DEUTSCHE BUNDESBANK
EUROSYSTEM

BaFin

Supervisory assessment of bank-internal capital adequacy concepts

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I. Introduction

1 Pursuant to section 25a (1) of the German Banking Act (*Kreditwesengesetz* - KWG), institutions must have a proper business organisation in place, which must specifically include an appropriate and effective risk management on the basis of which capital adequacy can be ensured on an on-going basis. Specifically, procedures for calculating and ensuring capital adequacy as a component of the risk management system are required.

2 The meaning of the term "capital adequacy" is substantiated in "Minimum Requirements for Risk Management" (MaRisk) as follows: On the basis of the overall risk profile, the institution has to ensure that the material risks are covered by the risk coverage potential (RCP) at all times, taking into account any concentrations, and that the institution is therefore adequately capitalized (AT 4.1 no. 1).

3 Credit institutions can generally implement a variety of differently structured internal procedures designed to meet the requirements relating to the appropriateness and effectiveness of capital adequacy concepts. **However, the freedom of credit institutions to select among methods is limited where the internal procedures are insufficiently capable of meeting the supervisory objective of "ensuring capital adequacy".**

4 In consideration of the principle of proportionality, the banking supervisors' assessment of internal procedures as part of the supervisory review process is guided by the principles of complete risk mapping, consistency of methods and prudence. When realising these fundamental principles, current supervisory practice is generally based on the principles and criteria set out in this paper. This also ensures the uniformity of administrative action. To the extent justified by the particular circumstances of individual cases, exceptions may be made from the principles and criteria formulated below, provided coherent and conclusive reasons are given for doing so.

5 The only aim of definitions included in this paper (e.g, for going-concern and gone-concern approaches) is to provide a systematic framework. They do not reflect any judgement.

II. Definitions

6 For the purpose of this paper, a distinction is made in relation to the capital adequacy concepts observed in banking practice: whether they are based on going-concern or gone-concern approaches on the one hand, or whether the method for deriving RCP within a risk management steering approach is accounting-based or value-based on the other. Banking supervision's use of the definitions mirrors the institutions' procedures as observable in practice, even though in some cases the terms used by the institutions are not always identical to those used by banking supervision.

7 For the purposes of this paper, a risk management steering approach is understood as being any group of connected, risk management-relevant[1] procedures designed to ensure that the RCP covers the aggregated risks at the overall institutional or group level on an on-going basis.

<u>a) Going-concern and gone-concern approaches</u>

8 Generally, risk management steering approaches are deemed to follow a going-concern approach if the institution would still be in a position to continue operations and remain in compliance with regulatory minimum capital requirements, even if the RCP used to cover all risk exposures were to be completely exhausted by risks as they materialise. By contrast, a gone-concern approach is given if the RCP used to cover the risks in a risk management steering approach (also) contains positions which, if exhausted, would generally render it impossible to continue to operate the institution as a going concern, *ceteris paribus*. Thus, while a going-concern approach is essentially aimed at fulfilling regulatory minimum capital requirements, even if the RCP is fully exhausted, the aim of the gone-concern approach is to ensure that creditors are fully satisfied in the course of a imaginary liquidation (without taking into account breakup values).

9 Therefore the distinction made by this paper between going-concern and gone-concern approaches is based on the institution's **internally defined maximum RCP used to cover risks**. Risk management steering approaches are considered to take a going-concern approach if the portion of the regulatory capital which is necessary to at least comply with regulatory minimum capital requirements pursuant to the German Solvency Regulation (*Solvabilitätsverordnung* – SolvV)[2] is not included in the capital adequacy concept to cover risks. By contrast, if the maximum RCP defined by the institution for the purpose of covering risks also includes this portion of the regulatory capital (in whole or in part), this is considered a gone-concern approach. The same applies if items, which are available *per se* only to offset losses in the event of insolvency and liquidation, are used as RCP to cover risks; this applies in particular to typical subordinated liabilities[3].

<u>b) accounting- and value-based derivation of RCP</u>

10 RCP is deemed to be accounting-based if planned results, as expected in external accounting, and/or balance sheet items are recognised as RCP.

