KPMG

Annex

December 2017

Basel Committee revised standards on the output floor, credit risk and operational risk.

Output floor

The Basel Committee is implementing a floor on the extent to which a bank's total risk weighted exposures (including credit and market risk exposures calculated using internal model approaches) can diverge from what the bank's total risk weighted exposures would be under the standardised approaches.

Under the output floor, banks' risk-weighted assets must be calculated as the higher of: (i) total risk-weighted assets calculated using the approaches that the bank has supervisory approval to use in accordance with the Basel capital framework (including both standardised and internal model-based approaches); and (ii) 72.5 percent of the total risk-weighted assets calculated using only the standardised approaches.

The output floor will be phased in between 2022 and 2027:

1 January 2022: 50 percent

1 January 2023: 55 percent

1 January 2024: 60 percent

1 January 2025: 65 percent

1 January 2026: 70 percent

1 January 2027: 72.5 percent

Credit risk: IRB approach

The Basel Committee is constraining the use of IRB models by:

— Removing the IRB option for exposures to equities;

— Removing the advanced IRB option for exposures to banks and other financial institutions, and to large and medium-sized corporates (with revenues above €500 million);

— Imposing probability of default, loss given default and exposure at default floors for the remaining corporate (foundation) and retail (advanced) IRB approaches – these floors include a probability of default floor for residential mortgages and for corporates at 5 percent; a F-IRB fixed LGD for unsecured corporate exposures of 40 percent; and a F-IRB fixed LGD of 45 percent for unsecured bank exposures); and

— Removing the internal model option from the framework for credit valuation adjustment.

The 1.06 scaling factor is removed.

Credit risk: standardised approach

The revised Basel Committee standardised approach for credit risk retains some use of external ratings for exposures to banks and corporates, albeit less mechanistically than currently, with alternative approaches for unrated exposures and for jurisdictions that do not allow the use of external ratings for regulatory purposes.

For mortgage and commercial real estate lending the loan-to-value ratio becomes the main driver of risk weights. Banks should use an assessment of a borrower's ability to pay as a key underwriting criterion, with higher risk weights on real estate exposures where repayment is materially dependent on the cash flows generated by the property securing the exposure.

i. Exposures to banks

a. External Credit Risk Assessment Approach (ECRA)

External credit ratings will be the primary basis for determining risk weights for rated exposures of banks incorporated in jurisdictions that allow the use of external ratings for regulatory purposes.

To reduce a mechanistic reliance on ratings, a bank using this approach will be required to perform due diligence to ensure that the external rating appropriately and conservatively reflects the credit risk of the exposure. If the due diligence assessment reflects higher risk characteristics than implied by the external rating of the exposure, then the bank should apply a higher risk weight for the exposure. Due diligence analysis should never result in the application of a lower risk weight than that determined by the external rating.

Banks' external ratings used for regulatory capital purposes should exclude government support.

Short-term interbank exposures (up to three months, and exposures to banks that arise from the movement of goods across national borders with an original maturity of six months or less) will receive a preferential risk weight.

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Risk weight table for bank exposures under the ECRA (before due diligence):

External rating of counterparty	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-
'Base' risk weight	20%	30%	50%	100%	150%
Risk weight for short-term exposures	20%	20%	20%	50%	150%

b. Standardized Credit Risk Assessment Approach (SCRA)

In jurisdictions that do not allow the use of ratings for regulatory purposes, and for unrated exposures in all jurisdictions, banks will need to classify their exposures into three different buckets (A, B and C).

Grade A – exposures to bank counterparties that have adequate capacity to meet their financial commitments (including repayments of principal and interest) in a timely manner, for the projected life of the assets or exposures, and irrespective of economic cycles or business conditions.

A counterparty bank classified into Grade A must exceed the published minimum regulatory requirements and buffers (e.g. SIB surcharge, capital conservation and counter cyclical capital buffers) established by its national supervisor as implemented in the jurisdiction where the borrowing bank is incorporated.

A bank may classify an exposure to a higher risk grade even if it meets the above minimum criteria.

