Credit risk: internal ratings based approach (CRR) part

Related links

SS3/24 – Credit risk definition of default	https://www.bankofengland.co.uk/prudential-regulation/publication/2024/september/credit-risk-definition-of-default-supervisory-statement
SS4/24 – Credit risk internal ratings based approach	https://www.bankofengland.co.uk/prudential-regulation/publication/2024/september/credit-risk-internal-ratings-based-approach-supervisory-statement

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Chapter content

1 Application and definitions

1.1 This Part applies to a JIB, which for the purposes of calculating its risk-weighted exposure amounts has a variance from the JFSC to permit use of IRB (an **IRB Permission**) to:

(a) disapply the provisions of the Credit Risk: Standardised Approach (CRR) Part, except as otherwise provided in this Part; and instead

(b) apply the provisions of this Part (hereinafter referred to as the **IRB Approach**) to the extent and subject to any modifications set out in the permission.

1.2 In this Part, the following definitions shall apply:

BEEL

means a JIB's best estimate of expected loss for a Defaulted Exposure.

Business Unit

means any separate organisational or legal entities, business lines, geographical locations.

Defaulted Exposure

means an exposure where the obligor or facility, as applicable, has defaulted in the circumstances set out in Article 178.

EAD

means the expected amount outstanding at default of a facility.

Exposure Class

has the meaning given in Article 147(2).

Exposure Subclass

has the meaning given in Article 147(2).

Facility Grade

means a risk category within a Rating System*'s* facility scale, to which exposures are assigned on the basis of a specified and distinct set of rating criteria, from which own estimates of LGD are derived.

Group Credit Risk Risk-weighted Exposure Amount

means the sum of points (a) and (f) of paragraph 3 of Required Level of Own Funds (CRR) Part Article 92 on a consolidated basis where the JIB is a member of a consolidation group and measured on an individual basis otherwise.

High-volatility Commercial Real Estate Exposure or **HVCRE Exposure**

means funding to real estate of at least one of the following types (and where a project is in the planning or construction phase, the use on completion of the property determines whether the real estate is commercial or residential):

(1) commercial real estate exposures secured by properties of types that share higher volatilities in portfolio default rates;

(2) exposures financing any of the land acquisition, development and construction (ADC) phases for commercial real estate that share higher volatilities in portfolio

defaults; or

(3) exposure financing the land, acquisition, development and construction (ADC) of commercial real estate where the source of repayment at origination of the exposure is either:

(a) the uncertain future sale of the real estate; or

(b) cash-flows whose source of repayment is substantially uncertain, unless the borrower has substantial equity at risk.

Income-producing Real Estate Exposure or **IPRE exposure**

means funding to real estate (such as, office buildings to let, retail space, multifamily residential buildings, industrial or warehouse space, hotels) where the prospects for repayment and recovery on the exposure depend primarily on the cash-flows generated by the asset.

Large Financial Sector Entity

means any financial sector entity whose total assets, taken at the highest level of consolidation at which audited financial statements are available, are equal to or greater than GBP 79 billion, using the most recent audited financial statements.

Non-Defaulted Exposure

means an exposure that is not a Defaulted Exposure.

Non-retail AIRB Modelling Roll-out Category

has the meaning given in Article 147B(2).

Obligor Grade

means a risk category within the obligor rating scale of a rating system, to which obligors are assigned on the basis of a specified and distinct set of rating criteria, from which estimates of PD are derived.

Overseas Model Approach

means the use of non -Jersey rating systems developed to meet IRB requirements, in the calculation of consolidated capital requirements in accordance with a permission granted under Article 143(6).

Post Model Adjustments

means the adjustments relating to the non-compliance referred to in Article 146(3).

Rating System

means all of the methods, processes, controls, data collection and IT systems that support the assessment of credit risk, the assignment of exposures to rating grades or pools, and the quantification of default and loss estimates that have been developed for a certain Type of Exposures.

Retail Exposure

means an exposure assigned to the retail exposures Exposure Class in accordance with Article 147(5).

Revolving Loan Commitment

means a commitment arising from a revolving loan facility, including but not limited to credit cards, charge cards and overdrafts, that lets a borrower obtain a loan where the borrower has the flexibility to decide how often to draw from the facility and at what time intervals. Facilities that allow prepayments and subsequent redraws of those prepayments are considered to be revolving.

Roll-out Class

has the meaning given in Article 147B(1).

Type of Exposures

means a group of homogeneously managed exposures which are formed by a certain type of facility and which may be limited to a single entity or a single sub-set of entities within a group provided that the same type of exposures is managed differently in other entities of the group.

Unrecognised Exposure Adjustment

means the adjustments relating to unrecognised exposures referred to in Article 166D(6).

Unregulated Financial Sector Entity

means a financial sector entity that is not prudentially regulated as a Credit Institution, investment firm or an insurance undertaking.

1.3 In this Part the definition of financial sector entity in point (27) of Article 4(1) of CRR shall have effect as if it excludes any Financial Institution that satisfies each of the following conditions:

(1) the Financial Institution provides investment services and other services exclusively for its parent undertaking, for its subsidiaries or for other subsidiaries of its parent undertaking ('its group');

(2) the business of its group, considered as a whole, does not satisfy any criteria that would qualify it as a financial sector entity as defined without reference to this rule; and

(3) the Financial Institution's main function, and associated revenues and profits, derive from providing internal services to manage the treasury, funding and risk management positions of its group.

2 Level of Application

2.1 A JIB must comply with this Part on the basis of its consolidated position, unless the JFSC has agreed a variance in accordance with the Risk-Based Capital Requirements Part

2.1A Where a Jersey parent JIB and its subsidiaries use the IRB Approach on a unified basis, the requirements set out in Articles 169 to 191 may be complied with by such parent and its subsidiaries considered together in a way that is consistent with the structure of the relevant group and its risk management systems, processes and methodologies.

3 Credit Risk: Internal Ratings Based Approach (CRR) Part

Section 1 Permission by the JFSC to use the IRB Approach

Article 142 Definitions

1. [Note: Provision left blank]
2. [Note: Provision left blank]

Article 143 Permission to use the IRB Approach

1.

(a) A JIB may, if granted a variance by of the JFSC, use the IRB Approach if, when it applies for IRB Permission, it can demonstrate to the satisfaction of the JFSC that its arrangements for using the IRB Approach materially comply with this Part.

(b) For the purpose of point (a), a JIB shall be considered to materially comply with this Part if:

I. the effect of any non-compliance is immaterial for each of its Rating System*s*; and

II. the overall effect of any non-compliance is immaterial.

2. [Note: Provision left blank]

2A. A JIB shall, when making an application under paragraph 1 to the JFSC, make clear in relation to each Exposure Class, Exposure Subclass or Type of Exposures, as the case may be, its proposal to adopt one or more of the following IRB Approach*es* instead of the Standardised Approach:

(a) the Slotting Approach;

(b) the Foundation IRB Approach; or

(c) the Advanced IRB Approach.

2B. A JIB with an IRB Permission may, with the further prior permission of the JFSC, in relation to an Exposure Class, Exposure Subclass or Type of Exposures, adopt:

(a) instead of the Standardised Approach, any of the IRB Approach*es* in points (a) to (c) in paragraph 2A, and

(b) where it already uses an IRB Approach, any of the following more sophisticated IRB Approach*es*:

I. the Foundation IRB Approach instead of the Slotting Approach,

II. the Advanced IRB Approach instead of the Slotting Approach, or

III. the Advanced IRB Approach instead of the Foundation IRB Approach,

in each case only if the JIB can demonstrate to the satisfaction of the JFSC that the change proposed in the application materially complies with this Part.]

2C. For the purpose of paragraph 2B, the change proposed in an application shall be considered to materially comply with this Part if it fully complies with this Part or if both of the following conditions are met:

(a) the effect of any non-compliance for each of the JIB's relevant Rating System*s* would be immaterial if the JIB made the proposed change; and

(b) the overall effect of the non-compliance would be immaterial if the JIB made the proposed change.

3.

(a) A JIB may, with the prior permission of the JFSC:

I. make material changes to the range of application of a Rating System that the JIB has received permission to use, or

II. make material changes to a Rating System that the JIB has received permission to use,

if it is able to demonstrate to the satisfaction of the JFSC that it meets at least one of the conditions in point (b);

(b) The conditions referred to in point (a) are that:

I. the changes proposed in the application under point (a) materially comply with this Part; or

II. the JIB is remediating non-compliance in its Rating System*s* and the proposed changes under point (a) reduce the extent or degree of such noncompliance, and no exposures would become subject to a more sophisticated approach;

Point (b)(ii) shall not be considered to be met where an exposure becomes subject to a more sophisticated approach from a less sophisticated approach (that is, from the Standardised Approach to the IRB Approach, from the Foundation IRB Approach to the Advanced IRB Approach, or from the Slotting Approach to either the Foundation IRB Approach or the Advanced IRB Approach).

(c) For the purpose of point (b)(i), the changes proposed in the application shall be considered to materially comply with this Part if they fully comply with this Part or if both of the following conditions are met:

I. the effect of any non-compliance for each relevant Rating System would be immaterial if the JIB made the proposed changes; and

II. the overall effect of non-compliance would be immaterial if the JIB made the proposed changes.

3A. The range of application of a Rating System shall comprise all exposures of the relevant Type of Exposures for which that Rating System was developed.

4. A JIB shall:

(a) at least annually, submit details to the JFSC of all Rating System*s* that are included within the scope of its IRB Permission; and

(b) notify the JFSC in accordance with Article 143D(1) of all changes to rating systems for which an IRB Permission is not required in accordance with this Article.

5. [Note: Provision left blank]

6. A JIB may, with the prior permission of the JFSC, use the Overseas Model Approach, if it can demonstrate to the satisfaction of the JFSC that its use of the Overseas Model Approach complies with the following conditions:

(a) the aggregate amount of risk-weighted exposure amounts calculated using the Overseas Model Approach is no more than 7.5% of the Group Credit Risk Risk-weighted Exposure Amounts and the aggregate exposure value using the Overseas Model Approach is no more than 7.5% of the group's total exposure value, as calculated by the JIB on a consolidated basis and prior to the application of the output floor;

(b) the scope of the Rating System only includes exposures of a type specified in point (c) that are located within a subsidiary in an equivalent jurisdiction, as determined under Article 114(7) of *CRR*, the model used in the Overseas Model Approach has been reviewed and approved for the purpose of the JIB calculating its local capital requirements by the relevant overseas regulator, and the JIB uses that model to calculate local capital requirements in that jurisdiction;

(c) the scope of the Rating System only includes one or both of the following:

I. Retail Exposures;

II. exposures to SMEs that are in the corporate Exposure Class, as set out in point (a)(ii) of Article 147(5);

(d) the outputs of the Rating System (such as estimates of PD, LGD, and conversion factors or EAD) are derived using both historical experience and empirical evidence(and not based purely on judgemental considerations), and the estimates are plausible, intuitive and based on the material drivers of the respective risk parameters;

(e) the population of exposures represented in the data used for estimation, the lending standards used when the data were generated, and other relevant characteristics, are comparable with those of the JIB's exposures and standards;

(f) the number of exposures in the sample and the data period used for quantification are sufficient to provide confidence in the accuracy and robustness of estimates;

(g) the rating system provides a meaningful differentiation of risk and is able to produce accurate and consistent quantitative estimates of risk;

(h) material weaknesses in the rating system are adequately compensated by an adjustment to parameter estimates;

(i) the rating system is subject to appropriate internal governance processes, with senior management in the overseas subsidiary possessing a general understanding of the rating system of the JIB and detailed comprehension of its associated management reports;

(j) the rating system is subject to an appropriate validation of internal estimates process, with the process being objective, consistent, and accurate; and

(k) the rating system is used to inform credit risk decisions.

7. Where, on 31 December 2026, a JIB had an IRB Permission to use the Overseas Model Approach as part of its IRB permission, the JIB shall, after 31 December 2026, be treated as having permission under paragraph 6.

8. A JIB with an IRB Permission to use the Overseas Model Approach shall ensure that its use of the Overseas Model Approach complies with each of the conditions in paragraph 6 on an ongoing basis.

Article 143A Rating Systems: categories of changes

1. A JIB shall classify the materiality of changes to the range of application of a Rating System or of changes to a Rating System into one of the following categories:

(a) material changes which, as specified in Article 143(3), require permission from the JFSC; or

(b) other changes, which, as specified in point (b) of Article 143(4) require notification to the JFSC.

2. The changes referred to in point (b) of paragraph 1 shall further be classified into:

(a) changes that require notification before their implementation as specified in Article 143D; or

(b) changes that require notification after their implementation.

Article 143B Rating Systems: principles of classification of changes

1. A JIB shall, where it is required to calculate the quantitative impact of any change on risk-weighted exposure amounts under Article 143C and Article 143D, apply the following methodology:

(a) for the purpose of the assessment of the quantitative impact the JIB shall use the most recent data available;

(b) where a precise assessment of the quantitative impact is not feasible, the JIB shall instead perform an assessment of the impact based on a representative sample or other reliable inference methodologies; and

(c) for changes having no direct quantitative impact, no quantitative impact as laid down in point (c) of Article 143C(1), needs to be calculated.

2. A JIB shall not split one material change into several changes of lower materiality.

3. In case of doubt, a JIB shall assign changes to the category of the highest potential materiality.

4. A JIB shall, where the JFSC has granted permission in relation to a material change, calculate risk-weighted exposure amounts and expected loss amounts based on the approved material change from the date specified in the new permission, and shall not use the version of the Rating System specified in the previous permission.

4A. If a JIB:

(a) decides not to implement an approved material change, it shall apply to the JFSC for permission to not implement the change; or

(b) wishes to vary the implementation date specified in a permission, it shall apply to the JFSC for permission to do so.

5. A JIB shall, in case of delay of the implementation of a change for which permission from the JFSC has been granted, notify the JFSC and present to the JFSC a plan for a timely implementation of the approved change, which it shall realise within a reasonable time.

6. A JIB shall, where a change is classified as one requiring prior notification to the JFSC, and where, subsequent to the notification, the JIB decides not to implement the change, notify the JFSC of this decision without undue delay.

Article 143C Rating Systems: material changes to the IRB Approach

1. For the purposes of Article 143(3), changes to the IRB Approach shall be considered material if they fulfil any of the following conditions:

(a) they fall under any of the changes to the range of application of a Rating System described in Appendix 2, Part 1, Section 1;

(b) they fall under any changes to the Rating System*s* described in Appendix 2, Part 2, Section 1;

(c) the change results in the JIB's risk-weighted exposure amounts:

I. decreasing by 1.5% or more for either of the following:

(1) on a consolidated basis, the overall Jersey parent institution's risk-weighted exposure amounts for credit and dilution risk;

(2) the overall risk-weighted exposure amounts for credit and dilution risk in the case of a JIB which is neither a parent institution, nor a subsidiary;

II. decreasing by 15% or more of the risk-weighted exposure amounts for credit and dilution risk associated with the range of application of the Rating System.

2. For the purposes of point (c)(i) of paragraph 1, and in accordance with Article 43B(1), the impact of the change shall be assessed as a ratio calculated as follows:

(a) in the numerator, the difference in the risk-weighted exposure amounts for credit and dilution risk associated with the range of application of the Rating System before and after the change at the *UK* parent institution's consolidated level or at the JIB level which is neither a parent institution, nor a subsidiary;

(b) in the denominator, the overall risk-weighted exposure amounts for credit and dilution risk before the change at the Jersey parent institution's consolidated level or, at the JIB level which is neither a parent institution, nor a subsidiary.

The calculation shall refer to the same point in time, and the set of exposures shall be assumed to remain constant.

3. For the purposes of point (c)(ii) of paragraph 1, and in accordance with Article 143B(1),the impact of the change shall be assessed as a ratio calculated as follows:

(a) in the numerator, the difference in the risk-weighted exposure amounts for credit and dilution risk associated with the range of application of the Rating System before and after the change;

(b) in the denominator, the risk-weighted exposure amounts for credit and dilution risk before the change associated with the range of application of the Rating System.

The calculation shall refer to the same point in time, and the set of exposures shall be assumed to remain constant.

Article 143D Rating Systems: changes to the IRB Approach not considered material

1. A JIB shall, for changes to the IRB Approach as specified in its IRB Permission which are not material (in accordance with Article 143C) but which are to be notified to the JFSC in accordance with point (b) of Article 143(4), notify the JFSC as follows:

(a) changes which fulfil any of the following conditions shall be notified to the JFSC at least two months before their implementation:

I. changes described in Appendix 2, Part 1, Section 2;

II. changes described in Appendix 2, Part 2, Section 2;

III. changes which result in a decrease of 5% or more of the risk-weighted exposure amounts for credit and dilution risk associated with the range of application of the Rating System;

(b) all other changes shall be notified to the JFSC after their implementation at least on an annual basis.

2. For the purposes of point (a)(iii) of paragraph 1, and in accordance with Article 143B(1), the impact of the change shall be assessed as a ratio calculated as follows:

(a) in the numerator, the difference in the risk-weighted exposure amounts for credit and dilution risk associated with the range of application of the Rating System before and after the change;

(b) in the denominator, the risk-weighted exposure amounts for credit and dilution risk before the change associated with the range of application of the Rating System.

3. The calculation shall refer to the same point in time, and the set of exposures shall be assumed to remain constant.

Article 143E Rating Systems: documentation of changes

1. A JIB shall, for changes to the IRB Approach classified as requiring the permission of the JFSC, submit, together with the application, the following documentation:

(a) description of the change, its rationale and objective;

(b) proposed implementation date;

(c) scope of application affected by the model change;

(d) technical and process document(s);

(e) reports of the JIB's independent review or validation;

(f) confirmation that the change has been approved through the JIB's approval processes by its management body or a designated committee under Article 189(1), and the date of approval;

(g) where applicable, the quantitative impact of the change on the risk-weighted exposure amounts or expected loss amounts.

2. A JIB shall, for changes classified as requiring notification either before or after implementation, submit, together with the notification, the documentation referred to in points (a) to (g) of paragraph 1.

Article 144 High-level requirements for using the IRB Approach

1. A JIB shall meet the following requirements when using the IRB Approach:

(a) each of the JIB's Rating System*s* shall provide for a meaningful assessment of obligor and transaction characteristics, a meaningful differentiation of risk and accurate and consistent quantitative estimates of risk;

(b) internal ratings and default and loss estimates used in the calculation of own funds requirements and associated systems and processes shall play an essential role in the risk management and decision-making process, and in the credit approval, internal capital allocation and corporate governance functions of the JIB;

(c) the JIB has a credit risk control unit responsible for each Rating System that is appropriately independent and free from undue influence;

(d) the JIB collects and stores all relevant data to provide effective support to its credit risk measurement and management process;

(e) the JIB documents each Rating System and the rationale for their design, and validates each Rating System;

(f) the JIB has validated each Rating System during an appropriate time period prior to the permission to use each Rating System, has assessed during this time period whether each Rating System is suited to the range of application of each Rating System, and has made necessary changes to each Rating System following its Rating System following its assessment;

(g) the JIB has calculated under the IRB Approach the own funds requirements resulting from its risk parameters estimates and is able to submit the reporting as required by Chapter 4 of Reporting (CRR) Part Article 430; and

(h) the JIB has assigned and continues to assign each exposure in the range of application of a Rating System to a rating grade or pool of each Rating System.

1A. Where the JIB has implemented a Rating System, or model used within a Rating System, that it has purchased from a third-party vendor, the JIB shall ensure that the rating system or model, as the case may be, and their use by the JIB, complies with this Part.

2. [Note: Provision left blank]

Article 145 Prior experience of using IRB Approaches

1. A JIB applying for permission to use the IRB Approach shall demonstrate to the satisfaction of the JFSC that it has been using for the IRB Exposure Classes in question Rating Systems that were broadly in line with the requirements set out in Section 6 for internal risk measurement and management purposes for at least three years prior to its qualification to use the IRB Approach.
2. A JIB applying for permission to use the Advanced IRB Approach for non-Retail Exposures shall demonstrate to the satisfaction of the JFSC that it has been estimating and employing own estimates of LGDs, and conversion factors or EADs, in a manner that is broadly consistent with the requirements for use of own estimates of those parameters set out in Section 6 for at least three years prior to qualification to use the Advanced IRB Approach for non-retail exposures.
3. Where a JIB applies for a permission to extend the use of the IRB Approach as provided for in its IRB Permission, the JIB shall demonstrate to the satisfaction of the JFSC that its experience as previously evidenced is sufficient to satisfy the requirements of paragraphs 1 and 2 in respect of the additional exposures covered. If the use of a Rating System is extended to exposures that are significantly different from the scope of the existing coverage, such that the existing experience is not reasonably considered sufficient to meet the requirements of these provisions in respect of the additional exposures, then the JIB shall confirm to the JFSC in writing and submit documentary evidence that demonstrates that it meets the requirements of paragraphs 1 and 2 in relation to the additional exposures.

Article 146 Measures to be taken where the requirements cease to be met

1. Where a JIB which has been granted a permission by the JFSC to use the IRB Approach does not comply with the requirements laid down in this Part, it shall notify the JFSC promptly and do one of the following:

(a) demonstrate that the effect of non-compliance is immaterial; or

(b) present a plan for addressing non-compliance in a timely way such that the effect of non-compliance would become immaterial under point (a) or the JIB would become compliant, and realise this plan within a reasonable time period.

2. For the purposes of point (a) of paragraph 1, the JIB shall confirm to the JFSC in writing and submit documentary evidence that demonstrates that:

(a) it has taken into account all instances of non-compliance with the requirements;

(b) the effect of non-compliance is immaterial for each Rating System; and

(c) the overall effect of non-compliance is immaterial.

3. A JIB shall, where the non-compliance referred to in paragraph 1 results in a material reduction in risk-weighted exposure amounts or expected loss amounts for a particular Rating System, quantify the following Post Model Adjustments to offset the impact of non-compliance in relation to risk-weighted exposure amounts and expected loss amounts:

(a) an adjustment in respect of risk-weighted exposure amounts relating to exposures to Institutions and corporates;

(b) an adjustment in respect of risk-weighted exposure amounts relating to Retail Exposures; and

(c) an adjustment in respect of expected loss amounts.

Article 147 Methodology to assign exposures to Exposure Classes and Exposure Subclass**es**

1. A JIB shall ensure that the methodology it uses for assigning exposures to different Exposure Classes is appropriate and consistent over time.
2. A JIB shall assign each exposure to one of the following Exposure Class*es* and Exposure Subclasses as the case may be:

(a) exposures to central governments, central banks or quasi-sovereigns

(b) exposures to institutions;

(c) exposures to corporates, which shall be divided into the following Exposure Subclasses:

I. specialised lending exposures;

II. financial corporates and large corporates; and

III. other general corporates;

(d) Retail exposures, which shall be divided into the following Exposure Subclasses:

I. qualifying revolving retail exposures;

II. retail exposures secured by residential immovable property; and

III. other retail;

(e) Equity Exposures;

(ea) exposures in the form of units or shares in a CIU;

(f) items representing securitisation positions;

(g) other non-credit obligation assets.

