization in accordance with the terms of the related securitization documentation.
- If any single asset or group of assets guaranteed by the same seller represents more than 4% of the pool of assets, capital charges must be calculated using the minimum requirements for the bottom-up approach for corporate exposures.

[BCBS June 2006 par 242]

68. The existence of full or partial recourse to the seller, does not automatically disqualify an institution from adopting the top-down approach, as long as the cash flows from the non-retail assets are the primary protection against default risk as determined by paragraphs 71 to 74 and the institution meets the eligibility criteria and operational requirements. [BCBS June 2006 par 243]

Risk-weighted assets for default risk

69. For receivables belonging unambiguously to one asset class, the IRB risk weight for default risk is based on the risk-weight function applicable to that particular exposure type, as long as the institution can meet the qualification standards for this particular risk-weight function. For example, if institutions cannot comply with the standards for qualifying revolving retail exposures (defined in paragraph 33 of Chapter 6 of this guideline), they should use the risk-weight function for other retail exposures. For hybrid pools containing mixtures of exposure types, if the purchasing institution cannot separate the exposures by type, the risk-weight

[9] Contra-accounts involve a customer buying from and selling to the same firm. The risk is that debts may be settled through payments in kind rather than cash. Invoices between the companies may be offset against each other instead of being paid. This practice can defeat a security interest when challenged in court.

function producing the highest capital requirements for the exposure types in the receivable pool applies. [BCBS June 2006 par 363]

70. For purchased retail receivables, an institution must meet the risk quantification standards for retail exposures but can utilize external and internal reference data to estimate the PDs and LGDs. The estimates for PD and LGD (or EL) must be calculated for the receivables on a stand-alone basis; that is, without regard to any assumption of recourse or guarantees from the seller or other parties. If the purchasing institution is able to determine an expected long-run loss rate (EL), but not reliable estimates for PD or LGD, then a PD for the pool may be estimated by assuming an LGD of 100%. The expected long-run loss rate used to determine the PD in this way must contain sufficient conservatism consistent with paragraph 271 of Chapter 6 of this guideline. [BCBS June 2006 par 364]

71. For purchased corporate receivables the purchasing institution is expected to apply the existing IRB risk quantification standards for the bottom-up approach. However, for eligible purchased corporate receivables, and subject to OSFI permission, an institution may employ the following top-down procedure for calculating IRB risk weights for default risk:

- The purchasing institution will estimate the pool's one-year EL for default risk, expressed in percentage of the exposure amount (i.e. the total EAD amount to the institution by all obligors in the receivables pool). The estimated EL must be calculated for the receivables on a stand-alone basis; that is, without regard to any assumption of recourse or guarantees from the seller or other parties. The treatment of recourse or guarantees covering default risk (and/or dilution risk) is discussed separately below.
- Given the EL estimate for the pool's default losses, the risk weight for default risk is determined by the risk-weight function for corporate exposures[10]. As described below, the precise calculation of risk weights for default risk depends on the institution's ability to decompose EL into its PD and LGD components in a reliable manner. Institutions can utilize external and internal data to estimate PDs and LGDs. However, the advanced approach will not be available for institutions that use the foundation approach for corporate exposures. [BCBS June 2006 par 365]

Foundation IRB treatment

72. If the purchasing institution is unable to decompose EL into its PD and LGD components in a reliable manner, the risk weight is determined from the corporate risk-weight function using the following specifications: if the institution can demonstrate that the exposures are exclusively senior claims to corporate borrowers, an LGD of 45% can be used. PD will be calculated by dividing the EL using this LGD. EAD will be calculated as the outstanding amount minus the capital charge for dilution prior to credit risk mitigation ($K_{Dilution}$). Otherwise, PD is the institution's estimate of EL; LGD will be 100%; and EAD is the amount outstanding minus $K_{Dilution}$. EAD for a revolving purchase facility is the sum of the current amount of receivables purchased plus 75% of any undrawn purchase commitments minus $K_{Dilution}$. If the purchasing

[10] The firm-size adjustment for SME, as defined in paragraph 81 of Chapter 6 of this guideline, will be the weighted average by individual exposure of the pool of purchased corporate receivables. If the institution does not have the information to calculate the average size of the pool, the firm-size adjustment will not apply.

institution is able to estimate PD in a reliable manner, the risk weight is determined from the corporate risk-weight functions according to the specifications for LGD, M and the treatment of guarantees under the foundation approach as given in Chapter 6 – Internal Ratings Based Approach paragraphs 105 to 107 and 121 to 127, and Chapter 5 – Credit Risk Mitigation, paragraphs 119 to 126, 130, 131 and 137. [BCBS June 2006 par 366]

Advanced IRB treatment

73. If the purchasing institution can estimate either the pool's default-weighted average loss rates given default (as defined in paragraph 294 of Chapter 6) or average PD in a reliable manner, the institution may estimate the other parameter based on an estimate of the expected long-run loss rate. The institution may (i) use an appropriate PD estimate to infer the long-run default-weighted average loss rate given default, or (ii) use a long-run default-weighted average loss rate given default to infer the appropriate PD. In either case, it is important to recognize that the LGD used for the IRB capital calculation for purchased receivables cannot be less than the long-run default-weighted average loss rate given default and must be consistent with the concepts defined in paragraph 294 of Chapter 6. The risk weight for the purchased receivables will be determined using the institution's estimated PD and LGD as inputs to the corporate risk-weight function. If the purchasing institution is unable to estimate LGD in a reliable manner that is consistent with the concepts defined in paragraph 294 of Chapter 6, an LGD of 100% must be used. Similar to the foundation IRB treatment, EAD will be the amount outstanding minus $K_{Dilution}$. EAD for a revolving purchase facility will be the sum of the current amount of receivables purchased plus 75% of any undrawn purchase commitments minus $K_{Dilution}$ (thus, institutions using the advanced IRB approach will not be permitted to use their internal EAD estimates for undrawn purchase commitments). [BCBS June 2006 par 367]

74. For drawn amounts, M will equal the pool's exposure-weighted average effective maturity (as defined in paragraphs 121 to 127 of Chapter 6 of this guideline). This same value of M will also be used for undrawn amounts under a committed purchase facility provided the facility contains effective covenants, early amortisation triggers, or other features that protect the purchasing institution against a significant deterioration in the quality of the future receivables it is required to purchase over the facility's term. Absent such effective protections, the M for undrawn amounts will be calculated as the sum of (a) the longest-dated potential receivable under the purchase agreement and (b) the remaining maturity of the purchase facility. [BCBS June 2006 par 368]

Adjustment criteria

75. An institution must have clearly specified criteria surrounding the allocation of exposures to pools to reflect the impact of guarantees for regulatory capital purposes. These criteria must be as detailed as the criteria for assigning exposures to grades consistent with paragraphs 229 and 230 of Chapter 6 of this guideline, and must follow all minimum requirements for assigning borrower or facility ratings set out in this guideline. [BCBS June 2006 par 485]

76. In allocating exposures to pools, institutions must take all relevant available information into account. [BCBS June 2006 par 487]

Requirements specific to estimating PD and LGD (or EL) for qualifying securitized exposures

77. The following minimum requirements for risk quantification must be satisfied for any securitized exposure (retail or non-retail) making use of the top-down treatment of default risk and/or the IRB treatments of dilution risk. [BCBS June 2006 par 491]

78. The institution calculating K_{IRB} will be required to group the securitized assets into sufficiently homogeneous pools so that accurate and consistent estimates of PD and LGD (or EL) for default losses and EL estimates of dilution losses can be determined. In general, the risk bucketing process will reflect the seller's underwriting practices and the heterogeneity of its customers. In addition, methods and data for estimating PD, LGD, and EL must comply with the existing risk quantification standards for retail exposures. In particular, quantification should reflect all information available to the institution calculating K_{IRB} regarding the quality of the underlying receivables, including data for similar pools provided by the seller, by the institution calculating K_{IRB}, or by external sources. The institution calculating K_{IRB} must determine whether the data provided by the seller are consistent with expectations agreed upon by both parties concerning, for example, the type, volume and on-going quality of receivables purchased. Where this is not the case, the institution calculating K_{IRB} is expected to obtain and rely upon more relevant data. [BCBS June 2006 par 492]

7.6.1.3. Minimum operational requirements for the top-down approach

79. An institution calculating K_{IRB} has to justify confidence that current and future advances can be repaid from the liquidation of (or collections against) the receivables pool. To qualify for the top-down treatment of default risk, the receivable pool and overall lending relationship should be closely monitored and controlled. Specifically, an institution will have to demonstrate (i) legal certainty; (ii) effectiveness of monitoring systems; (iii) effectiveness of work-out systems; (iv) effectiveness of systems for controlling collateral, credit availability, and cash; and (v) compliance with the institution's internal policies and procedures as described below. [BCBS June 2006 par 493]

Legal certainty

80. The structure of the facility must ensure that under all foreseeable circumstances the institution has effective ownership and control of the cash remittances from the receivables, including incidences of seller or servicer distress and bankruptcy. When the obligor makes payments directly to a seller or servicer, the institution must verify regularly that payments are forwarded completely and within the contractually agreed terms. As well, ownership over the receivables and cash receipts should be protected against bankruptcy 'stays' or legal challenges that could materially delay the lender's ability to liquidate/assign the receivables or retain control over cash receipts. [BCBS June 2006 par 494]

Effectiveness of monitoring systems

81. The institution must be able to monitor both the quality of the receivables and the financial condition of the seller and servicer. In particular:

- The institution must (a) assess the correlation among the quality of the receivables and the financial condition of both the seller and servicer, and (b) have in place internal policies and procedures that provide adequate safeguards to protect against such contingencies, including the assignment of an internal risk rating for each seller and servicer.
- The institution must have clear and effective policies and procedures for determining seller and servicer eligibility. The institution or its agent must conduct periodic reviews of sellers and servicers in order to verify the accuracy of reports from the seller/servicer, detect fraud or operational weaknesses, and verify the quality of the seller's credit policies and servicer's collection policies and procedures. The findings of these reviews must be well documented.
- The institution must have the ability to assess the characteristics of the receivables pool, including (a) over-advances; (b) history of the seller's arrears, bad debts, and bad debt allowances; (c) payment terms, and (d) potential contra accounts.
- The institution must have effective policies and procedures for monitoring on an aggregate basis single-obligor concentrations both within and across receivables pools.
- The institution must receive timely and sufficiently detailed reports of receivables ageings and dilutions to (a) ensure compliance with the institution's eligibility criteria and advancing policies governing purchased receivables, and (b) provide an effective means with which to monitor and confirm the seller's terms of sale (e.g. invoice date ageing) and dilution.

[BCBS June 2006 par 495]

Effectiveness of work-out systems

82. An effective programme requires systems and procedures not only for detecting deterioration in the seller's financial condition and deterioration in the quality of the receivables at an early stage, but also for addressing emerging problems pro-actively. In particular,

- The securitization structure should have clear and effective policies, procedures, and information systems to monitor compliance with (a) all contractual terms of the facility (including covenants, advancing formulas, concentration limits, early amortisation triggers, etc.) as well as (b) the institution's internal policies governing advance rates and receivables eligibility. The institution's systems should track covenant violations and waivers as well as exceptions to established policies and procedures.
- To limit inappropriate draws, the institution should have effective policies and procedures for detecting, approving, monitoring, and correcting over-advances.
- The institution should have effective policies and procedures for dealing with financially weakened sellers or servicers and/or deterioration in the quality of receivable pools. These include, but are not necessarily limited to, early termination triggers in revolving facilities and other covenant protections, a structured and disciplined approach to dealing with covenant violations, and clear and effective policies and procedures for initiating legal actions and dealing with problem receivables.

[BCBS June 2006 par 496]

Effectiveness of systems for controlling collateral, credit availability, and cash

83. The institution must have clear and effective policies and procedures governing the control of receivables, credit, and cash. In particular,

- Written internal policies must specify all material elements of the receivables purchase programme, including the advancing rates, eligible collateral, necessary documentation, concentration limits, and how cash receipts are to be handled. These elements should take appropriate account of all relevant and material factors, including the seller's/servicer's financial condition, risk concentrations, and trends in the quality of the receivables and the seller's customer base.
- Internal systems must ensure that funds are advanced only against specified supporting collateral and documentation (such as servicer attestations, invoices, shipping documents, etc.)

[BCBS June 2006 par 497]

Compliance with the institution's internal policies and procedures

84. Given the reliance on monitoring and control systems to limit credit risk, the institution should have an effective internal process for assessing compliance with all critical policies and procedures, including

- Regular internal and/or external audits of all critical phases of the institution's receivables purchase programme.
- Verification of the separation of duties (i) between the assessment of the seller/servicer and the assessment of the obligor and (ii) between the assessment of the seller/servicer and the field audit of the seller/servicer.

[BCBS June 2006 par 498]

85. An institution's effective internal process for assessing compliance with all critical policies and procedures should also include evaluations of back office operations, with particular focus on qualifications, experience, staffing levels, and supporting systems. [BCBS June 2006 par 499]

86. If an institution cannot meet the requirements in paragraphs 80 to 84, it must instead ensure that it meets these requirements through a party to the securitization acting for and in the interest of the investors in the securitization, in accordance with the terms of the related securitization documents. Specifically, requirements for effective control and ownership must be met for all proceeds from the pool of securitized exposures that have been allocated to the institution's exposure to the securitization. [BCBS July 2016 par 50(c)]

7.6.1.4. Treatment of dilution risk

87. Dilution risk in a securitization must be recognized if it is material, as demonstrated by the institution to OSFI (see paragraph 186 of Chapter 6), whereby the provisions of paragraphs 55 to 60 shall apply. [BCBS July 2016 par 52]

88. Where default and dilution risk are treated in an aggregate manner (e.g. an identical reserve or overcollateralization is available to cover losses for both risks), in order to calculate capital requirements for the securitization exposure, an institution must determine K_{IRB} for dilution risk and default risk, respectively, and combine them into a single K_{IRB} prior to applying the SEC-IRBA. Appendix 7-3. A provides an illustration of such a calculation. [BCBS July 2016 par 52(a)]

89. In certain circumstances, pool level credit enhancement will not be available to cover losses from either credit risk or dilution risk. In the case of separate waterfalls for credit risk and dilution risk, an institution should refer to Appendix 7-3. B which includes an example of how such calculations could be performed in a prudent manner. [BCBS July 2016 par 52(b)]

7.6.1.5. Definition of attachment point (A) and detachment point (D)

90. The input A represents the threshold at which losses within the underlying pool would first be allocated to the securitization exposure. This input, which is a decimal value between zero and one, equals the greater of (a) zero and (b) the ratio of (i) the outstanding balance of all underlying assets in the securitization minus the outstanding balance of all tranches that rank senior or pari passu to the tranche that contains the securitization exposure of the institution (including the exposure itself) to (ii) the outstanding balance of all underlying assets in the securitization (including any over-collateralization). [BCBS July 2016 par 53]

91. The input D represents the threshold at which losses within the underlying pool result in a total loss of principal for the tranche in which a securitization exposure resides. This input, which is a decimal value between zero and one, equals the greater of (a) zero and (b) the ratio of (i) the outstanding balance of all underlying assets in the securitization minus the outstanding balance of all tranches that rank senior to the tranche that contains the securitization exposure of the institution to (ii) the outstanding balance of all underlying assets in the securitization (including any over-collateralization). [BCBS July 2016 par 54]

92. For the calculation of A and D: (i) overcollateralization and funded reserve accounts must be recognized as tranches; and (ii) the assets forming these reserve accounts must be recognized as underlying assets. Only the loss-absorbing part of the funded reserve accounts that provide credit enhancement can be recognized as tranches and underlying assets. Unfunded reserve accounts, such as those to be funded from future receipts from the underlying exposures (e.g. unrealized excess spread) and assets that do not provide credit enhancement like pure liquidity support, currency or interest-rate swaps, or cash collateral accounts related to these instruments must not be included in the above calculation of A and D. Institutions should take into consideration the economic substance of the transaction and apply these definitions conservatively in the light of the structure. [BCBS July 2016 par 55]

7.6.1.6. Formulation of supervisory parameter (p)

93. The supervisory parameter p in the context of the SEC-IRBA is as follows:

$$p=\max [0.3; (A + B*(1/N) + C*K_{IRB} + D*LGD + E*M_T)],$$

where:

- 0.3 denotes the p-parameter floor;
- N is the effective number of loans in the underlying pool, calculated as described in paragraph 96;
- K_{IRB} is the capital charge of the underlying pool (as defined in paragraph 55);
- LGD is the exposure-weighted average loss given default of the underlying pool, calculated as described in paragraph 97);
- M_T is the maturity of the tranche calculated according to paragraphs 25 and 26; and
- the parameters *A, B, C, D, and E* are determined according to the following look-up table:

		A	***B***	***C***	***D***	***E***
Wholesale	**Senior**, granular (N>= 25)	0	3.56	-1.85	0.55	0.07
	Senior, non-granular (N< 25)	0.11	2.61	-2.91	0.68	0.07
	Non-senior, granular (N>= 25)	0.16	2.87	-1.03	0.21	0.07
	Non-senior, non-granular (N< 25)	0.22	2.35	-2.46	0.48	0.07
Retail	**Senior**	0	0	-7.48	0.71	0.24
	Non-Senior	0	0	-5.78	0.55	0.27

[BCBS July 2016 par 56]

94. If the underlying IRB pool consists of retail and wholesale exposures, the pool should be divided into one retail and one wholesale subpool and, for each subpool, a separate p-parameter (and the corresponding input parameters N, K_{IRB} and LGD) should be estimated. Subsequently, a weighted average p-parameter for the transaction should be calculated on the basis of the p-parameters of each subpool and the nominal size of the exposures in each subpool. [BCBS July 2016 par 57]

95. If an institution applies the SEC-IRBA to a mixed pool as described in paragraph 52, the calculation of the p-parameter should be based on the IRB underlying assets only. The SA underlying assets should not be considered for this purpose. [BCBS July 2016 par 58]

7.6.1.7. Calculation of effective number of exposures (N)

96. The effective number of exposures is calculated as:

$$N = \frac{(\sum_i EAD_i)^2}{\sum_i EAD_i^2}$$

where EAD_i represents the exposure at default associated with the ith instrument in the pool.