11 By contrast, RCP is deemed to be value-based if it is defined from a purely economic perspective, generally detached from the presentation in the external accounting, and where the recognition and measurement principles which may distort the economic picture are thus not applied.

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[1] Risk-management relevance is achieved in particular through the appropriate limitation and reporting of risks.

[2] Factoring in any increased requirements pursuant to section 10 (1b) or section 45b (1) sentence 2 of the KWG (German Banking Act)

[3] Even if subordinated liabilities were not specifically defined as RCP the impact of existing caps (Tier 1 in relation to Tier 2) if it is necessary to use up Tier 1 capital to offset losses.

12 Approaches which, although initially based on balance sheet items but which adjust reported equity for hidden burdens and reserves, can as a result be similar to a value-based definition of RCP.

III. Principles of supervisory assessment

13 Banking supervisors generally assess the appropriateness of bank internal methods as an **overall evaluation of all elements of the capital adequacy concept on a case-by-case basis**. However, with regard to individual elements, certain configurations can be deemed inconsistent or insufficiently conservative from the very outset. Beyond such clear deficiencies, the assessment of capital adequacy concepts remains an overall evaluation of all elements, which must factor in the nature, scope, complexity and risk content of the business activities of each credit institution, as well as its business environment and size.

14 Banking supervision's assessment factors in the aspects laid out in the sections below, and is generally based on the principles and criteria formulated therein. In doing so, it respects the **principle of materiality**. Regardless of materiality, specific factors can justify any deviation from the principles and criteria on a case-by-case basis.

15 Moreover, this paper does not claim to cover all aspects of internal capital adequacy which may arise from every conceivable constellation. In its assessment of internal institutional procedures, banking supervision therefore includes additional perspectives not described here, where necessary.

16 Often, where the aspects discussed in the sections below are concerned, different measures are used for gone-concern approaches than for going-concern approaches. While it is logical to make a "binary" distinction between the approaches (an approach is either on a gone-concern or a going-concern basis), the extent to which the RCP definition differs from a gone-concern approach must be kept in mind when assessing going-concern approaches. The more closely an approach is to a gone-concern approach, the more the measures used in the supervisory assessment generally resemble those usually used for a gone-concern approach. In the opposite direction, banking supervision uses a less strict version of the criteria applicable to a gone-concern approach if the RCP used to cover risks only slightly exceeds the gone-concern approach threshold.

17 Banking supervision assumes that the material risks[4] of an institution are quantified with strict risk measures and parameters based on rare loss constellations at least in one risk management steering approach, which meets the principles and criteria set forth in this paper.

18 Since every risk management approach is only capable of describing capital adequacy from a certain perspective, banking supervision assumes that the institutions are aware of the limits of the risk management steering approaches implemented by them, and that they deal with these appropriately. Banking supervision expects institutions which manage their capital adequacy based on a going-concern approach with value-based RCP or a gone-concern approach to have at least implemented supplementary procedures aimed at ensuring compliance with

[4] This statement does not relate to those risks which cannot be meaningfully limited by RCP based on their unique characteristics (see AT 4.1 no. 4 MaRisk)

minimum capital requirements in the event that risks materialise. In doing so only unrestricted equity components available to the institution from a going-concern perspective are to be considered as a risk buffer.

IV. Risk coverage potential

19 An internal capital adequacy assessment can only be accepted if it is solely based on its own existing values. The inclusion of anticipated third-party contributions contradicts the actual purpose of internal capital adequacy concepts. The aim of an internal capital adequacy assessment is to survive or at least to satisfy creditors without the help of external parties.[5]

IV. 1 Accounting-based risk coverage potential

IV. 1.1 Planned results

20 In order for planned profits not yet realised to be counted as risk coverag potential, these must have been calculated with prudence. The higher the volatility and uncertainty of earnings components the more important it is to account for the associated risk of negative deviations by means of deductions from planned profits or when quantifying the risks.