3. Exposures to any of the following entities shall be assigned to the Exposure Class referred to in point (a) of paragraph 2:

(a) central governments;

(b) central banks;

(c) regional governments;

(d) local authorities;

(e) public sector entities;

(f) multilateral development banks;

(g) international organisations which are assigned a risk weight of 0% under paragraph 1 of Credit Risk: Standardised Approach (CRR) Part Article 118;

(h) deferred tax assets which are assigned a risk weight of 250% under the Own Funds (CRR) Part.

4. The following exposures shall be assigned to the Exposure Class referred to in point (b) of paragraph 2 (exposures to institutions):

(a) exposures to institutions, with the exception of any exposures that are assigned to the Exposure Class referred to in point (e) of paragraph 2 (Equity Exposures) in accordance with paragraph 6;

(b) exposures to Financial Institutions treated as exposures to institutions in accordance with Credit Risk: Standardised Approach (CRR) Part Article 119(5), with the exception of any exposures that are assigned to the Exposure Class referred to in point (e) of paragraph 2 (Equity Exposures) in accordance with paragraph 6.

4A. Any credit obligation not assigned to an Exposure Class referred to in points (a), (b), (d), (e), (ea) and (f) of paragraph 2 shall be assigned to the corporate Exposure Class referred to in point (c) of that paragraph (exposures to corporates).

4B. Exposures to corporates shall be assigned to the specialised lending Exposure Subclass referred to in point (c)(i) of paragraph 2, if they possess all of the following characteristics, in legal form or economic substance:

(a) the exposure is to an entity which was created specifically to finance and/or operate physical assets;

(b) the borrowing entity has few or no other material assets or activities, and therefore little or no independent capacity to repay the obligation, apart from the income that it receives from the asset(s) being financed;

(c) the terms of the obligation give the lender a substantial degree of control over the asset(s) and the income that it generates; and

(d) as a result of points (a) to (c), the primary source of repayment of the obligation is the income generated by the asset(s), rather than the independent capacity of a broader commercial enterprise.

Specialised lending exposures shall be assigned to one of the following categories (in accordance with their definitions): Object Finance Exposures, Project Finance Exposures, Commodities Finance Exposures, IPRE Exposur*e*s or HVCRE Exposure*s*. Specialised lending exposures that can meet both the definition of IPRE Exposure*s* and HVCRE Exposure*s* shall be assigned to HVCRE Exposure*s*.

4C. Exposures to corporates shall be assigned to the financial corporates and large corporates Exposure Subclass referred to in point (c)(ii) of paragraph 2 if:

(a) they do not fall within the specialised lending Exposure Subclass referred to in point (c)(i) of paragraph 2; and

(b) the exposures are to:

I. financial sector entities; or

II. 'large' corporates with annual revenue of more than GBP 440 million, taken at the highest level of consolidation which is performed and at which audited financial statements are available, if applicable. For this purpose, annual revenue shall be calculated as the average annual amount over the last three years.

4D. Any other exposures to corporates not assigned to the Exposure Subclasses referred to in points (c)(i) or (c)(ii) of paragraph 2 shall be assigned to the Exposure Subclass referred to in point (c)(iii) of paragraph 2 (other general corporates).

5. A JIB shall ensure that exposures assigned to the retail exposures Exposure Class referred to in point (d) of paragraph 2, meet the following criteria:

(a) they are one of the following:

I. exposures to one or more natural persons; or

II. exposures to an SME, provided that the total amount owed (including past due exposures) to the JIB, its parent undertakings, its subsidiaries and subsidiaries of its parent undertakings by the obligor or group of connected clients, excluding exposures secured by residential immovable property collateral, shall not exceed GBP 880,000;

(b) they are treated by the JIB in its risk management consistently over time and in a similar manner;

(c) they are not managed just as individually as exposures in the corporate Exposure Class; and

(d) they each represent one of a significant number of similarly managed exposures. In addition to the exposures listed in the first sub-paragraph, the present value of retail minimum lease payments shall be included in the retail exposures Exposure Class.

5A. Retail Exposure*s* shall be assigned to the qualifying revolving retail exposures Exposure Subclass referred to in point (d)(i) of paragraph 2, if they meet the following conditions:

(a) the exposures are to individuals;

(b) the exposures are revolving, unsecured, and to the extent they are not drawn, immediately and unconditionally cancellable by the JIB. For the purpose of this point:

I. revolving exposures are defined as those where customers' outstanding balances are permitted to fluctuate based on their decisions to borrow and repay, up to a limit established by the JIB; and

II. undrawn *commitments* may be considered as unconditionally cancellable if the terms permit the JIB to cancel them to the full extent allowable under consumer protection and related legislation;

(c) the largest aggregate nominal exposure to a single individual, out of all aggregate nominal exposures to individuals in the sub-portfolio, is GBP 90,000 or less;

(d) the use of the coefficient of correlation referred to in Article 154(4) is limited to portfolios that have exhibited low volatility of loss rates, relative to their average level of loss rates, especially within the low PD bands; and

(e) the treatment as a qualifying revolving retail exposure shall be consistent with the underlying risk characteristics of the sub-portfolio.

By way of derogation from point (b), the requirement to be unsecured does not apply in respect of collateralised credit facilities linked to a wage account. In this case, amounts recovered from the collateral connected to those credit facilities shall not be taken into account in the LGD estimate.

A JIB shall identify qualifying revolving retail exposures as either Transactor Exposures or non-Transactor Exposures. In particular, qualifying revolving retail exposures with less than 12 months of repayment history shall be identified as exposures that are non-Transactor Exposures.

5B. The following exposures shall be assigned to the Exposure Subclass referred to in point (d)(ii) of paragraph 2: Retail Exposure*s* secured by residential immovable property.

5C. Any other Retail Exposure*s* not assigned to the Exposure Subclasses referred to in points (d)(i) or (d)(ii) of paragraph 2 shall be assigned to the Exposure Subclass referred to in point (d)(iii) of paragraph 2 (other retail).

6. The following exposures shall be assigned to the Exposure Class referred to in point (e) of paragraph 2:

(a) [Note: Provision left blank]

(b) Equity Exposures which are not exposures in the form of units or shares in a CIU;

(c) exposures which are assigned a risk weight of 1,250% in accordance with the Own Funds (CRR) Part; and

(d) exposures which are not deferred tax assets and which are assigned a risk weight of 250% in accordance with the Own Funds (CRR) Part.

6A. The following exposures shall be assigned to the Exposure Class referred to in point (ea) of paragraph 2: exposures in the form of units or shares in a CIU.

7. [Note: Provision left blank]

8. The following exposures shall be assigned to the Exposure Class referred to in point (g) of paragraph 2: other non-credit obligation assets. This shall include the residual value of leased properties, except to the extent that residual value is already included in the lease exposure referred to in Article 166A(4).

9. The exposure from providing protection under an nth-to-default basket credit derivative shall be assigned to the same single Exposure Class referred to in paragraph 2 to which the underlying exposures in the basket would be assigned, provided that if the individual exposures in the basket would be assigned to more than one Exposure Class*es*, the exposure shall be assigned to the corporates Exposure Class referred to in point (c) of paragraph 2.

Article 147A Treatment by Exposure Class and Exposure Subclass

1. A JIB shall, for the purpose of calculating the own funds requirement for credit risk, for exposures assigned to the Exposure Class or Exposure Subclass, as the case may be, set out in this Article, use the following specified approaches:

(a) for point (a) of Article 147(2) (central governments, central banks or quasi-sovereigns), the Standardised Approach;

(b) for point (b) of Article 147(2) (Institutions):

I. the Standardised Approach for exposures where permission has been granted under Article 148 or Article 150;

II. the Foundation IRB Approach for all other exposures within that Exposure Class;

(c) for point (c)(i) of Article 147(2) (specialised lending) for IPRE exposures and HVCRE exposures:

I. the Standardised Approach for exposures where permission has been granted under Article 148 or Article 150; or

II. the Slotting Approach for all other IPRE exposures and HVCRE exposures;

(d) for point (c)(i) of Article 147(2) (specialised lending) for Object Finance Exposures, Project Finance Exposures and Commodities Finance Exposures:

I. the Standardised Approach for exposures where permission has been granted under Article 148 or Article 150;

II. the Foundation IRB Approach for exposures where permission has been granted under Article 143(2A) or (2B) or Article 149(2) to use the Foundation IRB Approach;

III. the Advanced IRB Approach for exposures where permission has been granted under Article 143(2A) or (2B) to use the Advanced IRB Approach;

IV. the Slotting Approach for all other object finance exposures, project finance exposures and commodities finance exposures;

(e) for point (c)(ii) of Article 147(2) (financial corporates and large corporates):

I. (i) the Standardised Approach for exposures where permission has been granted under Article 148 or Article 150;

II. (ii) the Foundation IRB Approach for all other exposures within that Exposure Subclass;

(f) for points (c)(iii) of Article 147(2) (other general corporates):

I. (i) the Standardised Approach for exposures where permission has been granted under Article 148 or Article 150;

II. (ii) the Advanced IRB Approach for exposures where permission has been granted under Article 143(2A) or (2B) to use the Advanced IRB Approach;

III. (iii) the Foundation IRB Approach for all other exposures within that Exposure Subclass;

(g) for point (d) of Article 147(2) (retail):

I. the Standardised Approach for exposures where permission has been granted under Article 148 or Article 150;

II. the Advanced IRB Approach for all other exposures within that Exposure Class;

(h) for point (e) of Article 147(2) (equity), the Standardised Approach;

(i) for point (ea) of Article 147(2) (units or shares in a CIU), the approach set out in Article 152 and Article 158(4);

(j) for point (f) of Article 147(2) (items representing securitisation positions), the approach set out in the Securitisation (CRR) Part;

(k) for point (g) of Article 147(2) (other non-credit obligation assets), the approach set out in Article 156, Article 158(3) and Article 168.

Article 147B Roll-out Classes and categories

1. Each of the following is a Roll-out Class applicable for the IRB Approach:

(a) exposures to institutions as set out in point (b) of Article 147(2);

(b) specialised lending exposures as set out in point (c)(i) of Article 147(2);

(c) exposures to purchased receivables within the corporate Exposure Class as set out in point (c) of Article 147(2);

(d) exposures to financial corporates and large corporates and to other general corporates as set out in points (c)(ii) and (c)(iii) of Article 147(2);

(e) qualifying revolving retail exposures as set out in point (d)(i) of Article 147(2);

(f) Retail Exposures secured by residential property as set out in point (d)(ii) of Article 147(2);

(g) exposures to purchased receivables within the retail exposures Exposure Class as set out in point (d) of Article 147(2); and

(h) exposures to other retail as set out in point (d)(iii) of Article 147(2).

2. The Non-retail AIRB Modelling Roll-out Category applicable for the IRB Approach is:

(a) with the exception of IPRE Exposures and HVCRE Exposures, exposures to specialised lending as set out in point (c)(i) of Article 147(2);

(b) exposures to other general corporates, as set out in point (c)(iii) of Article 147(2).

Article 147C Methodology for roll-out of the IRB Approach

1. A JIB which has a permission to apply the IRB Approach in accordance with Article 143 shall, subject to any permission granted under Article 148, implement the IRB Approach for all exposures referred to in Article 147B(1), except for exposures which fall within the scope of points (e), (k) and (l) of Article 150(1) and for which it has received the prior permission of the JFSC to permanently use the Standardised Approach in accordance with Article 150(1).
2. A JIB which has permission to apply the Advanced IRB Approach for some Types of Exposures in the Non-retail AIRB Modelling Roll-out Category shall, subject to any permission granted under Article 148, implement one or more of the following approaches for all exposures in that category:

(a) the Advanced IRB Approach,

(b) the Slotting Approach in relation to the exposures set out in point (a) of Article 147B(2), or

(c) the Standardised Approach,

unless it meets the condition in point (b) of Article 150(4) and it has received the prior permission of the JFSC to permanently use the Foundation IRB Approach in accordance with Article 150(4).

Article 148 Conditions for roll-out of the IRB Approach

1. A JIB may, with the prior permission of the JFSC carry out the implementation of Article 147C(1) sequentially:

(a) across different Roll-out Class*es*,

(b) across different Types of Exposures within the same Roll-out Class, or

(c) for a given Roll-out Class, across different Business Unit*s* in the same group, as set out in the permission, if it is able to demonstrate to the satisfaction of the JFSC that the conditions in paragraph 3 are met.

1A. A JIB may, with the prior permission of the JFSC, carry out the Implementation of Article 147C(2) sequentially:

(a) across different types of exposures within the Non-retail AIRB Modelling Roll-out Category, or

(b) for a given type of exposures within the Non-retail AIRB Modelling Roll-out Category, across different business units in the same group,

as set out in the permission, if it is able to demonstrate to the satisfaction of the JFSC that the conditions in paragraph 3 are met.

2. A JIB shall implement the IRB Approach in accordance with a permission granted under paragraphs 1 and 1A within such time period and according to such timing and sequence as is specified in its IRB Permission.
3. The conditions referred to in paragraphs 1 and 1A are:

(a) the JIB shall submit an implementation plan which specifies the extent to which it intends to implement more sophisticated approaches;

(b) the time period for realising the implementation plan shall be appropriate on the basis of the nature and scale of the activities of the JIB, or of any parent undertaking and its subsidiaries, and the number and nature of the Rating System*s* to be implemented; and

(c) the timing and sequencing of the implementation plan shall be driven by the practicality and feasibility of moving to the more sophisticated approaches, and not motivated by a desire to adopt an approach that minimises the capital requirements for the JIB.

4. [Note: Provision left blank]
5. [Note: Provision left blank]
6. [Note: Provision left blank]

Article 149 Conditions to revert to the use of less sophisticated approaches

1. A JIB that uses the IRB Approach for a particular Roll-out Class or Type of Exposures shall continue to use that approach and shall not instead use the Standardised Approach for the calculation of risk-weighted exposure amounts, except that the JIB may, with the prior permission of the JFSC, stop using that approach and use instead the Standardised Approach for the calculation of risk-weighted exposure amounts, if it can demonstrate to the satisfaction of the JFSC that the use of the Standardised Approach:

(a) is not proposed in order to reduce the own funds requirement of the JIB;

(b) is necessary on the basis of the nature and complexity of the JIB's total exposures of this type;

(c) would not have a material adverse impact on the solvency of the JIB or its ability to manage risk effectively; and

(d) either:

I. would result in the Standardised Approach being applied to all exposures of the JIB; or

II. in accordance with Article 147C(1), would meet the requirements of Article 148(1) (on sequential roll-out) and Article 150(1) (on permanent partial use of the Standardised Approach).

2. A JIB that uses the Advanced IRB Approach for a particular Type of Exposures within the Non-retail AIRB Modelling Roll-out Category shall continue to use that approach and shall not instead use the Foundation IRB Approach, except that the JIB may, with the prior permission of the JFSC, instead use the Foundation IRB Approach if it can demonstrate to the satisfaction of the JFSC that the use of the Foundation IRB Approach for a Type of Exposures within the Non-retail AIRB Modelling Roll-out Category:

(a) s not proposed in order to reduce the own funds requirement of the JIB;
(b) is necessary on the basis of nature and complexity of the JIB's total exposures of this type;

(c) would not have a material adverse impact on the solvency of the JIB or its ability to manage risk effectively; and

(d) either:

I. would result in the Advanced IRB Approach no longer being applied to any exposures within the Non-retail AIRB Modelling Roll-out Category; or

II. in accordance with Article 147C(3), would meet the requirements of Article 148(1A) (on sequential roll-out) or Article 150(4) (on permanent partial use of the Foundation IRB Approach).

2A. A JIB that uses the Advanced IRB Approach or the Foundation IRB Approach in respect of specialised lending exposures as set out in point(c)(i) of Article 147(2) for a particular Roll-out Class or Type of Exposures shall continue to use that approach and shall not instead use the Slotting Approach for the calculation of risk-weighted exposure amounts, except that the JIB may, with the prior permission of the JFSC, instead use the Slotting Approach for the calculation of risk-weighted exposure amounts, if it can demonstrate to the satisfaction of the JFSC that the change proposed in the application materially complies with this Part.

For the purpose of the first sub-paragraph, the change proposed in the application shall be considered to materially comply with this Part if it fully complies with this Part or if both of the following conditions are met:

(a) the effect of any non-compliance for each Rating System in the JIB's application would be immaterial if the JIB made the proposed change; and

(b) the overall effect of the non-compliance would be immaterial if the JIB made the proposed change.

Article 150 Conditions for permanent partial use

1. A JIB which has been granted permission by the JFSC to use the IRB Approach in the calculation of risk-weighted exposure amounts and expected loss amounts may, with the prior permission of the PRA, apply the Standardised Approach to a subset of its exposures if it can demonstrate to the satisfaction of the JFSC that such exposures fall within the following categories:

(a) [Note: Provision left blank]

(b) [Note: Provision left blank]

(c) [Note: Provision left blank]

(d) [Note: Provision left blank]

(e) exposures of a JIB to a counterparty which is its parent undertaking, its subsidiary or a subsidiary of its parent undertaking provided that the counterparty is a JIB or a financial holding company, mixed financial holding company, Financial Institution, asset management company or ancillary services undertaking subject to appropriate prudential requirements or an undertaking linked by a common management relationship;

(f) [Note: Provision left blank]

(g) [Note: Provision left blank]

(h) [Note: Provision left blank]

(i) [Note: Provision left blank]

(j) [Note: Provision left blank]

(k) all exposures in one or more roll-out classes, where:

I. the application of the Standardised Approach to each such roll-out class does not result in significantly lower capital requirements than if the IRB Approach were applied;

II. the JIB cannot reasonably model the exposures in each such roll-out class; or

III. the exposures in each such roll-out class are immaterial;

(l) all exposures in one or more types of exposures, where the application of the Standardised Approach to each such type of exposures would not result in the Standardised Approach applying to a majority of exposures in a roll-out class, and where either:

I. the JIB cannot reasonably model the exposures in each such type of exposures; or

II. the exposures are immaterial in aggregate.

1A. For the purpose of:

(a) point (k)(i) of paragraph 1, ‘significantly lower capital requirements’ means the JIB reasonably estimates that Group Credit Risk Risk-weighted Exposure Amounts for that roll-out class under the Standardised Approach are less than 95% of the Group Credit Risk Risk-weighted Exposure Amounts for that roll-out class on the basis of the JIB applying the IRB Approach;

(b) point (k)(ii) of paragraph 1, the JIB cannot reasonably model the exposures only if either:

I. the JIB does not have sufficient data to model exposures in the roll-out class and cannot reasonably be expected to obtain sufficient data in a timely manner, and the deficiency in data does not arise due to historic non-compliance with the data collection and storage requirement provisions in this Part;

II. the JIB cannot reasonably develop a compliant modelling approach due to the nature and complexity of the exposures in the roll-out class; or

III. the use of the IRB Approach for the roll-out class would not result in significant improvements in risk differentiation or risk quantification than if the Standardised Approach were applied to the exposures in the roll-out class;

(c) point (k)(iii) of paragraph 1, exposures are immaterial if the JIB’s total group credit risk risk-weighted exposure amounts, as calculated under the Standardised Approach, for that roll-out class do not exceed 5% of total group credit risk risk-weighted exposure amounts;

(d) point (l)(i) of paragraph 1, the JIB cannot reasonably model the exposures only if either:

I. the JIB does not have sufficient data to model the exposures in the type of exposures and cannot reasonably be expected to obtain sufficient data in a timely manner, and the deficiency in data does not arise due to historic noncompliance with the data collection and storage requirement provisions in this Part;

II. the JIB cannot reasonably develop a compliant modelling approach due to the and complexity of the exposures in the Type of Exposures; or

III. the use of the IRB Approach for the exposures would not result in significant improvements in risk differentiation or risk quantification than if the Standardised Approach were applied to the exposures in the Type of Exposures;

(e) point (l)(ii) of paragraph 1, the exposures are immaterial in aggregate if the JIB’s total Group Credit Risk Risk-weighted Exposure Amounts of all exposures across all Roll-out Class*es* for which the Standardised Approach is permanently applied on the basis of the firm having received permission to do so under point (I)(ii), do not exceed 5% of the total Group Credit Risk Risk-weighted Exposure Amounts for all Roll-out Class*es* for which the JIB has permission to use the IRB Approach for some or all exposures;

(f) point (I) of paragraph 1, the Standardised Approach shall be considered to be applied to a majority of exposures within the Roll-out Class if the total Group Credit Risk Risk-weighted Exposure Amounts for all exposures to which the Standardised Approach is permanently applied exceeds 50% of the total Group Credit Risk Risk-weighted Exposure Amounts for that Roll-out Class. When calculating the total Group Credit Risk Risk-weighted Exposure Amount*s*, a JIB shall exclude from the numerator and the denominator the exposures set out in points (e) of paragraph 1.

2. [Note: Provision left blank]
3. [Note: Provision left blank]
4.

(a) A JIB which has been granted permission by the JFSC to use the Advanced IRB Approach in the calculation of risk-weighted exposure amounts and expected loss amounts for one or more Type of Exposures within the Non-retail AIRB Modelling Roll-out Category may, with the prior permission of the *PRA*, apply the Foundation IRB Approach for a given Type of Exposures in that category if it can demonstrate to the satisfaction of the JFSC that the requirement in point (b) is met.

(b) A JIB shall not permanently use the Foundation IRB Approach for a given Type of Exposures within the Non-retail AIRB Modelling Roll-out Category in order to achieve lower capital requirements, compared to using the Advanced IRB Approach.

Section 2 Calculation of risk-weighted exposure amounts

Sub-Section 1 Treatment by Type of Exposure Class or Exposure Subclass

Article 151 Methodology for each IRB Approach

1. A JIB shall calculate the risk-weighted exposure amount for credit risk for exposures that use the Slotting Approach, the Foundation IRB Approach or the Advanced IRB Approach in accordance with Sub-section 2, unless:

(a) it deducts the exposure amount from own funds; or

(b) it deducts the exposure from Common Equity Tier 1 items, Additional Tier 1 items or Tier 2 items.

2. A JIB shall calculate the risk-weighted exposure amounts for dilution risk for purchased receivables in accordance with Article 157. Where a JIB has full recourse to the seller of purchased receivables for default risk and for dilution risk, the provisions of this Article and Article 152 and Article 158(1) to (4) in relation to purchased receivables shall not apply and the JIB shall treat the exposure as a collateralised exposure.
3. A JIB shall calculate risk-weighted exposure amounts for credit risk and dilution risk based on the relevant parameters associated with the exposure in question. These shall include PD, LGD, maturity (hereinafter referred to as 'M') and exposure value of the exposure. PD and LGD may be considered separately or jointly, in accordance with Section 4.
4. [Note: Provision left blank]
5. A JIB that is permitted to use the Slotting Approach shall, for exposures within the scope of the permission, calculate risk weights in accordance with Article 153(5) and exposure values in accordance with Articles 166A and 166C.
6. A JIB that is permitted to use the Foundation IRB Approach or the Advanced IRB Approach shall, for exposures within the scope of the permission, provide its own estimates of PDs in accordance with Section 6, except where the JIB provides its own estimates of ELs in accordance with Articles 160(2), 160(6) or 163(3).
7.

(a) A JIB permitted to use the Foundation IRB Approach shall, for exposures within the scope of the permission, use LGD values in accordance with Article 161(1) and exposure values in accordance with Articles 166A, 166B and 166C; and

(b) A JIB permitted to use the Advanced IRB Approach shall, for exposures within the scope of the permission, provide its own estimates of LGDs in accordance with Section 6, except where the JIB uses LGD values in accordance with Article 161(2) or points (b) or (c) of Article 164(1), and calculate exposure values in accordance with Articles 166A, 166B and 166D.