Multiple exposures to the same obligor must be consolidated (i.e. treated as a single instrument). [BCBS July 2016 par 59]

7.6.1.8. Calculation of exposure-weighted average LGD

97. The exposure-weighted average LGD is calculated as follows:

$$LGD = \frac{\sum_i LGD_i \cdot EAD_i}{\sum_i EAD_i}$$

where LGD_i represents the average LGD associated with all exposures to the ith obligor. When default and dilution risks for purchased receivables are treated in an aggregate manner (e.g. a single reserve or overcollateralization is available to cover losses from either source) within a securitization, the LGD input must be constructed as a weighted average of the LGD for default risk and the 100% LGD for dilution risk. The weights are the stand-alone IRB capital charges for default risk and dilution risk, respectively. [BCBS July 2016 par 60]

7.6.1.9. Simplified method for computing N and LGD

98. Under the conditions outlined below, institutions may employ a simplified method for calculating the effective number of exposures and the exposure-weighted average LGD. Let C_m in the simplified calculation denote the share of the pool corresponding to the sum of the largest m exposures (e.g. a 15% share corresponds to a value of 0.15). The level of m is set by each institution.

- If the share of the pool associated with the largest exposure, C_1, is no more than 0.03 (or 3%), then for purposes of the SEC-IRBA the institution may set LGD as 0.50 and N equal to the following amount:

$$N = \left(C_1 C_m + \left(\frac{C_m - C_1}{m-1} \right) \max\{1 - m C_1, 0\} \right)^{-1}$$

- Alternatively, if only C_1 is available and this amount is no more than 0.03, then the institution may set LGD as 0.50 and N as $1/C_1$.

[BCBS July 2016 par 61]

7.6.1.10. Calculation of risk weight

99. The formulation of the SEC-IRBA is as follows:

$$K_{SEC-IRBA} = \frac{e^{a \cdot u} - e^{a \cdot l}}{a(u - l)}$$

Where $K_{SEC-IRBA}$ is the capital requirement per unit of securitization exposure under the SEC-IRBA is a function of three variables, labelled a, u and l. The constant e is the base of the natural logarithms (which equals 2.71828). The variables a, u and l are defined as follows:

$$a = -\left({}^{1}/_{(p * K_{IRB})}\right)$$
$$u = D - K_{IRB}$$
$$l = \max(A - K_{IRB}; 0)$$

[BCBS July 2016 par 62]

100. The risk weight assigned to a securitization exposure when applying the SEC-IRBA is calculated as follows:

- When D for a securitization exposure is less than or equal to K_{IRB}, the exposure must be assigned a risk weight of 1,250%.
- When A for a securitization exposure is greater than or equal to K_{IRB}, the risk weight of the exposure, expressed as a percentage, would equal $K_{SEC\text{-}IRBA}$ multiplied by 12.5.
- When A is less than K_{IRB} and D is greater than K_{IRB}, the applicable risk weight is a weighted average of 1,250% and 12.5 multiplied by $K_{SEC\text{-}IRBA}$ according to the following formula:

$$\mathrm{RW} = \left[\left(\frac{\mathrm{K_{IRB}} - \mathrm{A}}{\mathrm{D} - \mathrm{A}}\right) \cdot 12.5\right] + \left[\left(\frac{\mathrm{D} - \mathrm{K_{IRB}}}{\mathrm{D} - \mathrm{A}}\right) \cdot 12.5 \cdot K_{SEC-IRBA}\right]$$

The risk weight for market risk hedges such as currency or interest rate swaps will be inferred from a securitization exposure that is pari passu to the swaps or, if such an exposure does not exist, from the next subordinated tranche. [BCBS July 2016 par 63]

101. The resulting risk weight is subject to a floor risk weight of 15%. [BCBS July 2016 par 64]

7.6.2. External Ratings-Based Approach (SEC-ERBA)

102. For a securitization exposure that is externally rated, or for which an inferred rating is available, risk-weighted assets under the SEC-ERBA will be determined by multiplying securitization exposure amounts (as defined in paragraph 42 and 43) by the appropriate risk weights as determined by paragraphs 103 to 108[11]. [BCBS July 2016 par 65]

7.6.2.1. Short-term ratings

103. For exposures with a short-term rating, or when an inferred rating based on a short-term rating is available, the following risk weights will apply:

[11] The rating designations used in Tables 1 and 2 are for illustrative purposes only and do not indicate any preference for, or endorsement of, any particular external assessment system. See Chapter 3 for mapping of ratings for recognized ECAIs.

Table 1: ERBA risk weights for short-term ratings

External credit assessment	*A–1/P–1*	*A–2/P–2*	*A–3/P–3*	*All other ratings*
Risk weight	15%	50%	100%	1,250%

[BCBS July 2016 par 66]

7.6.2.2. Long-term ratings

104. For exposures with a long-term rating, or when an inferred rating based on a long-term rating is available, the risk weights depend on (i) the external rating grade or an available inferred rating; (ii) the seniority of the position; (iii) the tranche maturity; and (iv) in the case of non-senior tranches, the tranche thickness. [BCBS July 2016 par 67]

105. Specifically, for exposures with a long-term rating, risk weights will be determined according to Table 2 and will be adjusted for tranche maturity (calculated according to paragraphs 25 and 26), and tranche thickness for non-senior tranches according to paragraph 106.

Table 2: ERBA risk weights for long-term ratings

Rating	Senior tranche		Non-senior (thin) tranche	
	Tranche maturity (M_T)		*Tranche maturity (M_T)*	
	1 year	5 years	1 year	5 years
AAA	15%	20%	15%	70%
AA+	15%	30%	15%	90%
AA	25%	40%	30%	120%
AA-	30%	45%	40%	140%
A+	40%	50%	60%	160%
A	50%	65%	80%	180%
A-	60%	70%	120%	210%
BBB+	75%	90%	170%	260%
BBB	90%	105%	220%	310%
BBB-	120%	140%	330%	420%
BB+	140%	160%	470%	580%
BB	160%	180%	620%	760%
BB-	200%	225%	750%	860%
B+	250%	280%	900%	950%
B	310%	340%	1050%	1050%
B-	380%	420%	1130%	1130%
CCC+/CCC/CCC-	460%	505%	1250%	1250%
Below CCC-	1250%	1250%	1250%	1250%

[BCBS July 2016 par 68]

106. The risk weight assigned to a securitization exposure when applying the SEC-ERBA is calculated as follows:

- To account for tranche maturity, institutions shall use linear interpolation between the risk weights for one and five years.
- To account for tranche thickness, institutions shall calculate the risk weight for non-senior tranches as follows:

*Risk weight = [risk weight from table after adjusting for maturity] * [1 – min(T; 50%)]*,

where T equals tranche thickness, and is measured as D minus A, as defined, respectively, in paragraphs 90 and 91. [BCBS July 2016 par 69]

107. In the case of market risk hedges such as currency or interest rate swaps, the risk weight will be inferred from a securitization exposure that is pari passu to the swaps or, if such an exposure does not exist, from the next subordinated tranche. [BCBS July 2016 par 69]

108. The resulting risk weight is subject to a floor risk weight of 15%. In addition, the resulting risk weight should never be lower than the risk weight corresponding to a senior tranche of the same securitization with the same rating and maturity. [BCBS July 2016 par 70]

7.6.2.3. Operational requirements for external credit assessments

109. The following operational criteria concerning the use of external credit assessments apply in the securitization framework:

(a) To be eligible for risk-weighting purposes, the external credit assessment must take into account and reflect the entire amount of credit risk the institution is exposed to including all payments owed to it. For example, if an institution is owed both principal and interest, the assessment must fully take into account and reflect the credit risk associated with timely repayment of both principal and interest.

(b) The external credit assessments must be from an eligible ECAI as recognized by OSFI in accordance with section 3.6 of Chapter 3 of this guideline with the following exception. In contrast with bullet three of paragraph 122 of Chapter 3, an eligible credit assessment, procedures, methodologies, assumptions, and the key elements underlining the assessments must be publicly available, on a non-selective basis and free of charge[12]. In other words, a rating must be published in an accessible form and included in the ECAI's transition matrix. Also, loss and cash-flow analysis as well as sensitivity of ratings to changes in the underlying rating assumptions should be publicly available. Consequently, ratings that are made available only to the parties to a transaction do not satisfy this requirement.

(c) Eligible ECAIs must have a demonstrated expertise in assessing securitizations, which may be evidenced by strong market acceptance.

[12] Where the eligible credit assessment is not publicly available free of charge, the ECAI should provide an adequate justification, within its own publicly available code of conduct, in accordance with the "comply or explain" nature of the IOSCO Code of Conduct Fundamentals for Credit Rating Agencies.

(d) Where two or more eligible ECAIs can be used and these assess the credit risk of the same securitization exposure differently, section 3.6.2.2 of Chapter 3 will apply.

(e) Where CRM is provided to specific underlying exposures or the entire pool by an eligible guarantor as defined in paragraph 83 of Chapter 5 of this guideline, and is reflected in the external credit assessment assigned to a securitization exposure(s), the risk weight associated with that external credit assessment should be used. In order to avoid any double counting, no additional capital recognition is permitted. If the CRM provider is not recognized as an eligible guarantor under paragraph 83 of Chapter 5 the covered securitization exposures should be treated as unrated.

(f) In the situation where a credit risk mitigant solely protects a specific securitization exposure within a given structure (e.g. asset-backed security tranche) and this protection is reflected in the external credit assessment, the institution must treat the exposure as if it is unrated and then apply the CRM treatment outlined in Chapter 5, to recognize the hedge.

(g) An institution is not permitted to use any external credit assessment for risk-weighting purposes where the assessment is at least partly based on unfunded support provided by the institution. For example, if an institution buys ABCP where it provides an unfunded securitization exposure extended to the ABCP programme (e.g. liquidity facility or credit enhancement), and that unfunded exposure plays a role in determining the credit assessment on the ABCP, the institution must treat the ABCP as if it were not rated. The institution must continue to hold capital against the other securitization exposure it provides (e.g. against the liquidity facility and/or credit enhancement).

[BCBS July 2016 par 71]

7.6.2.4. *Operational requirements for inferred ratings*

110. In accordance with the hierarchy of approaches determined in paragraphs 47 to 52, an institution must infer a rating for an unrated position and use the SEC-ERBA provided that the requirements set out in paragraph 111 are met. These requirements are intended to ensure that the unrated position is senior in all respects to an externally rated securitization exposure termed the "reference securitization exposure". The application of an inferred rating means that the external rating applicable to the "reference securitization exposure" will be applied to the senior unrated position. [BCBS July 2016 par 72]

111. The following operational requirements must be satisfied to recognize inferred ratings.

(i) The reference securitization exposure (e.g. asset-backed subsidiary) must rank pari passu or be subordinate in all respects to the unrated securitization exposure. Credit enhancements, if any, must be taken into account when assessing the relative subordination of the unrated exposure and the reference securitization exposure. For example, if the reference securitization exposure benefits from any third-party guarantees or other credit enhancements that are not available to the unrated exposure, then the latter cannot be assigned an inferred rating based on the reference securitization exposure.

(ii) The maturity of the reference securitization exposure must be equal to or longer than that of the unrated exposure.

(iii) On an ongoing basis, any inferred rating must be updated continuously to reflect any subordination of the unrated position or changes in the external rating of the reference securitization exposure.

(iv) The external rating of the reference securitization exposure must satisfy the general requirements for recognition of external ratings as delineated in paragraph 109.

[BCBS July 2016 par 73]

7.6.3. Internal Assessment Approach (IAA)

112. Subject to OSFI agreement, an institution may use its internal assessments of the credit quality of the securitization exposures extended to ABCP programmes (e.g. liquidity facilities and credit enhancements) provided the institution's internal assessment process meets the operational requirements set out below. Internal assessments of exposures provided to ABCP programmes must be mapped to equivalent external ratings of an ECAI. Those rating equivalents are used to determine the appropriate risk weights under the SEC-ERBA for the exposures. [BCBS July 2016 par 74]

113. An institution's internal assessment process must meet the following operational requirements in order to use internal assessments in determining the IRB capital requirement arising from liquidity facilities, credit enhancements, or other exposures extended to an ABCP programme.

(a) For the unrated exposure to qualify for the IAA, the ABCP must be externally rated. The ABCP itself is subject to the SEC-ERBA.

(b) The internal assessment of the credit quality of a securitization exposure to the ABCP programme must be based on a recognized ECAI criteria and methodology for the asset type purchased and must be the equivalent of at least investment grade when initially assigned to an exposure. In addition, the internal assessment must be used in the institution's internal risk management processes, including management information and economic capital systems, and generally must meet all the relevant requirements of the IRB framework.

(c) In order for institutions to use the IAA, OSFI must be satisfied (i) that the ECAI meets the ECAI eligibility criteria outlined in section 3.6 of Chapter 3 of this guideline and (ii) with the ECAI rating methodologies used in the process. In addition, institutions must document and maintain the necessary records in order to be able to demonstrate to the satisfaction of OSFI how these internal assessments correspond with the relevant ECAI's standards.

For instance, when calculating the credit enhancement level in the context of the IAA, OSFI may, if warranted, disallow on a full or partial basis any seller-provided recourse guarantees or excess spread, or any other first loss credit enhancements that provide limited protection to the institution.

(d) The institution's internal assessment process must identify gradations of risk. Internal assessments must correspond to the external ratings of ECAIs so that OSFI can determine which internal assessment corresponds to each external rating category of the ECAIs.

(e) The institution's internal assessment process, particularly the stress factors for determining credit enhancement requirements, must be at least as conservative as the publicly available rating criteria of the major ECAIs that are externally rating the ABCP programme's commercial paper for the asset type being purchased by the programme. However, institutions should consider, to some extent, all publicly available ECAI ratings methodologies in developing their internal assessments.