21 A valid overall concept includes expected losses as well as unexpected losses (see section V. 2). If the planned "earnings before valuation" are used as a component of RCP, the calculation of risk amounts cannot be limited to unexpected losses. Rather, in such cases the expected valuation expenses must also be recognised as a risk amount. By contrast, the risk approach may generally be limited to unexpected valuation losses if the planned "earnings after valuation" are used as the RCP, which already includes the (conservatively calculated) planned valuation expenses.

22 Above and beyond the initially consistent and sufficiently conservative calculation of planned profits, it must be ensured that changes occurring during the year which trigger negative deviations from the original planning are tracked throughout the year. If necessary, the original planned profits recognised must be adjusted.

23 Generally, planned profits are only recognised as RCP under a going-concern approach. If the planned profits also include new business, it must be ensured that the risks inherent in new business assumptions are appropriately accounted for. This can be done either through recognition as a separate risk (e.g. business risk) or by a corresponding conservative calculation of the planned profit components.

24 It is possible to include realised profits, which have been accrued during the year in gone-concern approaches. An additional recognition of expected but still unrealised earning components as RCP is only feasible if an institution can demonstrate that the earnings components would still be realisable in the interest of satisfying creditors in the event of liquidation. For example, from this perspective it would not be possible to recognise earnings components based on planned new business.

25 If a credit institution already assumes a loss for its planning purposes, the planned loss must always be deducted from RCP. However, if the institution becomes aware

[5] This does not affect the option to obtain a waiver pursuant to section 2a KWG under the preconditions set forth therein.

of circumstances during the year which cause it to expect a smaller loss than planned (or even a profit), the deducted loss can be reduced accordingly.

IV. 1.2 Reported equity and similar items

26 Given their function as liable capital, reported equity items may be recognised as RCP for internal capital adequacy concepts, just as within Pillar 1.[6]

27 Also as with Pillar 1, the separately reported items "subordinated liabilities", "profit-participation capital" and "fund for general banking risks pursuant to section 340g of the German Commercial Code (*Handelsgesetzbuch* - HGB)" may generally also be included in RCP.

28 However, in the case of the fund for general banking risks it must be taken into account that pursuant to section 340e (4) HGB a risk reserve must be created from the net income from the trading portfolio, which must be reported separately as an "of which" note in the fund for general banking risks, if applicable. Since it is mandatory to create this sub-item and not subject to the institution's discretion, it cannot be used arbitrarily to offset losses. It may generally only be used to offset a net loss in the trading portfolio. Therefore, the use of this risk reserve as RCP is only acceptable under going-concern approaches to the extent to which the risks from the trading portfolio are recognised on the other side.

29 Subordinated liabilities which don’t participate in current losses may only be recognised as RCP under gone-concern approaches since, from the very outset, they are only available to offset losses in the event of liquidation or insolvency.

IV. 1.3 Minority interests

30 When calculating capital adequacy at the group level it must be considered that shares in subsidiaries not held by group companies but rather by third parties generally are only liable for risks materialising at the relevant subsidiary.

31 In order to factor in this circumstance, there are generally two alternatives available at the group level[7]:

32 a) Minority interests are counted as group RCP at a maximum of the amount of their share in the quantified risk amount of the relevant subsidiary. Any amount of the minority interests in excess of the share of risks is eliminated when calculating group RCP, by contrast.

33 It may be necessary to further reduce the amount of minority interest recognisable at the group level if the contribution of the relevant subsidiary to the total risk amount of the group is considerably lower than the risk amount at the level of the individual subsidiary. For example, this can be due to a netting of exposures across legal entities when the group capital adequacy is calculated.

or

[6] Just as with Pillar 1, the institution's shares held on its own must of course be deducted.

[7] In the risk management steering approaches of the subsidiaries the minority interests can of course be considered as RCP even if they exceed the actual share of risk at the level of the individual subsidiary.

34 b) Risks and RCP of subsidiaries are recognised in the group's capital adequacy concept in proportion to the equity interest of the group.