8. [Note: Provision left blank]

9. [Note: Provision left blank]

9A. A JIB that is permitted to use either the Foundation IRB Approach or the Advanced IRB Approach, shall, for exposures that are not within point (d) of Article 147(2) and are within the scope of the permission, calculate M in accordance with Article 162.

10. [Note: Provision left blank]

Article 152 Treatment of exposures in the form of units or shares in CIUs

1. A JIB shall calculate the risk-weighted exposure amounts for its exposures in the form of units or shares in a CIU by multiplying the risk-weighted exposure amount of the CIU, calculated in accordance with the approaches set out in paragraphs 2 and 5, with the percentage of units or shares held by the JIB.

2. A JIB shall, where the conditions set out in paragraph 3 of Credit Risk: Standardised Approach (CRR) Part Article 132 are met and the JIB has sufficient information about the individual underlying exposures of a CIU, look through to those underlying exposures to calculate the risk-weighted exposure amount of the CIU, risk weighting all underlying exposures of the CIU as if they were directly held by the JIB.

3. [Note: Provision left blank]

3A. [Note: Provision left blank]

4. A JIB that applies the look-through approach in accordance with paragraphs 2 and 3 and is either using the Standardised Approach or does not meet the conditions for using the methods set out in this Part or one or more of the methods set out in the Securitisation (CRR) Part for all or parts of the underlying exposures of the CIU, shall calculate risk-weighted exposure amounts and expected loss amounts in accordance with the following principles:

(a) [Note: Provision left blank]

(b) for exposures assigned to the items representing securitisation positions Exposure Class referred to in point (f) of Article 147(2), the JIB shall apply the treatment set out in Securitisation (CRR) Part Article 254 as if those exposures were directly held by the JIB;

(c) for all other underlying exposures, the JIB shall apply the Standardised Approach laid down in the Credit Risk: Standardised Approach (CRR) Part.

5. A JIB may, where the conditions set out in paragraph 3 of Credit Risk: Standardised Approach (CRR) Part Article 132 are met and the JIB does not have sufficient information about the individual underlying exposures of a CIU, calculate the risk-weighted exposure amount for those exposures in accordance with the mandate based approach set out in paragraph 2 of Credit Risk: Standardised Approach (CRR) Part Article 132A. However, for the exposures listed in points (b) and (c) of paragraph 4, the JIB shall apply the approaches set out therein.
6. A JIB shall, subject to paragraph 2 of Credit Risk: Standardised Approach (CRR) Part Article 132B, if the JIB does not apply the look-through approach in accordance with paragraphs 2 and 3 or the mandate-based approach in accordance with paragraph 5, apply the fall-back approach referred to in paragraph 2 of Credit Risk: Standardised Approach (CRR) Part Article 132.
7. A JIB may calculate the risk-weighted exposure amount for its exposures in the form of units or shares in a CIU by using a combination of the approaches referred to in this Article, provided that the conditions for using those approaches are met.
8. A JIB that does not have adequate data or information to calculate the risk-weighted exposure amount of a CIU in accordance with the approaches set out in paragraphs 2 to 5 may rely on the calculations of a third party, provided that all the following conditions are met:

(a) the third party is one of either:

  I. the depository institution or the depository Financial Institution of the CIU, provided that the CIU exclusively invests in securities and deposits all securities at that depository institution or depository Financial Institution;

  II. for CIUs not covered by point (a)(i), the CIU management company;

(b) for exposures other than those listed in points (b) and (c) of paragraph 4, the third party carries out the calculation in accordance with the look-through approach set out in paragraph 1 of Credit Risk: Standardised Approach (CRR) Part Article 132A;

(c) or exposures listed in points (b) and (c) of paragraph 4, the third party carries out the calculation in accordance with the approaches set out therein; and

(d) an external auditor has confirmed the correctness of the third party's calculation.

A JIB that relies on third party calculations shall multiply the risk-weighted exposure amounts of a CIU's exposures resulting from those calculations by a factor of 1.2, unless the JIB has unrestricted access to the detailed calculations carried out by the third party. The JIB shall be able to, upon request by the *PRA*, provide those calculations.

9. For the purposes of this Article, paragraph 5 and 6 of Credit Risk: Standardised Approach (CRR) Part Article 132 and Credit Risk: Standardised Approach (CRR) Part Article 132B shall apply. For the purposes of this Article, Credit Risk: Standardised Approach (CRR) Part Article 132C shall also apply, using the risk weights calculated in accordance with this Part.

Sub-Section 2 Calculation of risk-weighted exposure amounts for credit risk

Article 153 Risk-weighted exposure amounts for exposures to corporates and institutions

1. A JIB shall, subject to the application of the specific treatments laid down in paragraphs 2, 4, 5 and 5A, calculate the risk-weighted exposure amounts for exposures to corporates and institutions according to the following formulae:

Risk-weighted exposure amount = RW ・ exposure value where the risk weight (RW) is defined as:

(a) [Note: Provision left blank]

(b) if PD = 1, i.e., for Defaulted Exposures:

— where a JIB uses the Foundation IRB Approach, RW shall be 0;
— where a JIB uses the Advanced IRB Approach, RW shall be:

$$RW = \max(0, 12.5 \cdot (LGD - BEEL))$$

where BEEL is the best estimate of expected loss (**BEEL**);

(c) if PD < 1

$$RW = \left(LGD \cdot N\left(\frac{1}{\sqrt{1-R}} \cdot G(PD) + \sqrt{\frac{R}{1-R}} \cdot G(0.999)\right) - LGD \cdot PD\right) \cdot \frac{1 + (M - 2.5 \cdot b)}{1 - 1.5 \cdot b} \cdot 12.5$$

where:
N(x) = the cumulative distribution function for a standard normal random variable (i.e. the probability that a normal random variable with mean zero and variance of one is less than or equal to x);
G(z) = the inverse cumulative distribution function for a standard normal random variable (i.e. the value x such that N(x) = z);
R = the coefficient of correlation, which is defined as (subject to paragraphs 2 and 4):

$$R = 0.12 \cdot \frac{1 - e^{-50 \cdot PD}}{1 - e^{-50}} + 0.24 \cdot \left(1 - \frac{1 - e^{-50 \cdot PD}}{1 - e^{-50}}\right)$$

M = the maturity shall be expressed in years and calculated in accordance with Article 162;
b = the maturity adjustment factor, which is defined as:

$$b = (0.11852 - 0.05478 \cdot \ln(PD))^2$$

PD = the PD value determined in accordance with this Part;
LGD = the LGD value determined in accordance with this Part.

2. For all exposures to Large Financial Sector Entities and Unregulated Financial Sector Entities, the JIB shall multiply the coefficient of correlation (R) of point (c) of paragraph 1 and paragraph 4 by 1.25.

3. [Note: Provision left blank]

4. A JIB may, for exposures to corporates where the total annual revenue for the consolidated group of which the entity is a part is less than GBP 44 million, use the following coefficient of correlation formula in point (c) of paragraph 1 for the calculation of risk weights for exposures to corporates. In this formula S is expressed as total annual revenue in millions with GBP 4.4 million ≤ S ≤ GBP 44 million. Reported revenue of less than GBP 4.4 million shall be treated as if it was equivalent to GBP 4.4 million. For purchased receivables the total annual revenue of the obligor shall be the weighted average by individual exposures of the pool.

$$R = 0.12 \cdot \frac{1 - e^{-50 \cdot PD}}{1 - e^{-50}} + 0.24 \cdot \left(1 - \frac{1 - e^{-50 \cdot PD}}{1 - e^{-50}}\right) - 0.04 \cdot \left(1 - \frac{\min\{\max\{4.4, S\}, 44\} - 4.4}{39.6}\right)$$

A JIB shall substitute total assets of the consolidated group for total annual revenue when total annual revenue is not a meaningful indicator of entity size and total assets are a more meaningful indicator than total annual revenue.

5. The Slotting Approach applies as follows for specialised lending exposures:

(a) a JIB shall:

I. for Non-Defaulted Exposures to IPRE Exposure*s* or HVCRE Exposure*s*, assign rating grades in accordance with the factors set out in List 1 of Appendix 1;

II. for Non-Defaulted Exposures which are Project Finance Exposures, assign rating grades in accordance with the factors set out in List 2 of Appendix 1;

III. for Non-Defaulted Exposures which are object finance exposures, assign rating grades in accordance with the factors set out in List 3 of Appendix 1; and

IV. for Non-Defaulted Exposures which are Commodities Finance Exposures; assign rating grades in accordance with the factors set out in List 4 of Appendix 1;

(b) for the purpose of point (a) of this paragraph, where a specialised lending exposure benefits from:

I. a guarantee that is recognised through the *Risk-Weight Substitution Method*,

II. collateral that is recognised through the *Financial Collateral Comprehensive Method*, or

III. *on-balance sheet netting* recognised in accordance with the Credit Risk Mitigation (CRR) Part,

the guarantee or the collateral or the *on-balance sheet netting*, as the case may be, shall not be taken into account when considering the factors set out in Lists 1 to 4 of Appendix 1;

(c) subject to points (d) to (f) of this paragraph a JIB shall:

I. assign the relevant risk weight in column B of Table A to exposures assigned to the 'Strong' rating grade;

II. assign the relevant risk weight in column D of Table A to exposures assigned to the 'Good' rating grade;

III. assign the relevant risk weight in the 'Satisfactory' column of Table A to exposures assigned to the 'Satisfactory' rating grade; and

IV. assign the relevant risk weight in the 'Weak' column of Table A to exposures assigned to the 'Weak' rating grade.

(d) a JIB may, for all categories of specialised lending exposures, if less than 2.5 years remain until maturity of an exposure:

I. for exposures assigned to the 'Strong' rating grade: assign the relevant risk weight in column A of Table A to the exposure instead of the risk weight in column B of Table A; and

II. for exposures assigned to the 'Good' rating grade: assign the relevant risk weight in column C of Table A to the exposure instead of the risk weight in column D of Table A;

(e) a JIB may, for IPRE Exposure*s* assigned to the 'Strong' rating grade, assign the relevant risk weight in column A of Table A to the exposure instead of the risk weight of column B in Table A if:

I. the JIB's underwriting of the exposure and the exposure's other characteristics are substantially stronger than required by the 'Strong' rating grade;

II. the loan to value ratio is very low for the property type;

III. the income stream on which the repayment of the obligation depends is consistent with that which the JIB would reasonably expect for an investment grade exposure, including that the tenant income from the property is at least 100% of the obligor's debt service obligations; and

IV. the exposure does not finance the land acquisition, development and construction ('ADC') of commercial real estate;

(f) a JIB may, for Project Finance Exposures assigned to the 'Strong' rating grade, assign the relevant risk weight in column A of Table A to the exposure instead of the risk weight in column B of Table A if the JIB's underwriting of the exposure and the exposure's other characteristics are substantially stronger than required by the 'Strong' rating grade;

(g) a JIB shall, for Defaulted Exposures, assign the relevant risk weight in the 'Default' column of Table A.

Table A

Rating grades:	Strong		Good		Satisfactory	Weak	Default
	A	B	C	D			
Object finance exposures	50%	70%	70%	90%	115%	250%	0%
Project finance exposures	50%	70%	70%	90%	115%	250%	0%
Commodities finance exposures	50%	70%	70%	90%	115%	250%	0%
IPRE exposures	50%	70%	70%	90%	115%	250%	0%
HVCRE exposures	70%	95%	95%	120%	140%	250%	0%

5A. The JIB shall increase total risk-weighted exposure amounts calculated under paragraphs 1, 2, 4 and 5 for exposures to institutions and corporates to reflect:

(a) any Post Model Adjustments in respect of risk-weighted exposure amounts calculated under point (a) of Article 146(3);

(b) any Unrecognised Exposure Adjustment calculated under Article 166D(6).

6. A JIB shall, for its purchased corporate receivables, comply with the requirements set out in Article 184. For purchased corporate receivables that comply in addition with the conditions set out in Article 154(5), and where it would be unduly burdensome for a JIB to use the risk quantification standards for exposures to corporates as set out in Section 6 for these receivables, the risk quantification standards for Retail Exposure*s* as set out in Section 6 may be used.

7.

(a) For purchased corporate receivables, refundable purchase price discounts, collaterals or partial guarantees that provide first loss protection for default losses, dilution losses, or both, may be treated as a first loss protection by a JIB that is the purchaser of the receivables or by the beneficiary of the collateral or of the partial guarantee in accordance with Securitisation (CRR) Part Articles 254 to 266.

(b) A JIB that is the seller providing the refundable purchase price discount or the provider of a collateral or a partial guarantee shall treat those as an exposure to a first loss position in accordance with Securitisation (CRR) Part Articles 254 to 266.

8.

(a) A JIB shall, where it provides credit protection for a number of exposures subject to the condition that the nth default among the exposures shall trigger payment and that this credit event shall terminate the contract, aggregate the risk weights of the exposures included in the basket, excluding n-1 exposures, where the sum of the expected loss amount multiplied by 12.5 and the risk-weighted exposure amount shall not exceed the nominal amount of the protection provided by the credit derivative multiplied by 12.5.

(b) The n-1 exposures to be excluded from the aggregation shall be determined on the basis that they shall include those exposures each of which produces a lower risk-weighted exposure amount than the risk-weighted exposure amount of any of the exposures included in the aggregation.

(c) A 1,250% risk weight shall apply to positions in a basket for which a JIB cannot determine the risk weight under the IRB Approach.

9. [Note: Provision left blank]

Article 154 Risk-weighted exposure amounts for retail exposures

1. A JIB shall, subject to the requirements laid down in paragraphs 3, 4 and 4A, calculate the risk-weighted exposure amounts for Retail Exposures in accordance with the following formulae:

Risk-weighted exposure amount = RW · exposure value
where the risk weight (RW) is defined as follows:

(a) if PD = 1, i.e., for Defaulted Exposures:

$$RW = \max\{0, 12.5 \cdot (LGD - BEEL)\};$$

(b) if PD < 1, i.e., for any possible value for PD other than under (a):

$$RW = \left(LGD \cdot N\left(\frac{1}{\sqrt{1-R}} \cdot G(PD) + \sqrt{\frac{R}{1-R}} \cdot G(0.999) \right) - LGD \cdot PD \right) \cdot 12.5$$

Where:
BEEL = the best estimate of expected loss (BEEL);
N(x) = the cumulative distribution function for a standard normal random variable (i.e. the probability that a normal random variable with mean zero and variance of one is less than or equal to x);
G(z) = the inverse cumulative distribution function for a standard normal random variable (i.e. the value x such that N(x) = z);
R = the coefficient of correlation defined as:

$$R = 0.03 \cdot \frac{1 - e^{-35 \cdot PD}}{1 - e^{-35}} + 0.16 \cdot \left(1 - \frac{1 - e^{-35 \cdot PD}}{1 - e^{-35}}\right)$$

PD= the PD value determined in accordance with this Part;
LGD = the LGD value determined in accordance with this Part.

2. [Note: Provision left blank]

3. For Retail Exposure*s* secured by immovable property collateral a coefficient of correlation (R) of 0.15 shall replace the figure produced by the coefficient of correlation formula in paragraph 1.

4. For qualifying revolving retail exposures as set out in Article 147(5A), a coefficient of correlation (R) of 0.04 shall replace the figure produced by the coefficient of correlation formula in paragraph 1.

4A. A JIB shall increase the total risk-weighted exposure amounts calculated under paragraphs 1, 3 and 4 for Retail Exposure*s* to reflect:

(a) any Post Model Adjustments in respect of risk-weighted exposure amounts calculated under point (b) of Article 146(3);

(b) any amount needed to ensure that risk-weighted exposure amounts for Non-defaulted Exposures which are Retail Exposure*s* secured by *UK* residential immovable property are greater than or equal to 10% of the exposure value for such exposures (following application of any Post Model Adjustments calculated under point (b) of Article 146(3));

(c) any Unrecognised Exposure Adjustment calculated under Article 166D(6).

5. For purchased retail receivables, R shall be calculated in accordance with the coefficient of correlation formula in paragraph 1.

To be eligible for the retail treatment, purchased retail receivables shall comply with the requirements set out in Article 184 and meet the following conditions:

(a) the JIB has purchased the receivables from unrelated third party sellers, and its exposure to the obligor of the receivable does not include any exposures that are directly or indirectly originated by the JIB itself;

(b) the purchased receivables shall be generated on an arm's-length basis between the seller and the obligor. As such, inter-company accounts receivables and receivables subject to contra-accounts between entities that buy and sell to each other are ineligible;

(c) the purchasing institution has a claim on all proceeds from the purchased receivables or a pro-rata interest in the proceeds; and

(d) the portfolio of purchased receivables is sufficiently diversified.

6. A JIB may, for purchased retail receivables, if the JIB is the purchaser of the receivables or the beneficiary of collateral or of a partial guarantee, treat refundable purchase price discounts, collaterals or partial guarantees that provide first loss protection for default losses, dilution losses, or both, as a first loss protection in accordance with Securitisation (CRR) Part Articles 254 to 266. A JIB that is the seller providing the refundable purchase price discount or the provider of a collateral or a partial guarantee shall treat those as an exposure to a first loss position in accordance with Securitisation (CRR) Part Articles 254 to 266.
7. For hybrid pools of purchased retail receivables where a purchasing institution cannot separate exposures secured by immovable property collateral and qualifying revolving retail exposures from other Retail Exposures, the JIB shall apply the retail risk weight function producing the highest capital requirements for those exposures.

Article 155 Risk-weighted exposure amounts for Equity Exposures

1. [Note: Provision left blank]
2. [Note: Provision left blank]
3. [Note: Provision left blank]
4. [Note: Provision left blank]

Article 156 Risk-weighted exposure amounts for other non-credit obligation assets

1. A JIB shall calculate the risk-weighted exposure amounts for other non-credit obligation assets in accordance with the following formula:

Risk-weighted exposure amount = 100% · exposure value
except for:

(a) cash in hand and equivalent cash items as well as gold bullion held in own vault or on an allocated basis to the extent backed by bullion liabilities, to which a JIB shall assign a 0% risk weight instead of a 100% risk-weight;

(b) when the exposure is a residual value of leased assets in which case the JIB shall calculate the risk-weighted exposure amount as follows:

$$\frac{1}{\mathrm{t}} \cdot 100\% \cdot \text{exposure value}$$

where t is the greater of 1 and the nearest number of whole years of the lease remaining.

Sub-Section 3 Calculation of risk-weighted exposure amounts for dilution risk of purchased receivables

Article 157 Risk-weighted exposure amounts for dilution risk of purchased receivables

1. A JIB shall calculate the risk-weighted exposure amounts for dilution risk of purchased corporate and retail receivables in accordance with the formula set out in Article 153(1).
2. A JIB shall determine the input parameters PD and LGD in accordance with Section 4.
3. A JIB shall determine the exposure value in accordance with Section 5.
4. For the purposes of this Article, the value of M is:

(a) one year if a JIB can demonstrate that the dilution risk is appropriately monitored and can be resolved within one year; and otherwise

(b) the period over which dilution risk can be resolved, subject to a maximum period of 5 years.

5. A JIB is not required to calculate and recognise risk-weighted exposure amounts for dilution risk of a Type of Exposures caused by purchased corporate or retail receivables where the dilution risk for the JIB is immaterial for this Type of Exposures.

Section 3 Expected loss amounts

Article 158 Treatment by exposure type

1. A JIB using the Foundation IRB Approach or Advanced IRB Approach shall, unless otherwise stated in this Article, calculate expected loss amounts based on the same input figures of PD, LGD and the exposure value for each exposure as are used for the calculation of risk-weighted exposure amounts in accordance with Article 151.
2. A JIB shall calculate the expected loss amounts for securitised exposures in accordance with the Securitisation (CRR) Part.
3. A JIB shall apply an expected loss amount of zero for exposures belonging to the 'other non-credit obligations assets' Exposure Class referred to in point (g) of Article 147(2).
4. A JIB shall calculate the expected loss amounts for exposures in the form of shares or units of a CIU referred to in Article 152 in accordance with the methods set out in this Article.
5. A JIB using the Foundation IRB Approach or Advanced IRB Approach shall, subject to the specific treatment laid down in paragraphs 6 and 6A, calculate the expected loss (EL) and expected loss amounts for exposures to corporates and institutions and for Retail Exposures in accordance with the following formulae:

$$\text{Expected loss (EL)} = PD \cdot LGD$$

$$\text{Expected loss amount} = EL \cdot \text{exposure value}$$

except for Defaulted Exposures (PD = 1) where the JIB uses the Advanced IRB Approach, EL shall be BEEL.

6. Subject to paragraph 6A, where a JIB has assigned a risk weight to a specialised lending exposure under the Slotting Approach, the JIB shall calculate an expected loss amount in accordance with the formula in paragraph 5. For this purpose the JIB shall use the same exposure value as is used for the calculation of risk-weighted exposure amounts in accordance with Article 151, and use the EL value in the cell of Table B that is in the corresponding row and column to the risk weight value in Table A that the JIB has assigned to the exposure in accordance with Article 153(5).

Table B:

Rating grades:	**Strong**		**Good**		**Satisfactory**	**Weak**	**Default**
	A	**B**	**C**	**D**			
Object finance exposures	0%	0.4%	0.4%	0.8%	2.8%	8%	50%
Project Finance Exposures	0%	0.4%	0.4%	0.8%	2.8%	8%	50%
Commodities Finance Exposures	0%	0.4%	0.4%	0.8%	2.8%	8%	50%
IPRE Exposure*s*	0%	0.4%	0.4%	0.8%	2.8%	8%	50%
HVCRE Exposure*s*	0.4%	0.4%	0.4%	0.4%	2.8%	8%	50%

6A. A JIB shall increase the total expected loss amounts calculated under paragraphs5 and 6 to reflect any Post Model Adjustments in respect of expected loss amounts calculated under point (c) of Article 146(3).

7. [Note: Provision left blank]

8. [Note: Provision left blank]

9. [Note: Provision left blank]

10. A JIB shall calculate expected loss amounts for dilution risk of purchased receivables in accordance with the following formulae:

$$\text{Expected loss (EL)} = PD \cdot LGD$$

$$\text{Expected loss amount} = EL \cdot \text{exposure value}$$

[Note: This rule corresponds to Article 158 of *CRR* as it applied immediately before revocation by the *Treasury*]

Article 159 Treatment of expected loss amounts

1. The following definitions apply for the purpose of this Article:

'A' = the sum of expected loss amounts calculated in accordance with Article 158(5), (6), (6A) and (10) for Non-Defaulted Exposures;

'B' = the sum of all of the following:

I. general credit risk adjustments in accordance with Credit Risk: General Provi sions (CRR) Part Article 110 and Commission Delegated Regulation (EU) No 183/2014;

II. specific credit risk adjustments for Non-Defaulted Exposures in accordance with Credit Risk: General Provisions (CRR) Part Article 110 and Commission Delegated Regulation (EU) No 183/2014;

III. additional value adjustments in accordance with the Own Funds (CRR) Part;

IV. other own funds reductions related to those exposures;

'C' = the sum of expected loss amounts calculated in accordance with paragraphs 5, 6, 6A and 10 of Article 158 for Defaulted Exposures;

'D' = specific credit risk adjustments for Defaulted Exposures in accordance with Credit Risk: General Provisions (CRR) Part Article 110 and Commission Delegated Re gulation (EU) No 183/2014.