- In the case where (i) the commercial paper issued by an ABCP programme is externally rated by two or more ECAIs and (ii) the different ECAIs' benchmark stress factors require different levels of credit enhancement to achieve the same external rating equivalent, the institution must apply the ECAI stress factor that requires the most conservative or highest level of credit protection. For example, if one ECAI required enhancement of 2.5 to 3.5 times historical losses for an asset type to obtain a single A rating equivalent and another required 2 to 3 times historical losses, the institution must use the higher range of stress factors in determining the appropriate level of seller-provided credit enhancement.
- To externally rate the institution's exposure, an institution must not choose to apply the methodologies of only those ECAIs that generally have relatively less restrictive rating methodologies. In addition, if there are changes in the methodology of one of the selected ECAIs, including the stress factors, that adversely affect the external rating of the programme's commercial paper, then the revised rating methodology must be considered in evaluating whether the internal assessments assigned to ABCP programme exposures are in need of revision.
- An institution cannot utilize an ECAI's rating methodology to derive an internal assessment if the ECAI's process or rating criteria is not publicly available. However, institutions should consider the non-publicly available methodology – to the extent that they have access to such information ─ in developing their internal assessments, particularly if it is more conservative than the publicly available criteria.
- In general, if the ECAI rating methodologies for an asset or exposure are not publicly available, then the IAA cannot be used. However, in certain instances, for example, for new or uniquely structured transactions, which are not currently addressed by the rating criteria of an ECAI rating the programme's commercial paper, an institution may discuss the specific transaction with OSFI to determine whether the IAA may be applied to the related exposures.

(f) Internal or external auditors, an ECAI, or the institution's internal credit review or risk management function must perform regular reviews of the internal assessment process and assess the validity of those internal assessments. If the institution's internal audit, credit review, or risk management functions perform the reviews of the internal assessment process, then these functions must be independent of the ABCP programme business line, as well as the underlying customer relationships.

(g) The institution must track the performance of its internal assessments over time to evaluate the performance of the assigned internal assessments and make adjustments, as

necessary, to its assessment process when the performance of the exposures routinely diverges from the assigned internal assessments on those exposures.

(h) The ABCP programme must have credit and investment guidelines, i.e. underwriting standards, for the ABCP programme. In the consideration of an asset purchase, the ABCP programme (i.e. the programme administrator) should develop an outline of the structure of the purchase transaction. Factors that should be discussed include the type of asset being purchased; type and monetary value of the exposures arising from the provision of liquidity facilities and credit enhancements; loss waterfall; and legal and economic isolation of the transferred assets from the entity selling the assets.

(i) A credit analysis of the asset seller's risk profile must be performed and should consider, for example, past and expected future financial performance; current market position; expected future competitiveness; leverage, cash flow, and interest coverage; and debt rating. In addition, a review of the seller's underwriting standards, servicing capabilities, and collection processes should be performed.

(j) The ABCP programme's underwriting policy must establish minimum asset eligibility criteria that, among other things,

- exclude the purchase of assets that are significantly past due or defaulted;
- limit excess concentration to individual obligor or geographic area; and
- limit the tenor of the assets to be purchased.

(k) The ABCP programme should have collections processes established that consider the operational capability and credit quality of the servicer. The programme should mitigate to the extent possible seller/servicer risk through various methods, such as triggers based on current credit quality that would preclude co-mingling of funds and impose lockbox arrangements that would help ensure the continuity of payments to the ABCP programme.

(l) The aggregate estimate of loss on an asset pool that the ABCP programme is considering purchasing must consider all sources of potential risk, such as credit and dilution risk. If the seller-provided credit enhancement is sized based on only credit-related losses, then a separate reserve should be established for dilution risk, if dilution risk is material for the particular exposure pool. In addition, in sizing the required enhancement level, the institution should review several years of historical information, including losses, delinquencies, dilutions, and the turnover rate of the receivables. Furthermore, the institution should evaluate the characteristics of the underlying asset pool (e.g. weighted average credit score) and should identify any concentrations to an individual obligor or geographical region and the granularity of the asset pool.

(m) The ABCP programme must incorporate structural features into the purchase of assets in order to mitigate potential credit deterioration of the underlying portfolio. Such features may include wind down triggers specific to a pool of exposures.

[BCBS July 2016 par 75]

114. The exposure amount of the securitization exposure to the ABCP programme must be assigned to the risk weight in the SEC-ERBA appropriate to the credit rating equivalent assigned to the institution's exposure. [BCBS July 2016 par 76]

115. If an institution's internal assessment process is no longer considered adequate, OSFI may preclude the institution from applying the IAA to its ABCP exposures, both existing and newly originated, for determining the appropriate capital treatment until the institution has remedied the deficiencies. In this instance, the institution must revert to the SEC-SA described in paragraphs 116 to 127. [BCBS July 2016 par 77]

7.6.4. Standardized Approach (SEC-SA)

116. To calculate capital requirements for a securitization exposure to an SA pool using the SEC-SA, an institution would use a supervisory formula and the following institution-supplied inputs: the SA capital charge had the underlying exposures not been securitized (K_{SA}); the ratio of delinquent underlying exposures to total underlying exposures in the securitization pool (W); the tranche attachment point (A); and the tranche detachment point (D). The inputs A and D are defined above in paragraphs 90 and 91, respectively. Where the only difference between exposures to a transaction is related to maturity, A and D will be the same. K_{SA} and W are defined below in paragraphs 117 to 119 and 121. [BCBS July 2016 par 78]

117. K_{SA} is defined as the weighted-average capital charge of the entire portfolio of underlying exposures, calculated using the risk-weighted asset amounts in Chapter 3 of this guideline in relation to the sum of the exposure amounts of underlying exposures, multiplied by 8%. This calculation should reflect the effects of any credit risk mitigant that is applied to the underlying exposures (either individually or to the entire pool), and hence benefits all of the securitization exposures. K_{SA} is expressed as a decimal between zero and one (that is, a weighted-average risk weight of 100% means that K_{SA} would equal 0.08). [BCBS July 2016 par 79]

118. For structures involving an SPE, all of the SPE's exposures related to the securitization are to be treated as exposures in the pool. Exposures related to the securitization that should be treated as exposures in the pool include assets in which the SPE may have invested, comprising reserve accounts, cash collateral accounts and claims against counterparties resulting from interest swaps or currency swaps.[13] The institution can exclude the SPE's exposures from the pool for capital calculation purposes if the institution can demonstrate to OSFI that the risk does not affect its particular securitization exposure or that the risk is immaterial – for example, because it has been mitigated.[14] [BCBS July 2016 par 79]

[13] That is, splitting exposures into portions that overlap with another exposure held by the institution and other portions that do not overlap; and expanding exposures by assuming for capital purposes that obligations with respect to one of the overlapping exposures are larger than those established contractually. The latter could be done, for instance, by expanding either the trigger events to exercise the facility and/or the extent of the obligation.

[14] K_{IRB} must also include the unexpected loss and expected loss associated with defaulted exposures in the underlying pool.

119. In the case of funded synthetic securitizations, any proceeds of the issuances of credit-linked notes or other funded obligations of the SPE that serve as collateral for the repayment of the securitization exposure in question, and for which the institution cannot demonstrate to OSFI that they are immaterial, have to be included in the calculation of K_{SA} if the default risk of the collateral is subject to the tranched loss allocation.[15] [BCBS July 2016 par 79]

120. In cases where an institution has set aside a specific provision or has a non-refundable purchase price discount on an exposure in the pool, K_{SA} must be calculated using the gross amount of the exposure without the specific provision and/or non-refundable purchase price discount. [BCBS July 2016 par 80]

121. The variable W equals the ratio of the sum of the nominal amount of delinquent underlying exposures (as defined in paragraph 122) to the nominal amount of underlying exposures. [BCBS July 2016 par 81]

122. Delinquent underlying exposures are underlying exposures that are 90 days or more past due, subject to bankruptcy or insolvency proceedings, in the process of foreclosure, held as real estate owned, or in default, where default is defined within the securitization deal documents. [BCBS July 2016 par 82]

123. The inputs K_{SA} and W are used as inputs to calculate K_A, as follows:

$$K_A = (1 - W) \cdot K_{SA} + W \cdot 0.5$$

In case an institution does not know the delinquency status, as defined above, for no more than 5% of underlying exposures in the pool, the institution may still use the SEC-SA by adjusting its calculation of K_A as follows, where K_A represents the default-adjusted capital required for the underlying assets:

$$K_A = \left(\frac{EAD_{\text{Subpool 1 where W known}}}{\text{EAD Total}} \cdot K_A^{\text{Subpool 1 where W known}}\right) + \frac{EAD_{\text{Subpool 2 where W known}}}{\text{EAD Total}}$$

If the institution does not know the delinquency status for more than 5%, the securitization exposure must be risk weighted at 1,250%. [BCBS July 2016 par 83]

124. Capital requirements are calculated under the SEC-SA as follows:

$$K_{SEC-SA} = \frac{e^{a \cdot u} - e^{a \cdot l}}{a(u - l)}$$

where $K_{SEC\text{-}SA}$ is the capital requirement per unit of the securitization exposure and the variables a, u, and l are defined as follows:

$$a = -(1 / (p * K_A))$$

[15] As in the case of swaps other than credit derivatives, the numerator of K_{IRB} (i.e.: quantity (a)) must include the exposure amount of the collateral times its risk weight times 8%, but the denominator should be calculated without recognition of the collateral.

$u = D - K_A$

$l = \max(A - K_A; 0)$

[BCBS July 2016 par 84]

125. The supervisory parameter p in the context of the SEC-SA is set equal to 1 for a securitization exposure that is not a resecuritization exposure. [BCBS July 2016 par 85]

126. The risk weight assigned to a securitization exposure when applying the SEC-SA would be calculated as follows:

- When D for a securitization exposure is less than or equal to K_A, the exposure must be assigned a risk weight of 1,250%.
- When A for a securitization exposure is greater than or equal to K_A, the risk weight of the exposure, expressed as a percentage, would equal $K_{SEC\text{-}SA}$ multiplied by 12.5.
- When A is less than K_A and D is greater than K_A, the applicable risk weight is a weighted average of 1,250% and 12.5 multiplied by $K_{SEC\text{-}SA}$ according to the following formula:

$$\mathrm{RW} = \left[\left(\frac{\mathrm{K_A} - \mathrm{A}}{\mathrm{D} - \mathrm{A}}\right) \cdot 12.5\right] + \left[\left(\frac{\mathrm{D} - \mathrm{K_A}}{\mathrm{D} - \mathrm{A}}\right) \cdot 12.5 \cdot K_{SEC-SA}\right]$$

The risk weight for market risk hedges such as currency or interest rate swaps will be inferred from a securitization exposure that is pari passu to the swaps or, if such an exposure does not exist, from the next subordinated tranche. [BCBS July 2016 par 86]

127. The resulting risk weight is subject to a floor risk weight of 15%. [BCBS July 2016 par 87]

7.6.5. Caps for securitization exposures

7.6.5.1. Maximum risk weight for senior exposures

128. Institutions may apply a "look-through" approach to senior securitization exposures, whereby the senior securitization exposure could receive a maximum risk weight equal to the exposure weighted-average risk weight applicable to the underlying exposures, provided that the institution has knowledge of the composition of the underlying exposures at all times. The applicable risk weight under the IRB framework would be calculated taking into account the application of the 1.06 scaling factor pursuant to paragraph 29 of Chapter 1, and would also be inclusive of the expected loss portion multiplied by 12.5. In particular:

- In the case of pools where the institution uses exclusively the SA or the IRB approach, the risk weight cap for senior exposures would equal the exposure weighted-average risk weight that would apply to the underlying exposures under the SA or IRB framework, respectively.
- In the case of mixed pools, when applying the SEC-IRBA, the SA part of the underlying pool would receive the corresponding SA risk weight, while the IRB portion would receive IRB risk weights. When applying the SEC-SA or the SEC-ERBA, the risk weight

cap for senior exposures would be based on the SA exposure weighted-average risk weight of the underlying assets, whether or not they are originally IRB.

[BCBS July 2016 par 88]

129. Where the risk weight cap results in a lower risk weight than the floor risk weight of 15%, the risk weight resulting from the cap should be used. [BCBS July 2016 par 89]

7.6.5.2. Maximum capital requirements

130. An institution (originating institution or investor) using the SEC-IRBA for a securitization exposure may apply a maximum capital requirement for the securitization exposures it holds equal to the IRB capital requirement (including the expected loss portion and the scaling factor of 1.06 for the unexpected loss portion) that would have been assessed against the underlying exposures had they not been securitized and treated under the appropriate sections of the IRB framework outlined in Chapter 6 of this guideline and paragraph 131. [BCBS July 2016 par 90]

131. In the case of mixed pools, the overall cap should be calculated by adding up the capital before securitization; that is, by adding up the capital required under the general credit risk framework for the IRB and for the SA part of the underlying pool. [BCBS July 2016 par 90]

132. An originating institution using the SEC-ERBA or SEC-SA for a securitization exposure may apply a maximum capital requirement for the securitization exposures it holds equal to the capital requirement that would have been assessed against the underlying exposures had they not been securitized as described in paragraph 133. [BCBS July 2016 par 91]

133. In the case of mixed pools, the overall cap should also be calculated by adding up the capital before securitization; that is, by adding up the capital required under the general credit risk framework for the IRB and the SA part of the underlying pool, respectively. The IRB part of the capital requirement includes the expected loss portion and the scaling factor of 1.06 for the unexpected loss portion. [BCBS July 2016 par 91]

134. In order to apply a maximum capital charge to an institution's securitization exposure, an institution will need the following inputs:

- The largest proportion of interest that the institution holds for each tranche of a given pool (P). In particular:
    - For an institution that has one or more securitization exposure(s) that reside in a single tranche of a given pool, P equals the proportion (expressed as a percentage) of securitization exposure(s) that the institution holds in that given tranche (calculated as the total nominal amount of the institution's securitization exposure(s) in the tranche) divided by the nominal amount of the tranche.
    - For an institution that has securitization exposures that reside in different tranches of a given securitization, P equals the maximum proportion of interest across tranches, where the proportion of interest for each of the different tranches should be calculated as described above.
- Capital charge for underlying pool (K_P):

- For an IRB pool, K_P equals K_{IRB} as defined in paragraphs 55 to 89.
- For an SA pool, K_P equals K_{SA} as defined in paragraph 117 to 120.
- For a mixed pool, K_P equals the exposure-weighted average capital charge of the underlying pool using K_{SA} for the proportion of the underlying pool for which the institution cannot calculate K_{IRB}, and K_{IRB} for the proportion of the underlying pool for which an institution can calculate K_{IRB}.

The maximum aggregated capital requirement for an institution's securitization exposures in the same transaction will be equal to K_P * P. [BCBS July 2016 par 92]

135. In applying the capital charge cap, the entire amount of any gain on sale and credit-enhancing interest-only strips arising from the securitization transaction must be deducted in accordance with paragraph 39. [BCBS July 2016 par 93]

7.7. Treatment of resecuritization exposures

136. For resecuritization exposures, institutions must apply the SEC-SA specified in paragraphs 116 to 127, with the following adjustments:

- the capital requirement of the underlying securitization exposures is calculated using the securitization framework;
- delinquencies (W) are set to zero for any exposure to a securitization tranche in the underlying pool; and
- the supervisory parameter p is set equal to 1.5, rather than 1 as for securitization exposures.

[BCBS July 2016 par 94]

137. If the underlying portfolio of a resecuritization consists of a pool of exposures to securitization tranches in addition to other assets, institutions may separate the exposures to securitization tranches from exposures to assets that are not securitizations. The K_A parameter should be calculated for each subset individually, applying separate W parameters; these are calculated in accordance with paragraphs 121 to 122 in the subsets where the exposures are to assets that are not securitization tranches, and set to zero where the exposures are to securitization tranches. The K_A for the resecuritization exposure is then obtained as the nominal exposure weighted-average of the K_A's for each subset considered. [BCBS July 2016 par 95]

138. The resulting risk weight is subject to a floor risk weight of 100%. [BCBS July 2016 par 96]

139. The caps described in paragraphs 128 to 135 cannot be applied to resecuritization exposures. [BCBS July 2016 par 97]

7.8. Implicit Support

140. The provision of implicit or non-contractual support by an institution can include the following:

- the purchase of deteriorating credit exposures;
- purchasing assets from the underlying pool at above market prices;
- increasing the originator-provided first loss position; or
- an institution indirectly through other lending arrangements achieving the same result.