IV. 1.4 Hidden reserves

a) Reserves pursuant to section 340f HGB[8]

35 With respect to their function of offsetting losses, the contingency reserves pursuant to section 340f HGB are comparable to the unrestricted equity items. It is therefore generally possible to recognise them as RCP in concepts linked to HGB accounting. Not possible however is the recognition of contingency reserves which are tied up instead of setting up specific valuation allowances or provisions.

36 When distinguishing between going-concern and gone-concern approaches (see II above), the contingency reserves pursuant to section 340f can be treated like notional Tier 1 capital. This means that when verifying whether a going-concern approach is taken or a gone-concern approach, the notional assumption may be made that the contingency reserves are Tier 1 capital, which specifically affects the items not considered supplemental capital because of caps pursuant to section 10 (2) KWG.

b) Other valuation reserves

37 Following the elimination of the retention option in German accounting law, aside from the contingency reserves pursuant to section 340f (and the notionally identical items, see footnote 8), there are generally no longer any hidden reserves at the balance sheet which could be raised in a comparable manner through a simple financial booking[9].

38 However, accounting valuation gains may accrue during the year as a result of (mandatory) reversals of impairment losses. Corresponding amounts reversed can generally be attributed to RCP. It must be ensured on the one hand that any tax charges arising in connection with the realisation of the reserve is accounted for. On the other, it must be ensured that risk is also measured based on the increased value.

c) Hidden reserves realisable through transactions

39 The historical cost principle underpinning German accounting law results in the book values of assets possibly being below their current market values; write-ups are not permitted in the annual financial statements. Other than the case with the items treated under a) and b) above, these reserves may only be realised through transactions.

40 The recognition of such reserves as RCP is facing serious hurdles.

41 In analogy to b) above, the basis increased by hidden reserves must be accounted for in risk measurement. Furthermore, tax implications arising from the realization of hidden reserves must be recognised here, thereby reducing the reserves.

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[8] "Old reserves" pursuant to section 26a (old version) KWG and "taxed global valuation allowances" pursuant to section 336 (2) in conjunction with sections 279 and 253 (4) HGB are comparable to the contingency reserves under section 340f HGB. The statements under a) above thus also apply *mutatis mutandis* for these items.

[9] This section doesn’t cover the special case of reserves based on former HGB rules.

42 Illiquid items are associated with an increased uncertainty with regard to their valuation as well as with respect to any realisation. The Supervisory Authority thus generally does not accept hidden reserves in non-tradeable equity interests (participations) or in real estate as RCP. Any deviation from this principle requires that timely and valid appraisals confirm the value attached to the relevant asset, based on prudent assumptions and transparent measurement parameters which furthermore appropriately factor in the risks associated with realising the hidden reserves. Even if these conditions are met, the recognition of hidden reserves in real estate or non-tradeable equity interests is only considered if appropriate discounts take into account the associated uncertainties.

43 In general it must be ensured that the recognition of hidden reserves is not inconsistent with other elements of the capital adequacy concept. For example, the recognition of an interest-induced hidden reserve existing within a fixed-interest asset as RCP and the simultaneous inclusion of the current-year expected interest income on the same item in planned profits counted towards RCP could result in a double counting of RCP. An additional inconsistency can arise if hidden reserves, whose realisation would break up existing hedges, are recognised as RCP.

44 If the definition of RCP in a risk management steering approach is linked to IFRS accounting, the statements under b) and c) apply *mutatis mutandis* for hidden reserves arising from the application of IFRS.

IV. 1.5. Hidden burdens from securities in the investment portfolio[10]

IV. 1.5.1. General approach

45 In accordance with the relevant accounting standards, securities[11] held in the investment portfolio may only be recognised in the HGB based annual financial statement with a book value in excess of their fair value as at the balance sheet date if it can be assumed that the resulting hidden burden, i.e., the impairment loss, will reverse over time. The institution recognising the higher amount in its annual financial statement must be able to demonstrate the intention and ability to hold the asset for the long term.

46 In the case of gone-concern approaches, institutions may not assume that the impairment loss will be reversed in the future. The hidden burdens therefore must be deducted from RCP or must be counted as risks accordingly.