2. For the purposes of paragraph 1:

(a) a JIB shall treat discounts on balance sheet items purchased when in default in accordance with Article 166A(2) in the same manner as specific credit risk adjustments;

(b) a JIB shall not include expected loss amounts for securitised exposures and general and specific credit risk adjustments related to those exposures; and (c) a JIB taking credit risk mitigation into account using the Risk-Weight Substitution Method shall not include any credit risk adjustments in respect of the covered part of an exposure, calculated in accordance with Credit Risk Mitigation (CRR) Part Article 235.

3. Where 'A' > 'B' and 'D' > 'C', a JIB shall, in order to compare expected loss amounts with credit risk adjustments, additional value adjustments and other own fund reductions, such that specific credit risk adjustments on exposures in default are not used to cover expected loss amounts on other exposures:

(a) calculate the following negative amount: 'B' – 'A'; and

(b) calculate the following positive amount: 'D' – 'C'.

In all other cases, a JIB shall, in order to compare expected loss amounts with credit risk adjustments, additional value adjustments and other own fund reductions:

(c) if ('A' + 'C') > ('B' + 'D'), calculate the following negative amount: ('B' + 'D') – ('A' + 'C');

(d) if ('B' + 'D') > ('A' + 'C'), calculate the following positive amount: ('B' + 'D') – ('A' + 'C').

Section 4 PD, LGD and maturity

Sub-Section 1 Exposures to corporates and Institutions

Article 160 Probability of Default (PD): corporates and Institutions

1. A JIB shall, for exposures to corporates and Institutions, when calculating risk-weighted exposure amounts, expected loss amounts, risk weights and expected loss for those exposures (including but not limited to under Article 153, Article 157, Article 158(1), Article 158(5) and Article 158(10)) not use PD values as inputs to the risk-weight and expected loss formulae that are less than 0.05%.
2. A JIB shall, for purchased corporate receivables in respect of which a JIB is not able to estimate PDs or a JIB's PD estimates do not meet the requirements set out in Section 6, determine the PDs for these exposures in accordance with the following methods:

(a) for senior claims on purchased corporate receivables PD shall be the JIB's estimate of EL divided by LGD for these receivables;

(b) for subordinated claims on purchased corporate receivables PD shall be the JIB's estimate of EL;

(c) where a JIB is using the Advanced IRB Approach in accordance with Article 147A and can decompose its EL estimates for purchased corporate receivables into PDs and LGDs in a manner that is reliable, the JIB may, as an alternative to applying the methods in points (a) and (b), use the PD estimate that results from this decomposition.

3. A JIB shall use a PD of 100% for obligors in default.
4.

(a) Subject to point (b), a JIB may take into account unfunded credit protection in accordance with Credit Risk Mitigation (CRR) Part Article 191A.

(b) A JIB reflecting guarantees or other support arrangements through an unfunded credit protection technique in accordance with Credit Risk Mitigation (CRR) Part Article 191A, or through an adjusted grade assignment in accordance with point (e) of Article 172(1), shall:

I. not assign final PDs or LGDs post application of those techniques such that the risk weight would be lower than that of a comparable direct exposure to the guarantor or provider of the support arrangements; and

II. calculate risk-weighted exposure amounts, expected loss amounts, risk weights and expected loss for exposures to corporates and institutions, after it has applied the input floors that would apply to a comparable direct exposure to the guarantor or provider of support arrangements under Articles 160(1), 161(5), 163(1) and 164(4).

5. [Note: Provision left blank]
6. A JIB shall, for dilution risk of purchased corporate receivables, set PD equal to the EL estimate of the JIB for dilution risk. Alternatively, a JIB may, where it uses the Advanced IRB Approach in accordance with Article 147A and can decompose its EL estimates for dilution risk of purchased corporate receivables into PDs and LGDs in a manner that is reliable, use the PD estimate that results from this decomposition. A JIB may recognise unfunded credit protection in the PD in accordance with Credit Risk Mitigation (CRR) Part Article 191A.
7. [Note: Provision left blank]

Article 161 Loss Given Default (LGD): corporates and Institutions

1. A JIB using the Foundation IRB Approach shall use the following LGD values:

(a) senior exposures without collateral recognised under the *Foundation Collateral Method* to financial sector entities: 45%;

(aa) subject to point (e), senior exposures without collateral recognised under the *Foundation Collateral Method* to corporates which are not financial sector entities: 40%;

(b) subject to point (f), subordinated exposures without collateral recognised under the *Foundation Collateral Method*: 75%;

(c) a JIB may recognise funded and unfunded credit protection in the LGD in accordance with Credit Risk Mitigation (CRR) Part Article 191A;

(d) *eligible covered bonds* may be assigned an LGD value of 11.25%;

(e) for senior purchased corporate receivables exposures where PD is determined in accordance with point (a) of Article 160(2): 40%;

(f) for subordinated purchased corporate receivables exposures where PD is determined in accordance with point (b) of Article 160(2): 100%;

(g) for dilution risk of purchased corporate receivables where PD is determined in accordance with the first sentence of Article 160(6): 100%.

2.

(a) A JIB using the Advanced IRB Approach shall apply the LGD value in:

I. point (e) of paragraph 1 where PD is determined in accordance with point (a) of Article 160(2);

II. point (f) of paragraph 1 where PD is determined in accordance with point (b) of Article 160(2);

III. point (g) of paragraph 1 where PD is determined in accordance with the first sentence of Article 160(6).

(b) A JIB using the Advanced IRB Approach shall:

I. where it uses the PD estimate that results from the decomposition of its EL estimates for purchased corporate receivables in accordance with point (c) of Article 160(2), use the LGD estimate that results from the decomposition;

II. for dilution risk of purchased corporate receivables, where it uses the PD estimate that results from its decomposition of its EL estimates for dilution risk in accordance with the second sentence of Article 160(6), use the LGD estimate that results from the decomposition.

3. A JIB may, subject to Article 160(4), reflect unfunded credit protection in LGDs in accordance with Credit Risk Mitigation (CRR) Part Article 191A.
4. [Note: Provision left blank]
5. A JIB using the Advanced IRB Approach shall not, for exposures to corporates and institutions, when calculating risk-weighted exposure amounts, expected loss amounts, risk weights and expected loss of those exposures, including but not limited to under Article 153(1), Article 157, and Article 158(1), (5) and (10), use LGD values as inputs to the risk weight and expected loss formulae that are less than the following LGD input floor values:

(a) a flat 25% floor value for unsecured exposures to corporates and for exposures where the JIB chooses not to take into account funded credit protection covering that exposure;

(b) for secured and partially secured exposures where the JIB chooses to take into account funded credit protection covering the exposure:

I. in the case of a single type of collateral, a variable LGD input floor value equal to the value of LGD* in Credit Risk Mitigation (CRR) Part Article 230; or

II. in the case of multiple types of collateral, a variable LGD input floor value equal to the value of LGD* in Credit Risk Mitigation (CRR) Part Article 231,

calculated using the Foundation Collateral Method in accordance with the Credit Risk Mitigation (CRR) Part, provided that in calculating LGD* for the purpose of this point (b) with reference to Credit Risk Mitigation (CRR) Part Article 230 or 231, as applicable, the JIB shall substitute:

III. 25% for LGD_U; and

IV. the following values for LGD_S or LGD_{Si} as applicable:

(1) 0% for financial collateral;

(2) 10% for receivables;

(3) 10% for immovable property;

(4) 15% for other physical collateral.

6. A JIB shall, for the purpose of point (b) of paragraph 5 where collateral reflected in the calculation of LGD* is held against multiple facilities, comply with the requirements set out in paragraph 7 Credit Risk Mitigation (CRR) Part Article 193.

Article 162 Maturity: corporates and Institutions

1. [Note: Provision left blank]
2. A JIB that uses the Foundation IRB Approach or the Advanced IRB Approach for exposures to corporates and institutions pursuant to Article 147A shall calculate M for each of these exposures in accordance with the calculation methods set out in paragraph 2A, subject to paragraph 3, provided that M shall be no greater than five years except in the cases specified in Credit Valuation Adjustment Risk Part 4.3 where M as specified there shall be used. Where an exposure falls within more than one point in paragraph 2A, the JIB shall calculate M as follows:

(a) where an exposure falls within both points (g) or (h) and any of (b), (c), (d) or (da) of paragraph 2A, it shall calculate M in accordance with point (g) or (h) of paragraph 2A as applicable;

(b) where an exposure falls within both points (b) and (c) of paragraph 2A, it shall calculate M in accordance with point (c) of paragraph 2A; and

(c) where an exposure falls within both points (a) and (k) of paragraph 2A, it shall calculate M in accordance with point (k) of paragraph 2A.

2A.

(a) For an instrument subject to a cash-flow schedule, M shall be calculated in accordance with the following formula:

$$\mathrm{M} = \max\{1, \min\left\{\frac{\sum_t \mathrm{t} \cdot \mathrm{CF_t}}{\sum_t \mathrm{CF_t}}, 5\right\}\}$$

where CF_t denotes the cash-flows (principal, interest payments and fees) contractually payable by the obligor in period t;

(b) for derivatives subject to a master netting agreement, the maturity of each derivative transaction shall first be calculated in accordance with this Article and M shall be the weighted average remaining maturity of the set of transactions, where M shall be at least one year, and the notional amount of each derivative transaction shall be used for weighting the maturity;

(c) for exposures arising from fully or nearly-fully collateralised derivative instruments t and fully or nearly-fully collateralised margin lending transactions which are subject to a master netting agreement, where the documentation:

I. requires daily re-margining or revaluation, and

II. includes provisions that allow for the prompt liquidation or set-off of the collateral in the event of default or failure to re-margin,

the maturity of each fully or nearly-fully collateralised derivative transaction or collateralised margin lending transaction shall first be calculated in accordance with this Article and M shall be the weighted average remaining maturity of the set of transactions, where M shall be at least 10 days. The notional amount of each transaction shall be used for weighting the maturity;

(d) for repurchase transactions or securities or commodities lending or borrowing transactions which are subject to a master netting agreement, where the documentation:

I. requires daily re-margining or revaluation, and

II. (ii) includes provisions that allow for the prompt liquidation or set-off of the collateral in the event of default or failure to re-margin,

the maturity of each repurchase transaction or securities or commodities lending or borrowing transaction shall first be calculated in accordance with this Article and M shall be the weighted average remaining maturity of the set of transactions where M shall be at least 5 days. The notional amount of each transaction shall be used for weighting the maturity;

(da) for a master netting agreement including transactions of the types set out in points (c) and (d), the maturity of each transaction shall first be calculated in accordance with this Article and M shall be the weighted average remaining maturity of the set of transactions where M shall be at least 10 days. The notional amount of each transaction shall be used for weighting the maturity;

(e) for a JIB that has received an IRB Permission to use own PD estimates for purchased corporate receivables, for drawn amounts, M shall equal the purchased receivables exposure weighted average maturity, where M shall be at least one year. This same value of M shall also be used for undrawn amounts under a committed purchase facility provided that 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, M for undrawn amounts shall be calculated as the sum of the longest-dated potential receivable under the purchase agreement and the remaining maturity of the purchase facility, where M shall be at least one year;

(f) for any instrument other than those referred to in this paragraph 2A or when a JIB is not in a position to calculate M as set out in point (a), M shall be the maximum remaining time (in years) that the obligor is permitted to take to fully discharge its contractual obligations, where M shall be at least one year;

(g) [Note: Provision left blank]

(h) [Note: Provision left blank]

(ha) subject to the rest of this paragraph and paragraphs 2 and 3, for netting sets in which all contracts have an original maturity of less than one year, the formula in point (a) shall apply;

(i) [Note: Provision left blank]

(j) [Note: Provision left blank]

(k) For revolving exposures, M shall be determined using the maximum contractual termination date of the facility. A JIB shall not use the repayment date of the current drawing.

3. In application of the calculation methods set out in paragraph 2A, a JIB shall, where the documentation requires daily re-margining and daily revaluation and includes provisions that allow for the prompt liquidation or set-off of collateral in the event of default or failure to re-margin, set M as at least one day, instead of the minimum set out in paragraph 2A, for:

(a) fully or nearly-fully collateralised derivative instruments;

(b) fully or nearly-fully collateralised margin lending transactions;

(c) repurchase transactions, securities or commodities lending or borrowing transactions.

In addition, in applying the calculation methods set out in paragraph 2A for qualifying short-term exposures which are not part of the JIB's ongoing financing of the obligor, M shall be at least one day, instead of the minimum set in paragraph 2A. Qualifying short term exposures shall include the following:

(d) exposures to Institutions or investment firms arising from settlement of foreign exchange obligations;

(e) self-liquidating trade finance transactions, with a residual maturity of less than one year;

(f) exposures arising from settlement of securities purchases and sales within the usual delivery period or two business days;

(g) exposures arising from cash settlements by wire transfer and settlements of electronic payment transactions and prepaid cost, including overdrafts arising from failed transactions that do not exceed a short, fixed agreed number of *business days*.

4. [Note: Provision left blank]

5. [Note: Provision left blank]

Sub-section 2 Retail Exposures

Article 163 Probability of default (PD): retail

1. A JIB shall not, for Retail Exposures, when calculating risk-weighted exposure amounts, expected loss amounts, risk weights and expected loss for those exposures, including but not limited to under Article 154, Article 157, Article 158(1), Article 158(5) and Article 158(10), use PD values in the input of the risk weights and expected loss formulae that are less than the following:

(a) 0.1% for qualifying revolving retail exposures, as set out in Article 147(5A), that are non-transactor exposures;

(b) 0.1% for Retail Exposures secured by residential immovable property located in the *UK*; and

(c) 0.05% for all other Retail Exposures.

2. A JIB shall, for Retail Exposures, use a PD of 100% for obligors in default or, where the JIB applies the definition of default at the level of an individual credit facility, for exposures in default.

3.

(a) A JIB shall, subject to point (b), for dilution risk of purchased receivables, set PD equal to EL estimates for dilution risk.

(b) A JIB may, if it can decompose its EL estimates for dilution risk of purchased receivables into PDs and LGDs in a manner that is reliable, use the PD estimate that results from the decomposition.

4. 4.

(a) A JIB may, subject to point (b), reflect unfunded credit protection in accordance with Credit Risk Mitigation (CRR) Part Article 191A.

(b) A JIB shall, when reflecting guarantees or other support arrangements through an unfunded credit protection technique in accordance with Credit Risk Mitigation (CRR) Part Article 191A, or through an adjusted grade assignment in accordance with point (e) of Article 172(1):

I. not assign final PDs or LGDs post application of those techniques such that the risk weight would be lower than that of a comparable direct exposure to the guarantor or provider of the support arrangements; and

II. calculate risk-weighted exposure amounts, expected loss amounts, risk weights and expected loss for Retail Exposures, after it has applied the input floors that would apply to a comparable direct exposure to the guarantor or provider of support arrangements under Articles 160(1), 161(5), 163(1) and 164(4).

Article 164 Loss Given Default (LGD): retail

1.

(a) A JIB shall provide own estimates of LGDs subject to the requirements specified in Section 6 and the terms of its IRB Permission.

(b) A JIB shall, subject to point (c), for dilution risk of purchased receivables, use an LGD value of 100% where PD is determined in accordance with point (a) of Article 163(3).

(c) A JIB shall, for dilution risk of purchased receivables where it uses the PD estimate that results from the decomposition of its EL estimates for dilution risk in accordance with point (b) of Article 163(3), use the LGD estimate that results from the decomposition.

2. A JIB may, subject to Article 163(4), reflect unfunded credit protection in LGDs in accordance with Credit Risk Mitigation (CRR) Part Article 191A.
3. [Note: Provision left blank]
4. A JIB shall, for Retail Exposure*s*, when calculating risk-weighted exposure amounts, expected loss amounts, risk weights and expected loss of those exposures, including but not limited to under Article 154(1), Article 157, and Article 158(1) and (10), not use LGD values as inputs to the risk weight and expected loss formulae that are less than the following LGD input floor values:

(a) a flat 5% floor value for Retail Exposure*s* secured by residential immovable property, irrespective of the level of collateral provided;

(b) for unsecured Retail Exposure*s*:

I. a flat 50% floor value for qualifying revolving retail exposures as set out in Article 147(5A); and

II. a flat 30% floor value for other unsecured Retail Exposure*s*;

(c) for secured and partially secured exposures not within the scope of point (a), where the JIB chooses to take into account funded credit protection covering the exposure:

I. (i) in the case of a single type of collateral, a variable LGD input floor value equal to the value of LGD*in Credit Risk Mitigation (CRR) Part Article 230, or

II. (ii) in the case of multiple types of collateral, a variable LGD input floor value equal to the value of LGD* in Credit Risk Mitigation (CRR) Part Article 231,

calculated using the Foundation Collateral Method (notwithstanding that this method would not normally apply to Retail Exposure*s*) in accordance with Credit Risk Mitigation (CRR) Part, provided that in calculating LGD*for the purpose of this point (c) with reference to Credit Risk Mitigation (CRR) Part Articles 230 or 231, as applicable, the JIB shall substitute:

III. 30% for LGD_U; and

IV. the following values for LGD_S or LGD_{Si} as applicable:

(1) 0% for financial collateral;

(2) 10% for receivables;

(3) 10% for immovable property;

(4) 15% for other physical collateral.

4A. A JIB shall, for the purpose of point (c) of paragraph 4, where collateral is held against multiple facilities, comply with the requirements set out in paragraph 7 of Credit Risk Mitigation (CRR) Part Article 193.

5. [Note: Provision left blank]
6. [Note: Provision left blank]
7. [Note: Provision left blank]
8. [Note: Provision left blank]

Sub-Section 3 Equity Exposure**s subject to PD/LGD method**

Article 165 Equity Exposure**s subject to the PD/LGD method**

1. [Note: Provision left blank]
2. [Note: Provision left blank]
3. [Note: Provision left blank]

Section 5 Exposure value

Article 166 Exposures to corporates, institutions and retail exposures

1. [Note: Provision left blank]
2. [Note: Provision left blank]
3. [Note: Provision left blank]
4. [Note: Provision left blank]
5. [Note: Provision left blank]
6. [Note: Provision left blank]
7. [Note: Provision left blank]
8. [Note: Provision left blank]
9. [Note: Provision left blank]
10. [Note: Provision left blank]

Article 166A Exposure value for corporates, institutions and retail: General provisions

1. A JIB shall, subject to Article 166B, calculate the exposure value for off-balance sheet items in accordance with Article 166C where it is using the Foundation IRB Approach or the Slotting Approach, and in accordance with Article 166D where it is using the Advanced IRB Approach.
2. Unless otherwise provided for in this Part, the exposure value of on-balance sheet items shall be the accounting value measured without taking into account any credit risk adjustments made. This requirement also applies to assets purchased at a price different than the amount owed.

For purchased assets, the difference between the amount owed and the accounting value remaining after specific credit risk adjustments (in accordance with Credit Risk: General Provision Parts (CRR) Article 110 and Commission Delegated Regulation (EU) No 183/ 2014) have been applied that has been recorded on the balance-sheet of the JIB when purchasing the asset is the denoted discount if the amount owed is larger, and premium if it is smaller.

3. A JIB shall, in order to calculate the exposure value where it recognises On-Balance Sheet Netting of loans and deposits, apply the methods set out in the Credit Risk Mitigation (CRR) Part.
4. A JIB shall set the exposure value for leases as the discounted minimum lease payments. Minimum lease payments shall comprise the payments over the lease term that the lessee is, or can, be required to make and any bargain option (being an option the exercise of which is reasonably certain). If a party other than the lessee may be required to make a payment related to the residual value of a leased asset and this payment obligation fulfils the set of conditions in Credit Risk Mitigation (CRR) Part Article 201 regarding the eligibility of protection providers, as well as the requirements for recognising other types of guarantees provided in Credit Risk Mitigation (CRR) Part Article 213, the JIB may take the payment obligation into account as unfunded credit protection in accordance with the Credit Risk Mitigation (CRR) Part.

5. A JIB shall determine the exposure value for the calculation of risk-weighted exposure amounts of purchased receivables as the value determined in accordance with paragraph 1 minus the own funds requirements for dilution risk prior to credit risk mitigation.

A JIB shall, for undrawn purchase commitments for revolving purchased receivables, calculate the exposure value using a conversion factor of 40%, except where such commitments meet the criteria set out in point 7 of Column A of Table A1 of paragraph 1 of Credit Risk: Standardised Approach (CRR) Part Article 111, in which case the conversion factor shall be 10%.

6. A JIB with permission to apply the Advanced IRB Approach shall assess EAD*s* arising from facilities or relationships that are not captured in an exposure value in accordance with Article 166D(6).

Article 166B Exposure value for corporates, Institutions and retail: counterparty credit risk

1. A JIB that takes into account credit risk mitigation techniques in calculating the exposure value of securities financing transactions and long settlement transactions shall calculate such exposure value consistently with Credit Risk Mitigation (CRR) Part Article 191A in accordance with Chapter 3 of Credit Risk Mitigation (CRR) Part; provided that where the JIB takes into account a master netting agreement in relation to a set of securities financing transactions, it shall calculate the exposure value for all transactions covered by that master netting agreement as a single exposure value at netting set level.
2. In the case of derivatives, the exposure value shall be determined by the methods set out in the Counterparty Credit Risk (CRR) Part.
3. Unless otherwise determined by paragraph 1, where an exposure takes the form of securities or commodities sold, posted or lent under securities financing transactions or long settlement transactions, the JIB shall use the exposure value of the securities or commodities determined in accordance with the PRA's Groups Part Article 24. The JIB shall, where it uses the Financial Collateral Comprehensive Method, increase such exposure value by the volatility adjustment appropriate to such securities or commodities, as prescribed in Credit Risk Mitigation (CRR) Part Articles 223 to 224.

Article 166C Exposure value for corporates and Institutions: the Foundation IRB Approach and the Slotting Approach

1. A JIB shall determine the exposure value for off-balance sheet items in respect of which it uses the Foundation IRB Approach or the Slotting Approach in accordance with Article 147A by multiplying the conversion factor that would be applicable to the off-balance sheet item under the Standardised Approach, as set out in Credit Risk: Standardised Approach (CRR) Part Article 111, by the item's nominal value.
2. A JIB shall, in order to reflect the effect of funded credit protection in respect of exposures for which it uses the Slotting Approach, apply the methods set out in the Credit Risk Mitigation (CRR) Part.

Article 166D Exposure value for corporates, Institutions and retail: the Advanced IRB Approach

1. A JIB shall, subject to paragraph 3, determine the exposure value for off-balance sheet items in respect of which it uses the Advanced IRB Approach in accordance with Article 147A by multiplying the item's nominal value by:

(a) for Revolving Loan Commitment*s* which would not be subject to a 100% conversion factor under Credit Risk: Standardised Approach (CRR) Part Article 111: an own estimate of conversion factor that the JIB shall provide in accordance with Section 6;

(b) for all other off-balance sheet items: the conversion factor that would be applicable to the off-balance sheet item under the Standardised Approach, as set out in Credit Risk: Standardised Approach (CRR) Part Article 111.

