

Finansinspektionen's Regulatory Code

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Regulations

amending Finansinspektionen's regulations and general guidelines (FFFS 2007:1) regarding capital adequacy and large exposures;

decided on 6 October 2011.

Finansinspektionen prescribes¹ pursuant to section 32, points 6, 10, 11, 16, 18, 19, 20, 25 and 46 of the Capital Adequacy and Large Exposures Ordinance (2006:1533), Chapter 5, section 2, point 4 of the Banking and Financing Business Ordinance (2004:329) and Chapter 6, section 1, point 9 of the Securities Market Ordinance (2007:572) in respect of Finansinspektionen's regulations and general guidelines (FFFS 2007:1) governing capital adequacy and large exposures

in part that Chapter 49, section 13 shall be repealed,

in part that the headings immediately preceding Chapter 12, section 12 and Chapter 59, sections 3, 14, 15 and 17 shall be removed,

in part that current Chapter 59, sections 3, 4, 11–17 and Chapter 60, sections 30–42 shall be designated Chapter 59, sections 4, 6, 28–34 and Chapter 60, sections 33–40, 30 and 41–44,

in part that the headings immediately preceding Chapter 59, section 16 and Chapter 60, sections 40 and 41 shall be placed immediately preceding Chapter 59, section 33 and Chapter 60, sections 42 and 43,

in part that the new Chapter 60, sections 30 and 33–42 shall have the following wording,

in part that Chapter 2, section 1, Chapter 4, section 6, Chapter 7, section 8, Chapter 9, section 10, Chapter 10, section 1, Chapter 12, sections 4, 5, 7 and 9–12, Chapter 13, sections 19, 37, 41, 42, 64 and 79, Chapter 20, section 2, Chapter 21, sections 1 and 2, Chapter 48, section 2, Chapter 49, sections 2, 10–12 and 14, Chapter 59, sections 1–17, Chapter 60, sections 31 and 32, Appendix 2 and the headings immediately preceding Chapter 12, section 10, Chapter 59, sections 2, 4, 5 and 11 and Chapter 60, section 41 shall have the following wording,

in part that the heading to Chapter 59 and the heading to sub-section L4 immediately preceding Chapter 59 shall have the following wording,

in part that 27 new sections shall be inserted into the regulations, Chapter 7, sections 1a, Chapter 13, sections 41a–41d, Chapter 14, section 2, Chapter 20, section 2a, Chapter 48, section 2a, Chapter 59, sections 18–34 and Chapter 60, sections 43 and 44, and that 16 new headings immediately preceding Chapter 59, sections 6, 7, 8, 10, 13, 20–24, 28, 31, 32 and 34 and Chapter 60, sections 30 and 33 shall have the following wording.

¹ Cf. Directive 2010/76/EU of the European Parliament and of the Council of 24 November 2010 amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies (EUT L 329, 14.12.2010, pp. 3–35, Celex 32010L0076).

Chapter 2

Section 1 The terms and designations used in these regulations and general guidelines have the same meaning as those in the Capital Adequacy and Large Exposures Act (2006:1371) and the Capital Adequacy and Large Exposures Ordinance (2006:1533), unless otherwise specified. In addition, the following terms and expressions shall be defined as:

Basis risk: the risk that two reference prices, e.g. three-month STIBOR and three-month Treasury bill rates, fluctuate differently. Often, the risk is that price risk in an asset, e.g. a three-month Treasury bill, is hedged with an instrument that uses a different interest base, such as three-month STIBOR, and that these two bases will fluctuate differently, therefore resulting in an imperfect hedge.

Payment leg: the part of a payment in a transaction with a derivative contract that entails an exchange of a financial instrument for payment, with the exception of options or other similar instruments. Transactions in which the exchange consists of payment against payment shall be considered to have two payment legs. One payment leg consists of the contracted gross payments, including the transaction's nominal amounts.

Clearing organisation: the same as in Chapter 1, section 5 of the Securities Market Act (2007:528).

One-sided credit valuation adjustment: a credit valuation adjustment that only reflects the market value of the counterparty's credit risk for the institution.

Exposure amount: the value of an exposure in accordance with either Chapter 15 or Chapter 40 depending on whether the standardised approach or IRB approach is used. The exposure amount for large exposures is determined in accordance with Chapters 34–35.

Distribution of exposures: the forecast probability distribution of net market values generated when forecast net negative market values are set equal to zero in the distribution of market values.

Financial group: in addition to that set out in Chapter 9, section 1 of the Capital Adequacy Act, this also includes that set out in Chapter 9, section 2, first paragraph, points 1–2a of the same Act.

Collective Investment Undertaking (CIU): an investment fund pursuant to the Investment Funds Act (2004:46) or a foreign equivalent.

Loss given default (LGD): the portion of the exposure amount the institution loses in the event of default. LGD is expressed as a percentage.

Group of associated clients: the concept referred to in Chapter 7, section 4 of the Capital Adequacy Act.

Capital Adequacy Ordinance: Capital Adequacy and Large Exposures Ordinance (2006:1533).

Capital Adequacy Act: Capital Adequacy and Large Exposures Act (2006:1371) for credit institutions and investment firms.

Capital market-driven transaction: a contract that confers upon the institution the right to regularly receive margin for any net claim of the contract.

K_{irb} : 8 % of the risk-weighted exposure amounts that would have been calculated for the securitised exposures in accordance with sub-part L1 had they not been securitised plus the expected losses associated with these exposures.

K_{ibr} : the ratio between K_{irb} and the sum of the exposure amounts of the exposures that have been securitised. K_{ibr} is expressed in decimals.

Conversion factor: the portion of an off-balance sheet commitment drawn in the event of a potential future default. The conversion factor is expressed as a percentage.

Cash assimilated instrument: certificate of deposit issued by the institution with a maximum original maturity of one year.

Correlation risk: the risk of losses due to differences between the assumed correlation and the actual correlation between two assets, two financial instruments or two markets.

Short position: a position which decreases in value when the value of the instrument or underlying asset increases. A short position also means a position that confers upon or may confer upon an institution the right or obligation to deliver an asset.

Bought put options and sold call options are considered a short position.

Credit enhancement: a contractual arrangement whereby the credit quality of a position in a securitisation is improved in relation to what it would be if the enhancement were not provided. This includes the enhancement provided by more junior tranches in the securitisation and other types of credit protection.

Credit quality step: the steps in the scales Finansinspektionen uses, in accordance with Chapter 4, section 13 of the Capital Adequacy Act, to assign the credit assessment from eligible credit assessment institutions into classes that correspond to the credit quality. There are different scales, depending on where the credit assessments are used.

Credit migration events: a downgrade or upgrade of a borrower in an internal credit assessment system or a downgrade or upgrade of a credit assessment from an external credit assessment institution.

Credit valuation adjustment: an adjustment to the mid-market valuation of a portfolio of transactions with a counterparty. This adjustment reflects the market value of the current credit risk and it may reflect the market value of the counterparty's credit risk or the market value of the credit risk of both the institution and the counterparty.

Liquidity facility: a securitisation position arising from a contractual agreement to provide funding to ensure timeliness of cash flows to investors.

Long position: a position which increases in value when the value of the instrument or underlying asset increases. A long position also means a position that confers upon or may confer upon an institution the right or obligation to acquire an asset.

Bought call options and sold put options are considered a long position.

Margin agreement: an agreement between two parties under which one party shall provide collateral to the second party when the exposure of the second party to the first party exceeds a level specified in the agreement, and vice versa.

Margin agreement's threshold value: the highest allowable value of an exposure before one party, in accordance with the margin agreement, has the right to call for the other party to provide collateral.

Margin lending: a transaction on the capital market in which an institution grants credit in connection with the purchase or sale of securities and where the counterparty provides collateral for this credit.

Margin period of risk: the period of time from the last exchange of collateral covering a netting set of transactions with a defaulting counterparty until that counterparty is closed out and the resulting market risk is re-hedged.

Market risk: interest rate, share price, commodities price and foreign exchange rate risks.