Such support signals to the market that there is no clean break for the securitized assets and therefore the exclusion of these assets from the originator's calculation of regulatory capital is not justified.

141. When an originating institution believes that the future actions it takes with respect to a securitization structure may meet the definition of implicit support, the institution must advise OSFI and seek a determination of the ensuing regulatory capital impact.

In determining the capital impact, OSFI will consider factors, including but not limited to,

a) the notice provided to OSFI or other method of discovery,
b) the rationale for any structural change to the securitization,
c) any change in credit quality of the asset pool or
d) if any additional enhancements or non-contractual support is provided by third parties at market terms and conditions.

142. As a general principle, when it has been determined that an institution has provided implicit support to a securitization, it must, at a minimum, hold capital against all of the exposures associated with the securitization transaction as if they had not been securitized. Additionally, institutions would not be permitted to recognize in regulatory capital any gain-on-sale, as defined in paragraph 39. Furthermore, the institution is required to disclose publicly that (a) it has provided non-contractual support and (b) the capital impact of doing so. [BCBS July 2016 par 98]

143. If it is determined that implicit support has or will be provided, OSFI will advise the institution of the time period of the capital penalty, which will equal the later of 2 years or the maturity of all notes issued benefiting from the implicit support. If an institution is found to have provided implicit support on more than one occasion, it can expect to be prevented from gaining favourable capital treatment on all securitized assets for five years and will be subject to the disclosure requirements noted above.

7.9. Treatment of credit risk mitigation for securitization exposures

7.9.1. Eligible credit risk mitigation techniques for protection buyers

144. An institution may recognize credit protection purchased on a securitization exposure when calculating capital requirements subject to the following:

- Collateral recognition is limited to that permitted under the credit risk mitigation framework – in particular, paragraphs 43 to 45 of Chapter 5 when the institution applies the SEC-ERBA or SEC-SA, and paragraph 119 of Chapter 5 when the institution applies the SEC- IRBA. Collateral pledged by SPEs may be recognized;
- Credit protection provided by the entities listed in paragraph 83 of Chapter 5 may be recognized. SPEs cannot be recognized as eligible guarantors; and
- Where guarantees or credit derivatives fulfil the minimum operational conditions as specified in paragraphs 75 to 82 of Chapter 5, institutions can take account of such credit protection in calculating capital requirements for securitization exposures. [BCBS July 2016 par 99]

7.9.1.1. Full or proportional cover

145. When an institution provides full (or pro rata) credit protection to a securitization exposure, the institution must calculate its capital requirements as if it directly holds the portion of the securitization exposure on which it has provided credit protection (taking into account the definition of tranche maturity specified in paragraphs 25 and 26). [BCBS July 2016 par 100]

146. Provided that the conditions set out in paragraph 144 are met, the institution buying full (or pro rata) credit protection may recognize the credit risk mitigation on the securitization exposure in accordance with the CRM framework. [BCBS July 2016 par 101]

7.9.1.2. Tranched protection

147. In the case of tranched credit protection, the original securitization tranche will be decomposed into protected and unprotected sub-tranches:[16]

- The protection provider must calculate its capital requirement as if directly exposed to the particular sub-tranche of the securitization exposure on which it is providing protection, and as determined by the hierarchy of approaches for securitization exposures and according to paragraphs 148 to 150.
- Provided that the conditions set out in paragraph 144 are met, the protection buyer may recognize tranched protection on the securitization exposure. In doing so, it must calculate capital requirements for each sub-tranche separately and as follows:
    - For the resulting unprotected exposure(s), capital requirements will be calculated as determined by the hierarchy of approaches for securitization exposures and according to paragraphs 148 to 150.
    - For the guaranteed/protected portion, capital requirements will be calculated according to the applicable CRM framework (in accordance with the definition of tranche maturity given in paragraphs 25 and 26).

[BCBS July 2016, par 102]

[16] The envisioned decomposition is theoretical and it should not be viewed as a new securitization transaction. The resulting sub-tranches should not be considered resecuritizations solely due to the presence of the credit protection.

148. If, according to the hierarchy of approaches determined by paragraphs 47 to 52, the institution must use the SEC-IRBA or SEC-SA, the parameters A and D should be calculated separately for each of the sub-tranches as if the latter would have been directly issued as separate tranches at the inception of the transaction. The value for K_{IRB} (respectively K_{SA}) will be computed on the underlying portfolio of the original transaction. [BCBS July 2016, par 103]

149. If, according to the hierarchy of approaches determined by paragraphs 47 to 52, the institution must use the SEC-ERBA for the original securitization exposure, the relevant risk weights for the different sub-tranches will be calculated subject to the following:

- For the sub-tranche of highest priority,[17] the institution will use the risk weight of the original securitization exposure.
- For a sub-tranche of lower priority:
    - Institutions must infer a rating from one of the subordinated tranches in the original transaction. The risk weight of the sub-tranche of lower priority will then be determined by applying the inferred rating and the SEC-ERBA. Thickness input T will be computed for the sub-tranche of lower priority only.
    - Should it not be possible to infer a rating, the risk weight for the sub-tranche of lower priority will be computed using the SEC-SA applying the adjustments to the determination of A and D described in paragraph 148. The risk weight for this sub-tranche will be obtained as the greater of a) the risk weight determined through the application of the SEC-SA with the adjusted A, D points and b) the SEC-ERBA risk weight of the original securitization exposure prior to recognition of protection

[BCBS July 2016, par 104]

150. Under all approaches, a lower-priority sub-tranche must be treated as a non-senior securitization exposure even if the original securitization exposure prior to protection qualifies as senior as defined in paragraph 21. [BCBS July 2016, par 105]

7.9.2. Maturity mismatches

151. A maturity mismatch exists when the residual maturity of a hedge is less than that of the underlying exposure. [BCBS July 2016, par 106]

152. When protection is bought on a securitization exposure(s), for the purpose of setting regulatory capital against a maturity mismatch, the capital requirement will be determined in accordance with paragraphs 93 to 96 of Chapter 5. When the exposures being hedged have different maturities, the longest maturity must be used. [BCBS July 2016, par 107]

153. When protection is bought on assets to create a synthetic securitization, maturity mismatches may arise in the context of the securitizations (when, for example, an institution

[17] ‘ Sub-tranche of highest priority’ only describes the relative priority of the decomposed tranche. The calculation of the risk weight of each sub-tranche is independent from the question if this sub-tranche is protected (i.e. risk is taken by the protection provider) or is unprotected (i.e. risk is taken by the protection buyer).

uses credit derivatives to transfer part or all of the credit risk of a specific pool of assets to third parties). When the credit derivatives unwind, the transaction will terminate. This implies that the effective maturity of *all* the tranches of the synthetic securitization may differ from that of the underlying assets or exposures. Institutions that synthetically securitize exposures held on their balance sheet by purchasing tranched credit protection must treat such maturity mismatches in the following manner: For securitization exposures that are assigned a risk weight of 1,250%, maturity mismatches are not taken into account. For all other securitization exposures, the institution must apply the maturity mismatch treatment set forth in paragraphs 93 to 96 of Chapter 5. When the exposures being hedged have different maturities, the longest maturity must be used. [BCBS July 2016, par 108]

7.10. 'Simple, transparent, and comparable' (STC) securitizations

7.10.1. Scope and identification of STC securitizations

154. Only traditional securitizations (including exposures to ABCP conduits and exposures to transactions financed by ABCP conduits) fall within the scope of the STC framework. Exposures to securitizations that are STC-compliant will be subject to capital requirements as determined by paragraphs 160 to 165. [BCBS May 2018, par 109]

155. For regulatory capital purposes, the following will be considered STC-compliant:

- Exposures to traditional securitizations that meet all the criteria in Appendix 7-1.
- Exposures to ABCP conduits and/or transactions financed by ABCP conduits[18], where the conduit and/or transactions financed by it meet the relevant criteria in Appendix 7-2 as described in the 'scope of application for capital purposes' section of the appendix.

[BCBS May 2018, par 110]

7.10.2. Compliance with the STC criteria for capital purposes

156. The originating institution must disclose to investors all necessary information at the transaction level to allow investors to determine whether the securitization is STC-compliant. Based on the information provided by the originating institution, the investor must make its own assessment of the securitization's STC compliance status as defined in paragraph 155 before applying the alternative treatment in paragraphs 160 to 165. [BCBS July 2016, par 111]

157. For retained positions where the originating institution has achieved significant risk transfer in accordance with paragraphs 27 to 29, the determination shall be made only by the originating institution retaining the position. [BCBS July 2016, par 111]

158. STC criteria need to be met at all times. Checking the compliance with some of the criteria might only be necessary at origination (or at the time of initiating the exposure, in case of guarantees or liquidity facilities) of an STC securitization. Notwithstanding, investors and holders of the securitization positions are expected to take into account developments that may invalidate the previous compliance assessment, for example deficiencies in the frequency and

[18] Institutions may apply the short term criteria to other exposures only if the exposures were evaluated using the same or similar processes and information and meet all relevant criteria for inclusion into an ABCP conduit sponsored by the institution.

content of the investor reports, in the alignment of interest, or changes in the transaction documentation at variance with relevant STC criteria. [BCBS July 2016, par 112]

159. In cases where the criteria refer to underlying assets – including, but not limited to Criteria D1 and D2 - and the pool is dynamic, the compliance with the criteria will be subject to dynamic checks every time an underlying account is added to the pool. [BCBS July 2016, par 112]

7.10.3. Alternative capital treatment for STC-compliant securitizations

160. Securitization transactions that are assessed as STC-compliant for capital purposes as defined in paragraph 155 shall be subject to capital requirements under the securitization framework, taking into account that:

- When the SEC-IRBA is used, paragraphs 161 and 162 are applicable instead of paragraphs 93 and 101, respectively;
- When the SEC-ERBA is used, paragraphs 161, 163, and 164 are applicable instead of paragraphs103, 105, and 108, respectively;
- When the SEC-SA is used, paragraphs 161 and 165 are applicable instead of paragraphs 125 and 127 respectively.

[BCBS July 2016, par 113]

161. Under all three approaches, the resulting risk weight is subject to a floor risk weight of 10% for senior tranches, and 15% for non-senior tranches. [BCBS July 2016, par 114]

7.10.3.1. Internal Ratings-Based Approach (SEC-IRBA)

162. The supervisory parameter p in SEC-IRBA for an exposure to an STC securitization is as follows:

$$p=\max [0.3; (A + B*(1/N) + C*K_{IRB} + D*LGD + E*M_T)*0.5],$$

where:

- 0.3 denotes the p-parameter floor;
- N is the effective number of loans in the underlying pool, calculated as described in paragraph 96;
- K_{IRB} is the capital charge of the underlying pool (as defined in paragraph 55);
- LGD is the exposure-weighted average loss given default of the underlying pool, calculated as described in paragraph 97);
- M_T is the maturity of the tranche calculated according to paragraphs 25 and 26; and
- the parameters *A, B, C, D, and E* are determined according to the following look-up table:

		A	*B*	*C*	*D*	*E*
Wholesale	**Senior**, granular (N>= 25)	0	3.56	-1.85	0.55	0.07
	Senior, non-granular (N< 25)	0.11	2.61	-2.91	0.68	0.07
	Non-senior, granular (N>= 25)	0.16	2.87	-1.03	0.21	0.07
	Non-senior, non-granular (N< 25)	0.22	2.35	-2.46	0.48	0.07
Retail	**Senior**	0	0	-7.48	0.71	0.24
	Non-Senior	0	0	-5.78	0.55	0.27

[BCBS July 2016 par 115]

7.10.3.2. External Ratings-Based Approach (SEC-ERBA)

163. For exposures with short-term ratings, or when an inferred rating based on a short-term rating is available, the following risk weights shall apply:

Table 1': ERBA risk weights for short-term ratings for STC securitizations

External credit assessment	*A–1/P–1*	*A–2/P–2*	*A–3/P–3*	*All other ratings*
Risk weight	10%	30%	60%	1,250%

[BCBS July 2016 par 116]

164. For exposures with long-term ratings, risk weights will be determined according to Table 2 and will be adjusted for tranche maturity (calculated according to paragraphs 25 and 26), and tranche thickness for non-senior tranches according to paragraph 106.

Table 2': ERBA risk weights for long-term ratings for STC securitizations

Rating	Senior tranche		Non-senior (thin) tranche	
	Tranche maturity (M_T)		*Tranche maturity (M_T)*	
	1 year	5 years	1 year	5 years
AAA	10%	10%	15%	40%
AA+	10%	15%	15%	55%
AA	15%	20%	15%	70%
AA-	15%	25%	25%	80%
A+	20%	30%	35%	95%
A	30%	40%	60%	135%
A-	35%	40%	95%	170%
BBB+	45%	55%	150%	225%
BBB	55%	65%	180%	255%
BBB-	70%	85%	270%	345%
BB+	120%	135%	405%	500%
BB	135%	155%	535%	655%
BB-	170%	195%	645%	740%

B+	225%	250%	810%	855%
B	280%	305%	945%	945%
B-	340%	380%	1015%	1015%
CCC+/CCC/CCC-	415%	455%	1250%	1250%
Below CCC-	1250%	1250%	1250%	1250%

[BCBS July 2016 par 117]

7.10.3.3. Standardized Approach (SEC-SA)

165. The supervisory parameter p in the context of the SEC-SA is set equal to 0.5 for an exposure to an STC securitization. [BCBS July 2016 par 118]

7.11. Treatment of securitization exposures under the capital floor

166. Institutions subject to the capital floor as specified in Section 1.9 of Chapter 1 of this guideline must use one of the following approaches when calculating the capital floor for securitization exposures:

a. the external ratings-based approach (SEC-ERBA) described in section 7.6.2
b. the standardized approach (SEC-SA) described in section 7.6.4, or
c. a risk-weight of 1250%

The internal ratings based approach (SEC-IRBA) and internal assessment approach (IAA) described in sections 7.6.1, and 7.6.3 respectively are ineligible for use under the capital floor.

167. STC-compliant securitizations are eligible to use the alternative capital treatments for the above approaches described in sections 7.10.3.2 and 7.10.3.3, and subject to the floor described in paragraph 161.

168. Institutions are expected to follow the hierarchy of approaches outlined in section 7.5.2 when determining which of the above approaches to use for an exposure under the capital floor.

169. The caps described in section 7.6.5 may be applied to exposures under the capital floor so long as the pool underlying the exposure is treated as an SA pool for the purpose of the cap.

7.12. Transitional arrangements

170. For the four quarters of 2019, institutions may include a negative adjustment to RWA equal to the net increase in RWA that was caused by the implementation of this framework as of Q1 2019. This adjustment will be for the same dollar amount in each of the four quarters that it is in effect. The net increase in RWA should be calculated after including the effects of the other transitional arrangements set out in in paragraphs 172 and 173.

171. In addition to the above adjustment to RWA, all securitization transactions completed by December 31, 2018 will be subject to the transitional arrangements set out in paragraphs 172 and 173 until the next transaction renewal date or maturity of the transaction, subject to a maximum

of two years. As of Q1 2021, no transactions may continue to benefit from these transitional arrangements.

172. Originator transactions will be exempt from the 40% quantitative significant risk transfer test described in paragraph 27. For these transactions, institutions may continue to use the external ratings-based approach (SEC-ERBA) despite the underlying pool meeting the definition of an IRB pool.

173. OSFI recognizes that it may be operationally difficult for existing transactions to meet all of the audit, disclosure and eligibility requirements of the STC criteria. Therefore, institutions are permitted to apply the STC capital treatment to those existing transactions that they believe would meet the STC criteria once given sufficient time to make the necessary modifications.

Appendix 7-1 STC criteria for term securitizations for regulatory capital purposes

1. This appendix describes the 16 criteria that must be met in order for a true-sale term securitization exposure to qualify for the alternative capital treatment described in section 7.10.

7-1.A Asset risk

A1. Nature of assets

2. In simple, transparent and comparable securitizations, the assets underlying the securitization should be credit claims or receivables that are homogeneous. In assessing homogeneity, consideration should be given to asset type jurisdiction, legal system and currency.