Grade B – exposures to bank counterparties that are subject to substantial credit risk, with repayment capacities dependent on stable or favorable economic or business conditions; or where a counterparty does not meet one or more of the applicable published buffers required by its national supervisor as implemented in the jurisdiction where the borrowing bank is incorporated.

Grade C – higher credit risk exposures to bank counterparties that have material default risks and limited margins of safety. For these counterparties, adverse business, financial, or economic conditions are very likely to lead, or have led, to an inability to meet its financial commitments.

At a minimum, a bank would apply a Grade C risk weight where the external auditor has issued a modified adverse audit opinion or has expressed doubts that the counterparty will be a going concern in its financial statements or audited reports; or where the bank counterparty has breached any of the published and binding minimum regulatory requirements determined by national supervisors as implemented in the jurisdiction where the borrowing bank is incorporated.

Risk weight table for bank exposures under the SCRA:

Credit risk assessment of counterparty	Grade A	Grade B	Grade C
'Base' risk weight	40%	75%	150%
Risk weight for short-term exposures	20%	50%	150%

Exposures to banks without an external credit rating in Grade A may also receive a risk weight of 30 percent, provided that the counterparty bank has a CET1 ratio which meets or exceeds 14 percent and a Tier 1 leverage ratio which meets or exceeds 5 percent.

ii. Covered bonds

Covered bonds with eligible underlying assets (public sector, real estate and bank guarantees) can be risk-weighted on the basis of an issue-specific rating or the risk weight of the issuer. For unrated covered bonds, the risk weight will be inferred from the issuer's ECRA or SCRA risk weight (as in the risk weightings for exposures to banks).

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Risk weights for rated covered bond exposures:

Issue-specific rating	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-
Base risk weight	10%	20%	20%	50%	100%

Risk weights for unrated covered bond exposures:

Risk weight of issuing bank	20%	30%	40%	50%	75%	100%	150%
Base risk weight	10%	15%	20%	25%	35%	50%	100%

iii. Exposures to corporates

In jurisdictions that allow the use of ratings for regulatory purposes, external credit ratings will be the primary basis to determine risk weights for rated exposures. As in the case of exposures to banks, due diligence could result in a higher risk weight than that determined by ratings.

The criteria for eligibility of guarantors and financial collateral would also be primarily based on external ratings, as in the current approach.

In jurisdictions that do not allow the use of ratings for regulatory purposes, a lower risk weight of 65 percent will apply to certain corporates deemed to be 'investment grade'. Other exposures would receive a 100 percent risk weight. In all jurisdictions, exposures to small and medium entities (SMEs, defined as corporates where the reported annual sales for the consolidated group of which the corporate is a part is less than or equal to €50 million for the most recent financial year) in the corporate exposure class will receive an 85 percent risk weight. SME exposures in the retail exposure class will continue to receive a 75 percent risk weight).

Issue-specific external ratings can be used by banks for project finance, object finance and commodities finance. The applicable risk weight will be determined by the same risk-weight table that would apply to general corporate debt exposures. Where issue-specific external ratings are either not available or not allowed for regulatory purposes in a jurisdiction, a risk weight of 100 percent will apply to object and commodity finance exposures (irrespective of the counterparty's risk weight); and a 130 percent risk weight for the pre-operational phase of project finance, and a 100 percent risk weight in the operational phase (this may be reduced to 80 percent for high quality project finance).

Trade finance will continue to be risk weighed at 20 percent (for short-term self-liquidating trade letters of credit arising from the movement of goods), although for other types of less than one-year maturity commitments the risk weight will increase from 20 percent to 40 percent. This also reads across to the credit conversion factors (CCFs) used in the calculation of off-balance sheet exposures for the leverage ratio

Risk weight table for corporate exposures in jurisdictions that use external ratings for regulatory purposes:

External rating of counterparty	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Base risk weight	20%	50%	75%	100%	150%	100%

iv. Exposures secured by real estate

The loan-to-valuation (LTV) ratio will be the main risk driver for risk weighting purposes, with a distinction between:

— Exposures secured by real estate where repayment is not materially dependent on rent/sale of the property; and

— Exposures secured by real estate where repayment is materially dependent on cash flows (rent or sale) generated by the property. Specialized lending (corporate) exposures assigned to 'income-producing real estate' under the IRB approach will also be classified under this category.