Distribution of market values: the forecast probability distribution of the net market values of transactions within a netting set for some future date (forecasting horizon).

Peak exposure: a high percentile of the distribution of exposures at any time before the maturity date of the longest transaction in a netting set.

Mezzanine tranches :

the positions in a securitisation assigned a risk weight lower than 1,250 per cent and that concurrently are less senior than the most senior position in the securitisation, and are even less senior than each position in the securitisation that fulfils the requirements for

1. credit quality step 1 when the standardised approach is applied in accordance with sub-part G2, or
2. credit quality step 1 or 2 when the IRB approach is applied in accordance with sub-part L2.

Counterparty risk: the risk that the counterparty to a transaction will default before the final settlement of the transaction's cash flows.

Netting set: a group of transactions with a counterparty subject to a bilateral netting agreement that fulfils the requirements set out in Chapter 26 or Chapter 56. For all other transactions, each transaction shall constitute a netting set.

Unfunded credit protection: a technique for credit protection in which the reduction in credit risk for an institution's exposure is the result of a third party undertaking to pay an amount if a borrower defaults or if other specifically stated credit events occur.

Securitisation position: an exposure to a securitisation.

Re-securitisation position: an exposure to a re-securitisation.

Asset-backed commercial paper programme (ABCP programme): a securitisation scheme in which the securities issued mainly comprise commercial paper with an original maturity of one year or less.

Regulated market: the same as in Chapter 1, section 5 of the Securities Market Act (2007:528).

Probability of Default (PD): the probability that a counterparty or exposure will default within a one-year period. PD is expressed as a percentage.

Servicer: a firm, other than the institution, which manages a pool of purchased receivables on a day-to-day basis on behalf of a third party.

Securitisation special purpose entity: a corporation or other legal entity created to carry out one or several securitisations. The special purpose entity may not be an institution or carry on activities other than those required to accomplish this special task. Its structure shall be designed to isolate its obligations from those of the originating institution. Holders of beneficial interests in the special purpose entity shall have the right to pledge or exchange those interests without restriction.

Specific wrong-way risk: the risk that arises when a positive correlation exists between the size of the exposure to a particular counterparty and the probability of this counterparty defaulting. An institution is exposed to a specific wrong-way risk if the future exposure to a particular counterparty is expected to be large during periods when the counterparty's probability of default is also high.

Clean-up call option: a call option held by the originator that gives the right to repurchase or extinguish remaining securitisation positions before all of the underlying exposures have been repaid when the amount of outstanding exposures or the remaining positions fall below a specified level.

Synthetic securitisation: a securitisation where tranching is achieved using credit derivatives or guarantees at the same time as the underlying exposures remain on the balance sheet of the originator.

Traditional securitisation: a securitisation involving the economic transfer of the exposures being securitised to a securitisation special purpose entity which issues securities. This shall be accomplished by transferring ownership of the securitised exposures from the originator or through sub-participation. The issued securities shall not entail any payment obligations for the originator.

Tranche: a contractually established segment of the credit risk associated with an exposure or pool of exposures, where a position in the segment entails a risk of credit loss greater than or less than a position of the same amount in any other such segment without taking account of credit protection provided by third parties directly to the holders of positions in the segment or in other segments.

Dilution risk: the risk that the amount of an acquired receivable is reduced through credits, cash or in any other way to the obligor.

Reversed repurchase agreement: an agreement related to the purchase of a security in which the buyer undertakes to sell back the paper within a certain period at an agreed price.

Repurchase agreement: an agreement related to the sale of a security in which the seller undertakes to repurchase the paper within a certain period at an agreed price.

Excess spread:: interest rates, credit charges and other fees received in respect of the securitised exposures net of financing costs and other expenses.

Chapter 4

Section 6 A financial group that applies Chapter 5, section 2 shall, in the reporting form in *Appendix 2*, report information about capital requirements for the exposures that arise in the relevant subsidiaries. Information that falls outside of the areas in the form shall be reported in part B, row B36.

Chapter 7

Section 1a In the event of liquidation or bankruptcy, an instrument shall be equal to ordinary shares or the equivalent to be included in the original own funds pursuant to Chapter 3, section 2 of the Capital Adequacy Act.

Section 8 An institution shall, for all positions measured at fair value, apply the provisions regarding positions in the trading book in Chapter 12, sections 4–6 and 8–12. The price adjustments shall always be deducted from the original own funds.

Chapter 9

Section 10 An institution may deduct from the original and additional own funds the value of positions in a securitisation in the trading book that would be assigned a risk weight of 1,250 per cent if the positions had instead been included in the institution's non-trading activities.

Chapter 10²

Section 1 Net profit which can be assigned to an institution's trading book may be included in ancillary own funds only if the same conditions apply as those set out in Chapter 7, sections 6–7 for including profit from the current financial year in original own funds. Net profit in the trading book may be included in ancillary own funds on condition that it has not already been included in original own funds.

When calculating net profit in the trading book, consideration shall also be taken of the costs that must be assigned to the trading book.

Chapter 12

Section 4 An institution shall have procedures and control systems which ensure that the value of positions in the trading book correspond to their current market values.

The institution shall, where possible, mark-to-market its positions. Marking to market refers to the institution daily valuing the positions based on independent and easily accessible closing prices. Where marking to market is not possible, the institution may use a mark to model valuation, i.e. a valuation that is derived from market prices or other market parameters. When the institution uses a mark to model valuation, this valuation shall be based on prudent assumptions.

² The third paragraph under Chapter 10, section 1 is repealed.

Section 5 An institution shall state in one or several policy documents

1. which valuation principles the institution shall apply for trading book positions,
2. from where market prices and other market parameters that are needed for the valuation shall be obtained, and when this shall be carried out,
3. which controls are conducted to verify that market prices and other market parameters used in the valuation are correct,
4. how any adjustments to the market prices and market parameters may be carried out,
5. how responsibility for the various steps in the valuation process is distributed within the institution, and
6. guidelines for using inputs not based on observable data that describes the institution's assumptions regarding which factors market actors should take into account when setting the price of the positions.

Section 7 An institution shall value its trading book positions every day.

Section 9 An institution which marks to model shall meet the following requirements:

1. The institution's management shall know which trading book positions are marked to model and be aware of the uncertainty this creates in the value of these positions and, subsequently, the reporting of risk and results.
2. If there are accepted valuation models on the market, these shall be used.
3. If the institution has its own model, the model shall have been developed or approved by a unit or function independent of the position-taking units. The assumptions and conditions upon which the model is based shall be evaluated by a person independent of the model's development process.
4. There shall be a formal procedure for changing the computer system which contains the model. A backup copy of the system shall be available.
5. The institution shall be aware of the weaknesses of the model and if valuation adjustment is necessary, and if so how this shall be carried out.
6. The model shall be reviewed regularly.

Price adjustments

Section 10 An institution shall have procedures for evaluating the need for price adjustments to trading book positions. The institution shall document what has been taken into account during such an evaluation.

An institution shall make price adjustments as needed and as a minimum take into account the following:

1. unearned interest rate margins,
2. closing costs for open positions,
3. operational risks,
4. costs for early terminations,
5. funding costs,
6. future administrative costs, and
7. deficiencies in the model where marking to model is used.

Section 11 In addition to that set out in section 10, an institution shall establish and have methods for making price adjustments for less liquid positions. Less liquid positions refers to e.g. positions that are less liquid as a result of market disruptions or certain specific situations in an institution. The price adjustment for

a less liquid position shall be made in addition to any adjustments for the position's value in the accounts and as a minimum the following shall be taking into account:

1. how long it would take to close the position,
2. the spread of the bid and offer price and the volatility of the spread,
3. the availability of market price information, including the number of market makers and their identity,
4. the extent of the trading of this type of financial instrument and how trading is affected by a disruption on the market,
5. market concentrations,
6. how long the institution has held the position, and
7. the extent to which marking to model is used and any deficiencies in the model.

The institution shall regularly ensure that the price adjustments are appropriate.