47 Under the going-concern approaches, securities held in the investment portfolio need not be adjusted for hidden burdens, as long as there is no doubt as to the assumed intention and ability to hold them for the long term, or as to the assumed reversal of the impairment loss.

48 If there is justified doubt concerning these prerequisites, it must be assumed under a going-concern approach that the hidden burdens in securities held in the

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[10] The statements in this section are based on HGB accounting. If the definition of RCP in a risk management steering approach is linked to IFRS accounting, the statements apply *mutatis mutandis* for hidden burdens from securities categories not measured at fair value under IFRS.
[11] These statements also relate to promissory note bonds, provided that these are treated as securities by the institution's internal management.

investment portfolio will be realised. These hidden burdens must therefore be deducted from RCP or alternatively recognised as a risk amount.

49 If there is a sizeable amount of hidden burdens in securities held in the investment portfolio, banking supervision expects that these will be recognised in full within one risk management steering approach.

50 The approach presented above is generally also appropriate for securities allocated to the collateral pool for public sector Pfandbriefe in accordance with the German Pfandbrief Act (*Pfandbriefgesetz* - PfandBG).

IV. 1.5.2 Special case valuation models

51 If there is no active market for securities held in the investment portfolio, institutions may use values determined using recognised valuation models (e.g., discounted cash flow models) as a reference in calculating any hidden burdens. Analogously to the treatment of securities held for trading, the fair values of which may be determined for accounting purposes using recognised valuation models, the difference between the model value and any existing indicative value must generally not be treated as hidden burdens.

52 If an institution applies the above provision, it must regularly monitor and analyse the development of the difference between the model values and any existing indicative values.

IV. 1.6 Hidden burdens from pension obligations

a) IFRS accounting

53 With respect to reporting actuarial gains and losses, IAS 19 (rev. 2011) requires that these are recognised in income or under "other comprehensive income" in equity by 2013 at the latest. However, prior to that date, actuarial gains and losses may still be recognised using the corridor approach. Under the corridor approach, actuarial losses must only be recognised in income if they exceed 10% of plan assets or pension obligations, whereby the excess amount may be amortised over the employees' average remaining service period.

54 If an institution applies this method, the actuarial losses not (yet) recognised in the accounting must be deducted from RCP under gone-concern approaches. An exception to this rule may be made insofar as the "hidden burdens" are accounted for by projected future salary increases or inflation.

55 Both the gone-concern and the going-concern approaches must factor in potential future fluctuations in the value of plan assets as a risk. This applies regardless of whether actuarial gains and losses are accounted for using the corridor approach or an alternative method.

b) HGB accounting

56 The legislator has granted companies permission to amortise the provision shortfalls arising due to the switch in methods under BilMoG over a maximum 15-year period.

57 If planned profits in the HGB based accounting are recognised as RCP, the projected amount to be amortised over the relevant period due to the switch in methods must also be included.

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58 In the case of gone-concern approaches, the full amount resulting from the switch must generally be included. This means that an amount amortised over future periods must either be deducted from RCP as a hidden burden or recognised as a risk amount. Analogously to a) above, institutions may refrain from this insofar as the amount to be amortised is based on projected future salary increases or inflation.

59 Above and beyond the aforementioned hidden burdens, the HGB accounting can result in further hidden burdens from previous commitments (prior to 1 January 1987). Pursuant to section 28 of the Introductory Law to the German Commercial Code (*Einführungsgesetz zum Handelsgesetzbuch* - EGHGB), institutions may refrain from recognising provisions in accordance with section 249 (1) sentence 1 HGB in this case. If this results in such hidden burdens for an institution whose RCP definition is based on HGB figures, these must be appropriately calculated and deducted from RCP at least for gone-concern approaches.

IV. 1.7 Debt value adjustment under IFRS accounting

60 Under IFRS, financial liabilities are generally initially measured at fair value. In certain cases, liabilities are subject to subsequent measurement at fair value as at the relevant balance sheet date, or the option to do so exists.

61 As a consequence, developments which are actually negative with respect to refinancing an institution result in an improvement in the reported circumstances. The same applies for capital adequacy calculated within a risk management steering approach if unfiltered IFRS equity is recognised as RCP.