3. Homogeneity should be assessed on the basis of common risk drivers, including similar risk factors and risk profiles.

4. The nature of the assets should be such that investors would not need to analyse and assess materially different legal and/or credit risk factors and risk profiles when carrying out risk analysis and due diligence checks.

5. As more exotic asset classes require more complex and deeper analysis, credit claims or receivables should have contractually identified periodic payment streams relating to rental,[19] principal, interest, or principal and interest payments. Any referenced interest payments or discount rates should be based on commonly encountered market interest rates,[20] but should not reference complex or complicated formulae or exotic derivatives.[21] Interest rate caps and/or floors would not automatically be considered exotic.

6. Credit claims or receivables included in the securitization should have standard obligations, in terms of rights to payments and/or income from assets and that result in a periodic and well-defined stream of payments to investors. For the purposes of this criterion, credit card facilities should be deemed to result in a periodic and well-defined stream of payments to investors.

7. Repayment of noteholders should mainly rely on the principal and interest proceeds from the securitized assets. Partial reliance on refinancing or re-sale of the asset securing the exposure may occur provided that re-financing is sufficiently distributed within the pool.

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[19] Payments on operating and financing leases are typically considered to be rental payments rather than payments of principal and interest.

[20] Commonly encountered market interest rates may include rates reflective of a lender's cost of funds, to the extent that sufficient data are provided to investors to allow them to assess their relation to other market rates. Examples of these would include: (i) interbank rates and rates set by monetary policy authorities, such as CDOR, Enhanced CORRA, LIBOR, EURIBOR, the Bank of Canada's target for the overnight rate, and the Fed Funds Rate; and (ii) sectoral rates reflective of a lender's cost of funds, such as internal interest rates that directly reflect the market costs of an institution's funding or that of a subset of institutions.

[21] The Global Association of Risk Professionals (GARP) defines an exotic instrument as a financial asset or instrument with features making it more complex than simpler, plain vanilla products.

A2. Asset performance history

8. In order to provide investors with sufficient information on an asset class to conduct appropriate due diligence and access to a sufficiently rich data set to enable a more accurate calculation of expected loss in different stress scenarios, verifiable loss performance data, such as delinquency[22] and default data, should be available for credit claims and receivables with substantially similar risk characteristics to those being securitized, for a time period long enough to permit meaningful evaluation by investors. Sources of and access to data and the basis for claiming similarity to credit claims or receivables being securitized should be clearly disclosed to all market participants.

9. In addition to the asset performance history, it is important that both the originator and the original lender should have a minimum track record in originating assets similar to those securitized, for example to avoid an originate-to-distribute model. Therefore, for capital purposes, investors must determine whether the performance history of the originator and the original lender for substantially similar claims or receivables to those being securitized has been established for an "appropriately long period of time". This performance history must be no shorter than a period of seven years for non-retail exposures. For retail exposures, the minimum performance history is five years. These data requirements apply irrespective of the credit risk approach used to determine capital requirements on the underlying pool.

Additional consideration that is not part of the criterion[23]

10. In addition to the history of the asset class within a jurisdiction, investors should consider whether the originator, sponsor, servicer and other parties with a fiduciary responsibility to the securitization have an established performance history for substantially similar credit claims or receivables to those being securitized and for an appropriately long period of time.

11. It is not the intention of the criteria to form an impediment to the entry of new participants to the market, but rather that investors should take into account the performance history of the asset class and the transaction parties when deciding whether to invest in a securitization.

A3. Payment status

12. Non-performing credit claims and receivables are likely to require more complex and heightened analysis. The originator/sponsor must represent that credit claims or receivables being transferred to the securitization do not, at the time of inclusion in the pool, include obligations that are in default (typically defined in the transaction's legal documents) or delinquent so as to be obligations for which the transferor (e.g. the originator/sponsor) or parties to the securitization (e.g. the servicer or a party with a fiduciary responsibility) are aware of evidence indicating a material increase in expected losses or of enforcement actions. In a transaction structure in which the seller sells all receivables including defaulted or delinquent

[22] Delinquency disclosures may vary by asset class; however, 30+ day delinquencies should be disclosed for most asset classes.

[23] This "additional consideration" may form part of investors' due diligence process, but does not form part of the criteria when determining whether a securitization can be considered STC.

receivables, no funding should be provided against the defaulted receivables or provisions must be included in the transaction documentation requiring the seller to repurchase such ineligible receivables.

13. To prevent credit claims or receivables arising from credit-impaired borrowers from being transferred to the securitization, the originator/sponsor should verify that a representative sample of credit claims or receivables in an underlying asset pool materially meet the following conditions:

(a) the obligor has not been the subject of an insolvency or debt restructuring process due to financial difficulties within three years prior to the date of origination;[24, 25] and,

(b) the obligor does not have a credit assessment by an ECAI or a credit score[26] indicating a significant risk of default; and

(c) the credit claim or receivable is not currently subject to a dispute between the obligor and the seller.

14. The assessment of these conditions should be carried out by the originator/sponsor no earlier than 45 days prior to the closing date, or, in the case of revolving transactions, no earlier than 45 days prior to new exposures being added to the transaction. Additionally, at the time of this assessment, there should to the best knowledge of the originator/sponsor be no evidence indicating likely deterioration in the performance status of the credit claim or receivable.

15. Additionally, at the time of their inclusion in the pool, at least one payment should have been made on the underlying exposures, except where the sponsor has analyzed performance history for an appropriately long period of time for claims or receivables substantially similar to those being securitized, or in the case of revolving asset trust structures such as those for credit card receivables, trade receivables, and other exposures payable in a single instalment, at maturity.

A4. Consistency of underwriting

16. Investor analysis should be simpler and more straightforward where the securitization is of credit claims or receivables that satisfy materially non-deteriorating origination standards. To ensure that the quality of the securitized credit claims and receivables is not affected by changes in underwriting standards, the originator should make representations to investors that any credit claims or receivables being transferred to the securitization have been originated in the ordinary course of the originator's business to materially non-deteriorating underwriting standards. Where underwriting standards materially change, the originator should disclose the timing and purpose

[24] This condition would not apply to borrowers that previously had credit incidents but were subsequently removed from credit registries as a result of the borrower cleaning their records. This is the case in jurisdictions in which borrowers have the "right to be forgotten".

[25] Original sellers or sponsors may satisfy this verification requirement through an assessment of related metrics that can be shown to address an obligor's financial difficulty, insolvency or debt restructuring over the prescribed period of time.

[26] For this purpose, a credit score may be from a credit rating bureau (such as a FICO score), or may be an internal score (such as from the original lender).

of such changes. Underwriting standards should not be less stringent than those applied to credit claims and receivables retained on the balance sheet.

17. These should be credit claims or receivables which have satisfied materially non-deteriorating underwriting criteria and for which the obligors have been assessed as having the ability and volition to make timely payments on obligations; or on granular pools of obligors originated in the ordinary course of the originator's business where expected cash flows have been modelled to meet stated obligations of the securitization under prudently stressed loan loss scenarios.

18. In all circumstances, all credit claims or receivables must be originated in accordance with sound and prudent underwriting criteria based on an assessment that the obligor has the "ability and volition to make timely payments" on its obligations.

19. The originator/sponsor of the securitization is expected, where underlying credit claims or receivables have been acquired from third parties, to review the underwriting standards (i.e. to check their existence and assess their quality) of these third parties and to ascertain that they (i.e. the original lender) have assessed the obligors' "ability and volition to make timely payments on obligations".

A5. Asset selection and transfer

20. Whilst recognising that credit claims or receivables transferred to a securitization will be subject to defined criteria (e.g. the size of the obligation, the age of the borrower or the LTV of the property, debt-to-income, and/or debt service coverage ratios), the performance of the securitization should not rely upon the ongoing selection of assets through active management[27] on a discretionary basis of the securitization's underlying portfolio.

21. Credit claims or receivables transferred to a securitization should satisfy clearly defined eligibility criteria. Credit claims or receivables transferred to a securitization after the closing date may not be actively selected, actively managed or otherwise cherry-picked on a discretionary basis. Investors should be able to assess the credit risk of the asset pool prior to their investment decisions.

22. In order to meet the principle of true sale, the securitization should effect true sale such that the underlying credit claims or receivables:

(a) are enforceable against the obligor and their enforceability is included in the representations and warranties of the securitization;

(b) are beyond the reach of the seller, its creditors or liquidators and are not subject to material re-characterisation or clawback risks;

[27] Provided they are not actively selected or otherwise cherry-picked on a discretionary basis, the addition of credit claims or receivables during the revolving periods or their substitution or repurchasing due to the breach of representations and warranties do not represent active portfolio management.

(c) are not effected through credit default swaps, derivatives or guarantees, but by a transfer[28] of the credit claims or the receivables to the securitization; and

(d) demonstrate effective recourse to the ultimate obligation for the underlying credit claims or receivables and are not a securitization of other securitizations.

23. In applicable jurisdictions, securitizations employing transfers of credit claims or receivables by other means should demonstrate the existence of material obstacles preventing true sale at issuance (e.g. the immediate realization of transfer tax or the requirement to notify obligors of the transfer) and should clearly demonstrate the method of recourse to ultimate obligors (e.g. equitable assignment, perfected contingent transfer). In such jurisdictions, any conditions where the transfer of the credit claims or receivable is delayed or contingent upon specific events and any factors affecting timely perfection of claims by the securitization should be clearly disclosed.

24. The originator should provide representations and warranties that the credit claims or receivables being transferred to the securitization are not subject to any condition or encumbrance that can be foreseen to adversely affect enforceability in respect of collections due.

A6. Initial and ongoing data

25. To assist investors in conducting appropriate due diligence prior to investing in a new offering, sufficient loan-level data or, in the case of granular pools, summary stratification data on the relevant risk characteristics of the underlying pool, in each case in accordance with applicable laws, should be available to potential investors before pricing of a securitization.

26. To assist investors in conducting appropriate and ongoing monitoring of their investments' performance and so that investors that wish to purchase a securitization in the secondary market have sufficient information to conduct appropriate due diligence, timely loan-level data or granular pool stratification data on the risk characteristics of the underlying pool, in each case in accordance with applicable laws, and standardized investor reports should be readily available to current and potential investors at least quarterly throughout the life of the securitization. Cut-off dates of the loan-level or granular pool stratification data should be aligned with those used for investor reporting.

27. To provide a level of assurance that the reporting of the underlying credit claims or receivables is accurate and that the underlying credit claims or receivables meet the eligibility requirements, the initial portfolio should be reviewed for conformity with the eligibility requirements by an appropriate legally accountable and independent third party, such as an independent accounting practice or the calculation agent or management company for the securitization.

28. The review should confirm that the credit claims or receivables transferred to the securitization meet the portfolio eligibility requirements. The review could, for example, be undertaken on a representative sample of the initial portfolio, with the application of a minimum

[28] The requirement should not affect jurisdictions whose legal frameworks provide for a true sale with the same effects as described above, but by means other than a transfer of the credit claims or receivables.

confidence level. The verification report need not be provided but its results, including any material exceptions, should be disclosed in the initial offering documentation.

7-1.B Structural risk

B1. Redemption cash flows

29. Liabilities subject to the refinancing risk of the underlying credit claims or receivables are likely to require more complex and heightened analysis. To help ensure that the underlying credit claims or receivables do not need to be refinanced over a short period of time, there should not be a reliance on the sale or refinancing of the underlying credit claims or receivables in order to repay the liabilities, unless the underlying pool of credit claims or receivables is sufficiently granular and has sufficiently distributed repayment profiles. Rights to receive income from the assets specified to support redemption payments should be considered as eligible credit claims or receivables in this regard (e.g. associated savings plans designed to repay principal at maturity).

B2. Currency and interest rate asset and liability mismatches

30. To reduce the payment risk arising from the different interest rate and currency profiles of assets and liabilities and to improve investors' ability to model cash flows, interest rate and foreign currency risks should be appropriately mitigated at all times, and if any hedging transaction is executed the transaction should be documented according to industry-standard master agreements. Only derivatives used for genuine hedging of asset and liability mismatches of interest rate and / or currency should be allowed.

31. The term "appropriately mitigated" should be understood as not necessarily requiring a completely perfect hedge. The appropriateness of the mitigation of interest rate and foreign currency through the life of the transaction must be demonstrated by making available to potential investors, in a timely and regular manner, quantitative information including the fraction of notional amounts that are hedged, as well as sensitivity analysis that illustrates the effectiveness of the hedge under extreme but plausible scenarios.

32. If hedges are not performed through derivatives, then those risk-mitigating measures are only permitted if they are specifically created and used for the purpose of hedging an individual and specific risk, and not multiple risks at the same time (such as credit and interest rate risks). Non-derivative risk mitigation measures must be fully funded and available at all times.

B3. Payment priorities and observability

33. To prevent investors being subjected to unexpected repayment profiles during the life of a securitization, the priorities of payments for all liabilities in all circumstances should be clearly defined at the time of securitization and appropriate legal comfort regarding their enforceability should be provided.

34. To ensure that junior noteholders do not have inappropriate payment preference over senior noteholders that are due and payable, throughout the life of a securitization, or, where there are multiple securitizations backed by the same pool of credit claims or receivables,

throughout the life of the securitization programme, junior liabilities should not have payment preference over senior liabilities which are due and payable. The securitization should not be structured as a "reverse" cash flow waterfall such that junior liabilities are paid where due and payable senior liabilities have not been paid.

35. To help provide investors with full transparency over any changes to the cash flow waterfall, payment profile or priority of payments that might affect a securitization, all triggers affecting the cash flow waterfall, payment profile or priority of payments of the securitization should be clearly and fully disclosed both in offering documents and in investor reports, with information in the investor report that clearly identifies the breach status, the ability for the breach to be reversed and the consequences of the breach. Investor reports should contain information that allows investors to monitor the evolution over time of the indicators that are subject to triggers. Any triggers breached between payment dates should be disclosed to investors on a timely basis in accordance with the terms and conditions of all underlying transaction documents.

36. Securitizations featuring a revolving period should include provisions for appropriate early amortisation events and/or triggers of termination of the revolving period, including, notably: (i) deterioration in the credit quality of the underlying exposures; (ii) a failure to acquire sufficient new underlying exposures of similar credit quality; and (iii) the occurrence of an insolvency-related event with regard to the originator or the servicer.

37. Following the occurrence of a performance-related trigger, an event of default or an acceleration event, the securitization positions should be repaid in accordance with a sequential amortisation priority of payments, in order of tranche seniority, and there should not be provisions requiring immediate liquidation of the underlying assets at market value.

38. To assist investors in their ability to appropriately model the cash flow waterfall of the securitization, the originator/sponsor should make available to investors, both before pricing of the securitization and on an ongoing basis, a liability cash flow model or information on the cash flow provisions allowing appropriate modelling of the securitization cash flow waterfall.

39. To ensure that debt forgiveness, forbearance, payment holidays and other asset performance remedies that may affect investors can be clearly identified, policies and procedures, definitions, remedies and actions relating to delinquency, default or restructuring of underlying debtors should be provided in clear and consistent terms, such that investors can clearly identify debt forgiveness, forbearance, payment holidays, restructuring and other asset performance remedies that may affect their investment performance[29] on an ongoing basis.

B4. Voting and enforcement rights

40. To help ensure clarity for securitization note holders of their rights and ability to control and enforce on the underlying credit claims or receivables, upon insolvency of the

[29] If agreements were in place for the originator/sponsor to repurchase loans at market rates prior to modification then the loan modification policies would not affect the investment performance and so would not need to be disclosed.

originator/sponsor, all voting and enforcement rights related to the credit claims or receivables should be transferred to the securitization. Investors' rights in the securitization should be clearly defined in all circumstances, including the rights of senior versus junior note holders.