Section 12 An institution shall, when marking to model complex products, e.g. positions in securitisations and credit derivatives that fall due on the n th default, assess if price adjustments are needed as a result of deficiencies in the model. In its assessment, the institution shall as a minimum take into account the risk

1. that the valuation method is incorrect, and
2. associated with the use of non-observable input data and potentially incorrect input data in the model.

Chapter 13

Section 19 Unless otherwise specified, the calculation of the capital requirement for specific and general risk shall be based on the notional amount of the credit derivative.

An institution may deduct from the notional amount any changes in the credit derivative's market value since it was admitted for trading.

Section 37 A credit derivative which refers to more than one asset (a basket) and that falls due for payment when the n th default occurs among the assets included in the basket, and this default terminates the contract, the capital requirement for specific risk shall be the lower of

- the sum of the capital requirement for specific risk for the reference assets included in the basket,
- and
- the maximum amount that can be paid out under the contract.

An institution which purchases risk shall, when calculating the capital requirement for specific risk, exclude the $n-1$ reference assets that have the lowest capital requirements for specific risk. When an institution which sells risk receives credit protection for a basket of assets, the institution may apply the approach set out in section 36, second paragraph in an appropriately adapted manner, provided that

- credit protection also exists for defaults 1 to $n-1$, or
- the $n-1$ default already occurred.

Where a credit derivative that falls due on the n th default has an external credit assessment, an institution which purchases risk shall calculate the capital requirement for specific risk by using the derivative's credit assessment and apply the weights for positions in securitisations pursuant to section 42.

Section 41 The capital requirement for the specific risk is calculated in two steps. The net position, calculated in accordance with section 9, of every financial instrument that is not a position in a securitisation is first multiplied by the weights set out in sections 43–50. These calculated values are then totalled to obtain the total capital requirement for specific risk.

If an institution judges that an instrument has a higher risk than what is set out in sections 43–49, the institution shall assign the financial instrument a weight of 12%.

The capital requirement for the specific risk of a position in a securitisation shall be calculated in accordance with section 42.

When applying this provision, section 41a and section 42, an institution may limit the capital requirement for the specific risk of the position to the largest possible loss given default. For a short position, this limit can be calculated as a change in value resulting from the elimination of risk of default for underlying names.

Section 41a Notwithstanding the provisions set out in section 41, an institution may determine the capital requirement for the specific risk for a correlation trading portfolio that fulfils the requirements set out in sections 41b–41d as the greater of the following amounts:

1. The total capital requirements for specific risk that would only apply to long net positions in the correlation trading portfolio.
2. The total capital requirements for specific risk that would only apply to short net positions in the correlation trading portfolio.

Section 41b A correlation trading portfolio shall consist of securitisation positions and credit derivatives that fall due on the *n*th default that are covered by section 41c and fulfil the following criteria:

1. the positions are not re-securitisation positions, options on a tranche in a securitisation or other derivatives of securitisation exposures which do not give a proportionate share of the yield from a tranche in a securitisation, and
2. all reference instruments, including credit derivatives, refer to either a single name for which a liquid two-way market exists or a generally traded index that is based on these names. Two-way market refers to the existence of independent offers to buy and sell at a price that is reasonable given the most recent sale price, and that there are current competitive buy and sell offers that can be determined the same day and settled to that price within a relatively short period of time.

Section 41c The correlation trading portfolio pursuant to section 41b may not include positions that refer to the following assets:

1. an underlying exposure that can be assigned to exposures to households or exposures secured on real estate property pursuant to Chapter 15, section 4, or
2. a claim on a firm for a specific purpose (special purpose entity).

Section 41d An institution may include in the correlation trading portfolio positions in instruments that are neither securitisation positions nor credit derivatives that fall due on the *n*th default provided that

1. the position secures other positions that may be included in the correlation trading portfolio pursuant to sections 41b and 41c, and
2. a liquid two-way market pursuant to section 41b, point 2 exists for the instrument or its underlying name.

Section 42 The capital requirement for the specific risk of positions in a securitisation is calculated in two steps. First, the net position, calculated in

accordance with section 9, is multiplied by the weight for specific risk. This weight is calculated as 8 per cent of

1. the risk weight calculated in accordance with Chapter 21 for a position in a securitisation which, if it had been included in the non-trading activities, would be included in sub-part G2, or
2. the risk weight calculated in accordance with Chapter 49 for a position in a securitisation which, if it had been included in the non-trading activities, would be included in sub-part L2.

These calculated values are then totalled to obtain the total capital requirement for specific risk.

An institution may use the supervisory formula method in accordance with Chapter 49, section 14 to determine the weight for specific risk for a position in a trading book securitisation. Where the institution is not an originator, the supervisory formula method may only be used following permission from Finansinspektionen. Permission is granted only to institutions which can apply the supervisory formula method for the same position in a securitisation in the non-trading activities.

An institution which applies the supervisory formula method shall

1. estimate PD and LGD in accordance with the IRB approach in sub-part L1, or
2. if Finansinspektionen grants permission, derive estimates of PD and LGD as input data for the supervisory formula method from the institution's approved IRC model pursuant to Chapter 59.

Where a securitisation position received a proportionate extra risk weight pursuant to section 8a, the institution shall apply this risk weight to the calculation of the weight for specific risk.

Section 64 The capital requirement for specific risk shall be set at 8 per cent of the institution's gross position.

General guidelines

For example,

- Sum of long net position (+) in, for example, Ericsson B is SEK 100,000
- Sum of long net position (+) in, for example, Electrolux B is SEK 100,000
- Sum of short net position (-) in, for example, Volvo B is SEK 50,000

In this example the gross position is SEK 250,000.

Section 79 When an institution calculates potential risk change, the credit derivative shall be assigned a risk factor of 10 per cent. If the reference asset is an asset that may be assigned a risk weight for specific risk in accordance with sections 44 or 45, the risk factor may be 5 per cent.

If the credit derivative is a credit default swap, the institution may use a risk factor of 0 per cent if

1. through the credit default swap the institution has a long position in the underlying asset, i.e. the institution has purchased risk, and
2. the credit default swap agreement does not contain provisions which entail that the derivative closes in the event of insolvency of the party with a short position in the underlying asset.

If the institution uses a risk factor of 0 per cent in accordance with the second paragraph, the amount of the institution's potential risk change shall total the amount of the premiums that as yet have not been paid to the institution.

When a credit derivative is designed so that it becomes due for payment when the n th default occurs in a basket of assets, the risk factor shall be determined as follows:

The institution shall base the calculation on the asset in the basket that has the n th worst credit quality. If this asset can be assigned a risk weight for specific risk in accordance with section 44 or section 45, the risk factor shall be 5 per cent. Otherwise the risk factor shall be 10 per cent.

Chapter 14

Section 2 An institution, for its exposures in non-trading activities shall apply the provisions regarding trading book positions set out in Chapter 13, sections 69–71.

Chapter 20

Section 2 Where an exposure covers different tranches in a securitisation, each tranche shall be considered to be a separate securitisation position.

Where an institution has two or more overlapping positions in a securitisation, to the extent that they overlap, it shall only calculate risk-weighted exposure amounts for the position or portion of a position that produces the highest amount. The institution may also take into account such an overlap between capital requirements for specific risks for trading book positions and capital requirements for positions in non-trading activities if it can calculate and compare the capital requirements for the relevant positions.

Overlapping refers to the positions which, wholly or partially, are exposed to the same risk such that to the extent of the overlap there is only a single exposure.

General guidelines

For example, overlapping positions may arise when a specific securitisation has two different liquidity facilities which completely or partially cover the same tranches and it is unclear which will actually be exercised. If the overlapping positions are held by different institutions, both must cover the risk. If the positions are held by the same institution, the risk does not need to be covered twice.

Section 2a Finansinspektionen can grant permission to an institution which has a position that is covered by Chapter 21, section 1, second paragraph to apply the risk weight allocated to a liquidity facility to calculate the risk-weighted exposure amount for the position if

1. the position is held in an asset-backed commercial paper programme (ABCP programme),
2. all of the commercial papers issued within the programme are 100 per cent covered by one or multiple liquidity facilities, and
3. the liquidity facility(-ies) are ranked *pari passu* with the commercial papers issued within the program such that they create overlapping positions.