62 If an improvement in the reported circumstances is based on a deterioration of own creditworthiness, this effect must be eliminated when calculating RCP.

63 The foregoing also applies analogously to institutions which calculate RCP based on HGB accounting, recognising hidden reserves from own liabilities as RCP items in the process.

IV. 1.8 Deferred tax assets

64 Deferred tax assets can be materially interpreted as a tax benefit in future periods, since the differences in valuation underlying them initially result in an actual tax payment that is too high from an accounting standpoint (IFRS and HGB). The recognition of deferred tax assets results in an increase in reported equity.

65 However, the future tax benefit represented by deferred tax assets is generally only realised to the extent that taxable income is generated in future periods.

66 Since gone-concern approaches regularly assume future tax losses, such a tax benefit is generally not expected. Because deferred tax assets cannot be sold individually, it is not possible to otherwise realise them in the event of gone-concern, with the result that deferred tax assets in these approaches are generally supposed not to increase equity. For this reason, deferred tax assets must generally be eliminated in gone-concern approaches.

67 If an institution expects to generate taxable profits under the going concern assumption in a magnitude corresponding to realisable deferred tax assets, at least over the medium term, the institution need not eliminate deferred tax assets in going-concern approaches. However, if there are indications that an institution will

not generate any taxable profits over the course of several years, the recognised deferred tax assets must presumably be derecognised in the next annual financial statements. They must therefore be eliminated in this case.

IV. 1.9 Goodwill

68 A derivative Goodwill is a residual amount derived from acquisition accounting methods.

69 The elements to which it is attributed cannot be seen as valid amounts in the event of liquidation. Factors included in goodwill are per definition not separate assets, and thus cannot be sold individually in the event of liquidation. Analogously to the corresponding rules in Pillar 1[12], accounting goodwill must therefore generally be eliminated when calculating RCP, in gone-concern approaches.

70 Under the going concern assumption, individual components can potentially represent valid amounts in the event of an expected positive future development. However, these are components which can evaporate extremely quickly – particularly in crisis situations. This is why goodwill should generally be eliminated under going-concern approaches as well, if the RCP definition includes reported equity. Exceptions can be made here only to the extent goodwill is based on factors whose sustainability and future accountability can be demonstrated.

IV. 1.10 Letter of comfort, assessable capital, etc.

71 With respect to the lack of effective raising of capital, letters of comfort, for example issued by parent companies for their subsidiaries, are not applicable as RCP at the latter.

72 The same applies for general declarations of support, as announced for example by associations for their member institutions. However, if third parties (e.g., associations or deposit guarantee funds) provide specific legally binding default guarantees for certain or precisely identifiable assets, these may be factored into the risk measurement, e.g., via lower risk weighting.

73 Member’s assessable capital of credit cooperatives are not immediately available to the institute to offset losses. They therefore may not be recognised as RCP.

IV. 2 Value-based risk coverage potential

IV. 2.1 Consideration of expected losses when calculating the present value of assets

74 A value-based calculation of RCP must appropriately factor in expected future defaults by debtors. If this is not already done by adjusting cash flows used to calculate the present value of assets, present values calculated using a risk-free discount rate must be corrected accordingly.

75 In particular, expected losses can be factored in using risk appropriate spreads over the risk-free discount rates. Alternatively, for loans, the present values discounted using the risk-free rate can be corrected by deducting standard risk costs. When

[12] See section 10 (2a) sentence 2 no. 2, section 10a (6) sentence 9 and 10 and (7) in conjunction with section 64h (3) KWG

calculating standard risk costs, it must be ensured that they also take into appropriate consideration the maturity of the portfolios in question (e.g., by using the average capital commitment term). It is only permissible to use standard risk costs for a shorter period (e.g., one year) not covering the entire period if the institution can demonstrate that doing so does not result in the expected losses over the maturity of the portfolio being significantly underestimated.

IV. 2.2 Consideration of portfolio costs

76 The RCP calculation must consistently factor in the costs incurred in maintaining and managing the exposures (portfolio costs).