B5. Documentation disclosure and legal review

41. To help investors to fully understand the terms, conditions, legal and commercial information prior to investing in a new offering[30] and to ensure that this information is set out in a clear and effective manner for all programmes and offerings, sufficient initial offering[31] and draft underlying[32] documentation should be made available to investors and potential investors within a reasonably sufficient period of time prior to pricing, or when legally permissible, such that the investor is provided with full disclosure of the legal and commercial information and comprehensive risk factors needed to make informed investment decisions. Final offering documents should be available from the closing date and all final underlying transaction documents shortly thereafter. These should be composed such that readers can readily find, understand and use relevant information.

42. To ensure that all the securitization's underlying documentation has been subject to appropriate review prior to publication, the terms and documentation of the securitization should be reviewed by an appropriately experienced third party legal practice, such as a legal counsel already instructed by one of the transaction parties, e.g. by the arranger or the trustee. Investors should be notified in a timely fashion of any changes in such documents that have an impact on the structural risks in the securitization.

B6. Alignment of interest

43. In order to align the interests of those responsible for the underwriting of the credit claims or receivables with those of investors, the originator/sponsor of the credit claims or receivables should retain a material net economic exposure and demonstrate a financial incentive in the performance of these assets following their securitization.

7-1.C Fiduciary and servicer risk

C1. Fiduciary and contractual responsibilities

44. To help ensure servicers have extensive workout expertise, thorough legal and collateral knowledge and a proven track record in loss mitigation, such parties should be able to demonstrate expertise in the servicing of the underlying credit claims or receivables, supported by a management team with extensive industry experience. The servicer should at all times act in accordance with reasonable and prudent standards. Policies, procedures and risk management

[30] For the avoidance of doubt, any type of securitization should be allowed to fulfil the requirements of Criterion B5 once it meets its prescribed standards of disclosure and legal review.

[31] For example, draft offering circular, draft offering memorandum, draft offering document or draft prospectus, such as a "red herring".

[32] For example, any relevant agreements, contracts, terms; and any other relevant underlying documentation, including legal opinions.

controls should be well documented and adhere to good market practices and relevant regulatory regimes. There should be strong systems and reporting capabilities in place.

45. The party or parties with fiduciary responsibility should act on a timely basis in the best interests of the securitization note holders, and both the initial offering and all underlying documentation should contain provisions facilitating the timely resolution of conflicts between different classes of note holders by the trustees, to the extent permitted by applicable law.

46. The party or parties with fiduciary responsibility to the securitization and to investors should be able to demonstrate sufficient skills and resources to comply with their duties of care in the administration of the securitization vehicle.

47. To increase the likelihood that those identified as having a fiduciary responsibility towards investors as well as the servicer execute their duties in full on a timely basis, remuneration should be such that these parties are incentivized and able to meet their responsibilities in full and on a timely basis.

48. In assessing whether "strong systems and reporting capabilities are in place", well documented policies, procedures and risk management controls, as well as strong systems and reporting capabilities, may be substantiated by a third-party review for non-banking entities.

49. Institutions are subject to an ongoing assessment of their internal reporting systems and capabilities, as outlined in Criterion 7 of Principle 15 of the Basel Core Principles for Effective Banking Supervision. To ensure an assessment that is comparable with that of banking entities, other non-bank originating entities not subject to the Basel Core Principles should provide proof of an independent assessment of their reporting capabilities. Evidence of a suitable third-party review can be based on the supervisory regime applicable to this entity (if such supervision covers internal reporting systems).

C2. Transparency to investors

50. To help provide full transparency to investors, assist investors in the conduct of their due diligence and to prevent investors being subject to unexpected disruptions in cash flow collections and servicing, the contractual obligations, duties and responsibilities of all key parties to the securitization, both those with a fiduciary responsibility and of the ancillary service providers, should be defined clearly both in the initial offering and all underlying documentation. Provisions should be documented for the replacement of servicers, bank account providers, derivatives counterparties and liquidity providers in the event of failure or non-performance or insolvency or other deterioration of creditworthiness of any such counterparty to the securitization.

51. To enhance transparency and visibility over all receipts, payments and ledger entries at all times, the performance reports to investors should distinguish and report the securitization's income and disbursements covering items, as applicable, such as scheduled principal, redemption principal, scheduled interest, prepaid principal, past due interest and fees and charges, delinquent, defaulted and restructured amounts under debt forgiveness and payment holidays,

including accurate accounting for amounts attributable to principal and interest deficiency ledgers.

52. The terms "initial offering" and "underlying transaction documentation" should be understood in the context defined by Criterion B5. The term "income and disbursements" should also be understood as including deferment, forbearance, and repurchases among the items described.

7-1.D Additional criteria for capital purposes

D1. Credit risk of underlying exposures

53. At the portfolio cut-off date the underlying exposures have to meet the conditions under the Standardized Approach for credit risk (Chapter 3), and after taking into account any eligible credit risk mitigation, for being assigned a risk weight equal to or smaller than:

- 40% on an exposure-weighted average basis for the portfolio where the exposures are loans secured by residential mortgages or fully guaranteed residential loans;
- 50% on an individual exposure basis where the exposure is a loan secured by a commercial mortgage;
- 75% on an individual exposure basis where the exposure is a retail exposure; or
- 100% on an exposure-weighted average basis for the portfolio for any other exposure.

D2. Granularity of the pool

54. At the portfolio cut-off date, the aggregated value of all exposures to a single obligor shall not exceed 1%[33] of the aggregated outstanding exposure value of all exposures in the portfolio. This definition of granularity helps to ensure that granular asset portfolios would be at a level where statistical approaches to model losses can be employed, as opposed to having to review the credit quality of individual exposures.

[33] For corporate exposures, the applicable maximum concentration threshold can be increased to 2% if the securitization transaction benefits from a loss absorbing credit enhancement, as defined in paragraph 13, which covers at least the first 10% of losses. Subordinated tranche(s) for the purposes of a loss absorbing credit enhancement used to meet this requirement shall not be eligible for the STC capital treatment.

Appendix 7-2 STC criteria for short-term securitizations for regulatory capital purposes

1. This appendix describes the 19 criteria that must be met in order for a securitization exposure to an ABCP conduit or transaction financed by an ABCP conduit to qualify for the alternative capital treatment described in section 7.10.

Terms and definitions

ABCP conduit / conduit	The special purpose vehicle which can issue commercial paper
ABCP programme	The programme of commercial paper issued by an ABCP conduit
assets / asset pool	The credit claims and/or receivables underlying a transaction in which the ABCP conduit holds a beneficial interest
investor	The holder of commercial paper issued under an ABCP programme, or any type of exposure to the conduit representing a financing liability of the conduit, such as loans
obligor	The borrower underlying a credit claim or a receivable that is part of an asset pool
seller	A party that (i) concluded (in its capacity as original lender) the original agreement that created the obligations or potential obligations (under a credit claim or a receivable) of an obligor or purchased the obligations or potential obligations from the original lender(s), and (ii) transferred those assets through a transaction or passed on the interest[34] to the ABCP conduit
sponsor	Sponsor of an ABCP conduit. It may also be noted that other relevant parties with a fiduciary responsibility in the management and administration of the ABCP conduit could also undertake control of some of the responsibilities of the sponsor
transaction	An individual transaction in which the ABCP conduit holds a beneficial interest. A transaction may qualify as a securitization, but may also be a direct asset purchase, the acquisition of undivided interest in a revolving pool of asset, a secured loan etc.

Scope of application

2. For an ABCP conduit to be considered STC, the following criteria need to be met both at the conduit level and transaction level.

Scope of application for capital purposes

[34] For instance, transactions in which assets are sold to a special purpose entity sponsored by a bank's customer and then either a security interest in the assets is granted to the ABCP conduit to secure a loan made by the ABCP conduit to the sponsored special purpose entity, or an undivided interest is sold to the ABCP conduit.

3. For exposures to an ABCP conduit (e.g. exposure arising from investing in the commercial papers issued by the ABCP programme or sponsoring arrangements at the conduit/programme level), compliance with the short-term STC capital criteria is only achieved if the criteria are satisfied at both the conduit and transaction levels.

4. In the case of exposures to individual transactions financed by an ABCP conduit, compliance with the short-term STC capital criteria is considered to be achieved if the criteria relevant to the transaction level are satisfied for the transactions to which support is provided.

7-2.A Asset risk

A1. Nature of assets

Relevant to the Conduit level

5. The sponsor should make representations and warranties to investors that the subsections of Criterion A1 defined at transaction-level are met, and explain how this is the case on an overall basis. Only if specified should this be done for each transaction.

6. Provided that each individual underlying transaction is homogeneous in terms of asset type, a conduit may be used to finance transactions of different asset types.

7. Programme wide credit enhancement should not prevent a conduit from qualifying for STC, regardless of whether such enhancement technically creates re-securitization.

Relevant to the Transaction level

8. The assets underlying a transaction in a conduit should be credit claims or receivables that are homogeneous, in terms of asset type.

9. Homogeneity should be assessed on the basis of common risk drivers, including similar risk factors and risk profiles.

10. The nature of assets should be such that there would be no need to analyze and assess materially different legal and/or credit risk factors and risk profiles when carrying out risk analysis and due diligence checks for the transaction.

11. The assets underlying each individual transaction in a conduit should not be composed of "securitization exposures" as defined in paragraph 7 of this chapter. This requirement is met if the transaction has the same economic characteristics as the purchase of the pool of underlying assets with a refundable purchase price discount, regardless of the legal form of the transaction.

12. Credit claims or receivables underlying a transaction in a conduit should have contractually identified periodic payment streams relating to rental,[35] principal, interest, or principal and interest payments. Credit claims or receivables generating a single payment stream would equally qualify as eligible. Any referenced interest payments or discount rates should be based on commonly encountered market interest rates,[36] but should not reference complex or complicated formulae or exotic derivatives.[37] Interest rate caps and/or floors are not automatically considered "exotic derivatives".

13. Credit claims or receivables included in the securitization should have standard obligations, in terms of rights to payments and/or income from assets and that result in a periodic and well-defined stream of payments to investors. For the purposes of this criterion, credit card facilities should be deemed to result in a periodic and well-defined stream of payments to investors.

14. Repayment of the securitization exposure should mainly rely on the principal and interest proceeds from the securitized assets. Partial reliance on refinancing or re-sale of the asset securing the exposure may occur provided that re-financing is sufficiently distributed within the pool.

15. Examples of "commonly encountered market interest rates" include:

- interbank rates and rates set by monetary policy authorities, such as CDOR, Enhanced CORRA, LIBOR, EURIBOR, the Bank of Canada's target for the overnight rate, the Fed Funds Rate; and
- sectoral rates reflective of a lender's cost of funds, such as internal interest rates that directly reflect the market costs of a bank's funding or that of a subset of institutions.

A2. Asset performance history

Relevant to the Conduit level

16. In order to provide investors with sufficient information on the performance history of the asset types backing the transactions, the sponsor should make available to investors, sufficient loss performance data of claims and receivables with substantially similar risk characteristics, such as delinquency and default data of similar claims, and for a time period long enough to permit meaningful evaluation. The sponsor should disclose to investors the sources of such data and the basis for claiming similarity to credit claims or receivables financed by the conduit. Such loss performance data may be provided on a stratified basis.[38]

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[35] Payments on operating and financing leases are typically considered to be rental payments rather than payments of principal and interest.

[36] Commonly encountered market interest rates may include rates reflective of a lender's cost of funds, to the extent sufficient data is provided to the sponsors to allow them to assess their relation to other market rates.

[37] The Global Association of Risk Professionals (GARP) defines an exotic instrument as a financial asset or instrument with features making it more complex than simpler, plain vanilla, products.

[38] Stratified means by way of example:

Relevant to the Transaction level

17. In order to provide the sponsor with sufficient information on the performance history of each asset type backing the transactions and to conduct appropriate due diligence and to have access to a sufficiently rich data set to enable a more accurate calculation of expected loss in different stress scenarios, verifiable loss performance data, such as delinquency[39] and default data, should be available for credit claims and receivables with substantially similar risk characteristics to those being financed by the conduit, for a time period long enough to permit meaningful evaluation by the sponsor.

18. The sponsor of the securitization, as well as the original lender who underwrites the assets, must have sufficient experience in the risk analysis/underwriting of exposures or transactions with underlying exposures similar to those securitized. The sponsor should have well documented procedures and policies regarding the underwriting of transactions and the ongoing monitoring of the performance of the securitized exposures. The sponsor should ensure that the seller(s) and all other parties involved in the origination of the receivables have experience in originating same or similar assets, and are supported by a management with industry experience. For the purpose of meeting the short-term STC capital criteria, investors must request confirmation from the sponsor that the performance history of the originator and the original lender for substantially similar claims or receivables to those being securitized has been established for an "appropriately long period of time". This performance history must be no shorter than a period of five years for non-retail exposures. For retail exposures, the minimum performance history is three years.

A3. Payment status

Relevant to the Conduit level

19. The sponsor should, to the best of its knowledge and based on representations from sellers, make representations and warranties to investors that Criterion A3 at the transaction level is met with respect to each transaction.

Relevant to the Transaction level

20. The sponsor should obtain representations from sellers that the credit claims or receivables underlying each individual transaction are not, at the time of acquisition of the interests to be financed by the conduit, in default (typically defined in the transaction's legal documents) or delinquent so as to be subject to a material increase in expected losses or of enforcement actions. In a transaction structure in which the seller sells all receivables including

- all materially relevant data on the conduit's composition (outstanding balances, industry sector, obligor concentrations, maturities, etc.) and conduit's overview;
- all materially relevant data on the credit quality and performance of underlying transactions, allowing investors to identify collections, and as applicable, debt restructuring, forgiveness, forbearance, payment holidays, repurchases, delinquencies and defaults.

[39] Delinquency disclosures may vary by asset class; however, 30+ day delinquencies should be disclosed for most asset classes.

defaulted or delinquent receivables, no funding should be provided against the defaulted receivables or provisions must be included in the transaction documentation requiring the seller to repurchase such ineligible receivables.

21. To prevent credit claims or receivables arising from credit-impaired borrowers from being transferred to the securitization, the original seller or sponsor should verify that a representative sample of credit claims or receivables in an underlying asset pool materially meet the following conditions for each transaction:

(a) the obligor has not been the subject of an insolvency or debt restructuring process due to financial difficulties in the three years prior to the date of origination;[40, 41]

(b) the obligor does not have a credit assessment by an external credit assessment institution or a credit score[42] indicating a significant risk of default; and

(c) the credit claim or receivable is not currently subject to a dispute between the obligor and the seller.

22. The assessment of these conditions should be carried out by the original seller or sponsor no earlier than 45 days prior to acquisition of the transaction by the conduit or, in the case of replenishing transactions, no earlier than 45 days prior to new exposures being added to the transaction. In addition, at the time of the assessment, there should to the best knowledge of the seller or sponsor be no evidence indicating likely deterioration in the performance status of the credit claim or receivable.

23. Further, at the time of their inclusion in the pool, at least one payment should have been made on the underlying exposures, except where the sponsor has analyzed performance history for an appropriately long period of time for substantially similar claims or receivables substantially similar to those being securitized, or in the case of replenishing asset trust structures such as those for credit card receivables, trade receivables, and other exposures payable in a single instalment, at maturity.

A4. Consistency of underwriting

Relevant to the Conduit level

24. The sponsor should make representations and warranties to investors that:

- it has taken steps to verify that for the transactions in the conduit, any underlying credit claims and receivables have been subject to consistent materially non-deteriorating underwriting standards, and explain how.

[40] This condition would not apply to borrowers that previously had credit incidents but were subsequently removed from credit registries as a result of the borrowers cleaning their records. This is the case in jurisdictions in which borrowers have the "right to be forgotten".

[41] Original sellers or sponsors may satisfy this verification requirement through an assessment of related metrics that can be shown to address an obligor's financial difficulty, insolvency or debt restructuring over the prescribed period of time.

[42] For this purpose, a credit score may be from a credit rating bureau (such as a FICO score), or may be an internal score (such as from the original lender).

- when there are material changes to underwriting standards, it will receive from sellers disclosure about the timing and purpose of such changes.

25. The sponsor should also inform investors of the material selection criteria applied when selecting sellers (including where they are not financial institutions).