Chapter 21

Section 1 When the risk weight for a securitisation position can be determined based on an external credit assessment, the risk weight may be assigned on the basis of the position's credit quality step in accordance with the rules for using external credit assessments in section E. Otherwise, the position shall be assigned a risk weight in accordance with section 3.

When the credit assessment is based on unfunded credit protection from the institution holding the position, the assigned risk weight may not be based on the position's credit quality step. In such cases the risk weight shall be determined in accordance with sections 3 and 4.

Section 2 A securitisation or re-securitisation position with an external credit assessment shall be assigned a risk weight in accordance with Table 2 or, with regard to a short-term credit assessment, in accordance with Table 3.

Table 2 Positions with a credit assessment

Credit quality step	1	2	3	4	Other quality steps
Securitisation position	20%	50%	100%	350%	1,250%
Re-securitisation position	40%	100%	225%	650%	1,250%

Table 3 Positions with a short-term credit assessment

Credit quality step	1	2	3	Other quality steps
Securitisation position	20%	50%	100%	1,250%
Re-securitisation position	40%	100%	225%	1,250%

Chapter 48

Section 2 Where the exposure covers different tranches in a securitisation, each tranche shall be considered to be a separate securitisation position.

Where an institution has two or more overlapping positions in a securitisation, to the extent that they overlap, it shall only calculate risk-weighted exposure amounts for the position or portion of a position that produces the highest amount. The institution may also take into account such overlapping between the capital requirements for specific risks for trading book positions and the capital requirements for positions in non-trading activities if it can calculate and compare the capital requirements for the relevant positions.

Overlapping refers to the positions which, wholly or partially, are exposed to the same risk such that to the extent of the overlap there is only a single exposure.

General guidelines

For example, overlapping positions may arise when a certain securitisation has two different liquidity facilities which completely or partially cover the same tranches and it is unclear which will actually be exercised. Where the overlapping positions are held by separate institutions, both must provide capital coverage for the risk but if the positions are held by the same institution the risk does not need to have double capital coverage.

Section 2a Finansinspektionen can grant permission to an institution holding a position covered by Chapter 49, section 2, second paragraph to apply the risk weight allocated to

a liquidity facility to calculate the risk-weighted exposure amount for the position if

1. the position is held in an asset-backed commercial paper programme (ABCP programme),
2. all of the commercial papers issued within the programme are 100 per cent covered by one or multiple liquidity facilities, and
3. the liquidity facility(-ies) are ranked pari passu with the commercial papers issued within the program such that they create overlapping positions.

Chapter 49

Section 2 Positions with a credit assessment may be assigned a risk weight in accordance with the ratings-based method in sections 9-13. The same applies for positions where an inferred credit assessment in accordance with section 6 or a derived assessment in accordance with sections 7–8 may be applied.

When the credit assessment is based on an unfunded credit protection from the institution holding the position, the assigned risk weight may not be based on the position's credit quality step. In such cases the risk weight shall be determined in accordance with sections 3–5.

Section 10 A securitisation or re-securitisation position with an external credit assessment shall be assigned a risk weight in accordance with Table 2 or, with regard to a short-term credit assessment in accordance with Table 3. When calculating risk-weighted exposure amounts in accordance with Chapter 48, section 1, the institution shall multiply these risk weights by a factor of 1.06.

Table 2 Positions with a credit assessment

Credit quality step	Securitisation position			Re-securitisation position	
	A	B	C	D	E
1	7%	12%	20%	20%	30%
2	8%	15%	25%	25%	40%
3	10%	18%	35%	35%	50%
4	12%	20%	35%	40%	65%
5	20%	35%	35%	60%	100%
6	35%	50%	50%	100%	150%
7	60%	75%	75%	150%	225%
8	100%	100%	100%	200%	350%
9	250%	250%	250%	300%	500%
10	425%	425%	425%	500%	650%
11	650%	650%	650%	750%	850%
Other quality steps	1,250%	1,250%	1,250%	1,250%	1,250%

Table 3 Positions with a short-term credit assessment

Credit quality step	Securitisation position			Re-securitisation position	
	A	B	C	D	E
1	7%	12%	20%	20%	30%
2	12%	20%	35%	40%	65%
3	60%	75%	75%	150%	225%
Other quality steps	1,250%	1,250%	1,250%	1,250%	1,250%

Section 11 The risk weights in Table 2 and Table 3 of section 10 shall be applied in accordance with the following:

1. Column A in the tables if the securitisation position is not a re-securitisation position and the effective number of securitised exposures is six or more and the position is included in the securitisation's highest prioritised tranche.
2. Column B in the tables if the securitisation position is not a re-securitisation position and the effective number of securitised exposures is six or more and the position is included in a tranche other than the highest prioritised tranche.
3. Column C in the tables if the securitisation position is not a re-securitisation position and the effective number of securitised exposures is less than six.
4. Column D in the tables for re-securitisation positions that are included in the re-securitisation's highest prioritised tranche and where none of the underlying exposures originally were re-securitisation positions.
5. Column E in the tables if the re-securitisation positions do not qualify for Column D.

When determining if a tranche has the highest priority, an institution does not need to take into account amounts referring to interest rate derivatives, currency derivatives, fees or other similar payments.

Section 12 When an institution calculates the effective number of securitised exposures, it shall treat multiple exposures to one counterparty as one exposure. The effective number of exposures is calculated as:

$$N = \frac{\left(\sum_i \text{Exposure amount}_i \right)^2}{\sum_i \text{Exposure amount}_i^2}$$

where Exposure amount_i represents the sum of the exposure amounts for all exposures to the *i*th obligor. In the case of re-securitisation, the institution must look at the number of exposures in the pool and not the number of underlying exposures in the original pools from which these securitisation exposures stem. If the portfolio share associated with the largest exposure, C₁, is known, the credit institution may compute N as 1/C₁.

Section 14 When the risk weight for a position in a securitisation or re-securitisation is calculated in accordance with the supervisory formula method, it shall be calculated based on the S function in accordance with this provision. However, the risk weight may not be lower than 7 per cent for a position in a securitisation and 20 per cent for a position in a re-securitisation.

Risk weight = 12.5 x (S[L+M] – S[L]) / T
where

$$S [x] = \begin{cases} x & \text{när } x \leq Kirbr \\ Kirbr + K[x] - K[Kirbr] + (d \cdot Kirbr / \omega) \left(1 - e^{\omega(Kirbr - x) / Kirbr} \right) & \text{when } Kirbr < x \end{cases}$$

where

$$K [x] = (1 - h) \cdot ((1 - Beta [x; a, b]) x + Beta [x; a + 1, b] c)$$

$$h = (1 - Kirbr / ELGD)^N$$

$$c = Kirbr / (1 - h)$$

$$v = \frac{(ELGD - Kirbr) Kirbr + 0,25 (1 - ELGD) Kirbr}{N}$$

$$f = \left(\frac{v + Kirbr^2}{1 - h} - c^2 \right) + \frac{(1 - Kirbr) Kirbr - v}{(1 - h) \tau}$$

$$g = \frac{(1 - c) c}{f} - 1$$

$$a = g \cdot c$$

$$b = g \cdot (1 - c)$$

$$d = 1 - (1 - h) \cdot (1 - Beta [Kirbr; a, b]).$$

$\tau = 1000$,

and $\omega = 20$.

In these expressions, Beta [x; a, b] refers to the cumulative beta distribution with parameters a and b evaluated at x.

L (the credit enhancement level) is measured as the relationship between the nominal amount of all tranches subordinate to the tranche in which the position is held and the sum of the exposure amounts of the exposures that have been securitised. Capitalised future income shall not be included when calculating L. Amounts due by counterparties with regard to derivative instruments may, when representing tranches that are more junior than the tranche in question, be measured at their current replacement cost (without potential future credit exposures) when calculating the enhancement level.