77 The maturity of the portfolios in question must be appropriately factored in. A generally consistent approach is to calculate the present value of costs in which the future portfolio costs are discounted to the current period.

IV. 2.3 Maturity assumptions in calculating present values

78 If cash flows from items with indefinite maturities (e.g., current account or savings deposits) or potential contractual options (e.g., debtor's right to terminate) are determined using maturity assumptions when determining present values, these must be plausible.

79 Generally, observed customer behaviour in particular must be considered when checking for plausibility. In certain cases, qualified expert judgement may be appropriate for establishing the maturity assumptions. This applies particularly when there has been a major change in customer behaviour, customers are expected to change their behaviours due to a change in the environment or where transactions in new markets or products are concerned.

IV. 2.4 Present value of own liabilities

80 If an institution uses discount rates to calculate the present value of its own liabilities which contain a spread over the risk-free rate, this generally results in the liabilities being recognised at too low a value. Only in strictly limited exceptions (e.g., if the interest rate-induced performance of certain assets is perfectly correlated to the interest rate-induced performance of certain liabilities) may own liabilities be discounted using a rate which is higher than the risk free reference rate. However, only the general spread of the asset class which the institution belongs to may be used.

81 Analogously to the statements under IV. 1.7, a deterioration of own creditworthiness may not result in an increase in the present value of the bank.

IV. 2.5 Recognition of expected increases in values

82 If an institution in its value-based RCP also includes expected increases in the present value of the bank due to new business, these must be prudently calculated planning figures relating to the relevant period for the capital adequacy concept[13]. Institutions should exercise particular restraint when recognising highly volatile new business. If planned business expansions in these segments are recognised without

[13] This corresponds to the inclusion of planned profits under an accounting-based going-concern approach.

appropriate safety margins, this must be factored in accordingly when quantifying the risks.

83 Furthermore, corresponding to the statements under IV. 2.1 and 2.2 expected losses and portfolio costs for the assumed new business must be factored in to the expected increase in values.

84 Analogously to the planned profit in accounting-based RCP, a planned increase in values may generally not be recognised under gone-concern approaches.

V. Risk types and risk quantification

V.1 Specific aspects of risk types to be included

85 The following aspects should be noted with respect to the risk types to be factored into the capital adequacy concept:

86 Under a going-concern approach with an accounting-based definition of RCP it may be acceptable with respect to the measurement requirements of external accounting not to factor in price risks with respect to securities in the investment portfolio. As with the treatment of hidden burdens, however, this implies that the institution intends and is able to hold the items indefinitely and the price risks are not expected to be realised in the accounting during the risk horizon (see IV. 1.5.1).

87 For interest-bearing positions in the institution's own portfolio, also credit spread risks must generally be factored in, although a differentiated approach is required:

88 Since credit spread risks for own portfolio items which are allocated to the trading portfolio or measured as current assets[14] generally trigger an accounting adjustment if they realize, they must always be factored into risk management steering approaches with an accounting-based definition of RCP.

89 By contrast, with own portfolio items held in the investment portfolio, credit spread risks need not be recognised under a going concern approach with an accounting-based definition of RCP, provided items meet the requirements for not factoring in hidden burdens mentioned in IV. 1.5.1. Here, the realisation of credit spread risks would only result in creating/increasing hidden burdens, which however would not necessarily be relevant for accounting purposes. With gone-concern approaches, the considerations set out in IV. 1.5.1 also make it necessary to recognise the risks from own portfolio items in the investment portfolio.

90 The logic of a value-based RCP calculation generally requires that credit spread risks be factored in, regardless of the accounting category to which the relevant items are allocated. However, to the extent that, in the case of loans, no meaningful market information about the borrowers with respect to credit spreads can be obtained, these need not be factored in.