Relevant to the Transaction level

26. The sponsor should ensure that sellers in transactions with the conduit make representations to it that:

a) any credit claims or receivables being transferred to or through a transaction held by the conduit have been originated or purchased in the ordinary course of the seller's business to materially non-deteriorating underwriting standards. Those underwriting standards should also not be less stringent than those applied to credit claims and receivables retained on the balance sheet of the seller and not financed by the conduit; and

b) the obligors have been assessed as having the ability and volition to make timely payments on obligations.

27. The sponsor should also ensure that sellers disclose to it the timing and purpose of material changes to underwriting standards.

28. In all circumstances, all credit claims or receivables must be originated in accordance with sound and prudent underwriting criteria based on an assessment that the obligor has the "ability and volition to make timely payments" on its obligations.[43]

29. The sponsor of the securitization is expected, where underlying credit claims or receivables have been acquired from third parties, to review the underwriting standards (i.e. to check their existence and assess their quality) of these third parties and to ascertain that they have assessed the obligors' "ability and volition to make timely payments" on their obligations.

A5. Asset selection and transfer

Relevant to the Conduit level

30. The sponsor should:

- provide representations and warranties to investors about the checks, in nature and frequency, it has conducted regarding enforceability of underlying assets.
- disclose to investors the receipt of appropriate representations and warranties from sellers that the credit claims or receivables being transferred to the transactions in the conduit are not subject to any condition or encumbrance that can be foreseen to adversely affect enforceability in respect of collections due.

[43] There is no obligation for the seller to perform this assessment itself.

31. The standardized investor reports which are made readily available to current and potential investors at least monthly should include the following information:

- materially relevant data on the credit quality and performance of underlying assets, which may include data allowing investors to identify dilution, delinquencies and defaults, restructured receivables, forbearance, repurchases, losses, recoveries and other asset performance remedies in the pool;
- the form and amount of credit enhancement provided by the seller and sponsor at transaction and conduit levels, respectively;
- materially relevant information on the support provided by the sponsor; and
- the status and definitions of relevant triggers (such as performance, termination or counterparty replacement triggers).

Relevant to the Transaction level

32. The sponsor should ensure that credit claims or receivables transferred to or through a transaction financed by the conduit:

a) satisfy clearly defined eligibility criteria;

b) are not actively selected after the closing date, actively managed[44] or otherwise cherry-picked on a discretionary basis.

33. The sponsor should be able to assess thoroughly the credit risk of the asset pool prior to its decision to provide full support to any given transaction or to the conduit.

34. The sponsor should ensure that the transactions in the conduit effect true sale such that the underlying credit claims or receivables:

- are enforceable against the obligor;
- are beyond the reach of the seller, its creditors or liquidators and are not subject to material re-characterization or clawback risks;
- are not effected through credit default swaps, derivatives or guarantees, but by a transfer[45] of the credit claims or the receivables to the transaction; and
- demonstrate effective recourse to the ultimate obligation for the underlying credit claims or receivables and are not a re-securitization position.

35. The sponsor should ensure that in applicable jurisdictions, for conduits employing transfers of credit claims or receivables by other means, sellers can demonstrate to it the

[44] Provided they are not actively selected or otherwise cherry picked on a discretionary basis, the addition of credit claims or receivables during the revolving periods, their substitution or repurchasing due to the breach of representations and warranties or their repurchases for sale to term securitizations do not represent active portfolio management.

[45] This requirement should not affect jurisdictions whose legal frameworks provide for a true sale with the same effects as described above, but by means other than a transfer of the credit claims or receivables.

existence of material obstacles preventing true sale at issuance[46] and should clearly demonstrate the method of recourse to ultimate obligors.[47] In such jurisdictions, any conditions where the transfer of the credit claims or receivables is delayed or contingent upon specific events and any factors affecting timely perfection of claims by the conduit should be clearly disclosed.

36. The sponsor should ensure that it receives from the individual sellers (either in their capacity as original lender or servicer) representations and warranties that the credit claims or receivables being transferred to or through the transaction are not subject to any condition or encumbrance that can be foreseen to adversely affect enforceability in respect of collections due.

A6. Initial and ongoing data

Relevant to the Conduit level

37. To assist investors in conducting appropriate due diligence prior to investing in a new programme offering, the sponsor should provide to potential investors sufficient aggregated data that illustrate the relevant risk characteristics of the underlying asset pools in accordance with applicable laws.

38. To assist investors in conducting appropriate and ongoing monitoring of their investments' performance and so that investors who wish to purchase commercial paper have sufficient information to conduct appropriate due diligence, the sponsor should provide timely and sufficient aggregated data that provide the relevant risk characteristics of the underlying pools in accordance with applicable laws. The sponsor should ensure that standardized investor reports are readily available to current and potential investors at least monthly. Cut off dates of the aggregated data should be aligned with those used for investor reporting.

39. The standardized investor reports which are made readily available to current and potential investors at least monthly should include the following information:

- materially relevant data on the credit quality and performance of underlying assets, including data allowing investors to identify dilution, delinquencies and defaults, restructured receivables, forbearance, repurchases, losses, recoveries and other asset performance remedies in the pool;
- the form and amount of credit enhancement provided by the seller and sponsor at transaction and conduit levels, respectively;
- relevant information on the support provided by the sponsor; and
- the status and definitions of relevant triggers (such as performance, termination or counterparty replacement triggers).

[46] For instance, the immediate realisation of transfer tax or the requirement to notify all obligors of the transfer.
[47] For instance, equitable assignment, perfected contingent transfer.

Relevant to the Transaction level

40. The sponsor should ensure that the individual sellers (in their capacity of servicers) provide it with:

a) sufficient asset level data in accordance with applicable laws or, in the case of granular pools, summary stratification data on the relevant risk characteristics of the underlying pool before transferring any credit claims or receivables to such underlying pool.

b) timely asset level data in accordance with applicable laws or granular pool stratification data on the risk characteristics of the underlying pool on an ongoing basis. Those data should allow the sponsor to fulfil its fiduciary duty at the conduit level in terms of disclosing information to investors including the alignment of cut off dates of the asset level or granular pool stratification data with those used for investor reporting.

41. The seller may delegate some of these tasks and, in this case, the sponsor should ensure that there is appropriate oversight of the outsourced arrangements.

7-2.B Structural risk

B1. Redemption cash flow

Relevant to the Transaction level

42. Unless the underlying pool of credit claims or receivables is sufficiently granular and has sufficiently distributed repayment profiles, the sponsor should ensure that the repayment of the credit claims or receivables underlying any of the individual transactions relies primarily on the general ability and willingness of the obligor to pay rather than the possibility that the obligor refinances or sells the collateral and that such repayment does not primarily rely on the drawing of an external liquidity facility provided to this transaction.

43. For capital purposes, sponsors cannot use support provided by their own liquidity and credit facilities towards meeting this criterion. For the avoidance of doubt, the requirement that the repayment shall not primarily rely on the drawing of an external liquidity facility does not apply to exposures in the form of the notes issued by the ABCP conduit.

B2. Currency and interest rate asset and liability mismatches

Relevant to the Conduit level

44. The sponsor should ensure that any payment risk arising from different interest rate and currency profiles: (i) not mitigated at transaction-level; or (ii) arising at conduit level; are appropriately mitigated.

45. The sponsor should provide sufficient information to investors to allow them to assess how the payment risk arising from the different interest rate and currency profiles of assets and liabilities are appropriately mitigated, whether at the conduit or at transaction level.

46. The term "appropriately mitigated" should be understood as not necessarily requiring a completely perfect hedge. The appropriateness of the mitigation of interest rate and foreign currency risks through the life of the transaction must be demonstrated by making available, in a timely and regular manner, quantitative information including the fraction of notional amounts that are hedged, as well as sensitivity analysis that illustrates the effectiveness of the hedge under extreme but plausible scenarios.

47. The sponsor should ensure that derivatives are only used for genuine hedging purposes and that hedging transactions are documented according to industry-standard master agreements.

48. The use of risk-mitigating measures other than derivatives is permitted only if the measures are specifically created and used for the purpose of hedging an individual and specific risk. Nonderivative risk mitigation measures must be fully funded and available at all times.

Relevant to the Transaction level

49. To reduce the payment risk arising from the different interest rate and currency profiles of assets and liabilities, if any, and to improve the sponsor's ability to analyze cash flows of transactions, the sponsor should ensure that interest rate and foreign currency risks are appropriately mitigated.[48]

50. The sponsor should ensure that derivatives are only used for genuine hedging purposes and that hedging transactions are documented according to industry-standard master agreements.

51. The use of risk-mitigating measures other than derivatives is permitted only if the measures are specifically created and used for the purpose of hedging an individual and specific risk. Nonderivative risk mitigation measures must be fully funded and available at all times.

B3. Payment priorities and observability

Relevant to the Conduit level

52. The commercial paper issued by the ABCP programme should not include extension options or other features which may extend the final maturity of the asset-backed commercial paper, where the right of trigger does not belong exclusively to investors. The sponsor should:

(i) make representations and warranties to investors that Criterion B3 is met at a transaction level and in particular, that it has the ability to appropriately analyze the cash flow waterfall for each transaction which qualifies as a securitization; and

(ii) make available to investors a summary (illustrating the functioning) of these waterfalls and of the credit enhancement available at programme level and transaction level.

[48] The term "appropriately mitigated" should be understood as not necessarily requiring a completely perfect hedge and should not be seen from an accounting perspective.

Relevant to the Transaction level

53. To prevent the conduit from being subjected to unexpected repayment profiles from the transactions, the sponsor should ensure that:

- priorities of payments are clearly defined at the time of acquisition of the interests in these transactions by the conduit; and
- appropriate legal comfort regarding the enforceability is provided.

54. For all transactions which qualify as a securitization, the sponsor should ensure that all triggers affecting the cash flow waterfall, payment profile or priority of payments are clearly and fully disclosed to the sponsor both in the transactions' documentation and reports, with information in the reports that clearly identifies any breach status, the ability for the breach to be reversed and the consequences of the breach. Reports should contain information that allows sponsors to assess the likelihood of a trigger being breached or reversed. Any triggers breached between payment dates should be disclosed to sponsors on a timely basis in accordance with the terms and conditions of the transaction documents.

55. For any of the transactions where the beneficial interest held by the conduit qualifies as a securitization position, the sponsor should ensure that any subordinated positions do not have inappropriate payment preference over payments to the conduit (which should always rank senior to any other position) and which are due and payable.

56. Transactions featuring a revolving period should include provisions for appropriate early amortization events and/or triggers of termination of the revolving period, including, notably:

(i) deterioration in the credit quality of the underlying exposures;

(ii) a failure to replenish sufficient new underlying exposures of similar credit quality; and

(iii) the occurrence of an insolvency related event with regard to the individual sellers.

57. To ensure that debt forgiveness, forbearance, payment holidays, restructuring, dilution and other asset performance remedies that affect the securitization can be clearly identified, policies and procedures, definitions, remedies and actions relating to delinquency, default, dilution or restructuring of underlying debtors should be provided in clear and consistent terms, such that the sponsor can clearly identify debt forgiveness, forbearance, payment holidays, restructuring, dilution and other asset performance remedies that may affect their performance[49] on an ongoing basis.

58. For each transaction which qualifies as a securitization, the sponsor should ensure it receives both before the conduit acquires a beneficial interest in the transaction and on an ongoing basis, the liability cash flow analysis or information on the cash flow provisions allowing appropriate analysis of the cash flow waterfall of these transactions.

[49] If agreements were in place for the originator/sponsor to repurchase loans at market rates prior to modification then the loan modification policies would not affect the investment performance and so would not need to be disclosed.

B4. Voting and enforcement rights

Relevant to the Conduit level

59. To provide clarity to investors, the sponsor should make sufficient information available in order for investors to understand their enforcement rights on the underlying credit claims or receivables in the event of insolvency of the sponsor.

Relevant to the Transaction level

60. For each transaction, the sponsor should ensure, in particular upon insolvency of the seller or where the obligor is in default on its obligation, that, if applicable, all voting and enforcement rights related to the credit claims or receivables are:

- transferred to the conduit; and
- clearly defined under all circumstances, including with respect to the rights of the conduit versus other parties with an interest (e.g. sellers), where relevant.

B5. Documentation disclosure and legal review

Relevant to the Conduit level

61. To help investors understand fully the terms, conditions, and legal information prior to investing in a new programme offering and to ensure that this information is set out in a clear and effective manner for all programme offerings, the sponsor should ensure that sufficient initial offering documentation for the ABCP programme is provided to investors and potential investors within a reasonably sufficient period of time prior to issuance, such that the investor is provided with full disclosure of the legal information and comprehensive risk factors needed to make informed investment decisions.

62. These should be composed such that readers can readily find, understand and use relevant information. The sponsor should ensure that the terms and documentation of a conduit and the ABCP programme it issues are reviewed and verified by an appropriately experienced and independent legal practice prior to publication and in the case of material changes. The sponsor should notify investors in a timely fashion of any changes in such documents that have an impact on the structural risks in the ABCP programme.

Relevant to the Transaction level

63. To understand fully the terms, conditions and legal information prior to including a new transaction in the ABCP conduit and ensure that this information is set out in a clear and effective manner, the sponsor should ensure that it receives sufficient initial offering documentation for each transaction and that it is provided within a reasonably sufficient period of time prior to the inclusion in the conduit, with full disclosure of the legal information and comprehensive risk factors needed to supply liquidity and/or credit support facilities. The initial offering document for each transaction should be composed such that readers can readily find, understand and use relevant information.

64. The sponsor should also ensure that the terms and documentation of a transaction are reviewed and verified by an appropriately experienced and independent legal practice prior to the acquisition of the transaction and in the case of material changes.

B6. Alignment of interest

Relevant to the Conduit level

65. In order to align the interests of those responsible for the underwriting of the credit claims and receivables with those of investors, a material net economic exposure should be retained by the sellers or the sponsor at transaction level, or by the sponsor at the conduit level.

66. Ultimately, the sponsor should disclose to investors how and where a material net economic exposure is retained by the seller at transaction level or by the sponsor at transaction or conduit level, and demonstrate the existence of a financial incentive in the performance of the assets.

B7. Full support

Relevant to the Conduit level

67. The sponsor should provide the liquidity facility(ies) and the credit protection support[50] for any ABCP programme issued by a conduit. Such facility(ies) and support should ensure that investors are fully protected against credit risks, liquidity risks and any material dilution risks of the underlying asset pools financed by the conduit. As such, investors should be able to rely on the sponsor to ensure timely and full repayment of the commercial paper.

68. While liquidity and credit protection support at both the conduit level and transaction level can be provided by more than one sponsor, the majority of the support (assessed in terms of coverage) has to be made by a single sponsor (referred to as the "main sponsor").[51] An exception can however be made for a limited period of time, where the main sponsor has to be replaced due to a material deterioration in its credit standing.

69. The full support provided should be able to irrevocably and unconditionally pay the ABCP liabilities in full and on time. The list of risks provided in Criterion B7 that have to be covered is not comprehensive but rather provides typical examples.

70. Under the terms of the liquidity facility agreement:

- Upon specified events affecting its creditworthiness, the sponsor shall be obliged to collateralize its commitment in cash to the benefit of the investors or otherwise replace itself with another liquidity provider.

[50] A sponsor can provide full support either at ABCP programme level or at transaction level, ie by fully supporting each transaction within an ABCP programme.

[51] "Liquidity and credit protection support" refers to support provided by the sponsors. Any support provided by the seller is excluded.

- If the sponsor does not renew its funding commitment for a specific transaction or the conduit in its entirety, the sponsor shall collateralize its commitments regarding a specific transaction or, if relevant, to the conduit in cash at the latest 30 days prior to the expiration of the liquidity facility, and no new receivables should be purchased under the affected commitment.

71. The sponsor should provide investors with full information about the terms of the liquidity facility (facilities) and the credit support provided to the ABCP conduit and the underlying transactions (in relation to the transactions, redacted where necessary to protect confidentiality).

B8 Cap on maturity transformation

Relevant to the Conduit level

72. Maturity transformation undertaken through ABCP conduits should be limited. The sponsor should verify and disclose to investors that the weighted average maturity of all the transactions financed under the ABCP conduit is three years or less.