T (thickness of the tranche in which the position is held) is measured as the relationship between the notional value of the tranche and the sum of the exposure amount for the exposures that have been securitised. In this context, the exposure amount with regard to derivative instruments, shall, if the current replacement cost is not a positive value, be the potential future credit exposure calculated in accordance with Chapter 40.

N is the effective number of exposures calculated in accordance with section 12.

ELGD (the exposure-weighted average Loss Given Default) is calculated as follows:

$$ELGD = \frac{\sum_i LGD_i \cdot Exposure\ amount_i}{\sum_i Exposure\ amount_i}$$

LGD_i represents the average LGD associated with all exposures to the *i*th obligor and LGD is determined in accordance with sub-part L1. For a re-securitisation, an LGD of 100 per cent shall be applied to the securitised positions. When default and

dilution risk for purchased receivables are treated in an aggregate manner within a securitisation (e.g. a single reserve or over-collateralisation is available to cover losses from any of the sources), the LGD input shall be constructed as a weighted average of the LGD for credit risk and the 75 per cent LGD for dilution risk. The institution shall use as weights the stand-alone capital requirements for credit risk and dilution risk respectively, without consideration to credit protection.

Simplified inputs

If the largest securitisation exposure C_1 is not greater than 3 per cent of the securitised exposures' collective exposure amount, when using the supervisory formula method the institution may set $LGD = 50$ per cent and N to either

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

or

$$N = 1 / C_1.$$

C_m here represents the relationship between the sum of the m largest exposures' exposure amounts and the total amount of the securitised exposures. The level of m may be set by the institution.

In the case of securitisations involving retail exposures, the institution may apply the supervisory formula method with the simplifications $h = 0$ and $v = 0$.

Sub-part L4 Internal risk measurement models for market risks

Chapter 59 Internal risk measurement models for market risks

Section 1 This section sets out the requirements and conditions which an institution shall meet to receive permission pursuant to Chapter 5, section 3 of the Capital Adequacy Act to calculate capital requirements using VaR models.

An institution can apply for permission to calculate general market risk using a Value at Risk (VaR) model and specific market risk using

- a Value at Risk model (VaR model),
- an Incremental Risk Charge model (IRC model), and
- an All Price Risk model (APR model).

An application to use a VaR model may apply to part(s) of the operations which are subject to the calculation of capital requirements for market risks.

Risk factors in a VaR model

Section 2 A VaR model shall contain a sufficient number of risk factors, based on the institution's operations and the risks the institution is exposed to on each market, to satisfactorily cover the risks. If a risk factor is included in the institution's valuation model but not its VaR model, the institution shall be able to explain this discrepancy to Finansinspektionen.

The VaR model shall capture non-linear features of options and other products as well as correlation risks and basis risks.

An institution which uses variables to estimate the risk factors instead of the risk factors themselves shall be able to show in its documentation that the variables previously worked well for the actual held position.

Section 3 An institution shall as a minimum take into account in its VaR model the following for different types of risk:

– With regard to interest rate risks, the model shall contain risk factors corresponding to the market interest rates in each currency in which the institution has a position. With regard to currencies in which the interest rate risks are significant, the yield curve shall be divided into at least six segments to account for variations in volatility along the yield curve. With regard to high risk currencies and where the positions of the institution are valued on the basis of different yield curves, the model shall also take into account the risk that the correlation between the movements of these yield curves is not perfect.

– With regard to foreign exchange rate risk, the model shall take into account the individual currencies (including gold) in which the institution holds significant positions. Positions in CIUs which are exposed to foreign exchange rate risk shall be treated in accordance with Chapter 13, section 5 or, if this is not possible, in accordance with Chapter 13, sections 6 and 7.

– With regard to equity price risk, the model shall contain at least one separate risk factor for each market in which the institution holds significant positions.

– With regard to commodities risk, the model shall take into account at least one separate risk factor for each commodity in which the institution holds significant positions. In the case of significant exposures, the model shall also take into account the risk of an imperfect correlation between similar commodities and exposures to changes in forward prices arising from poor correspondence between periods of maturity.

Quantitative requirements for a VaR model

Section 4 An institution shall meet the following requirements in order to use a VaR model when calculating the capital requirement:

1. VaR shall be calculated daily using a one-tailed confidence interval of at least 99 percent,
2. the holding period shall consist of ten business days,
3. the historical period of observation shall be at least one year,
4. the historical time series shall be updated at least every month or after each significant change in market conditions,
5. historical correlation may be utilised within and between the different main types of risk categories (interest, equity, commodity and foreign exchange rate risks) on condition that the institution's systems, procedures and methods for measuring them is satisfactory,
6. With regard to positions in options and similar position, the model shall also cover non-linear change in option prices. With regard to option positions, the model shall cover volatility in the underlying asset price (vega risk).

Finansinspektionen can grant permission in individual cases for an institution to use a VaR value that is calculated using a shorter holding period if the value is estimated upward to correspond to a holding period of ten business days. An institution calculating the VaR value using a shorter holding period shall be able to show Finansinspektionen on an ongoing basis that the value is reasonable.

In the event of a recent increase in price volatility, Finansinspektionen may grant permission, in response to an application, for a shorter observation period than one year.

Quantitative requirements on a stress-adjusted VaR value

Section 5 An institution shall calculate at least once a week a stress-adjusted VaR value based on a holding period of ten business days and a 99 per cent confidence interval for the portfolio in question. Historical market data to calculate the stress-adjusted VaR value shall be obtained from a consecutive twelve-month period during which there has been significant uncertainty and volatility on the financial markets. The institution shall have procedures in place to ensure that the choice of historical market data is relevant for the institution's portfolio. The institution shall review its choice of historical market data annually and report this data to Finansinspektionen.

Qualitative requirements for an institution to use a VaR model

Section 6 An institution shall meet the following requirements in order to use a VaR model when calculating the capital requirement.

Risk management system

1. The institution shall ensure that it has a well-developed risk management system covering documented limits for risk exposures at different levels within the institution, clear risk and result reports, responsibility descriptions for relevant personnel and preparedness to deal with extraordinary stress situations in the markets. The institution shall adopt a risk policy or other corresponding documentation in which the institution's routines for risk management as well as how the responsibility for risk management will be distributed are reported fully and in detail.

The institution shall have adequate computer systems and procedures for checking business management, risks and limits and obtaining necessary information about when developments in a business area start to deviate from the established guidelines.

Furthermore, there shall be a unit within the institution that is independent of position-taking units that verifies business confirmations, interest rates, equity prices, commodity prices and foreign exchange rates and other values recorded in the computer system which can affect market valuation and risk measurement.

Documentation of the model

2. The institution shall adopt written documentation which contains a comprehensive description of the model.

Integration of the model into the institution's activities

3. The institution shall have a model that is well integrated into the institution's day-to-day marking to market and risk control systems and forms the basis of the reporting of market risks to senior management. The institution shall have used the model for at least one year before it may be used as an own risk calculation model.

The board of directors and executive management

4. The institution's board of directors and executive management shall actively participate in the formulation of the institution's risk management system and the follow-up of market risks. The daily market risk reports shall be analysed by responsible persons with sufficient authority to decide on reductions in both the individual traders' positions and the institution's total risk exposure.

Risk control function

5. The institution shall have a function responsible for the design and implementation of the risk management system which reports directly to senior management. This function shall also be responsible for validating the VaR model and be independent of the position-taking units.

Stress tests

6. The institution shall regularly and frequently carry out extensive stress tests and the results shall be analysed by the executive management and be taken into consideration when formulating risk policies and limits. Stress tests shall be relevant to the type of position held by the institution. Stress tests shall particularly take into account risks captured only partially, or not at all, in the VaR model. Stress tests must be in place which take into account the time it takes to hedge or manage positions in difficult market conditions.

The institution shall also carry out reverse stress tests in which the institution assumes an extremely beneficial outcome and analyse which events could lead to such an outcome.