2. A JIB shall, where an on-balance sheet item and a *revolving loan commitment* relate to the same facility and the JIB uses the approach set out in point (a) paragraph 1 for the Revolving Loan Commitment, incorporate any expected increase in the value of the on-balance sheet item at the point of default in its own estimate of conversion factor for the Revolving Loan Commitment.
3. A JIB may, in respect of,

(a) fully undrawn revolving loan facilities (i.e. where a Revolving Loan Commitment arises from a facility for which no on-balance sheet item is related), and

(b) partially drawn revolving loan facilities (i.e. where a Revolving Loan Commitment and an on-balance sheet item relate to the same facility),

assign a single exposure value to each such facility instead of the exposure values that would otherwise be assigned to the Revolving Loan Commitment in accordance with paragraph 1 and, where appliable, any related on-balance sheet item in accordance with Article 166A(2). The exposure value assigned to the facility shall be equal to an own estimate of EAD that the JIB shall provide in accordance with section 6.

4. A JIB shall, in respect of fully drawn revolving loan facilities (i.e. where an on-balance sheet item arises from a facility that would have given rise to a Revolving Loan Commitment had the facility not been fully drawn), assign an exposure value equal to an own estimate of EAD that the JIB shall provide in accordance with section 6 instead of the exposure value that would otherwise be assigned to the on-balance sheet item in accordance with Article 166A(2).
5. For exposures to corporates, and institutions and for Retail Exposure*s*, when calculating risk-weighted exposure amounts and expected loss amounts, including but not limited to under Article 153(1), Article 154(1), Article 157, Article 158(1), Article 158(5) and Article 158(10):

(a) own estimates of conversion factors provided under point (a) of paragraph 1 shall not be lower than 50% of the conversion factor that would apply to the Revolving Loan Commitment if the Standardised Approach was applied;

(b) own estimates of EAD provided under paragraph 3 shall not be lower than the sum of:

I. the exposure value of the on-balance sheet item, where relevant, calculated in accordance with Article 166A(2), disregarding Article 166D; and

II. 50% of the exposure value that would be calculated for the off-balance sheet item under the Foundation IRB Approach in accordance with Article 166C(1);

(c) own estimates of EAD provided under paragraph 4 shall not be lower than the exposure value of the on-balance sheet item calculated in accordance with Article 166A(2), disregarding Article 166D.

6.

(a) A JIB shall assess EAD*s* arising from facilities or relationships that were not captured in exposure values prior to the amount being drawn, in cases where:

I. they are not captured in exposure values because the facilities or relationships were not intended to result in credit exposures; and

II. (the JIB would have applied the Advanced IRB Approach in accordance with Article 147A in respect of the facilities or relationships had they been captured in exposure values.

(b) A JIB shall, where the amounts referred to in point (a) are material, quantify an Unrecognised Exposure Adjustment that reflects the risk-weighted exposure amounts that would be required to reflect the credit risk arising from such exposures. A JIB shall allocate the total value of the Unrecognised Exposure Adjustment to Exposure Class*es* and Exposure Subclasses on a best-efforts basis.

[Note: Articles 166A to 166D of this Part correspond to Article 166 of *CRR* as it applied immediately before revocation by the *Treasury*]

Article 167 Equity Exposure**s**

1. [Note: Provision left blank]
2. [Note: Provision left blank]

Article 168 Other non credit-obligation assets

A JIB shall, for the exposure value of other non-credit obligation assets, use the accounting value remaining after specific credit risk adjustments (in accordance with Credit Risk: General Provisions (CRR) Part Article 110 and Commission Delegated Regulation (EU) No 183/2014) have been applied.

[Note: This rule corresponds to Article 168 of *CRR* as it applied immediately before revocation by the *Treasury*]

Section 6 Requirements for the IRB Approach

Sub-Section 1 Rating system

Article 169 General principles

1. A JIB shall, where it uses multiple Rating System*s*, document the rationale for assigning an obligor or a transaction to a Rating System and apply it in a manner that appropriately reflects the level of risk.
2. A JIB shall periodically review assignment criteria and processes to determine whether they remain appropriate for the current portfolio and external conditions.
3. A JIB may use direct estimates of LGDs, and conversion factors or EAD*s* (but not PDs), for exposures and treat such estimates as representing an assignment to grades on a continuous rating scale.

Article 169A LGD modelling collateral method

1. Subject to paragraph 2, a JIB applying the *LGD Modelling Collateral Method* in accordance with Credit Risk Mitigation (CRR) Part Article 191A may recognise the existence of collateral in its LGD estimates. Collateral recognised by the JIB shall be taken into account in its LGD estimates as follows:

(a) (for an exposure where Article 169B does not apply to any collateral recognised by the JIB that secures the exposure, the JIB shall:

I. include the collateral recognised by the JIB in its consideration of risk drivers in accordance with point (b) of Article 170(4); and

II. take the collateral recognised by the JIB into account when quantifying LGD estimates;

(b) for an exposure where Article 169B applies to any collateral recognised by the JIB that secures the exposure, the JIB shall take the collateral into account in accordance with that Article.

2. A JIB may only use the *LGD Modelling Collateral Method* referred to in paragraph 1 to the extent which it has:

(a) established internal requirements for collateral management, operational procedures, legal certainty and risk management in respect of the types of collateral that it takes into account in its LGD estimates; and

(b) those internal requirements are generally consistent with those required for the *Foundation Collateral Method*.

3. Where a JIB has an exposure that is covered by unfunded credit protection that, in turn, is covered by collateral, the JIB uses both the *LGD Adjustment Method* and the *LGD Modelling Collateral Method* in accordance with paragraph 2 of Credit Risk Mitigation (CRR) Part Article 191A, and Article 169B does not apply to any collateral recognised by the JIB that secures the exposure, the JIB may apply the *LGD Modelling Collateral Method* by reflecting the effect of collateral by adjusting Facility Grades or LGD estimates in accordance with Article 183(2A) instead of applying the approach set out in point (a) of paragraph 1.

Article 169B LGD modelling collateral method: Lack of modelling data

1. This article applies where a JIB applying the *LGD Modelling Collateral Method* recognises a particular type of collateral located in a particular jurisdiction that is held against an exposure, and it does not have sufficient data to model robustly the effect of that particular type of collateral on recoveries in that particular jurisdiction.
2. Where the condition in paragraph 1 is met, a JIB shall calculate own LGD estimates for the exposure by:

(a) in the case of an exposure secured by a single type of collateral that is recognised by the JIB, applying the formula in Credit Risk Mitigation (CRR) Part Article 230, or

(b) in the case of an exposure secured by multiple types of collateral that is recognised by the JIB, applying the formula in Credit Risk Mitigation (CRR) Part Article 231,

and, in applying these formulae:

(c) LGD_U shall represent the JIB's own estimate of unsecured LGD for the exposure disregarding recoveries from collateral;

(d) the JIB shall meet the requirements of this Section 6 in respect of its own estimates of unsecured LGD, although the JIB shall not take collateral into account for the purpose of assigning exposures to Facility Grades or pools and recoveries from collateral shall not be taken into account in LGD estimates; and

(e) all other parameters in the formula shall be calculated in accordance with the Foundation Collateral Method. Accordingly, only collateral which is eligible under the Foundation Collateral Method may be recognised for the purpose of determining the secured part of the exposure.

Article 170 Structure of rating system

1. A JIB shall ensure that the structure of a Rating System for exposures to corporates and Institutions complies with the following requirements:

(a) a Rating System shall take into account obligor and transaction risk characteristics;

(b) a Rating System shall have an obligor rating scale which reflects exclusively quantification of the risk of obligor default. The obligor rating scale shall have a minimum of 7 grades for non-defaulted obligors and one for defaulted obligors;

(c) (a JIB shall document the relationship between Obligor Grades in terms of the level of default risk each grade implies and the criteria used to distinguish that level of default risk;

(d) a JIB with portfolios concentrated in a particular market segment and range of default risk shall have enough Obligor Grades within that range to avoid undue concentrations of obligors in a particular grade. Significant concentrations within a single grade shall be supported by convincing empirical evidence that the Obligor Grade covers a reasonably narrow PD band and that the default risk posed by all obligors in the grade falls within that band;

(e) where a JIB uses the Advanced IRB Approach, a Rating System shall incorporate a distinct facility rating scale which exclusively reflects LGD related transaction characteristics. The Facility Grade definition shall include both a description of how exposures are assigned to the grade and of the criteria used to distinguish the level of risk across grades;

(f) significant concentrations within a single Facility Grade shall be supported by convincing empirical evidence that the Facility Grade covers a reasonably narrow LGD band, respectively, and that the risk posed by all exposures in the grade falls within that band.

2. A JIB using the Slotting Approach for assigning risk weights for specialised lending exposures is exempt from the requirement to have an obligor rating scale which reflects exclusively quantification of the risk of obligor default for the specialised lending exposures. The JIB shall have for these exposures at least four grades for non-defaulted obligors and at least one grade for defaulted obligors.

3. A JIB shall ensure that the structure of a Rating System for Retail Exposures with the following requirements:

(a) the Rating System shall reflect both obligor and transaction risk, and shall capture all relevant obligor and transaction characteristics;

(b) the level of risk differentiation shall ensure that the number of exposures in a given grade or pool is sufficient to allow for meaningful quantification and validation of the loss characteristics at the grade or pool level. The distribution of exposures and obligors across grades or pools shall be such as to avoid excessive concentrations;

(c) the process of assigning exposures to grades or pools shall provide for a meaningful differentiation of risk, for a grouping of sufficiently homogenous exposures, and shall allow for accurate and consistent estimation of loss characteristics at grade or pool level. For purchased receivables the grouping shall reflect the seller's underwriting practices and the heterogeneity of its customers.

4. A JIB shall consider the following risk drivers when assigning exposures to grades or pools:

(a) obligor risk characteristics;

(b)

I. subject to point (b)(ii), transaction risk characteristics, including product or collateral types or both. The JIB shall explicitly address cases where several exposures benefit from the same collateral;

II. point (b)(i) only applies in relation to collateral where the collateral is recognised by a JIB using the LGD Modelling Collateral Method and Article 169B does not apply to any collateral recognised by the JIB that secures the exposure;

(c) delinquency, except where a JIB demonstrates that delinquency is not a material driver of risk for the exposure.

Article 171 Assignment to grades or pools

1. 1. A JIB shall have specific definitions, processes and criteria for assigning exposures to grades or pools within a Rating System that comply with the following requirements:

(a) the grade or pool definitions and criteria shall be sufficiently detailed to allow those charged with assigning ratings to consistently assign obligors or facilities posing similar risk to the same grade or pool. This consistency shall exist across lines of business, departments and geographic locations;

(b) the documentation of the rating process shall allow third parties to understand the assignments of exposures to grades or pools, to replicate grade and pool assignments and to evaluate the appropriateness of the assignments to a grade or a pool;

(c) the criteria shall also be consistent with the JIB's internal lending standards and its policies for handling troubled obligors and facilities.

2. A JIB shall, subject to paragraph 3, take all relevant information into account in assigning obligors and facilities to grades or pools. Such information shall be current and shall enable the JIB to forecast the future performance of the exposure. The less information a JIB has, the more conservative shall be its assignments of exposures to Obligor Grade*s*, Facility Grades or pools. If a JIB uses an external rating as a primary factor determining an internal rating assignment, the JIB shall ensure that it considers other relevant information.
3. A JIB shall not take the following information into account in assigning obligors and facilities to grades and pools:

(a) the impact of guarantees and credit derivatives which the firm recognises through the LGD Adjustment Method;

(b) the existence of collateral and the impact of such collateral on recoveries, except where:

I. the collateral is recognised by a JIB when applying the LGD Modelling Collateral Method; and

II. (ii) Article 169B does not apply to any collateral recognised by the JIB that secures the exposure.

Article 172 Assignment of exposures

1. A JIB shall assign exposures to corporates and Institutions in accordance with the following criteria:

(a) each obligor shall be assigned to an Obligor Grade as part of the credit approval process;

(b) for those exposures for which a JIB has an IRB Permission to use the Advanced IRB Approach, each exposure shall also be assigned to a Facility Grade as part of the credit approval process;

(c) a JIB using the Slotting Approach for assigning risk weights for specialised lending exposures shall assign each of these exposures to a grade in accordance with Article 170(2);

(d) each separate legal entity to which the JIB is exposed shall be separately rated. A JIB shall have appropriate policies regarding the treatment of individual obligor clients and groups of connected clients;

(e) separate exposures to the same obligor shall be assigned to the same Obligor Grade, irrespective of any differences in the nature of each specific transaction. However, separate exposures to the same obligor may be assigned to different grades where any of the following apply:

I. the assignment reflects country transfer risk, this being dependent on whether the exposures are denominated in local or foreign currency;

II. the assignment reflects the impact on default risk of guarantees or other support arrangements that are associated to an exposure;

III. the assignment is necessary because of consumer protection, bank secrecy or other legislation prohibiting the exchange of client data.

2. A JIB shall, for Retail Exposures, assign each exposure to a grade or a pool as part of the credit approval process.

3. A JIB shall, subject to the second sub-paragraph, for grade and pool assignments, document the situations in which human judgement may override the inputs or outputs of the assignment process and the personnel responsible for approving these overrides. The JIB shall document these overrides and note down the personnel responsible. The JIB shall analyse the performance of the exposures whose assignments have been overridden. This analysis shall include an assessment of the performance of exposures whose rating has been overridden by a particular person, accounting for all the responsible personnel.

A JIB shall not make overrides to reflect the information in points (a) and (b) of Article 171(3).

Article 173 Integrity of assignment process

1. A JIB shall ensure that its assignment procedures in relation to exposures to corporates and Institutions meet the following requirements of integrity:

(a) Assignments and periodic reviews of assignments shall be completed or approved by an independent party that does not directly benefit from decisions to extend the credit;

(b) the JIB shall review assignments at least annually and adjust the assignment where the result of the review does not justify carrying forward the current assignment.

High risk obligors and problem exposures shall be subject to more frequent review. The JIB shall undertake a new assignment if material information on the obligor or exposure becomes available;

(c) the JIB shall have an effective process to obtain and update relevant information on obligor characteristics that affect PDs, and on transaction characteristics that affect LGDs, or conversion factors or EADs.

2. A JIB shall, for Retail Exposure*s*, at least annually review obligor and facility assignments and adjust the assignment where the result of the review does not justify carrying forward the current assignment, or review the loss characteristics and delinquency status of each identified risk pool, whichever applicable. A JIB shall also at least annually review in a representative sample the status of individual exposures within each pool as a means of ensuring that exposures continue to be assigned to the correct pool, and adjust the assignment where the result of the review does not justify carrying forward the current assignment.
3. [Note: Provision left blank]

Article 174 Use of models

A JIB shall, where it uses statistical models and other mechanical methods ('models') to assign exposures to obligors or facilities grades or pools, comply with the following requirements:

(a) the model shall have good predictive power and capital requirements shall not be distorted as a result of its use. The input variables shall form a reasonable and effective basis for the resulting predictions. The model shall not have material biases;

(b) the JIB shall have in place a process for vetting data inputs into the model, which includes an assessment of the accuracy, completeness and appropriateness of the data;

(c) the data used to build the model shall be representative of the population of the JIB's actual obligors or exposures;

(d) the JIB shall have a regular cycle of model validation that includes monitoring of model performance and stability; review of model specification; and testing of model outputs against outcomes;

(e) the JIB shall complement the statistical model by human judgement and human oversight to review model-based assignments and to ensure that the models are used appropriately. Review procedures shall aim at finding and limiting errors associated with model weaknesses. Human judgements shall take into account all relevant information not considered by the model. The JIB shall document how human judgement and model results are to be combined.

Article 175 Documentation of rating system

1. A JIB shall document the design and operational details of its Rating System*s* and shall ensure that the documentation provides evidence of compliance with the requirements in this Section 6, and addresses topics including portfolio differentiation, rating criteria, responsibilities of parties that rate obligors and exposures, frequency of assignment reviews, and management oversight of the rating process.
2. A JIB shall:

(a) document the rationale for and analysis supporting its choice of rating criteria; and

(b) document all major changes in the risk rating process, and such documentation shall support identification of changes made to the risk rating process subsequent to the last review by the *PRA*. The organisation of rating assignment, including the rating assignment process and the internal control structure, shall also be documented.

3. A JIB shall document the specific definitions of default and loss used internally and ensure consistency with the definitions set out in this Part.
4. A JIB shall document its methodologies where it employs statistical models in the rating process, and this documentation shall:

(a) provide a detailed outline of the theory, assumptions and mathematical and empirical basis of the assignment of estimates to grades, individual obligors, exposures, or pools, and the data source(s) used for model estimation;

(b) establish a rigorous statistical process including out-of-time and out-of-sample performance tests for validating the model;

(c) indicate any circumstances under which the model does not work effectively.

5. A JIB shall demonstrate that the requirements of this Article are met where the JIB has obtained a Rating System, or model used within a Rating System, from a third-party vendor and that vendor refuses the JIB access to, or restricts the JIB from accessing, information pertaining to the methodology of that Rating System or model, or underlying data used to develop that methodology or model, on the basis that such information is proprietary.

Article 176 Data maintenance

1. A JIB shall collect and store data on aspects of its internal ratings as required under the Disclosure (CRR) Part. The data collected and stored by a JIB shall also include data on key borrower and facility characteristics in order to:

(a) provide effective support to the JIB's internal credit risk measurement and management processes;

(b) enable the JIB to meet the other requirements in this Part;

(c) serve as a basis for supervisory reporting; and

(d) support retrospective re-allocation of obligors and facilities to grades.

2. A JIB shall, for exposures to corporates and Institutions, collect and store:

(a) complete rating histories on obligors and recognised guarantors;

(b) the dates the ratings were assigned;

(c) the key data and methodology used to derive the rating;

(d) the person responsible for the rating assignment;

(e) the identity of obligors and exposures that defaulted;

(f) the date and circumstances of the defaults referred to in point (e);

(g) data on the PDs and realised default rates associated with rating grades and ratings migration.

3. A JIB with an IRB Permission to use the Foundation IRB Approach shall, for exposures in respect of which it uses the Foundation IRB Approach, collect and store data on comparisons of realised LGDs with the values as set out in Article 161(1) and realised conversion factors with the values as set out in Credit Risk: Standardised Approach (CRR) Part Article 111 as referred to in Article 166C(1).

4. Subject to paragraph 6, a JIB with an IRB Permission to use the Advanced IRB Approach shall, for exposures in respect of which it uses the Advanced IRB Approach, collect and store:

(a) complete histories of data on the facility ratings and estimates of LGD, and conversion factor or EAD, associated with each rating scale;

(b) the dates on which the ratings were assigned and the estimates were made;

(c) the key data and methodology used to derive the facility ratings and estimates of LGD, and conversion factor or EAD;

(d) information on the person who assigned the facility rating and the person who provided the estimates of LGD, and conversion factor or EAD;

(e) data on the estimated and realised LGDs, and conversion factors or EAD*s*, associated with each Defaulted Exposure;

(f) data on the LGD of the exposure before and after evaluation of the effects of a guarantee or credit derivative, for those JIBs that reflect the credit risk mitigating effects of guarantees or credit derivatives through the Parameter Substitution Method or the LGD Adjustment Method;

(g) data on the components of loss for each Defaulted Exposure, including:

I. amounts recovered;

II. source of recovery;

III. time period requirement for recovery;

IV. administrative costs;

(h) data on limits and balances used to derive conversion factor or EAD estimates, as well as realised conversion factors and realised exposure values at default.

5. Subject to paragraph 6, a JIB shall, for Retail Exposure*s*, collect and store:

(a) data used in the process of allocating exposures to grades or pools, including:

I. data on borrower and transaction risk characteristics;

II. data on delinquency;

III. data on the estimated PDs and LGDs associated with grades or pools of exposures;

IV. for Defaulted Exposures, the pools to which the exposure was assigned over the year prior to default, including the realised outcomes for LGDs, and conversion factors or EAD*s*;

(b) data on the estimated PDs, LGDs, and conversion factors or EAD*s*, and realised default rates associated with grades or pools of exposures;

(c) the identity of obligors and exposures that defaulted;

(d) for Defaulted Exposures, data on the grades or pools to which the exposure was assigned over the year prior to default and the realised outcomes for LGDs, and conversion factors or EAD*s*;

(e) data on loss rates for qualifying revolving retail exposures as defined in Article 147(5A).

6. A JIB with an IRB Permission to use the Advanced IRB Approach need not meet the requirements relating to conversion factors and EADs set out in paragraphs 4 and 5 in respect of exposures for which it uses the Advanced IRB Approach and does not provide own estimates of conversion factors or EADs in accordance with Article 166D.

The JIB shall instead comply with the requirements in paragraph 3 relating to conversion factors as if it applied the Foundation IRB Approach to those exposures.

Article 177 Stress tests used in assessment of capital adequacy

1. A JIB shall have in place sound stress testing processes for use in the assessment of its capital adequacy. Stress testing shall involve identifying possible events or future changes in economic conditions that could have unfavourable effects on a JIB's credit exposures and assessment of the JIB's ability to withstand such changes.
2. A JIB shall regularly perform a credit risk stress test to assess the effect of certain specific conditions on its total capital requirements for credit risk. The JIB shall be able to submit, upon request, documentary evidence that demonstrates that the test chosen by the JIB is meaningful and considers the effects of severe, but plausible, recession scenarios. A JIB shall assess migration in its ratings under the stress test scenarios. Stressed portfolios shall contain the vast majority of a JIB's total exposure.
3. [Note: Provision left blank]

Sub-section 2 Risk quantification

Article 178 Default of an obligor or facility

1. A default shall be considered to have occurred with regard to a particular obligor when either or both of the following have taken place:

(a) the JIB considers that the obligor is unlikely to pay its credit obligations to the JIB, the parent undertaking or any of its subsidiaries in full, without recourse by the JIB to actions such as realising security;

(b) subject to paragraphs 1A, 1B, 1C, and 1D, the obligor is more than 90 days past due on any material credit obligation to the JIB, the parent undertaking or any of its subsidiaries.

In the case of Retail Exposures, a JIB may apply the definition of default laid down in points (a) and (b) of the first sub-paragraph at the level of an individual credit facility rather than in relation to the total obligations of an obligor.

1A. A JIB may, where the repayment of the obligation is the subject of a dispute between the obligor and the JIB, suspend the counting of days past due until the dispute is resolved, where at least one of the following conditions is met:

(a) the dispute between the obligor and the JIB over the existence or amount of the credit obligation has been introduced to a court or another formal procedure
performed by a dedicated external body that results in a binding ruling in accordance with the applicable legal framework in the relevant jurisdiction;

(b) in the specific case of leasing, a formal complaint has been directed to the JIB about the object of the contract and the merit of the complaint has been confirmed by independent internal audit, internal validation or another comparable independent auditing unit.

1B. A JIB may, for exposures to central governments, local authorities or public sector entities, apply the treatment set out in paragraph 1C where all of the following conditions are met:

(a) the contract is related to the supply of goods or services, where the administrative procedures require certain controls related to the execution of the contract before the payment can be made;

this applies in particular to factoring exposures or similar types of arrangements but does not apply to instruments such as bonds;

(b) apart from the delay in payment, no other indications of unlikeliness to pay as specified in accordance with point (a) of paragraph 1 apply, the financial situation of the obligor is sound and there are no reasonable concerns that the obligation might not be paid in full, including any overdue interest where relevant;

(c) the obligation is no more than 180 days past due.