In addition, banks would be required to consider the quality of the collateral (for example, adequate valuation, finished property), the collateral's effectiveness (legal enforceability, seniority of lien), and other procedural aspects (required documentation) before assigning the minimum risk weights in the tables below, irrespective of the LTV ratio.

When calculating the LTV ratio, the loan amount will be reduced as the loan amortizes. The value of the property will be maintained at the value measured at origination, unless national supervisors require banks to revise the property value downward, or if an extraordinary, idiosyncratic event occurs resulting in a permanent reduction of the property value. Modifications made to the property that unequivocally increase its value could also be considered in the LTV.

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Risk weight table for residential real estate exposures where repayment is not materially dependent on cash flows generated by property:

	LTV ≤ 50%	50% < LTV ≤60%	60% < LTV ≤80%	80% < LTV ≤90%	90% < LTV ≤ 100%	LTV > 100%
Risk weight	20%	25%	30%	40%	50%	70%

As an alternative treatment of residential real estate exposures where repayment is not materially dependent on cash flows generated by the property, and subject to certain conditions being met, national supervisors may apply a risk weight of 20 percent to the part of the exposure up to 55 percent of the property value and the risk weight of the counterparty to the residual exposure

Risk weight table for residential real estate exposures where repayment is materially dependent on cash flows generated by property:

	LTV ≤ 50%	50% < LTV ≤60%	60% < LTV ≤80%	80% < LTV ≤90%	90% < LTV ≤ 100%	LTV > 100%
Risk weight	30%	35%	45%	60%	75%	105%

Risk weight table for commercial real estate exposures where repayment is not materially dependent on cash flows generated by property:

	LTV ≤ 60%	LTV > 60%
Risk weight	Min (60%, RW of Counterparty) If the risk weight of the counterparty is lower than the preferential risk weight, a bank would apply the lower of the two risk weights	RW of Counterparty

As with residential real estate exposure, for commercial real estate exposures where repayment is not materially dependent on cash flows generated by the property, a national supervisor may apply a risk weight of 60 percent (or the risk weight of the counterparty, if it is lower) to the part of the exposure up to 55 percent of the property value, and the risk weight of the counterparty to the remaining exposure.

Risk weight table for commercial real estate exposures where repayment is materially dependent on cash flows generated by property:

	LTV ≤ 60%	60% < LTV ≤ 80%	LTV > 80%
Risk weight	70%	90%	110%

Specialized lending real estate exposures defined as 'land acquisition, development and construction' (i.e. loans to companies or SPVs, unfinished property meeting the definition of specialized lending) will be risk weighted at a flat rate of 100 percent if sufficient pre-sale or pre-lease contracts are in place, but otherwise at 150 percent.

v. Other retail exposures

Regulatory retail exposures will be weighted at 75 percent, with a 100 percent risk weight for exposures to individuals that do not meet all of the criteria for inclusion in the regulatory retail exposure class.

Exposures to retail SMEs that do not meet all of the criteria for a regulatory retail exposure will be treated as corporate SME exposures.

vi. Investments in equity or regulatory capital instruments issued by banks or securities firms

A 250% risk weight will be applied to equity holdings that are not deducted from regulatory capital, and a 150% risk weight to subordinated debt and capital instruments other than equities below the threshold deductions.

vii. Exposures with currency mismatch

Banks will be required to apply a 1.5 times multiplier to the applicable risk weight for 'unhedged' retail and residential real estate exposures with currency mismatch (where the borrower has no natural or financial hedge against the foreign exchange risk arising from the currency mismatch), subject to a maximum risk weight of 150 percent.

viii. Defaulted exposures

The unsecured portion of any defaulted exposure (other than residential real estate), net of specific provisions and partial write-offs, will be risk weighted at 150 percent. As an exception, a 100 percent risk weight will apply to defaulted residential real estate exposures where the repayment does not materially depend on the cash flows generated by the property securing the loan.