Internal audit and review

7. As part of its internal audit, the institution shall review its procedures, methods and systems for calculating and reporting market risks. This review shall include the activities of business units, back-office units and the independent risk control units.

The institution shall review the entire risk management system at least once a year. This review shall as a minimum cover

- the documentation of the risk management system,
- the organisation of risk control,
- the integrity of the computer systems used,
- the method of approving risk measurement models and valuation systems for front, middle and back-office operations,
- which market risks are captured by the risk measurement models,
- which documented evaluation are carried out when important changes have been implemented for risk measurement models,
- the extent to which data regarding positions is accurate and complete,
- assumptions related to correlation and volatility made in the model,
- the accuracy of valuations and risk measurement,
- the reliability and independence of the sources of information used in the model, and
- the principles for how backtesting is carried out in accordance with section 31.

The institution's internal auditors shall review compliance with all provisions in this chapter.

Specific risk

Section 7 An institution may apply to receive Finansinspektionen's permission to calculate capital requirements for specific risk in interest-bearing or equity-linked instruments in the trading book with its own risk measurement models in accordance with the following:

- for equity-linked financial instruments, in accordance with a VaR model if the requirements set out in sections 4, 6, 8 and 9 are fulfilled,
- for interest-bearing securities, excluding positions in a securitisation and credit derivatives on the n th default, in accordance with a VaR model and an IRC model provided that the requirements set out in sections 4, 6, 8 and 9 and sections 10–23 are fulfilled. Alternatively, specific risk in such interest-bearing securities may instead be calculated using only an IRC model if the requirements in sections 8–23 are fulfilled,
- for positions which fulfil the requirements to be included in a correlation trading portfolio pursuant to Chapter 13, sections 41b–41d, in accordance with a VaR model and an APR model provided that the requirements in sections 4, 6, 8 and 9 and sections 24–27 are fulfilled.

Specific risk calculated using a VaR model

Section 8 An institution which uses a VaR model to calculate specific risk shall fulfil the requirements in sections 4 and 6 and ensure that the model also

- explains the historical price variation in the portfolio,
- captures the concentration in terms of the magnitude and change of composition of the portfolio,
- is robust to an adverse market environment,
- takes into account name- or business-related basis risk, i.e. is sensitive to significant differences between similar but not identical positions,
- captures the risk of unforeseen events, and
- is validated through backtesting in accordance with section 31 to evaluate whether the specific risk has been accurately captured.

If there is a risk that the institution will be subject to unforeseen events that will not be captured by the VaR model due to a holding period of ten days and a 99 percent confidence interval, the institution shall take account of these events in its internal capital adequacy assessment.

Section 9 In order for an institution to be allowed to include in its VaR model less liquid positions and positions for which there are no well-established and available prices, the requirement must be met that the risk is not underestimated. If there is insufficient reliable price data for such positions, price data for other financial instruments may be used provided that the assumption cannot be made that the model underestimates the risk.

When an institution calculates specific risk using a VaR model, it does not need to include positions in a securitisation and credit derivatives on the n th default that are included in the calculation of capital requirements for interest rate risks and equity price risks in accordance with Chapter 13. However, this does not apply to the positions for which the institution calculates capital requirements using an APR model.

Specific risk calculated using an IRC model

Section 10 An institution which would like to calculate specific risk for interest-bearing securities, excluding positions in a securitisation and credit derivatives on the n th default, may apply for permission to use own models in accordance with the following alternatives.

1. Institutions which have an approved VaR model that fulfils the requirements set out in sections 8 and 9 may apply to use an IRC model to calculate a supplement for the default and migration risks not captured by a ten-day VaR value within a 99 percent confidence interval.

2. Institutions may apply to only calculate the default and migration risks of interest-bearing securities using an IRC model if the requirements in sections 8 and 9 are also fulfilled.

3. Institutions whose VaR model does not entirely fulfil the requirements set out in sections 8 and 9, but whose IRC model fulfils these requirements may apply to use their VaR model and an IRC model.

The institution shall be able to show that the methods and procedures it uses to calculate specific risk with an IRC model correspond to the quality requirements placed on an internal risk classification method pursuant to subpart L1. The model shall be based on the assumption that there is a constant risk level and be adjusted to reflect the impact of liquidity, concentration, risk hedging and the effect of optionality.

The IRC model shall capture effects from correlations between default and credit migration events. However, it shall not include diversification effects between these events and market risk factors. Market risk factors refers to a number of risk factors that affect different interest rates, equity prices, currencies and commodity prices.

Scope of an IRC model

Section 11 An IRC model may include all positions included by the capital requirements for specific risk in interest-bearing securities, excluding positions in a securitisation and credit derivatives on the n th default.

Section 12 An institution may include listed shares and derivative positions with listed shares as underlying instruments in its IRC model. This shall be done consistently and on the condition that all such shares or derivative positions are included. The institution shall measure the risk for these shares in a manner corresponding to the manner in which the institution internally measures and manages risk. Such a procedure does not entail that the shares and derivative instruments are exempt from the calculation of the capital requirements in accordance with the provisions for such positions.

Parameters in an IRC model

Section 13 An IRC model shall measure losses resulting from defaults and a changed credit rating, internal or external, within a confidence interval of 99.9 per cent and a capital horizon of one year.

Section 14 An IRC model shall be based on objective and current information.

Section 15 Assumptions regarding correlations shall be adequate and reliable. The IRC model shall take into account concentrations to issuers in a satisfactory manner. Concentration that may arise in situations of stress within and between product categories shall also be taken into account in the model.

The IRC model shall be based on an assumption of a constant risk level with a capital horizon of one year or an assumption of constant positions for one year. The assumption of a constant risk level entails that given individual positions or groups of positions in the trading book which were exposed to defaults or credit migrations during their liquidity horizon are re-weighted at the end of the liquidity horizon to

reinstate the original risk level. The institution shall consistently apply the assumption it has chosen.

Section 16 When determining the liquidity horizon an institution shall take into account

- the time it takes for the institution to sell a position or to hedge all significant, relevant exposures against price risks during stressed market conditions and in particular take into account the size of the position,

- current practice and experience from periods of both general and company-specific market uncertainty,

- that assumptions regarding the time required to liquidate or hedge positions shall be cautious,

- that the liquidity horizon shall be long enough that a sale or hedge in and of itself would not significantly affect the price at which these transactions can be conducted,

- internal procedures for price adjustments and handling of positions that are not traded,

- that the criteria for a definition of groups of positions adequately reproduce differences in liquidity when liquidity horizons for groups of positions with similar properties, with regard to the market liquidity of the product instead of individual positions, are being determined,

- that the liquidity horizon shall be longer for concentrated positions in order to take into account the time required to liquidate such positions,

- that the liquidity horizon reflects the time required to establish, sell and securitise the assets or to hedge against the significant risk factors in stressed market conditions for a stock of assets which are intended for securitisation.

The institution may not set the liquidity horizon at less than three months.

Section 17 An institution may include hedges in its IRC model to capture additional default and migration risks. The institution may use the net of long and short positions only if these positions refer to the same financial instrument.

Hedging and diversification effects between long and short positions in different instruments or in different securities issued by the same obligor and between long

and short positions to different issuers may only be taken into account if explicit modelling of the gross positions is used for the various instruments.

The institution's IRC model shall take into account the effects of the significant risks that may arise during the time between the maturity of the hedge and the liquidity horizon. The model shall also capture potentially significant basis risks in the hedging strategies with regard to products, differences in the hierarchy of benefits, internal or external credit ratings, maturity, date of issue and other differences in the financial instruments.

An institution shall only take into account such hedges that can be maintained even when the obligor approaches a payment interruption or another credit event.

Section 18 For positions hedged using dynamic strategies, an institution may re-weight the hedge within the liquidity horizon for the hedged position provided that the institution

- chooses to consistently carry out the re-weighting for all relevant positions,
- can demonstrate that it achieved a better measurement of risk,
- can demonstrate that the markets for the instruments which function as a hedge are sufficiently liquid for such a re-weighting to occur even during periods of market uncertainty, and
- takes into account all remaining risks in conjunction with the dynamic hedging strategies when calculating the capital requirement.