1C. A JIB may, in relation to a set of exposures and if the conditions referred to in paragraph 1B are satisfied in relation to those exposures, choose:

(a) not to include past due amounts related to the exposures when calculating the materiality thresholds referred to in points (d) and (da) of paragraph 2; and

(b) not to consider the exposures in question to be in default for the purpose of this Article.

A JIB following the approach in points (a) and (b) shall clearly document the exposures as satisfying the conditions in paragraph 1B.

1D. A JIB may, where there is a dispute between the obligor and the seller and such event is related to dilution risk, suspend the counting of days past due until the dispute is resolved.

2. A JIB shall apply the following for the purposes of determining days past due in point (b) of paragraph 1:

(a) for overdrafts, days past due commence once an obligor has breached an advised limit, has been advised a limit smaller than current outstandings, or has drawn credit without authorisation and the underlying amount is material;

(b) for the purposes of point (a), an advised limit comprises any credit limit determined by the JIB and about which the obligor has been informed by the JIB;

(c) days past due for credit cards commence on the minimum payment due date;

(d) the JIB shall, in relation to Retail Exposures, assess a credit obligation past due as material if:

I. (the sum of all amounts past due owed by an obligor to the JIB, the parent undertaking or any of its subsidiaries is greater than GBP 0; and

II. the amount of the credit obligation past due in relation to the total amount of all on-balance sheet items to that obligor of the JIB, the parent undertaking or any of its subsidiaries, excluding Equity Exposures, is greater than 0%;

(da) the JIB shall, in relation to non-Retail Exposures, assess a credit obligation past due as material if:

I. the sum of all amounts past due owed by an obligor to the JIB, the parent undertaking or any of its subsidiaries is greater than GBP 440; and

II. the amount of the credit obligation past due in relation to the total amount of all on-balance sheet items to that obligor of the JIB, the parent undertaking or any subsidiaries, excluding Equity Exposures, is greater than 1%;

(e) a JIB shall have documented policies in respect of the counting of days past due, in particular in respect of the re-ageing of the facilities and the granting of extensions, amendments or deferrals, renewals, and netting of existing accounts. These policies shall be applied consistently over time, and shall be in line with the internal risk management and decision processes of the JIB.

3. For the purpose of point (a) of paragraph 1, elements to be taken as indications of unlikeliness to pay shall include the following:

(a) the JIB puts the credit obligation on non-accrued status;

(b) the JIB recognises a specific credit adjustment resulting from a significant perceived decline in credit quality subsequent to the JIB taking on the exposure;

(c) the JIB sells the credit obligation at a material credit-related economic loss;

(d) the JIB consents to a distressed restructuring of the credit obligation where this is likely to result in a diminished financial obligation caused by the material forgiveness, or postponement, of principal, interest or, where relevant, fees;

(e) the JIB has filed for the obligor's bankruptcy or a similar order in respect of an obligor's credit obligation to the JIB, the parent undertaking or any of its subsidiaries;

(f) the obligor has sought or has been placed in bankruptcy or similar protection where this would avoid or delay repayment of a credit obligation to the JIB, the parent undertaking or any of its subsidiaries.

4. A JIB that uses external data that is not itself consistent with the definition of default laid down in paragraph 1 shall make appropriate adjustments to achieve broad equivalence with the definition of default.

5.

(a) A JIB shall, subject to points (c) and (d), and subject to paragraphs 5A to 5C where a distressed restructuring has occurred, in cases where the JIB considers that a previously Defaulted Exposure is such that no trigger of default continues to apply, continue to rate an exposure as being in default until at least 3 *months* have passed since the conditions in points (a) and (b) of paragraph 1 ceased to be met. After this period the JIB shall rate the exposure as it would for a Non-Defaulted Exposure;

(b) A JIB shall, during the period referred to in point (a), have regard to the behaviour and the financial situation of the obligor;

(c) A JIB shall, at the expiry of the period referred to in point (a), perform an assessment and, if it finds that the obligor is unlikely to pay its obligations in full without recourse to realising security, the exposures shall continue to be classified as being in default until the JIB is satisfied that the improvement of the credit quality is factual and permanent;

(d) A JIB may apply a longer period than that referred to in point (a) for a given Type of Exposures;

(e) A JIB shall apply points (a) to (c) in respect of new exposures to an obligor, in particular where the previous Defaulted Exposures to the obligor have been sold or written off.

5A. A JIB shall, where a distressed restructuring has occurred in accordance with point (d) of paragraph 3, rate the obligor or facility as it would for a Non-Defaulted Exposure in paragraph 5 if:

(a) at least one year has passed since the latest occurrence of one of the following events:

I. the moment of extending the restructuring measures;

II. the moment when the exposure was classified as defaulted; or

III. the end of the grace period included in restructuring arrangements; and

(b) all of the following conditions are met:

I. during the one year period referred to in point (a), a material payment has been made by the obligor. A material payment may be considered to be made where the debtor has paid via its regular payments in accordance with the restructuring arrangements a total equal to the amount that was previously past due (if there were past due amounts) or that was written-off (if there were no past due amounts) under the restructuring measures;

II. during the one year period referred to in point (a) the payments have been made regularly according to the schedule applicable after the restructuring arrangements;

III. there are no past due credit obligations according to the schedule applicable after the restructuring arrangements;

IV. no indications of unlikeliness to pay as specified in paragraph 3 or any additional indications of unlikeliness to pay specified by the JIB apply;

V. the JIB does not consider it otherwise unlikely that the obligor will pay its credit obligations in full according to the schedule after the restructuring arrangements without recourse to realising security. In this assessment, the JIB should examine in particular situations where a large lump-sum payment or significantly larger payments are envisaged at the end of the repayment schedule; and

VI. the conditions referred to in points (b)(i) to (b)(v) are also met with regard to new exposures to the obligor, in particular where the previously Defaulted Exposures to this obligor that were subject to distressed restructuring were sold or written off.

5B. A JIB shall, in relation to paragraph 5A, continue to rate an exposure as being in default until points (a) and (b) of paragraph 5A are met.

5C.

(a) A JIB shall not apply point (b)(i) of paragraph 5A where the obligor changes due to an event such as a merger or acquisition of the obligor or any other similar transaction;

(b) A JIB shall apply point (b)(i) of paragraph 5A where there is a change in the obligor's name and point (a) of this paragraph does not apply.

6. [Note: Provision left blank]

Article 179 Overall requirements for estimates

1. A JIB shall, in quantifying the risk parameters to be associated with rating grades or pools, apply the following requirements:

(a) a JIB's own estimates of the risk parameters PD, LGD, conversion factor or EAD, and EL shall, subject to points (aa) and (ab), incorporate all relevant data, information and methods. The estimates shall be derived using both historical experience and empirical evidence, and not be based purely on judgemental considerations. The estimates shall be plausible and intuitive and shall be based on the material drivers of the respective risk parameters. The less data a JIB has, the more conservative it shall be in its estimation;

(aa) a JIB shall not take account of recoveries from guarantees, credit derivatives and other support arrangements when quantifying LGD estimates, except where recoveries are recognised under the *LGD Adjustment Method* in accordance with Article 183;

(ab) the existence of collateral shall not be taken into account except where recognised by a JIB when applying the *LGD Modelling Collateral Method*;

(b) a JIB shall be able to provide a breakdown of its loss experience in terms of default frequency, LGD, conversion factor or EAD, or loss where EL estimates are used, by the factors it sees as the drivers of the respective risk parameters. The JIB's estimates shall be representative of long run experience;

(c) any changes in lending practice or the process for pursuing recoveries over the observation periods referred to in point (h) of Article 180(1), point (e) of Article 180(2), point (j) Article 181(1), Article 181(2) and Article 182(2) and (3) shall be taken into account. A JIB's estimates shall reflect the implications of technical advances and new data and other information, as it becomes available. A JIB shall review its estimates when new information comes to light and at least on an annual basis;

(d) the population of exposures represented in the data used for estimation, the lending standards used when the data was generated and other relevant characteristics shall be comparable with those of the JIB's exposures and standards. The economic or market conditions that underlie the data shall be relevant to current and foreseeable conditions. The number of exposures in the sample and the data period used for quantification shall be sufficient to provide the JIB with confidence in the accuracy and robustness of its estimates;

(e) for purchased receivables, the estimates shall reflect all relevant information available to the purchasing JIB regarding the quality of the underlying receivables, including data for similar pools provided by the seller, by the purchasing JIB, or by external sources. The purchasing JIB shall evaluate any data relied upon which is provided by the seller;

(f) a JIB shall add to its estimates a margin of conservatism that is related to the expected range of estimation errors. Where methods and data are considered to be less satisfactory, or the expected range of errors is larger, the margin of conservatism shall be larger.

A JIB shall, where it uses different estimates for the calculation of risk weights and for internal purposes, do so only if reasonable to do so, and the JIB shall document its reasons for doing so.

1A. A JIB may, with the permission of the JFSC and if it can demonstrate to the satisfaction of the JFSC that for data that has been collected prior to 1 January 2007 appropriate adjustments have been made to achieve broad equivalence with the definition of default laid down in Article 178, disapply the requirements in this Part relating to data standards, and comply with the standards for data set out in its IRB Permission.

2. A JIB shall, where it uses data that is pooled across Institutions, meet the following requirements:

(a) the Rating System and criteria of other Institutions in the pool are similar to its own;

(b) the pool is representative of the portfolio for which the pooled data is used;

(c) the pooled data is used consistently over time by the JIB for its estimates;

(d) the JIB shall remain responsible for the integrity of its Rating System;

(e) the JIB shall maintain sufficient in-house understanding of its Rating System, including the ability to effectively monitor and audit the rating process.

Article 180 Requirements specific to PD estimates

1. A JIB shall, in quantifying the risk parameters to be associated with rating grades, apply the following requirements specific to PD estimation to exposures to corporates and Institutions:

(a) (the JIB shall estimate PDs by Obligor Grade from long run averages of one-year default rates over a representative mix of good and bad economic periods.

PD estimates for obligors that are highly leveraged or for obligors whose assets are predominantly traded assets shall reflect the performance of the underlying assets based on periods of stressed volatilities;

(b) the JIB may, for purchased corporate receivables, estimate the EL by Obligor Grade from long run averages of one-year realised default rates;

(c) if the JIB derives long run average estimates of PDs and LGDs for purchased corporate receivables from an estimate of EL, and an appropriate estimate of PD or LGD, its process for estimating total losses shall meet the overall standards for estimation of PD and LGD set out in this Part, and the outcome shall be consistent with the concept of LGD as set out in point (a) of Article 181(1);

(d) the JIB shall use PD estimation techniques only with supporting analysis. The JIB shall recognise the importance of judgemental considerations in combining results of techniques and in making adjustments for limitations of techniques and information;

(e) to the extent that a JIB uses data on internal default experience for the estimation of PDs, the estimates shall be reflective of underwriting standards and of any differences in the Rating System that generated the data and the current Rating System. Where underwriting standards or Rating System*s* have changed, the JIB shall add a greater margin of conservatism in its estimate of PD;

(f) to the extent that the JIB associates or maps its internal grades to the scale used by an ECAI or a similar organisation and then attributes the default rate observed for the external organisation's grades to the JIB's grades, mappings shall be based on a comparison of internal rating criteria to the criteria used by the external organisation and on a comparison of the internal and external ratings of any common obligors. Biases or inconsistencies in the mapping approach or underlying data shall be avoided. The criteria of the external organisation underlying the data used for quantification shall be oriented to default risk only and not reflect transaction characteristics. The analysis undertaken by the JIB shall include a comparison of the default definitions used, subject to the requirements in Article 178. The JIB shall document the basis for the mapping;

(g) the JIB may, to the extent that it uses statistical default prediction models, estimate PDs as the count weighted average of default-probability estimates for individual obligors in a given grade. The JIB's use of default probability models for this purpose shall meet the standards specified in Article 174;

(h) irrespective of whether a JIB is using external, internal, or pooled data sources, or a combination of the three, for its PD estimation, the length of the underlying historical observation period used shall be at least five years for at least one source. If the available observation period spans a longer period for any source, and this data is relevant, this longer period shall be used. The data shall include a representative mix of good and bad years from the economic cycle relevant for the Type of Exposures.

2. For Retail Exposure*s*, a JIB shall comply with the following requirements:

(a) the JIB shall estimate PDs by Obligor Grade, Facility Grade or pool from long run averages of one-year default rates over a representative mix of good and bad economic periods;

(b) estimates may also be derived from an estimate of total losses and appropriate estimates of LGDs;

(c) the JIB shall regard internal data for assigning exposures to grades or pools as the primary source of information for estimating loss characteristics. The JIB may use external data (including pooled data) or statistical models for quantification provided that the following strong links both exist:

I. between the JIB's process of assigning exposures to grades or pools and the process used by the external data source; and

II. between the JIB's internal risk profile and the composition of the external data;

(d) if the JIB derives long run average estimates of PD and LGD for *retail exposures* from an estimate of total losses and an appropriate estimate of PD or LGD, the process for estimating total losses shall meet the overall standards for estimation of PD and LGD set out in this Part, and the outcome shall be consistent with the concept of LGD as set out in point (a) of Article 181(1);

(e) irrespective of whether the JIB is using external, internal or pooled data sources or a combination of the three, for its estimation of loss characteristics, the length of the underlying historical observation period used shall be at least five years for at least one source. If the available observations span a longer period for any source, and these data are relevant, this longer period shall be used. The data shall include a
representative mix of good and bad years from the economic cycle relevant for the Type of Exposures;

(f) the JIB shall identify and analyse expected changes of risk parameters over the life of credit exposures (seasoning effects).

A JIB may, for purchased retail receivables, use external and internal reference data. The JIB shall use all relevant data sources as points of comparison.

3. [Note: Provision left blank]

Article 181 Requirements specific to LGD estimates

1. A JIB shall, in quantifying the risk parameters to be associated with rating grades or pools, apply the following requirements specific to LGD estimates:

(a) the JIB shall estimate LGDs by Facility Grade or pool on the basis of the average realised LGDs by Facility Grade or pool using all observed defaults within the data sources (default weighted average);

(b)

I. the JIB shall, subject to point (b)(ii), use LGD estimates that are appropriate for an economic downturn if those are more conservative than the long-run average;

II. the JIB shall, if a rating system uses risk drivers that are sensitive to the economic cycle:

(1) analyse the difference between the distribution of exposures over Facility Grades or pools, or over appropriate intervals in case of continuous facility scales, of the current portfolio before and during the downturn period; and

(2) if a substantial difference in the distribution of exposures is identified as a result of the analysis in point (b)(ii)(1), apply non-negative adjustments to its downturn LGD estimates in point (b)(i) to limit the impact of an economic downturn on risk-weighted exposure amounts;

(c) the JIB shall consider the extent of any interdependence between the risk of the obligor and that of the collateral or collateral provider. Cases where there is a significant degree of dependence shall be addressed in a conservative manner;

(d) currency mismatches between the underlying obligation and the collateral shall be treated conservatively in the JIB's assessment of LGD;

(e) where LGD estimates take into account the existence of collateral under the *LGD Modelling Collateral Method* (but where the JIB is not applying the approach set out in Article 169B), these estimates shall not solely be based on the collateral's estimated market value. LGD estimates shall take into account the effect of the potential inability of the JIB to expeditiously gain control of the collateral and liquidate it;

(f) [Note: Provision left blank]

(g) [Note: Provision left blank]

(h)

I. the JIB shall, subject to point (h)(ii), for the specific case of exposures already in default, ensure that the LGD in default reflects downturn conditions where the estimates of LGD in default that are appropriate for an economic downturn are more conservative than the long-run average LGD for Defaulted Exposures;

II. for the purpose of point (h)(i), the LGD in default should be increased above the level referred to in point (h)(i) where this is necessary to ensure that, for each exposure, the difference between the LGD estimate and BEEL given current economic circumstances and exposure status covers the JIB's estimate of the increase in loss rate caused by possible additional unexpected losses during the recovery period (i.e. between the date of default and the final liquidation of the exposure);

(i) to the extent that unpaid late fees have been capitalised in the JIB's income statement, they shall be added to the JIB's measure of exposure and loss;

(j) for exposures to corporates, estimates of LGD shall be based on data over a minimum of five years, increasing by one year each year after implementation until a minimum of seven years is reached, for at least one data source. If the available observation period spans a longer period for any source, and the data is relevant, this longer period shall be used.

A JIB may reflect additional drawings after the time a default event is triggered in its LGD estimates.

2. A JIB may, in relation to Retail Exposure*s*:

(a) derive LGD estimates from realised losses and appropriate estimates of PDs;

(b) [Note: Provision left blank];

(c) for purchased retail receivables, use external and internal reference data to estimate LGDs.

A JIB shall, for Retail Exposure*s*, base its estimates of LGD on data over a minimum of five years.

3. [Note: Provision left blank]

Article 181A Economic downturn: Specification of nature, severity and duration of an economic downturn

1. A JIB shall, for the purposes of point (b)(i) of Article 181(1) and point (b) of Article 182(1), identify an economic downturn for each Type of Exposures.
2. A JIB shall, in identifying an economic downturn for a given Type of Exposures, apply the following requirements:

(a) the nature of an economic downturn shall be characterised by a set of economic indicators that are classified as relevant for exposures within that Type of Exposures in accordance with Article 181B(1) and (2) (‘the relevant indicator set’);

(b) in terms of severity, an economic downturn shall be indicated by the most severe value relating to a 12-*month* period (‘the most severe 12-*month* value’) that is observed, for each economic indicator in the relevant indicator set, over a historical time-span determined for that economic indicator in accordance with Article 181C(1) (‘the applicable time-span’);

(c) an economic downturn shall comprise one or more distinct downturn periods covering the peaks and troughs related to the most-severe 12-*month* values for the economic indicators in the relevant indicator set, each such period being of a duration determined in accordance with Article 181C(2) (‘the duration of a downturn period’).

3. For the purposes of point (b) of paragraph 2, the 12-*month* periods to which values for an economic indicator relate may start at any point in time within the applicable time-span.

4. For the purposes of point (c) of paragraph 2:

(a) a downturn period is a period in which an economic indicator reaches its most severe 12-*month* value;

(b) where, for different economic indicators, the peaks or troughs related to the most severe 12-*month* values are reached simultaneously or shortly after each other, the downturn periods in which those indicators reach their most severe 12-*month* value shall be treated as one single downturn period covering the most severe 12-*month* values for all those indicators.

Article 181B Economic downturn: Relevant indicator set

1. A JIB shall classify the following economic indicators as relevant for exposures within a given Type of Exposures where this would not result in the JIB incurring disproportionate costs:

(a) for all type of exposures:

I. gross domestic product;

II. unemployment rate;

III. externally provided aggregate default rates, where available;

IV. externally provided aggregate credit losses, where available;

(b) in addition to the economic indicators listed in point (a):

I. for exposures to corporates: relevant sector-specific indices or relevant industry- specific indices;

II. for Retail Exposure*s* to *SMEs*: relevant sector-specific indices or relevant industry- specific indices;

III. for exposures to corporates secured by residential immovable property and for Retail Exposure*s* secured by residential immovable property: house prices or house price indices;

IV. for exposures to corporates secured by commercial immovable property and for Retail Exposure*s* to *SMEs* secured by commercial immovable property: commercial immovable property prices or commercial immovable property price indices, and commercial immovable property rental prices or commercial immovable property rental price indices;

V. for Retail Exposures other than those falling within point (b)(ii), (b)(iii) or (b)(iv): total household debt and disposable personal income, in each case where available;

VI. for specialised lending exposures:

(1) in the case of Project Finance Exposures: prices for the underlying products supplied;

(2) in the case of object finance exposures: indices for the relevant type or types of collateral;

(3) in the case of Commodities Finance Exposures: prices or price indices for the relevant type of commodity;

I. for exposures to Institutions: financial credit indices;

(c) in addition to the economic indicators listed in points (a) and (b) of paragraph 1 as measured in accordance with paragraph 4, any measures of these or other economic indicators that are explanatory variables for, or indicators of, the economic cycle specific to exposures in the Type of Exposures under consideration.

2. A JIB shall ensure that the economic indicators that it identifies for exposures within a Type of Exposures in accordance with paragraph 1 reflect the geographical distribution and, where applicable, the sectoral distribution of the exposures within that Type of Exposures. For this purpose, an economic indicator shall be included in the relevant indicator set:

(a) once for each jurisdiction or, where appropriate, once for each geographical area within a jurisdiction, covered by a material share of that Type of Exposures; and

(b) once for each sector, where applicable, covered by a material share of that Type of Exposures.

3. A JIB may, where economic indicators to be included in accordance with point (b) of paragraph 1 show strong co-movement across the different jurisdictions or, as applicable, different sectors, instead select a common economic indicator to reflect those jurisdictions or sectors overall.

4. For the purpose of points (a) and (b) of paragraph 1, the relevant economic indicators shall be measured in the way that gives the best indicator of economic conditions from one of:

(a) the level of the relevant economic indicator;

(b) absolute changes in the level of the relevant economic indicator; or

(c) percentage changes in the level of the relevant economic indicator.

Article 181C Economic downturn: Determining the applicable time-span and duration of a downturn period

1. A JIB shall, for the purposes of point (b) of Article 181A(2), ensure that the historical time-span applicable to an economic indicator is sufficient to provide values that are representative of the likely range of variability of that indicator in the future, and shall in any event have a duration of at least 20 years.

2. A JIB shall, for the purposes of point (c) of Article 181A(2), determine the duration of a downturn period as follows:

(a) in a case falling within point (b) of Article 181A(4), the single downturn period shall be a period that is long enough to cover all the peaks or troughs related to the most severe 12-*month* values observed for the different economic indicators associated with that single downturn period;

(b) in all cases, whether or not falling within point (b) of Article 181A(4), where the various 12-*month* values observed for the economic indicator or indicators in question over the applicable timespan do not significantly deviate from their most severe 12-*month* value over a specific, continuous period of time within the applicable time-span, the downturn period shall be long enough to reflect the prolonged severity observed for the economic indicator or indicators in question;

(c) in all cases, whether or not falling within point (b) of Article 181A(4), where:

I. the economic indicator or indicators show adjacent peaks or troughs to the peaks or troughs related to the most severe 12-*month* values observed for the economic indicator or indicators in question over the applicable time-span;

II. the adjacent peaks and troughs do not significantly deviate from the most severe 12-*month* value observed for that indicator or those indicators over that time-span; and

III. the adjacent peaks and troughs are related to the same overall economic condition,

the downturn period shall be long enough to reflect the whole prolonged period over which the adjacent peaks or troughs are observed;

(d) where none of points (a), (b) or (c) apply, the downturn period shall be the 12-*month* period to which the most severe 12-*month* values of the economic indicator or indicators relate.