The secured portions of defaulted exposures can be risk-weighted in accordance with the credit risk mitigation (CRM) framework provided that collateral and guarantees meet the eligibility requirements of the CRM framework

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ix. Credit Risk Mitigation

Banks will not be allowed to use internal models and own estimates of haircuts for calculating capital requirements under the standardized approach. Banks will have to use a simple approach or a comprehensive approach, with specified haircuts. The formula under the comprehensive approach for these transactions has been revised to account better for diversification and correlation.

External ratings will be retained in the CRM framework in order to promote risk sensitivity and reduce complexity.

For jurisdictions that do not reference external ratings in their regulations, an alternative approach is introduced which aims to limit the eligibility of financial collateral and guarantees to what is usually referred to as 'investment grade'.

Depending on whether external ratings are used in a given jurisdiction, the revised standards contain two sets of eligibility criteria for defining financial collateral and eligible guarantors, and two supervisory haircut tables.

x. Sovereign exposures

No changes are made to sovereign and other public sector exposures. However, the Basel Committee has issued a discussion paper on the capital treatment of sovereign and other public sector exposures. It invites comments (by 9 March 2018) on three possible approaches:

a. a combination of the removal of the IRB approach framework for sovereign exposures; revised standardized risk weights for sovereign exposures held in both the banking and trading book; the removal of the national discretion to apply a preferential risk weight for certain sovereign exposures; and adjustments to the existing credit risk mitigation framework.

b. mitigating the potential risks of excessive holdings of sovereign exposures, for example through marginal risk weight add-ons that would vary based on the concentration of a bank's sovereign exposures.

c. Using Pillar 2 (stress testing and capital add-ons) and Pillar 3 disclosures.

Operational risk

The Basel Committee is removing the option for the internal modelling of operational risk capital. All of the existing Basel 2 approaches to operational risk will be replaced by a single revised Business Indicator (BI) approach –the standardised approach to operational risk. This new standardised approach will allow some recognition of bank-specific loss data. Banks with low operational risk losses will benefit from a lower operational risk regulatory capital charge –although this will not apply to small banks.

Banks that do not meet minimum data quality standards will be penalized with a higher capital charge.

The new standardised approach also addresses some of the comments received during earlier consultation papers by reducing differences in the treatment of the 'distribute only' and the 'originate to distribute' business models, under which banks that originate products would have faced a lower operational risk charge; reducing the inconsistent treatment of dividend income across jurisdictions; reducing the impact of high net interest margins and high fee revenues and expenses in inflating the operational risk charge; and taking a more consistent approach to the treatment of leasing compared with credit. In addition, the BI operational risk charge has been made more linear in the way it applies to banks of different sizes.

Under the new approach, banks will be divided into three 'buckets' based on the value of their BI, as defined in the table below. For banks that fall within the first bucket, with BI of less than €1 billion, the operational risk capital charge will be 12 percent of the BI and will not take into account internal losses. For banks in the second and third buckets, the capital is calculated in two steps:

— A baseline level of capital is calculated using the BI component, applying a 15 percent rate for banks in the second bucket (to BI between €1 billion and €30 billion) and a 18 percent rate for banks in the third bucket (to BI above €30 billion);

— The BI component is multiplied by an 'internal loss multiplier', based on internal losses over the previous ten years, to take into account the different risk profiles of banks, thereby introducing some risk sensitivity into the approach.

Business indicator ranges and marginal coefficients:

Bucket	BI range (in € billions)	BI marginal coefficient
1	≤ 1	12%
2	$1 < BI \leq 30$	15%
3	> 30	18%

At national discretion, supervisors may allow the inclusion of internal loss data into the framework for banks in bucket 1, subject to meeting the specified loss data collection requirements. In addition, at national discretion, supervisors may set the value of the internal loss multiplier equal to 1 for all banks in their jurisdiction (although banks would still be subject to the full set of Pillar 3 disclosure requirements).

This discretion for national supervisors may make it difficult to compare operational risk capital charges across banks from different countries, and will reinforce the inconsistencies that already arise from Pillar 2 capital charges. Also, the 10 year internal loss data requirement will be an additional burden for banks currently using the simpler approaches to operational risk.

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