Section 19 An institution's IRC model shall be adapted to the non-linear effects of options, structured credit derivatives and other positions which have a significant non-linear behaviour when prices of the underlying instrument change. The institution shall also take into account to a sufficient extent the scope with which the model risks are associated with the valuation and estimation of price risks for such products.

Validation when calculating specific risk using an IRC model

Section 20 Within the framework of the independent review of own risk measurement systems and the validation of own models in accordance with sections 28–30, the institution shall do the following with regard to its IRC model:

- ensure that its methods for modelling correlations and price changes are appropriate given the institution's portfolios even with regard to choice and weight of systematic risk factors,
- carry out stress tests, including sensitivity analyses and scenario analyses, to assess the qualitative and quantitative appropriateness of the own model in particular with regard to the treatment of concentrations. The tests shall not be limited to historic events, and
- carry out adequate quantitative validations that also take into account relevant internal benchmarks for the models.

Documentation of the IRC model when calculating specific risk

Section 21 An institution shall document the IRC model in order to ensure that the correlation assumptions and other assumptions in the model are transparent.

An IRC model based on other parameters

Section 22 Finansinspektionen can grant permission to calculate capital requirements for specific risk in interest-bearing instruments using an IRC model

even if an institution has a model that does not fulfil all of the requirements set out in sections 11–23 if

1. the institution's model agrees with its internal methods for identifying, measuring and managing risks, and
2. the institution can demonstrate that its model leads to a capital requirement that as a minimum corresponds to the capital requirement calculated using an IRC model that fulfils all of the requirements in sections 11–23.

The institution shall have documentation showing that the requirements in the first paragraph are fulfilled.

Frequency for calculating capital requirements for specific risk with an IRC model

Section 23 An institution shall conduct the calculations required to capture the specific additional default and migration risks at least once a week.

Risk calculated using an APR model

Section 24 An institution can apply to use an APR model to calculate the capital requirement for positions fulfilling the requirements to be included in a correlation trading portfolio in accordance with Chapter 13, sections 41b–41d if the requirements set out in sections 25–27 and the following conditions are fulfilled:

- The APR model shall capture all price risks within a confidence interval of 99.9 percent and a capital horizon of one year in a satisfactory manner. This shall be done under the assumption of a constant risk level and, where appropriate, the model shall be adapted to reflect the impact of liquidity, concentrations, hedges and optionality.
- The capital requirement for the correlation trading portfolio may not fall under 8 per cent of the capital requirement for the correlation trading portfolio pursuant to Chapter 13. This requirement applies to all positions for which the APR model is used.

The institution may also include in an APR model all positions managed together with positions in the correlation trading portfolio and may, as a result, exempt these positions from an IRC model as referred to in section 10.

Section 25 The APR model shall capture the following risks in a satisfactory manner:

1. The cumulative risk that arises through several defaults, included the impact of the ranking of defaults of products divided into tranches.
2. The credit spread risk, including gamma and cross-gamma effects.
3. The volatility within implicit correlations, including the cross-effect between spreads and correlations.
4. The basis risk, which includes both
 - a) the impact of the difference between an index and the individual components of the index and
 - b) the impact of the difference between the implicit correlation for an index and for a specially adapted portfolio.
5. The volatility for the degree of recovery, to the extent this volatility is attributable to the tendency of the degrees of recovery to affect the price of a tranche.
6. Risk of a reduced hedge and the potential costs for re-weighting such hedges, to the extent that the APR model takes into account gains from dynamic hedging.

Section 26 An institution shall have access to sufficient market information to be able to ensure that its APR model takes into account the prominent risks in accordance with sections 24 and 25.

The institution, via backtesting in accordance with section 31 or in another appropriate manner, shall be able to demonstrate that its APR model can sufficiently explain the historic price variation of the products in which the institution has positions in the correlation trading portfolio. An institution shall also be able to separate the positions that may be included in an approved APR model from those that may not.

Section 27 An institution shall carry out stress tests at least once a week in accordance with previously established scenarios for the portfolios included in an APR model. Via the stress tests the institution shall investigate the effect of stress on defaults, degrees of recovery, credit spreads and the impact of correlation on profits and losses in correlation trading.

The institution shall report the results of its stress tests to Finansinspektionen at least once a quarter. The report shall include comparisons to the institution's capital requirements calculated using the APR model. Where the results of the stress tests are significantly lower than the capital requirement, the institution shall immediately report this development to Finansinspektionen.

An institution shall calculate the capital requirement for all price risks using an APR model at least once a week.

Validation of a VaR model

Section 28 An institution shall have procedures and methods for regularly validating a VaR model. The institution shall validate the model before it is used and thereafter following regular intervals. The model shall also be validated if the institution implements fundamental changes to the model, or if changes have occurred in the institution's position-taking, or in the market, which could mean that the model is no longer suited to its purpose.

Section 29 Via the validation, the institution shall evaluate whether the model captures all significant risks and ensure that the assumptions made in the model do not result in the over- or underestimation of risks.

The validation shall include backtesting in accordance with section 31. The institution shall also draw up its own validation methods adapted to the institution's risks and types of position.

As part of the validation, the institution shall use hypothetical portfolios in order to evaluate how the model captures circumstances that may arise in position-taking.

Section 30 An institution which received permission to use an own VaR model to calculate specific risk and which, in accordance with section 7, uses an IRC model to calculate the supplement for default risk, shall have procedures to validate this model.

Backtesting in a VaR model

Section 31 An institution shall control the VaR model's accuracy by conducting daily backtesting. For each banking day, backtesting shall provide a comparison between the value-at-risk generated by the institution's model for the portfolio's end-of-day positions and the result that these positions give rise to at the end of the following banking day.

The institution shall be able to implement backtesting for both actual and hypothetical results. The actual result may not contain commissions, fees and net interest income. Backtesting of hypothetical results is based on a comparison between the end-of-day value of the portfolio, and, assuming unchanged positions, its value at the end of the next day.

Finansinspektionen determines which of the two types of backtesting the institution shall use when establishing the multiplier in accordance with section 33.

Calculation of capital requirements with internal risk measurement models

Section 32 An institution which calculates the capital requirement using internal models shall have a capital requirement every day that is the sum of 1 and 2 below.

1. The greater of
 a) the previous day's VaR value calculated in accordance with sections 3–4, and
 b) the mean value of the daily VaR value, which, in accordance with the provisions in sections 3 and 4, has been calculated from the preceding 60 banking days multiplied by a multiplier individually determined for the institution.

2. The greater of
 a) the most recent stress-adjusted VaR value calculated in accordance with section 5, and
 b) the mean value of the stress-adjusted VaR value, which, in accordance with section 5, has been calculated from the preceding 60 banking days multiplied by a multiplier individually determined for the institution.

The principles for how the multiplier is determined are set out in section 33.

If the institution received permission to include specific risk in its VaR model for calculating the capital requirement for the specific position risk, a supplement for default risk calculated in accordance with sections 7–27 shall be added to the values in accordance with 1a or 1b and 2a or 2b.

Where an institution has received permission to calculate capital requirements for specific risk using its own model, it shall also calculate a capital requirement for specific risk in interest-bearing instruments in accordance with the last paragraph. This capital requirement shall be added to the requirement calculated in accordance with that previously set out in this section.

The greater of the most recent measurement and the average 12-week measurement for additional default and migration risks calculated using an IRC model and, where applicable, the greater of the most recent measurement and the average 12-week measurement for all price risks calculated using an APR model.

The multiplier

Section 33 The calculation is based on a multiplier of 3. The multiplier increases by a plus factor that is dependent on the results of the backtesting the institution

shall carry out on a daily basis. This plus factor can vary from 0 to 1 and is determined in accordance with the table below on the basis of the number of overshootings established by backtesting in the previous 250 banking days. An overshooting is the change in the value of the portfolio in one day which exceeds the VaR value for that day in accordance with the model. The institution shall calculate overshootings based on either actual or hypothetical changes in the value of the portfolio in a consistent manner. In order to determine the plus factor, the number of overshootings shall as a minimum be calculated quarterly.