73. This number should be calculated as the higher of:

1. the exposure-weighted average residual maturity of the conduit's beneficial interests held or the assets purchased by the conduit in order to finance the transactions of the conduit[52] and;
2. the exposure-weighted average maturity of the underlying assets financed by the conduit calculated by:
    a. taking an exposure-weighted average of residual maturities of the underlying assets in each pool and then
    b. taking an exposure-weighted average across the conduit of the pool-level averages as calculated in Step 2a.

74. Where it is impractical for the sponsor to calculate the pool-level weighted average maturity in Step 2a (because the pool is very granular or dynamic), sponsors may instead use the maximum maturity of the assets in the pool as defined in the legal agreements governing the pool (e.g. investment guidelines).

[52] Including purchased securitisation notes, loans, asset-backed deposits and purchased credit claims and/or receivables held directly on the conduit's balance sheet.

7-2.C Fiduciary and servicer risk

C1 Fiduciary and contractual responsibilities

Relevant to the Conduit level

75. The sponsor should, based on the representations received from seller(s) and all other parties responsible for originating and servicing the asset pools, make representations and warranties to investors that:

- the various criteria defined at the level of each underlying transaction are met, and explain how;
- Seller(s)'s policies, procedures and risk management controls are well-documented, adhere to good market practices and comply with the relevant regulatory regimes; and that strong systems and reporting capabilities are in place to ensure appropriate origination and servicing of the underlying assets.

76. The sponsor should be able to demonstrate expertise in providing liquidity and credit support to in the context of ABCP conduits, and is supported by a management team with extensive industry experience.

77. The sponsor should at all times act in accordance with reasonable and prudent standards. Policies, procedures and risk management controls of the sponsor should be well documented and the sponsor should adhere to good market practices and relevant regulatory regime. There should be strong systems and reporting capabilities in place at the sponsor.

78. The party or parties with fiduciary responsibility should act on a timely basis in the best interests of the investors.

Relevant to the Transaction level

79. The sponsor should ensure that it receives representations from the seller(s) and all other parties responsible for originating and servicing the asset pools that they:

- have well-documented procedures and policies in place to ensure appropriate servicing of the underlying assets;
- have expertise in the origination of same or similar assets to those in the asset pools;
- have extensive servicing and workout expertise, thorough legal and collateral knowledge and a proven track record in loss mitigation for the same or similar assets;
- have expertise in the servicing of the underlying credit claims or receivables; and
- are supported by a management team with extensive industry experience.

80. In assessing whether "strong systems and reporting capabilities are in place", well documented policies, procedures and risk management controls, as well as strong systems and reporting capabilities, may be substantiated by a third-party review for sellers that are non-

banking entities. Evidence of a suitable third-party review can be based on the supervisory regime applicable to this entity (if such supervision covers internal reporting systems).

C2 Transparency to investors

Relevant to the Conduit level

81. To help provide full transparency to investors and to assist them in their conduct of their due diligence, the sponsor should ensure that the contractual obligations, duties and responsibilities of all key parties to the conduit, both those with a fiduciary responsibility and the ancillary service providers, are defined clearly both in the initial offering and any relevant underlying documentation[53] of the conduit and the ABCP programme it issues.

82. The sponsor should also make representations and warranties to investors that the duties and responsibilities of all key parties are clearly defined at transaction level.

83. The sponsor should ensure that the initial offering documentation disclosed to investors contains adequate provisions regarding the replacement of key counterparties of the conduit (e.g. bank account providers and derivatives counterparties) in the event of failure or non-performance or insolvency or deterioration of creditworthiness of any such counterparty.

84. The sponsor should also make representations and warranties to investors that provisions regarding the replacement of key counterparties at transaction level are well-documented.

85. The sponsor should provide sufficient information to investors about the liquidity facility(ies) and credit support provided to the ABCP programme for them to understand its functioning and key risks.

Relevant to the Transaction level

86. The sponsor should conduct due diligence with respect to the transactions on behalf of the investors.

87. To assist the sponsor in meeting its fiduciary and contractual obligations, the duties and responsibilities of all key parties to all transactions (both those with a fiduciary responsibility and of the ancillary service providers) should be defined clearly in all underlying documentation of these transactions and made available to the sponsor.

88. The sponsor should ensure that provisions regarding the replacement of key counterparties (in particular the servicer or liquidity provider) in the event of failure or non-performance or insolvency or other deterioration of any such counterparty for the transactions are well-documented (in the documentation of these individual transactions).

89. To enhance transparency and visibility over all receipts, payments and ledger entries at all times, the sponsor should ensure that for all transactions the performance reports include all

[53] "Underlying documentation" does not refer to the documentation of the underlying transactions.

of the transactions' income and disbursements covering items, as applicable, such as scheduled principal, redemption principal, scheduled interest, prepaid principal, past due interest and fees and charges, delinquent, defaulted, restructured and diluted amounts, as well as accurate accounting for amounts attributable to principal and interest deficiency ledgers.

C3 Financial institution

Relevant to the Conduit level

90. The sponsor should be a financial institution that is licensed to take deposits from the public, and is subject to appropriate prudential standards and levels of supervision.[54]

7-2.D Additional criteria for capital purposes

D1 Credit risk of the underlying exposures

Relevant to the Transaction level

91. At the date of acquisition of the assets, the underlying exposures have to meet the conditions under the Standardized Approach for credit risk and, after account is taken of any eligible credit risk mitigation, be assigned a risk weight equal to or smaller than:

- 40% on an exposure-weighted average basis for the portfolio where the exposures are loans secured by residential mortgages or fully guaranteed residential loans;
- 50% on an individual exposure basis where the exposure is a loan secured by a commercial mortgage;
- 75% on an individual exposure basis where the exposure is a retail exposure; or
- 100% on an exposure-weighted average basis for the portfolio for any other exposure.

D2 Granularity of the pool

Relevant to the Conduit level

92. At the date of acquisition of any assets securitized by one of the conduits' transactions, the aggregated value of all exposures to a single obligor at that date shall not exceed 2%[55] of the aggregated outstanding exposure value of all exposures in the programme.

93. In the case of trade receivables where the credit risk of those trade receivables is fully covered by credit protection, provided that the protection provider is a financial institution, only the portion of the trade receivables remaining after taking into account the effective of any

[54] Prudential standards and the level of supervision should be comparable to those under the Basel II framework (including, in particular, risk-based capital requirements comparable to those applied in this Guideline).

[55] For corporate exposures, the applicable maximum concentration threshold can be increased to 3% if the securitization transaction benefits from a loss-absorbing credit enhancement, as defined in paragraph 92, which covers at least the first 10% of losses. Subordinated tranche(s) retained for the purposes of a loss absorbing credit enhancement by the sellers or sponsor shall not be eligible for the STC capital treatment.

purchase price discount and overcollateralization shall be included in the determination of whether the 2% limit is breached.

Appendix 7- 3 Illustrative examples for recognition of dilution risk when applying the SEC-IRBA to securitization exposures

The following examples are provided to illustrate the recognition of dilution risk according to paragraphs 88 and 89.

7-3. A Common waterfall for default and dilution losses

In this example, it is assumed that losses resulting from either defaults or dilution within the securitized pool will be subject to a common waterfall, i.e. the loss allocation process does not distinguish between different sources of losses within the pool.

Pool description:[56]

- Pool of $1,000,000 of corporate receivables
- N = 100
- M = 2.5 years[57]
- $PD_{Dilution}$ = 0.55%
- $LGD_{Dilution}$ = 100%
- $PD_{Default}$ = 0.95%
- $LGD_{Default}$ = 45%

Capital structure:

- Tranche A = senior note of $700,000
- Tranche B = second-loss guarantee of $250,000
- Tranche C = purchase discount of $50,000
- Final legal maturity of transaction/all tranches = 2.875 years; i.e. M_T = 2.5 years[58]

RWA calculation:

Step 1: Calculate $K_{IRB,Dilution}$ and $K_{IRB,Default}$ for the underlying portfolio:

- $K_{IRB,Dilution}$ = $1,000,000 x (161.44% x 8% x 1.06 + 0.55% x 100%) / $1,000,000 = 14.24%
- $K_{IRB,Default}$ = ($1,000,000 – $136,900)[59] x (90.62% x 8% x 1.06 + 0.95% x 45%) / $1,000,000 = 7%

[56] For the sake of simplicity, it is assumed that all exposures have the same size, same PD, same LGD and same maturity.

[57] For the sake of simplicity, the possibility described in paragraph 369 to set $M_{Dilution}$ = 1 is not used in this example.

[58] The rounding of the maturity calculation is shown for example purposes.

[59] As described in paragraph 72, when calculating the default risk of exposures with non-immaterial dilution risk "EAD will be calculated as the outstanding amount minus the capital charge for dilution prior to credit risk mitigation".

Step 2: Calculate $K_{IRB,Pool}$

$K_{IRB,Pool} = K_{IRB,Dilution} + K_{IRB,Default} = 14.24\% + 7\% = 21.24\%$

Step 3: Apply the SEC-IRBA to the three tranches

Pool parameters

- N = 100
- $LGD_{Pool} = (LGD_{Default} \times K_{IRB,Default} + LGD_{Dilution} \times K_{IRB,Dilution}) / K_{IRB,Pool}$
  $= (45\% \times 7\% + 100\% \times 14.24\%) / 21.24\% = 81.87\%$

Tranche parameters

- $M_T = 2.5$ years
- Attachment and detachment points

	Attachment point	Detachment point
Tranche A	30%	100%
Tranche B	5%	30%
Tranche C	0%	5%

Resulting risk-weighted exposure amounts

	SEC-IRBA risk weight	RWA
Tranche A	28.78%	$201,460
Tranche B	1056.94%	$2,642,350
Tranche C	1250%	$625,000

7-3. B Non-common waterfall for default and dilution losses

In this example, it is assumed that the securitization transaction does not have one common waterfall for losses due to defaults and dilutions, i.e. for the determination of the risk of a specific tranche it is not only relevant what losses might be realized within the pool but also if those losses are resulting from default or a dilution event.

As the SEC-IRBA assumes that there is one common waterfall, it cannot be applied without adjustments. The following example illustrates one possible scenario and a possible adjustment specific to this scenario.

While this example is a useful reference, an institution should consult with OSFI as to how the capital calculation should be performed (see paragraph 89).

Pool description:[60]

- Pool of $1,000,000 of corporate receivables
- N = 100
- M = 2.5 years[61]
- $PD_{Dilution}$ = 0.55%
- $LGD_{Dilution}$ = 100%
- $PD_{Default}$ = 0.95%
- $LGD_{Default}$ = 45%

Capital structure:

- Tranche A = senior note of $950,000
- Tranche C = purchase discount of $50,000
- Tranches A and C will cover both default and dilution losses.
- In addition, the structure also contains a second-loss guarantee of $250,000 (Tranche B)[62] that covers only dilution losses exceeding a threshold of $50,000 up to maximum aggregated amount of $300,000, which leads to the following two waterfalls:
  - (i) Default waterfall
    Tranche A = senior note of $950,000
    Tranche C = purchase discount of $50,000[63]

  - (ii) Dilution waterfall
    Tranche A = senior note of $700,000
    Tranche B = second-loss guarantee of $250,000
    Tranche C = purchase discount of $50,000[64]

- M_T of all three tranches = 2.5 years

Treatment of Tranche C

Tranche C is treated as described in Example A.

Treatment of Tranche B

Tranche B (second-loss guarantee) is exposed only to dilution risk, but not to default risk. Therefore, K_{IRB}, for the purpose of calculating a capital requirement for Tranche B, can be limited to $K_{IRB,Dilution}$. However, as the holder of Tranche B cannot be sure that Tranche C will still be available to cover the first dilution losses when they are realized – because the credit

[60] See footnote 23.
[61] See footnote 24.
[62] For the sake of simplicity, it is assumed that the second loss guarantee is cash-collateralized.
[63] Subject to the condition that it is not already being used for realized dilution losses.
[64] Subject to the condition that it is not already being used for realized default losses.

enhancement might already be depleted due to earlier default losses – to ensure a prudent treatment, it cannot recognize the purchase discount as credit enhancement for dilution risk. In the capital calculation, the institution providing Tranche B should assume that $50,000 of the securitized assets have already been defaulted and hence Tranche C is no longer available as credit enhancement and the exposure of the underlying assets has been reduced to $950,000. When calculating K_{IRB} for Tranche B, the institution can assume that K_{IRB} is not affected by the reduced portfolio size.

RWA calculation for Tranche B:

Step 1: Calculate $K_{IRB,Pool}$

- $K_{IRB,Pool} = K_{IRB,Dilution} = 14.24\%$

Step 2: Apply the SEC-IRBA

Pool parameters

- N=100
- $LGD_{Pool} = LGD_{Dilution} = 100\%$

Tranche parameters

- $M_T = 2.5$ years
- Attachment point = 0%
- Detachment point = $250,000 / $950,000 = 26.32%

Resulting risk-weighted exposure amounts

	SEC-IRBA risk weight	RWA
Tranche B	925.78%	$2,313,675

Treatment of Tranche A

The holder of Tranche A (senior note) will take all default losses not covered by the purchase discount and all dilution losses not covered by the purchase discount or the second-loss guarantee. A possible treatment for Tranche A would be to add $K_{IRB,Default}$ and $K_{IRB,Dilution}$ (as in Example A), but not to recognize the second-loss guarantee as credit enhancement at all because it is covering only dilution risk.

Although this is a simple approach, it is also fairly conservative. Therefore the following alternative <u>for the senior tranche</u> could be considered:

(i) Calculate the RWA amount for Tranche A under the assumption that it is only exposed to losses resulting from defaults. This assumption implies that Tranche A is benefiting from a credit enhancement of $50,000.

(ii) Calculate the RWA amounts for Tranche C and (hypothetical) Tranche A* under the assumption that they are only exposed to dilution losses. Tranche A* should be assumed to absorb losses above $300,000 up to $1,000,000.

With respect to dilution losses, this approach would recognize that the senior tranche investor cannot be sure if the purchase price discount will still be available to cover those losses when needed as it might have already been used for defaults. Consequently, from the perspective of the senior investor, the purchase price discount could only be recognized for the calculation of the capital requirement for default or dilution risk but not for both.[65,66]

(iii) Sum up the RWA amounts under (i) and (ii) to determine the final RWA amount for the senior note investor.

RWA calculation for Tranche A:

Step 1: Calculate RWA for (i)

Pool parameters

- $K_{IRB,Pool} = K_{IRB,Default} = 7\%$
- $LGD_{Pool} = LGD_{Default} = 45\%$

Tranche parameters

- $M_T = 2.5$ years
- Attachment point = $50,000 / $1,000,000 = 5%
- Detachment point = $1,000,000 / $1,000,000 = 100%

Resulting risk-weighted exposure amounts

	SEC-IRBA risk weight	RWA
Component (i)	56.58%	$537,510

Step 2: Calculate RWA for (ii)

Pool parameters

- $K_{IRB,Pool} = K_{IRB,Dilution} = 14.24\%$
- $LGD_{Pool} = LGD_{Dilution} = 100\%$

65 In this example, the purchase price discount was recognized in the default risk calculation, but institutions could also choose to use it for the dilution risk calculation.

66 In this example, it is assumed that the second-loss dilution guarantee explicitly covers dilution losses above $50,000 up to $300,000. If the guarantee instead covered $250,000 dilution losses after the purchase discount has been depleted (irrespective of whether the purchase discount has been used for dilution or default losses), then the senior note holder should assume that he is exposed to dilution losses from $250,000 up to $1,000,000 (instead of $0 to $50,000 + $300,000 to $1,000,000).

Tranche parameters

- M_T = 2.5 years
- Attachment and detachment points

	Attachment point	Detachment point
Tranche A*	30%	100%
Tranche C	0%	5%

Resulting risk-weighted exposure amounts

	SEC-IRBA risk weight	RWA
Tranche A*	13.65%	$95,500
Tranche C	1250%	$625,000

Step 3: Sum up the RWA of components (i) and (ii)

- Final RWA amount for investor in Tranche A = $537,510 + $95,500 + $625,000 = $1,258,060
- Implicit risk weight for Tranche A = MAX (15%, $1,258,060 / $950,000) = 132.43%