Article 182 Requirements specific to conversion factor and EAD estimates

1. A JIB shall, in quantifying the risk parameters to be associated with rating grades or pools, apply the following requirements specific to estimates of conversion factors or EAD:

(a) the JIB shall estimate conversion factors or EAD*s* by Facility Grade or pool on the basis of the average realised conversion factors or EAD*s* at default by Facility Grade or pool using the default weighted average resulting from all observed defaults within the data sources;

(b)

I. the JIB shall, subject to point (b)(ii), use estimates of conversion factors or EAD*s* that are appropriate for an economic downturn if those are more conservative than the long-run average;

II. if a Rating System uses risk drivers that are sensitive to the economic cycle the JIB shall:

(1) analyse the difference between the distribution of exposures over Facility Grades or pools, or over appropriate intervals in the case of continuous facility scales of the current portfolio before and during the downturn period; and

(2) if a substantial difference in the distribution of exposures is identified as a result of the analysis in point (b)(ii) of paragraph 1, apply non-negative adjustments to its downturn estimates of conversion factors or EAD*s* in point (b)(i) to limit the impact of an economic downturn on risk-weighted exposure amounts;

(c) the JIB's estimates of conversion factors or EAD*s* shall incorporate a larger margin of conservatism where a stronger positive correlation can reasonably be expected between the default frequency and the magnitude of the conversion factor or EAD;

(ca) the JIB's estimates of conversion factors or EAD*s* shall reflect the possibility of additional drawings by the obligor:

I. up to the time a default event is triggered; and

II. after the time a default event is triggered where this has not been reflected in LGD estimates;

(d) in arriving at estimates of conversion factors or EAD*s* the JIB shall consider its specific policies and strategies adopted in respect of account monitoring and payment processing. The JIB shall also consider its ability and willingness to prevent further drawings in circumstances short of payment default, such as covenant violations or other technical default events;

(e) the JIB shall have adequate systems and procedures in place to monitor facility amounts, current outstandings against committed lines and changes in outstandings per obligor and per grade. The JIB shall be able to monitor outstanding balances on a daily basis;

(f) if the JIB uses different estimates of conversion factors or EAD*s* for the calculation of risk-weighted exposure amounts and internal purposes the JIB's approach shall be documented and be reasonable;

(g) where the JIB estimates conversion factors, these shall reflect realised conversion factors measured 12 *months* prior to the *month* of default. The JIB's estimates of conversion factors or EAD*s* shall be developed using relevant observed obligor and facility characteristics available 12 *months* prior to the *month* of default.

2. A JIB shall, for exposures to corporates and Institutions, base estimates of conversion factors or EAD*s* factors on data over a minimum of five years, increasing by one year each year after implementation until a minimum of seven years is reached, for at least one data source. If the available observation period spans a longer period for any source, and the data is relevant, this longer period shall be used.

3. [Note: First sub-paragraph of provision left blank]

A JIB shall, for Retail Exposure*s*, base estimates of conversion factors or EAD*s* on data over a minimum of five years.

4. [Note: Provision left blank]

Article 183 Requirements for applying the LGD adjustment method for unfunded credit protection

1. A JIB may, where it uses the *LGD Adjustment Method*, take into account unfunded credit protection only where the unfunded credit protection meets the requirements in paragraph 1A and, where the unfunded credit protection is a guarantee or a single-name credit derivative, the JIB meets all the following requirements in relation to eligible protection providers and unfunded credit protection:

(a) the JIB shall have clearly specified criteria for the types of guarantors it recognises for the calculation of risk-weighted exposure amounts;

(b) the JIB shall assign non-retail guarantors to Obligor Grade*s* and the relevant requirements set out in Articles 171, 172 and 173 shall apply; and

(c) the JIB shall assign retail guarantors to grades or pools as part of the credit approval process and the relevant requirements set out in Articles 171, 172 and 173 shall apply.

1A. A JIB may use guarantees or credit derivatives (including first-to-default credit derivatives) as eligible unfunded credit protection only where all of the following requirements are met:

(a) the credit protection is evidenced in writing;

(b) the credit protection does not contain any clause that would allow the protection provider to unilaterally cancel or change the credit protection in a way that would adversely impact the lender; and

(c) the credit protection is not a second-to-default or higher nth-to-default credit derivative.

2. A JIB which uses the *LGD adjustment method* shall have clearly specified criteria for adjusting Facility Grades or LGD estimates. These criteria shall comply with the requirements set out in Articles 171, 172 and 173.

The criteria shall be plausible and intuitive. They shall address the protection provider's ability and willingness to perform under the guarantee or credit derivative, the likely timing of any payments from the protection provider, the degree to which the protection provider's ability to perform under the guarantee or credit derivative is correlated with the obligor's ability to repay, and the extent to which residual risk to the obligor remains.

2A. Where a JIB has an exposure that is covered by unfunded credit protection that, in turn, is covered by collateral, and the JIB uses both the *LGD Adjustment Method* and the *LGD Modelling Collateral Method* in accordance with paragraph 2 of Credit Risk Mitigation (CRR) Part Article 191A, the adjustments to Facility Grades or LGD estimates referred to in paragraph 2 may also reflect the effect of the collateral in accordance with Article 169A(3).

3. A JIB which uses the *LGD Adjustment Method* shall, in relation to a credit derivative for which there is a mismatch between the underlying obligation and the reference obligation of the credit derivative or the obligation used for determining whether a credit event has occurred, use such a credit derivative as eligible unfunded credit protection only if the requirements set out in paragraph 2 of Credit Risk Mitigation (CRR) Part Article 216 are also met.

In relation to credit derivatives, the JIB shall also ensure that its criteria for adjusting LGD estimates address the payout structure of the credit derivative and shall conservatively assess the impact this has on the level and timing of recoveries. The JIB shall consider the extent to which other forms of residual risk remain.

4. [Note: Provision left blank]
5. [Note: Provision left blank]
6. [Note: Provision left blank]

Article 184 Requirements for purchased receivables

1. A JIB shall, in quantifying the risk parameters to be associated with rating grades or pools for purchased receivables, ensure the conditions laid down in paragraphs 2 to 6 are met.
2. The structure of the facility shall ensure that under all foreseeable circumstances the JIB has effective ownership and control of all cash remittances from the receivables. When the obligor makes payments directly to a seller or servicer, the JIB shall verify regularly that payments are forwarded completely and within the contractually agreed terms. The JIB shall have procedures to ensure that ownership over the receivables and cash receipts is protected against bankruptcy stays or legal challenges that could materially delay the lender's ability to liquidate or assign the receivables or retain control over cash receipts.
3. The JIB shall monitor both the quality of the purchased receivables and the financial condition of the seller and servicer. The following requirements shall apply:

(a) the JIB shall assess the correlation between the quality of the purchased receivables and the financial condition of both the seller and servicer, and have in place internal policies and procedures that provide adequate safeguards to protect against any contingencies, including the assignment of an internal risk rating for each seller and servicer;

(b) the JIB shall have clear and effective policies and procedures for determining seller and servicer eligibility. The JIB or its agent shall conduct periodic reviews of sellers and servicers in order to verify the accuracy of reports from the seller or 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 shall be documented;

(c) the JIB shall assess the characteristics of the purchased receivables pools, including over-advances, history of the seller's arrears, bad debts, and bad debt allowances; payment terms, and potential contra accounts;

(d) the JIB shall have effective policies and procedures for monitoring on an aggregate basis single-obligor concentrations both within and across purchased receivables pools;

(e) the JIB shall ensure that it receives from the servicer timely and sufficiently detailed reports of receivables ageings and dilutions to ensure compliance with the JIB's eligibility criteria and advancing policies governing purchased receivables, and provide an effective means with which to monitor and confirm the seller's terms of sale and dilution.

4. The JIB shall have systems and procedures for detecting deteriorations in the seller's financial condition and purchased receivables quality at an early stage, and for addressing emerging problems proactively. In particular, the JIB shall have clear and effective policies, procedures, and information systems to monitor covenant violations, and clear and effective policies and procedures for initiating legal actions and dealing with problem purchased receivables.
5. The JIB shall have clear and effective policies and procedures governing the control of purchased receivables, credit, and cash. In particular, written internal policies shall specify all material elements of the receivables purchase programme, including the advancing rates, eligible collateral, necessary documentation, concentration limits, and the way cash receipts are to be handled. These elements shall take appropriate account of all relevant and material factors, including the seller and servicer's financial condition, risk concentrations, and trends in the quality of the purchased receivables and the seller's customer base. Internal systems shall ensure that funds are advanced only against specified supporting collateral and documentation.
6. The JIB shall have an effective internal process for assessing compliance with all internal policies and procedures. The process shall include regular audits of all critical phases of the JIB's receivables purchase programme, verification of the separation of duties between, firstly, the assessment of the seller and servicer and the assessment of the obligor and, secondly, between the assessment of the seller and servicer and the field audit of the seller and servicer, and evaluations of back office operations, with particular focus on qualifications, experience, staffing levels, and supporting automation systems.

Sub-section 3 Validation of internal estimates

Article 185 Validation of internal estimates

A JIB shall validate its internal estimates subject to the following requirements:

(a) the JIB shall have robust systems in place to validate the accuracy and consistency of Rating System*s*, processes, and the estimation of all relevant risk parameters. The internal validation process shall enable the JIB to assess the performance of internal rating and risk estimation systems consistently and meaningfully;

(b) the JIB shall regularly compare realised default rates with estimated PDs for each grade and, where realised default rates are outside the expected range for that grade, the JIB shall specifically analyse the reasons for the deviation. If the JIB uses the Advanced IRB Approach it shall also perform analogous analysis for LGD estimates and, where applicable, conversion factor or EAD *estimates*. Such comparisons shall make use of historical data that cover as long a period as possible. The JIB shall document the methods and data used in such comparisons. This analysis and documentation shall be updated at least annually;

(c) the JIB shall also use other quantitative validation tools and comparisons with relevant external data sources. The analysis shall be based on data that are appropriate to the portfolio, are updated regularly, and cover a relevant observation period. The JIB's internal assessments of the performance of its Rating Systems shall be based on as long a period as possible;

(d) the methods and data used for quantitative analysis shall be broadly consistent through time and in any event shall not vary systematically with the economic cycle. Changes in estimation and validation methods and data (both data sources and periods covered) shall be documented;

(e) the JIB shall have sound internal standards for situations where deviations in realised PDs, LGDs, conversion factors or EADs, and total losses where EL is used, from estimated become significant enough to call the validity of the estimates into question. These standards shall take account of business cycles and similar systematic variability in default experience. Where realised values continue to be higher than expected values, the JIB shall revise estimates upward to reflect its default and loss experience.

Sub-section 4 Requirements for Equity Exposures under the internal model approach

Article 186 Own funds requirement and risk quantification

[Note: Provision left blank]

(a) [Note: Provision left blank]

(b) [Note: Provision left blank]

(c) [Note: Provision left blank]

(d) [Note: Provision left blank]

(e) [Note: Provision left blank]

(f) [Note: Provision left blank]

(g) [Note: Provision left blank]

Article 187 Risk management process and controls

[Note: Provision left blank]

(a) [Note: Provision left blank]

(b) [Note: Provision left blank]

(c) [Note: Provision left blank]

(d) [Note: Provision left blank]

(e) [Note: Provision left blank]

Article 188 Validation and documentation

[Note: Provision left blank]

[Note: Provision left blank]

(a) [Note: Provision left blank]

(b) [Note: Provision left blank]

(c) [Note: Provision left blank]

(d) [Note: Provision left blank]

(e) [Note: Provision left blank]

(f) [Note: Provision left blank]

Sub-section 5 Internal governance and oversight

Article 189 Corporate governance

1. All material aspects of the rating and estimation processes shall be approved by the JIB's management body or a designated committee thereof. These parties shall possess a general understanding of the Rating Systems of the JIB and detailed comprehension of its associated management reports.
2. Senior management shall be subject to the following requirements:

(a) they shall provide notice to the management body or a designated committee thereof of material changes or exceptions from established policies that will materially impact the operations of the JIB's Rating System;

(b) they shall have a good understanding of the Rating System designs and operations and an appropriate member of senior management shall approve material differences between established procedure and actual practice;

(c) they shall ensure, on an ongoing basis, that the Rating Systems are operating properly.

Senior management shall be regularly informed by the credit risk control units about the performance of the rating process, areas needing improvement, and the status of efforts to improve previously identified deficiencies.

3. A JIB shall carry out internal ratings-based analysis of its credit risk profile and this shall be an essential part of its management reporting. Reporting shall include at least risk profile by grade, migration across grades, estimation of the relevant parameters per grade, and comparison of realised default rates, and to the extent that own estimates are used, of realised LGDs, and realised conversion factors or EADs, against expectations and stress-test results. Reporting frequencies shall depend on the significance and type of information and the level of the recipient.

Article 190 Credit risk control

1. A JIB's credit risk control unit shall be independent from the personnel and management functions responsible for originating or renewing exposures and shall report directly to senior management. The unit shall be responsible for the design or selection, implementation, oversight and performance of the Rating System. It shall regularly produce and analyse reports on the output of the Rating System.
2. The areas of responsibility for the credit risk control unit or units shall include:

(a) testing and monitoring grades and pools;

(b) production and analysis of summary reports of the JIB's Rating System. This shall include:

I. historical default data sorted by rating at the time of default and one year prior to default;

II. grade migration analyses; and

III. monitoring of trends in key rating criteria;

(c) implementing procedures to verify that grade and pool definitions are consistently applied across departments and geographic areas;

(d) reviewing and documenting any changes to the rating process, including the reasons for the changes;

(e) reviewing the rating criteria to evaluate if they remain predictive of risk. Changes to the rating process, criteria or individual rating parameters shall be documented and retained;

(f) active participation in the design or selection, implementation and validation of models used in the rating process;

(g) oversight and supervision of models used in the rating process;

(h) ongoing review and alterations to models used in the rating process.

3. A JIB using pooled data in accordance with Article 179(2) may outsource the following tasks:

(a) production of information relevant to testing and monitoring grades and pools;

(b) production of summary reports of the JIB's Rating System;

(c) production of information relevant to a review of the rating criteria to evaluate if they remain predictive of risk;

(d) documentation of changes to the rating process, criteria or individual rating parameters;

(e) production of information relevant to ongoing review and alterations to models used in the rating process.

4. A JIB making use of paragraph 3 shall ensure that the JFSC has access to all relevant information from the third party that is necessary for examining compliance with the requirements and that the JFSC may perform on-site examinations to the same extent as within the JIB.

Article 191 Internal audit

A JIB shall ensure that its internal audit or another comparable independent auditing unit reviews at least annually the JIB's Rating System and its operations, including the operations of the credit function and the estimation of PDs, LGDs, ELs, and conversion factors or EAD*s*. Areas of review shall include adherence to all applicable requirements. The JIB shall ensure that internal audit documents its findings.

Appendix 1 – Slotting Approach Criteria (for Article 153, paragraph 5)

List 1: Supervisory rating grades for Income-producing Real Estate Exposures and High-volatility Commercial Real Estate Exposures

Rating Grades	Strong	Good	Satisfactory	Weak
Factors				
Financial strength				
Market conditions.	The supply and demand for the project's type and location are currently in equilibrium. The number of competitive properties coming to market is equal or lower than forecasted demand.	The supply and demand for the project's type and location are currently in equilibrium. The number of competitive properties coming to market is roughly equal to forecasted demand.	Market conditions are roughly in equilibrium. Competitive properties are coming on the market and others are in the planning stages. The project's design and capabilities may not be state of the art compared to new projects.	Market conditions are weak. It is uncertain when conditions will improve and return to equilibrium. The project is losing tenants at lease expiration. New lease terms are less favourable compared to those expiring.
Financial ratios and advance rate.	The property's debt service coverage ratio (DSCR) is considered strong (DSCR is not relevant for the construction phase) and its loan to value ratio (LTV) is considered low given its property type. Where a secondary market exists, the transaction is underwritten to market standards.	The DSCR (not relevant for development real estate) and LTV are satisfactory. Where a secondary market exists, the transaction is underwritten to market standards.	The property's DSCR has deteriorated and its value has fallen, increasing its LTV.	The property's DSCR has deteriorated significantly and its LTV is well above underwriting standards for new loans.
Stress analysis.	The property's resources, contingencies and liability structure allow it to meet its financial obligations during a period of severe financial stress (e.g. interest rates, economic growth).	The property can meet its financial obligations under a sustained period of financial stress (e.g. interest rates, economic growth). The property is likely to default only under severe economic conditions.	During an economic downturn, the property would suffer a decline in revenue that would limit its ability to fund capital expenditures and significantly increase the risk of default.	The property's financial condition is strained and is likely to default unless conditions improve in the near term.

Cash-flow predictability				
For complete and stabilised property.	The property's leases are long-term with creditworthy tenants and their maturity dates are scattered. The property has a track record of tenant retention upon lease expiration. Its vacancy rate is low. Expenses (maintenance, insurance, security, and property taxes) are predictable.	Most of the property's leases are long-term, with tenants that range in creditworthiness. The property experiences a normal level of tenant turnover upon lease expiration. Its vacancy rate is low. Expenses are predictable.	Most of the property's leases are medium rather than long-term with tenants that range in creditworthiness. The property experiences a moderate level of tenant turnover upon lease expiration. Its vacancy rate is moderate. Expenses are relatively predictable but vary in relation to revenue.	The property's leases are of various terms with tenants that range in creditworthiness. The property experiences a very high level of tenant turnover upon lease expiration. Its vacancy rate is high. Significant expenses are incurred preparing space for new tenants.
For complete but not stabilised property.	Leasing activity meets or exceeds projections. The project should achieve stabilisation in the near future.	Leasing activity meets or exceeds projections. The project should achieve stabilisation in the near future.	Most leasing activity is within projections; however, stabilisation will not occur for some time.	Market rents do not meet expectations. Despite achieving target occupancy rate, cash-flow coverage is tight due to disappointing revenue.
For construction phase.	The property is entirely pre-leased through the tenor of the loan or pre-sold to an investment grade tenant or buyer, or the bank has a binding commitment for take-out financing from an investment-grade lender.	The property is entirely pre-leased or pre-sold to a creditworthy tenant or buyer, or the bank has a binding commitment for permanent financing from a creditworthy lender.	Leasing activity is within projections but the building may not be pre-leased and there may not exist a take-out financing. The bank may be the permanent lender.	The property is deteriorating due to cost overruns, market deterioration, tenant cancellations or other factors. There may be a dispute with the party providing the permanent financing.
Asset characteristics				
Location.	Property is located in highly desirable location that is convenient to services that tenants desire.	Property is located in desirable location that is convenient to services that tenants desire.	The property location lacks a competitive advantage.	The property's location, configuration, design and maintenance have contributed to the property's difficulties.

Design and condition.	Property is favoured due to its design, configuration, and maintenance, and is highly competitive with new properties.	Property is appropriate in terms of its design, configuration and maintenance. The property's design and capabilities are competitive with new properties.	Property is adequate in terms of its configuration, design and maintenance.	Weaknesses exist in the property's configuration, design or maintenance.
Property is under construction.	Construction budget is conservative and technical hazards are limited. Contractors are highly qualified.	Construction budget is conservative and technical hazards are limited. Contractors are highly qualified.	Construction budget is adequate and contractors are ordinarily qualified.	Project is over budget or unrealistic given its technical hazards. Contractors may be under qualified.
Strength of sponsor/developer				
Financial capacity and willingness to support the property.	The sponsor/developer made a substantial cash contribution to the construction or purchase of the property. The sponsor/developer has substantial resources and limited direct and contingent liabilities. The sponsor/developer's properties are diversified geographically and by property type.	The sponsor/developer made a material cash contribution to the construction or purchase of the property. The sponsor/developer's financial condition allows it to support the property in the event of a cash-flow shortfall. The sponsor/developer's properties are located in several geographic regions.	The sponsor/developer's contribution may be immaterial or non-cash. The sponsor/developer is average to below average in financial resources.	The sponsor/developer lacks capacity or willingness to support the property.
Reputation and track record with similar properties.	Experienced management and high sponsors' quality. Strong reputation and lengthy and successful record with similar properties.	Appropriate management and sponsors' quality. The sponsor or management has a successful record with similar properties.	Moderate management and sponsors' quality. Management or sponsor track record does not raise serious concerns.	Ineffective management and substandard sponsors' quality. Management and sponsor difficulties have contributed to difficulties in managing properties in the past.
Relationships with relevant real estate actors.	Strong relationships with leading actors such as leasing agents.	Proven relationships with leading actors such as leasing agents.	Adequate relationships with leasing agents and other parties providing important real estate services.	Poor relationships with leasing agents and/or other parties providing important real estate services.

Security package				
Nature of lien.	Perfected first lien.[a]	Perfected first lien.[a]	Perfected first lien.[a]	Ability of lender to foreclose is constrained.
Assignment of rents (for projects leased to long-term tenants).	The lender has obtained an assignment. It maintains current tenant information that would facilitate providing notice to the tenants to remit rents directly to the lender, such as a current rent roll and copies of the project's leases.	The lender has obtained an assignment. It maintains current tenant information that would facilitate providing notice to the tenants to remit rents directly to the lender, such as current rent roll and copies of the project's leases.	The lender has obtained an assignment. It maintains current tenant information that would facilitate providing notice to the tenants to remit rents directly to the lender, such as current rent roll and copies of the project's leases.	The lender has not obtained an assignment of the leases or has not maintained the information necessary to readily provide notice to the building's tenants.
Quality of the insurance coverage	Appropriate.	Appropriate.	Appropriate.	Substandard.

(a) Lenders in some markets extensively use loan structures that include junior liens. Junior liens may be indicative of this level of risk if the total LTV inclusive of all senior positions does not exceed a typical first loan LTV

List 2: Supervisory rating grades for Project Finance Exposures

Rating Grades	Strong	Good	Satisfactory	Weak
Factors				
Financial strength				
Market conditions.	Few competing suppliers or substantial and durable advantage in location, cost, or technology. Demand is strong and growing.	Few competing suppliers or better than average location, cost, or technology but this situation may not last. Demand is strong and stable.	Project has no advantage in location, cost, or technology. Demand is adequate and stable.	Project has worse than average location, cost, or technology. Demand is weak and declining.

Financial ratios (eg debt service coverage ratio (DSCR), loan life coverage ratio (LLCR), project life coverage ratio PLCR), and debt-to-equity ratio).	Strong financial ratios considering the level of project risk; very robust economic assumptions.	Strong to acceptable financial ratios considering the level of project risk; robust project economic assumptions.	Standard financial ratios considering the level of project risk.	Aggressive financial ratios considering the level of project risk.
Stress analysis.	The project can meet its financial obligations under sustained, severely stressed economic or sectoral conditions.	The project can meet its financial obligations under normal stressed economic or sectoral conditions. The project is only likely to default under severe economic conditions.	The project is vulnerable to stresses that are not uncommon through an economic cycle, and may default in a normal downturn.	The project is likely to default unless conditions improve soon.
Financial structure				
Duration of the credit compared to the duration of the project.	Useful life of the project significantly exceeds tenor of the loan.	Useful life of the project exceeds tenor of the loan.	Useful life of the project exceeds tenor of the loan.	Useful life of the project may not exceed tenor of the loan.
Amortisation schedule.	Amortising debt.	Amortising debt.	Amortising debt repayments with limited bullet payment.	Bullet repayment or amortising debt repayments with high bullet repayment.
Political and legal environment				
Political risk, including transfer risk, considering project type and mitigants.	Very low exposure; strong mitigation instruments, if needed.	Low exposure; satisfactory mitigation instruments, if needed.	Moderate exposure; fair mitigation instruments.	High exposure; no or weak mitigation instruments.
Force majeure risk (war, civil unrest, etc).	Low exposure.	Acceptable exposure.	Standard protection.	Significant risks, not fully mitigated.