Number of overshootings	Plus factor
Less than 5	0.00
5	0.40
6	0.50
7	0.65
8	0.75
9	0.85
10 or more	1.00

If the number of overshootings indicates that the model is not sufficiently accurate, Finansinspektionen can require that the institution take measures to improve the model or withdraw its permission to use the model.

To enable Finansinspektionen to continuously monitor the suitability of an institution's plus factor, the institution shall, as soon as possible and no later than within five business days, notify Finansinspektionen of overshootings identified by the institution's backtesting.

Development

Section 34 An institution shall monitor and use new technology for its own risk measurement models for market risk and follow accepted practices within the area.

Chapter 60

General conditions for risk mitigation measures

Section 30 An institution, through different forms of risk transfer, may transfer risk to a third party and thereby decrease the capital requirement for operational risk.

However, the decrease in the capital requirement may not exceed 20 per cent of the capital requirement for operational risk calculated without risk mitigation measures.

Section 31 An institution shall evaluate how it uses insurances and other forms of risk transfers and re-calculate the capital requirement for operational risk

- if the character of an insurance or the protection it provides through another form of risk transfer changes significantly or
- if there is a major change in the institution's operational risk profile.

If a material loss arises that affects the scope of the insurance cover or if there is a change in an insurance or in any other form of risk transfer agreement that creates

considerable uncertainty with regard to the scope of the protection, the institution shall recalculate its capital requirement for operational risk with additional safety margins by, for example, using deductions in the model.

Section 32 An institution shall notify Finansinspektionen about all important changes to the scope of the protection provided by an insurance or any other form of risk transfer.

Conditions for using insurance

Section 33 An institution may use an insurance as risk transfer if the conditions set out in sections 34–40 are fulfilled.

Section 34 The insurer shall have received authorisation from a competent authority to provide insurance or reinsurance and have its claims adjustment capacity rated as credit quality step three or better.

Section 35 The insurance shall have an initial term of no less than one year and a termination period of at least 90 days.

Section 36 The insurance may not have any exclusions or limitations triggered by the actions of a competent authority. Nor may the insurance contain any exclusions or limitations as a result of the institution entering into bankruptcy or liquidation. However, this does not apply to events occurring after initiation of the receivership or the liquidation process. The insurance may exclude fines, penalties, or punitive damages assigned to the institution by a competent authority.

Section 37 When an institution calculates the effect of the risk transfer, it shall take into account in a transparent manner the scope of the insurance cover given the actual likelihood of and the potential impact of losses which the institution used to calculate the capital requirement for operational risk.

The institution shall identify the insurance policies in place with regard to losses for operational risks or subcategories of operational risk. This identification shall be conducted at a sufficiently detailed level in order to show the relationship between the scope of the insurance cover and the actual and potential likelihood and impact of losses. The institution shall use all available information, including internal and external loss data and forward-looking estimates based on scenario analyses for this purpose.

Section 38 The insurance shall be provided by a third party, i.e. an independent unit outside of the financial group to which the institution applying for insurance cover belongs. With regard to insurance through captives and affiliates, the exposure shall be transferred to an independent third party, for example through reinsurance which meets the requirements placed on an insurer.

An institution shall take necessary measures to ensure that neither itself or any of its subsidiaries intentionally reinsure contracts regarding operational risk in which the institution is a party to the underlying insurance contract.

Section 39 The institution shall in one or more governance documents state the requirements for the approval of risk transfer through insurance.

Section 40 An institution which uses insurance policies to transfer operational risk shall analyse the uncertainty factors that affect the effectiveness of the risk transfer. The institution shall take these factors into account when calculating the

capital requirement for operational risks by making appropriate deductions from the insurance cover given the scope of the insurance.

An institution shall calculate deductions conservatively and take the following into consideration during the calculation:

1. The institution shall make deductions which reflect the residual maturity if an insurance contract is shorter than one year. If the residual maturity is no more than 90 days, the institution shall make a full deduction. An institution which received permission from Finansinspektionen does not need to make deductions if it has a contract that replaces the insurance with another insurance at the same terms, or if the insurance contract in question is automatically renewed and has not been terminated.
2. The institution shall make deductions for an insurance if the termination terms can be utilised in less than one year. If an insurance can be renewed, the institution shall take into account in its assumptions the right of the insurer to terminate the insurance during the term of the contract or when the contract is renewed.
3. The institution shall make deductions if there is uncertainty regarding the payment or if there is a risk of mismatches in the insurance cover with regard to the scope of the insurance cover.

Mismatches in the insurance cover with regard to the scope of the insurance cover refers to the mismatch that arises when the scope of the insurance cover does not correspond to the institution's operational risk profile in that the cover does not provide the desired risk mitigation effects or does not include certain events.

In its model, an institution shall take into account mismatches which refer to medium or large losses resulting from e.g. excesses and amount limits or the exhaustion of policy limits. The institution shall take advantage of available sources such as loss data and forward-looking estimates based on scenario analyses as well as specific data analysis and simulation exercises.

An institution shall take into account and document information about insurance payment per loss type and make deductions in accordance with this document information, if necessary.

Deductions for an insurer's failure to pay shall be evaluated on the basis of the credit quality of the insurance undertaking which is responsible under the applicable contract, even if its parent company has a higher credit rating or the risk is transferred to a third party. A higher deduction shall be made for insurers with a lower claims paying ability than for insurers with higher credit quality.

Conditions for the use of other forms of risk transfer

Section 41 An institution may use other forms of risk transfer to a third party if it can demonstrate a noticeable risk mitigation effect and if the institution has experience in using this form of risk transfer. "Using another form of risk transfer" does not include the institution outsourcing a part of the operations to a third party.

Application to use an advanced measurement approach on a group basis

Section 42 Where a parent institution or a financial holding company within the EEA intends to apply an advanced measurement approach together with its subsidiaries, the application shall include a description of the method that is used to allocate capital requirements for operational risk between the group units.

The institution shall state in its application whether and how diversification effects are intended to be factored into the risk measurement system.

Combination of approaches

Section 43 An institution may use an advanced measurement approach in combination with the basic indicator approach or the standardised approach provided that the following conditions are met:

1. All of the institution's operational risks shall be covered. Finansinspektionen shall have approved the method to be applied to cover various activities, geographic locations, legal entities or other relevant divisions determined on an internal basis.
2. The qualification criteria shall be met for those portions of the operation covered by the standardised approach or advanced measurement approach, respectively.
3. An advanced measurement approach shall cover from the start a considerable portion of the institution's operational risks.
4. The institution shall gradually implement the advanced measurement approach for a substantial portion of the activity in accordance with a timetable approved by Finansinspektionen.

Section 44 In exceptional situations, Finansinspektionen may grant an institution permission to apply an internal measurement approach together with either the basic indicator approach or the standardised approach, even though section 43, points 3 or 4 are not met.

Entry into force and transition regulations

1. These regulations shall enter into force on 31 December 2011. However, Chapter 13, section 42, third paragraph does not apply until 1 January 2014.
2. An institution, for the period 31 December 2011 to 31 December 2013, instead of applying Chapter 13, section 42, second paragraph, shall determine the capital requirement for specific risk for positions in a securitisation in the trading book as the largest of the following amounts:
 - a) The total capital requirement for specific risk that would only apply to long net positions in the securitisation.
 - b) The total capital requirement for specific risk that would only apply to short net positions in the securitisation.
3. Equity in accordance with Chapter 3, section 2 of the Capital Adequacy Act which does not meet the requirements set out in Chapter 7, section 1a may, together with contributions in accordance with Chapter 7, section 16, up until 31 December 2012, be included in Tier 1 capital at a maximum of 50 per cent following deductions that shall be made pursuant to the Capital Adequacy and Large Exposures Act (2006:1371) and Finansinspektionen's regulations and general guidelines regarding capital adequacy and large exposures (2007:1).

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