91 Generally speaking, migration risks should also be analysed as an aspect of counterparty risk. Contrary to the occurrence of a default event, if migration risks

[14] The statements made here regarding own portfolios which are allocated to the trading portfolio or measured as current assets apply to IFRS accounting-based approaches, the same as with own portfolios measured at fair value. The statements regarding items held in the institution's own portfolio which are allocated in the investment portfolio apply *mutatis mutandis* to those items in the IFRS accounting not measured at fair value.

materialise, this may, but must not necessarily, result in an accounting-relevant expenditure. However, the economic value of the relevant item will definitely be reduced. Therefore, when using gone-concern approaches, both migration risks and default risks must be reasonably factored into the assessment of capital adequacy on a regular basis. This may be done either within a credit portfolio model or, if applicable, using other methods, such as, in particular, corresponding stress tests, the results of which will be recognised as the risk amount in the context of the capital adequacy assessment (see also section VI). For example, particularly for smaller credit institutions it may be appropriate to apply a probability-of-default shift (PD shift) to account for migration risk.

92 If a credit institution can demonstrate that migration and credit spread risks overlap, it can in this respect adjust the risk amount to be recognised.

V.2 Expected and unexpected losses

93 With respect to identified material risks, the overall concept must cover both expected and unexpected losses. Expected losses need not be accounted as risk to the extent they were already adequately factored in in determining the RCP (see IV. 1.1).

V.3 Risk horizon

94 For assessing capital adequacy, risks must be determined over a uniform future period, usually one year (risk horizon).

95 In the case of market price risks, it must be ensured that with changing exposures and interim close-outs, not more RCP can be exhausted in total as that which has been allocated for such risks over the entire risk horizon.

96 A consistent measurement of market price risks in the context of assessing capital adequacy requires that a holding period be set for market risk exposures and a consistent limit system so that risk-taking can be managed over the entire risk horizon.

97 Therefore, when setting the holding period for market risk exposures, a potential reduction of risk exposures can only be factored in to the extent the institution can show that this is in line with strategies, risk management and control processes and the portfolio structure. This includes consistent recognition of the earnings and cost situation after any assumed reduction of risk exposures.

98 The impact of any market distortions must be considered in stress tests. The less such stress factors were taken into account when setting the holding period, the more they have to be considered in the stress tests (see VI.)

V. 4 Observation period

99 The approaches used by institutions to quantify risk are generally based, at least in part, on past developments observed. These form part of the assessment basis for the valuation of the (forward-looking) risk.

100 If the observation period covers a time of primarily or exclusively calm and stable market conditions, the impact of larger parameter changes must also reasonably be factored into calculation of risk where such changes cannot be excluded for the risk horizon assumed in the capital adequacy assessment.

V. 5 Other risk quantification parameters

101 Depending on the selected risk measures used to quantify risks, there are other parameters in addition to those mentioned above which have a material effect on the resulting risk amounts (e.g., confidence level, correlation coefficients).

102 The parameters selected must be in line with the perspective of the capital adequacy approach. For example, with gone-concern approaches risks should be quantified based on such strict measures that the risks quantified would result in the recognised RCP being fully exhausted only in the most unlikely cases (e.g., very high confidence level with value at risk). With going-concern approaches the parameters of risk measurement should be set based on how narrowly RCP is defined. The more closely it resembles the gone-concern approach, the stricter the parameters must be. Subsection 17 shall remain unaffected.

VI. Stress tests

103 The stress tests, which an institution is required to conduct under section AT 4.3.3 MaRisk, should also reflect the institution's vulnerability for exceptional, but plausible events. When probability-based measurement methods are applied, the impact of risks beyond that quantile of loss distribution corresponding to the confidence level should reasonably be analysed. The further away from 100% the confidence level recognised in a given risk management steering approach is, the more important stress tests become.

104 Furthermore, stress tests of an appropriate scope must be conducted which are separate from the loss distribution used as a basis for quantifying risk in the capital adequacy assessment. In doing so, potential events must be analysed which are not, or not adequately, reflected in a probability-based risk quantification method, because, for example, market conditions during the observation period were largely stable.

105 Stress tests may be used to calculate the risk amount which is factored in when ensuring capital adequacy. In such case, the information provided in subsection 17 applies *mutatis mutandis* to the structuring of these stress tests.