Government support and project's importance for the country over the long term.	Project of strategic importance for the country (preferably export-oriented). Strong support from Government.	Project considered important for the country. Good level of support from Government.	Project may not be strategic but brings unquestionable benefits for the country. Support from Government may not be explicit.	Project not key to the country. No or weak support from Government.
Stability of legal and regulatory environment (risk of change in law).	Favourable and stable regulatory environment over the long term.	Favourable and stable regulatory environment over the medium term.	Regulatory changes can be predicted with a fair level of certainty	Current or future regulatory issues may affect the project.
Acquisition of all necessary supports and approvals for such relief from local content laws.	Strong.	Satisfactory.	Fair.	Weak.
Enforceability of contracts, collateral and security.	Contracts, collateral and security are enforceable.	Contracts, collateral and security are enforceable.	Contracts, collateral and security are considered enforceable even if certain non-key issues may exist.	There are unresolved key issues in respect of actual enforcement of contracts, collateral and security.
Transaction characteristics				
Design and technology risk.	Fully proven technology and design.	Fully proven technology and design.	Proven technology and design — start-up issues are mitigated by a strong completion package.	Unproven technology and design; technology issues exist and/or complex design.
Construction risk				
Permitting and siting.	All permits have been obtained.	Some permits are still outstanding but their receipt is considered very likely.	Some permits are still outstanding but the permitting process is well defined and they are considered routine	Key permits still need to be obtained and are not considered routine. Significant conditions may be attached.

Type of construction contract.	Fixed-price date-certain turnkey construction EPC (engineering and procurement contract).	Fixed-price date-certain turnkey construction EPC	Fixed-price date-certain turnkey construction contract with one or several contractors.	No or partial fixed-price turnkey contract and/or interfacing issues with multiple contractors.
Completion guarantees.	Substantial liquidated damages supported by financial substance and/or strong completion guarantee from sponsors with excellent financial standing.	Significant liquidated damages supported by financial substance and/or completion guarantee from sponsors with good financial standing.	Adequate liquidated damages supported by financial substance and/or completion guarantee from sponsors with good financial standing.	Inadequate liquidated damages or not supported by financial substance or weak completion guarantees.
Track record and financial strength of contractor in constructing similar projects.	Strong.	Good,	Satisfactory.	Weak.
Operating risk				
Scope and nature of operations and maintenance (O&M) contracts.	Strong long-term O&M contract, preferably with contractual performance incentives, and/or O&M reserve accounts.	Long-term O&M contract, and/or O&M reserve accounts.	Limited O&M contract or O&M reserve account.	No O&M contract: risk of high operational cost overruns beyond mitigants.
Operator's expertise, track record, and financial strength.	Very strong or committed technical assistance of the sponsors.	Strong.	Acceptable.	Limited/weak or local operator dependent on local authorities.
Off-take risk				
If there is a take-or-pay or fixed-price off-take contract	Excellent creditworthiness of off-taker; strong termination clauses; tenor of contract	Good creditworthiness of off-taker; strong termination clauses; tenor of contract exceeds the maturity of the debt.	Acceptable financial standing of off-taker; normal termination clauses; tenor of	Weak off-taker; weak termination clauses; tenor of contract does not exceed the maturity of the debt.

	comfortably exceeds the maturity of the debt.		contract generally matches the maturity of the debt.	
If there is no take-or-pay or fixed-price off-take contract:	Project produces essential services or a commodity sold widely on a world market; output can readily be absorbed at projected prices even at lower than historic market growth rates.	Project produces essential services or a commodity sold widely on a regional market that will absorb it at projected prices at historical growth rates.	Commodity is sold on a limited market that may absorb it only at lower than projected prices.	Project output is demanded by only one or a few buyers or is not generally sold on an organised market.
Supply risk				
Price, volume and transportation risk of feed-stocks; supplier's track record and financial strength.	Long-term supply contract with supplier of excellent financial standing.	Long-term supply contract with supplier of good financial standing.	Long-term supply contract with supplier of good financial standing — a degree of price risk may remain.	Short-term supply contract or long-term supply contract with financially weak supplier — a degree of price risk definitely remains.
Reserve risks (eg natural resource development).	Independently audited, proven and developed reserves well in excess of requirements over lifetime of the project.	Independently audited, proven and developed reserves in excess of requirements over lifetime of the project.	Proven reserves can supply the project adequately through the maturity of the debt.	Project relies to some extent on potential and undeveloped reserves.
Strength of sponsor				
Sponsor track record, financial strength, and country/sector experience.	Strong sponsor with excellent track record and high financial standing.	Good sponsor with satisfactory track record and good financial standing.	Adequate sponsor with adequate track record and good financial standing.	Weak sponsor with no or questionable track record and/or financial weaknesses
Sponsor support, as evidenced by equity, ownership clause and incentive to inject	Strong. Project is highly strategic for the sponsor (core business — long-term strategy).	Good. Project is strategic for the sponsor (core business — long-term strategy).	Acceptable. Project is considered important for the sponsor (core business).	Limited. Project is not key to sponsor's long-term strategy or core business.

additional cash if necessary.				
Security package				
Assignment of contracts and accounts.	Fully comprehensive.	Comprehensive.	Acceptable.	Weak.
Pledge of assets, taking into account quality, value and liquidity of assets.	First perfected security interest in all project assets, contracts, permits and accounts necessary to run the project.	Perfected security interest in all project assets, contracts, permits and accounts necessary to run the project.	Acceptable security interest in all project assets, contracts, permits and accounts necessary to run the project.	Little security or collateral for lenders; weak negative pledge clause.
Lender's control over cash flow (eg cash sweeps, independent escrow accounts).	Strong.	Satisfactory.	Fair.	Weak.
Strength of the covenant package (mandatory prepayments, payment deferrals, payment cascade, dividend restrictions…).	Covenant package is strong for this type of project. Project may issue no additional debt.	Covenant package is satisfactory for this type of project. Project may issue extremely limited additional debt.	Covenant package is fair for this type of project. Project may issue limited additional debt.	Covenant package is Insufficient for this type of project. Project may issue unlimited additional debt.
Reserve funds (debt service, O&M, renewal and replacement, unforeseen events, etc).	Longer than average coverage period, all reserve funds fully funded in cash or letters of credit from highly rated bank.	Average coverage period, all reserve funds fully funded.	Average coverage period, all reserve funds fully funded.	Shorter than average coverage period, reserve funds funded from operating cash flows.

List 3: Supervisory rating grades for Object Finance Exposures

Rating Grades	Strong	Good	Satisfactory	Weak
Factors				
Financial strength				
Market conditions.	Demand is strong and growing, strong entry barriers, low sensitivity to changes in technology and economic outlook.	Demand is strong and stable. Some entry barriers, some sensitivity to changes in technology and economic outlook.	Demand is adequate and stable, limited entry barriers, significant sensitivity to changes in technology and economic outlook.	Demand is weak and declining, vulnerable to changes in technology and economic outlook, highly uncertain environment.
Financial ratios (debt service coverage ratio and loan to value ratio).	Strong financial ratios considering the type of asset. Very robust economic assumptions.	Strong/acceptable financial ratios considering the type of asset. Robust project economic assumptions.	Standard financial ratios for the asset type.	Aggressive financial ratios considering the type of asset.
Stress analysis.	Stable long-term revenues, capable of withstanding severely stressed conditions through an economic cycle.	Satisfactory short- term revenues. Loan can withstand some financial adversity. Default is only likely under severe economic conditions.	Uncertain short-term revenues. Cash- flows are vulnerable to stresses that are not uncommon through an economic cycle. The loan may default in a normal downturn.	Revenues subject to strong uncertainties; even in normal economic conditions the asset may default, unless conditions improve.
Market liquidity.	Market is structured on a worldwide basis; assets are highly liquid.	Market is worldwide or regional; assets are relatively liquid.	Market is regional with limited prospects in the short term, implying lower liquidity.	Local market and/or poor visibility. Low or no liquidity particularly on niche, markets.
Political and legal environment				
Political risk, including transfer risk.	Very low; strong mitigation instruments, if needed.	Low; satisfactory mitigation instruments, if needed.	Moderate; fair mitigation instruments.	High; no or weak mitigation instruments.

Legal and regulatory risks.	Jurisdiction is favourable to repossession and enforcement of contracts.	Jurisdiction is favourable to repossession and enforcement of contracts.	Jurisdiction is generally favourable to repossession and enforcement of contracts, even if repossession might be long and/or difficult.	Poor or unstable legal and regulatory environment. Jurisdiction may make repossession and enforcement of contracts lengthy or impossible.
Transactions characteristics				
Financing term compared to the economic life of the asset.	Full payout profile/minimum balloon. No grace period.	Balloon more significant, but still at satisfactory levels.	Important balloon with potentially grace periods.	Repayment in fine or high balloon.
Operating risk				
Permits/licensing.	All permits have been obtained; asset meets current and foreseeable safety regulations.	All permits obtained or in the process of being obtained; asset meets current and foreseeable safety regulations	Most permits obtained or in process of being obtained, outstanding ones considered routine, asset meets current safety regulations.	Problems in obtaining all required permits, part of the planned configuration and/or planned operations might need to be revised.
Scope and nature of O&M contracts.	Strong long-term O&M contract, preferably with contractual performance incentives, and/or O&M reserve accounts, if needed.	Long-term O&M contract, and/or O&M reserve accounts, if needed.	Limited O&M contract or O&M reserve account, if needed.	No O&M contract: risk of high operational cost overruns beyond mitigants.
Operator’s financial strength, track record in managing the asset type and capability to remarket asset when it comes off-lease.	Excellent track record and strong remarketing capability.	Satisfactory track record and remarketing capability.	Weak or short track record and uncertain remarketing capability.	No or unknown track record and inability to remarket the asset.
Asset characteristics				

Configuration, size, design and maintenance (ie age, size for a plane) compared to other assets on the same market.	Strong advantage in design and maintenance. Configuration is standard such that the object meets a liquid market.	Above average design and maintenance. Standard configuration, maybe with very limited exceptions — such that the object meets a liquid market.	Average design and maintenance. Configuration is somewhat specific, and thus might cause a narrower market for the object.	Below average design and maintenance. Asset is near the end of its economic life. Configuration is very specific; the market for the object is very narrow.
Resale value.	Current resale value is well above debt value.	Resale value is moderately above debt value.	Resale value is slightly above debt value.	Resale value is below debt value.
Sensitivity of the asset value and liquidity to economic cycles.	Asset value and liquidity are relatively insensitive to economic cycles.	Asset value and liquidity are sensitive to economic cycles	Asset value and liquidity are quite sensitive to economic cycles.	Asset value and liquidity are highly sensitive to economic cycles.
Strength of sponsor				
Operator's financial strength, track record in managing the asset type and capability to remarket asset when it comes off-lease	Excellent track record and strong remarketing capability.	Satisfactory track record and remarketing capability.	Weak or short track record and uncertain remarketing capability.	No or unknown track record and inability to remarket the asset.
Sponsors' track record and financial strength.	Sponsors with excellent track record and high financial standing.	Sponsors with good track record and good financial standing.	Sponsors with adequate track record and good financial standing.	Sponsors with no or questionable track record and/or financial weaknesses.
Security package				
Asset control.	Legal documentation provides the lender effective control (e.g. a first perfected security interest, or a leasing structure including such security) on the	Legal documentation provides the lender effective control (e.g. a perfected security interest, or a leasing structure including such security) on the asset, or on the company owning it.	Legal documentation provides the lender effective control (e.g. a perfected security interest, or a leasing structure including such security) on the	The contract provides little security to the lender and leaves room to some risk of losing control on the asset.

	asset, or on the company owning it		asset, or on the company owning it.	
Rights and means at the lender’s disposal to monitor the location and condition of the asset.	The lender is able to monitor the location and condition of the asset, at any time and place (regular reports, possibility to lead inspections).	The lender is able to monitor the location and condition of the asset, almost at any time and place.	The lender is able to monitor the location and condition of the asset, almost at any time and place.	The lender’s ability to monitor the location and condition of the asset is limited.
Insurance against damages.	Strong insurance coverage including collateral damages with top quality insurance companies.	Satisfactory insurance coverage (not including collateral damages) with good quality insurance companies.	Fair insurance coverage (not including collateral damages) with acceptable quality insurance companies	Weak insurance coverage (not including collateral damages) or with weak quality insurance companies.

List 4: Supervisory rating grades for Commodities Finance Exposures

Rating Grades	Strong	Good	Satisfactory	Weak
Factors				
Financial strength				
Degree of over-collateralisation of trade.	Strong.	Good.	Satisfactory.	Weak.
Political and legal environment				
Country risk.	No country risk.	Limited exposure to country risk (in particular, offshore location of reserves in an emerging country).	Exposure to country risk (in particular, offshore location of reserves in an emerging country).	Strong exposure to country risk (in particular, inland reserves in an emerging country).
Mitigation of country risks.	Very strong mitigation: Strong offshore mechanisms.	Strong mitigation: Offshore mechanisms.	Acceptable mitigation: Offshore mechanisms.	Only partial mitigation: No offshore mechanisms.

	Strategic commodity. 1st class buyer.	Strategic commodity. Strong buyer.	Less strategic commodity. Acceptable buyer.	Non-strategic commodity. Weak buyer.
Asset characteristics				
Liquidity and susceptibility to damage.	Commodity is quoted and can be hedged through futures or OTC instruments. Commodity is not susceptible to damage.	Commodity is quoted and can be hedged through OTC instruments. Commodity is not susceptible to damage.	Commodity is not quoted but is liquid. There is uncertainty about the possibility of hedging. Commodity is not susceptible to damage.	Commodity is not quoted. Liquidity is limited given the size and depth of the market. No appropriate hedging instruments. Commodity is susceptible to damage.
Strength of sponsor				
Financial strength of trader.	Very strong, relative to trading philosophy and risks.	Strong.	Adequate.	Weak.
Track record, including ability to manage the logistic process.	Extensive experience with the type of transaction in question. Strong record of operating success and cost efficiency.	Sufficient experience with the type of transaction in question. Above average record of operating success and cost efficiency.	Limited experience with the type of transaction in question. Average record of operating success and cost efficiency.	Limited or uncertain track record in general. Volatile costs and profits.
Trading controls and hedging policies.	Strong standards for counterparty selection, hedging, and monitoring.	Adequate standards for counterparty selection, hedging, and monitoring.	Past deals have experienced no or minor problems.	Trader has experienced significant losses on past deals.
Quality of financial disclosure.	Excellent.	Good.	Satisfactory.	Financial disclosure contains some uncertainties or is insufficient.
Security package				
Asset control.	First perfected security interest provides the lender	First perfected security interest provides the lender legal control of the assets at any time if needed.	At some point in the process, there is a rupture in the control of the assets by the	Contract leaves room for some risk of losing control

	legal control of the assets at any time if needed.		lender. The rupture is mitigated by knowledge of the trade process or a third party undertaking as the case may be.	over the assets. Recovery could be jeopardised.
Insurance against damages.	Strong insurance coverage including collateral damages with top quality insurance companies.	Satisfactory insurance coverage (not including collateral damages) with good quality insurance companies.	Fair insurance coverage (not including collateral damages) with acceptable quality insurance companies.	Weak insurance coverage (not including collateral damages) or with weak quality insurance companies.

Appendix 2 – Changes to the range of application of rating systems (for Articles 143A to 143E)

Part 1 Changes to the range of application of rating systems

Section 1 Changes requiring the JFSC's approval ('material changes')

1. Extending the range of application of a Rating System to:

(a) exposures in an additional Business Unit, that are of the same type of product or obligor;

(b) exposures of an additional type of product or obligor unless the additional type of product or obligor falls within the range of application of an approved Rating System based on the criteria referred to in points (c)(i) and (ii);

(c) additional exposures related to the lending decision of a third party to the group, unless the JIB can prove that the additional exposures fall within the range of application of an approved Rating System, based on all of the following criteria:

I. the 'representativeness' of the data used to build the model to assign exposures to grades or pools with respect to the key characteristics of the JIB's additional exposures where the lending decision has been taken by a third party, according to point (c) of Article 174;

II. the 'comparability' of the population of exposures represented in the data used for estimation, the lending standards used when the data was generated and other relevant characteristics with the ones of the additional exposures where the lending decision has been taken by a third party, according to point (d) of Article 179(1).

For the purposes of establishing 'representativeness' and 'comparability' under points (i) and (ii) of the first paragraph a JIB shall provide a complete description of the criteria and measures used.

Section 2 Changes requiring prior notification to the JFSC

2. Reducing the range of application or the scope of use of a Rating System where exposures are not moved to a less sophisticated approach in accordance with Article 149.
3. Extending the range of application of a Rating System which does not fall under Part I, Section 1, point 1 of this Appendix 2.

Part 2 Changes to rating systems

Section 1 Changes requiring the JFSC's approval ('material changes')

1. 1Changes in the methodology of assigning exposures to Exposure Class*es*, Exposure Subclasses and Rating System*s*. These include:

(a) changes in the methodology used for assigning exposures to different Exposure Class*es* and Exposure Subclasses according to Article 147;

(b) changes in the methodology used for assigning an obligor or a transaction to a *rating system* according to Article 169(1).

2. The following changes in the algorithms and procedures used for: assigning obligors to Obligor Grad*es* or pools; for assigning exposures to Facility Grades or pools; or for quantifying the risk of obligor default or associated loss:

(a) changes of the modelling approach for assigning an obligor to grades or pools and/or exposures to Facility Grades or pools according to Article 171(1) and points (a) to (d) of Article 172(1);

(b) changes to the JIB's approach to the 'one-obligor-one-rating principle' according to point (e) of Article

172(1);

(c) changes in the Rating System's assumptions behind ratings relating to the extent by which a change in economic conditions is expected to result in a net migration of a large number of exposures, obligors or facilities across grades or pools of the model, as opposed to migration of only some exposures, obligors or facilities due only to their individual characteristics the measure and significance levels of which shall be appropriately defined by the JIB;

(d) changes to the rating criteria as referred to in points (c) and (e) of Article 170(1) and Article 170(4) and/or their weights, sequence or hierarchy, if any of the following conditions are met:

I. (they change the rank ordering referred to in point (c) of Article 170(1) and point (c) of Article 170(3) in a significant manner, the measure and level of which shall be appropriately defined by the JIB;

II. (they change the distribution of obligors, facilities or exposures across grades or pools according to points (d) and (f) of Article 170(1) and point (b) of Article 170 (3) in a significant manner, the measure and level of which shall be appropriately defined by the JIB.

(e) introduction or withdrawal of an external rating as a primary factor determining an internal rating assignment according to Article 171(2);

(f) changes in the fundamental methodology for estimating PDs, LGDs (including BEEL), and estimates of conversion factors or EAD*s* according to Articles 180, 181, 181A, 181B, 181C and 182, including the methodology for deriving a margin of conservatism related to the expected range of estimation errors according to point (f) of Article 179(1). For LGDs, and estimates of conversion factors or EAD*s*, this includes fundamental changes in the methodology for accounting for an economic downturn according to point (b) of Article 181(1) and point (b) of Article 182(1);

(g) inclusion of additional types of collateral into the LGD estimation according to the *LGD Modelling Collateral Method* if their treatment differs from procedures that have already been approved;

(h) changing from providing own estimates of conversion factors to providing own estimates of EAD, or vice-versa;

(i) starting to apply or ceasing to apply the *LGD Modelling Collateral Method*;

(j) starting to apply or ceasing to apply the methodology set out in Article 169B;

(k) starting to apply or ceasing to apply the *LGD Adjustment Method*.

3. Changes in the definition of default according to Article 178.
4. Changes in the validation methodology and/or validation processes which lead to changes in the JIB's judgment of the accuracy and consistency of the estimation of the relevant risk parameters, the rating processes or the performance of the JIB's Rating System*s* according to point (a) of Article 185.

Section 2 Changes requiring prior notification to the JFSC

5. Changes in the treatment of purchased receivables according to Article 153(6) and (7) and Article 154(5).
6. The following changes in the algorithms and procedures used for: assigning obligors to Obligor Grades or pools; for assigning exposures to Facility Grades or pools; or for quantifying the risk of obligor default or associated loss:

(a) changes in the internal procedures and criteria for assigning risk weights to specialised lending exposures according to the Slotting Approach;

(b) changes from the use of direct estimates of LGD, or estimates of conversion factors or EAD*,* for individual obligors or exposures to the use of a discrete rating scale or vice versa according to Article 169(3), unless already classified as material according to Part 2, Section 1 of this Appendix 2;

(c) changes to the rating scale in terms of the number or structure of rating grades according to Article 170(1), unless already classified as material according to Part 2, Section 2 of this Appendix 2;

(d) changes to the rating criteria and/or their weights or hierarchy according to points (c) and (e) of Article 170(1) and 170(4), unless already classified as material according to Part 2, Section 1 of this Appendix 2;

(e) changes to the grade or pool definitions or criteria according to Articles 171(1) and 172, unless already classified as material according to Part 2, Section 1 of this Appendix 2;

(f) changes in the scope of information used to assign obligors to grades or pools according to Article 171(2) or inclusion of new or additional information in a model for parameter estimation according to point (d) of Article 179(1);

(g) changes in the rules and processes for the use of overrides according to Article 172(3), unless already classified as material according to Part 2, Section 1 of this Appendix 2;

(h) changes in the methodology for estimating PDs, LGDs (including BEEL), and estimates of conversion factors or EAD*s*, according to Articles 180, 181, 181A, 181B, 181C and 182 including the methodology for deriving a margin of conservatism related to the expected range of estimation errors according to point (f) of Article 179(1), unless already classified as material according to Part 2, Section 1 of this Appendix 2. For LGDs and conversion factors this includes fundamental changes in the methodology for accounting for an economic downturn according to point (b) of Article 181(1) and point (b) of Article 182(1);

(i) inclusion of additional types of collateral into the LGD estimation in accordance to the *LGD Modelling Collateral Method*, unless already classified as material according to Part 2, Section I of this Appendix 2;

(j) if a JIB maps its internal grades to the scale used by an ECAI and then attributes the default rate observed for the external organisation's grades to the JIB's grades according to point (f) of Article 180(1), changes in the mapping used for this purpose unless already classified as material according to Part 2, Section 1 of this Appendix 2.

7. Changes in the validation methodology and/or process according to Articles 185, unless already classified as material according to Part 2, Section 1 of this Appendix 2.
8. Changes in processes. These include:

(a) changes in the credit risk control unit according to Article 190 as regards its position within the organisation and its responsibilities;

(b) changes in the validation unit's position according to Articles 190(1) and (2) within the organisation and its responsibilities;

(c) changes in the internal organisational or control environment or key processes that have an important influence on a rating system.

9. Changes in the data. These include:

(a) if a JIB starts or ceases to use data that is pooled across Institutions according to Article 179(2);

(b) change of the data sources used in the process of allocating exposures to grades or pools or for parameter estimation according to point (a) of Article 175(4) and point (a) of Article 176(5) and;

(c) change in the length and composition of time series used for parameter estimation according to point (a) of Article 179(1) that goes beyond the annual inclusion of the latest observations, unless already classified as material according to Part 2, Section 1 of this Appendix 2.

10. Changes in the use of models, if a JIB starts using risk parameter estimates for internal business purposes that are not those used for regulatory purpose and, where this was previously not the case, according to Article 179(1).