

The role of the “Basel interest rate shock” in the supervisory assessment of interest rate risks in the banking book

Interest rate risks in the banking book pose a material risk to many credit institutions. Despite their importance, these risks are not included in the minimum capital requirements under Pillar 1 of the Basel framework. According to the Basel Committee on Banking Supervision, this is primarily because of the major differences between banks in terms of the nature of the interest rate risks they face and their processes for measuring them.

Pillar 2 of the Basel framework specifies that appropriate processes must be established for managing and monitoring interest rate risks in the banking book. Institutions must also include these risks in their internal capital adequacy assessments to ensure that they are backed by sufficient available financial resources at all times. Supervisors monitor the implementation of these requirements as part of the supervisory review process (SRP).

Supervisors use the “Basel interest rate shock” as an initial indicator for identifying institutions with comparatively high interest rate risks. This indicator is calculated for standardised scenarios on the basis of institutions’ internal methods and procedures, and allows supervisors to observe the interest rate risks taken both by individual institutions and across all institutions.

The German rules for calculating the interest rate shock were revised last year, chiefly because of a further harmonisation of European supervision. This article discusses the revised requirements, describes the pros and cons of the “Basel interest rate shock” as an indicator of interest rate risks in the banking book and outlines how it is used in the ongoing supervision of institutions in an environment of historically low interest rates and comparatively high market volatility.

Sources and importance of interest rate risks in the banking book in credit institutions

Tradition of long interest rate lock-ins and short-term refinancing ...

Given the sensitivity of many types of banking business to interest rates, changes in market rates can have a strong impact on credit institutions' profitability and assets. Interest rate risks, particularly those in the banking book, are therefore an important type of risk for many institutions. One of their causes is the typical business structure of German banks and savings banks. While borrowers are often interested in loans with long interest rate lock-ins, depositors want access to their money at shorter notice. Credit institutions thus fulfil their economically desirable maturity transformation function by converting short-term deposits into long-term loans.

... reduces credit risk and generates interest rate risks

For borrowers, long interest rate lock-ins have the advantage of keeping loan instalments constant and foreseeable regardless of any changes in the level of market rates. On the one hand, this has a positive effect on institutions' credit risk and helps to maintain the stability of the banking system. On the other, by taking on the maturity transformation function, institutions turn interest rate rises into a risk scenario for themselves, as the interest rate lock-in on loans is longer than that on deposits.

Institutions take on interest rate risks ...

Institutions can actively manage interest rate risks using economic value or earnings-based approaches. Economic value approaches observe the effects of possible interest rate changes on the institution's assets, whereas earnings-based approaches focus mainly on the effects on its earnings under commercial law. Where necessary, an institution can almost entirely eliminate interest rate risks in the banking book by using interest rate derivatives, such as interest rate swaps, which pass the interest rate risk through to the capital market. However, derivatives can also be used to synthetically build up or boost interest rate risks in order to make speculative gains. This is another pos-

sible source of interest rate risks in the banking book.

Institutions use this procedure because it can enable them to generate proceeds from maturity transformation based on the yield curve, which usually has a steep upward slope.¹ As interest rates locked in for long periods are higher than those locked in for short ones, the maturity mismatch in refinancing initially makes a positive contribution to the institution's earnings: the interest expenditure stemming from short-term borrowing is lower than the interest income obtained after deducting the standard risk costs arising from the long-term investment. If the yield curve were to remain unchanged, this would also occur in the subsequent periods. However, the yield curve can undergo various changes, such as parallel shifts, twists, butterflies or other movements, which have differing effects on an institution's assets and profitability depending on the type and size of the movement. The danger is that the yield curve may undergo a lasting change which causes the interest rate speculation to generate losses. Given a maturity mismatch like that outlined above, interest rate increases have a negative impact; an upward parallel shift in the yield curve is therefore a relevant risk scenario for many institutions.

... as a means of generating proceeds

Despite the recent changes, the current yield curve on the German bond market is still comparatively steep, and it therefore appears lucrative for institutions to take positive maturity transformation risks.² At the same time, however, the curve shows historically low interest

The associated risks must not be forgotten

¹ For details on the yield curve, see Deutsche Bundesbank, Determinants of the term structure of interest rates – approaches to combining arbitrage-free models and monetary macroeconomics, Monthly Report, April 2006, pp 15-28.

² On 30 April 2012, the spread between the yield on German Federal bonds (Bunds) with a residual maturity of ten years and the yield on those with a residual maturity of one year was 1.76 percentage points. This value is above the median of 1.57 percentage points taken from the month-end levels for the yield spread from January 1973 to April 2012.

rates across all maturities.³ Should the yield curve move in the direction of the average level of interest in the past, interest rates would rise across the entire curve. Given the historically low interest rates and the high market volatility, both institutions and supervisors must pay attention to the risks associated with rising interest rates and take appropriate steps to deal with them.

The supervisory framework for regulating interest rate risks in the banking book

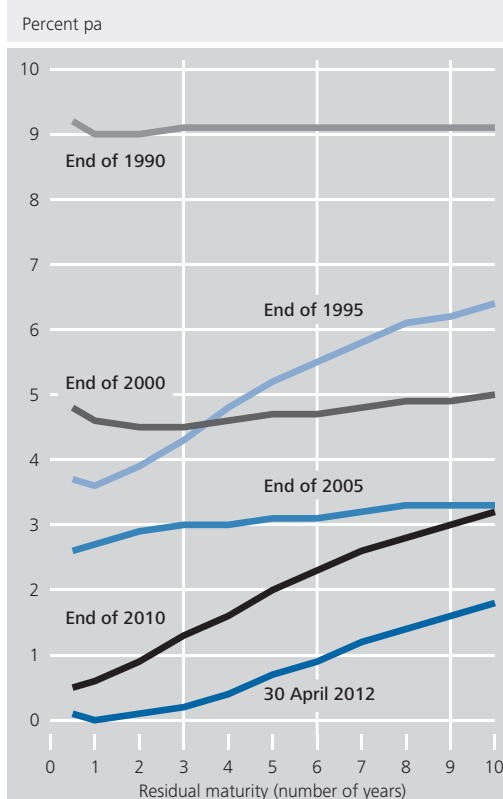
No minimum capital requirement under Pillar 1

Although the Basel Committee considers that interest rate risks in the banking book merit support from capital, they are omitted from the calculation of the regulatory minimum capital requirements under Pillar 1 of the Basel framework. According to the Committee, this is because of the major differences between internationally active banks in terms of the nature of the interest rate risks they face and their processes for measuring them.⁴ Another factor in this context is that positions where capital or interest rates are locked in for an indefinite period are also included in the measurement of interest rate risks in the banking book. These are positions such as sight or savings deposits whose legal maturity usually differs from its actual maturity. Savings deposits, for example, often have a notice period of three months, yet the money generally remains with the institution for longer than that and does not bear a three-month interest rate.

Regulation under Pillar 2 allows institution-specific assumptions

To be able to include these positions in risk measurement and management, assumptions have to be made about future interest rate adjustment behaviour. Differences in assumptions between institutions may be justified if interest adjustment behaviour is not comparable because of differences in their customer structures. The regulation of interest rate risks in the banking book under Pillar 2 of the Basel framework opens up the possibility of applying

Yield curve of listed Federal securities



Deutsche Bundesbank

institution-specific assumptions when calculating risk.

The risk management and monitoring processes implemented by institutions for interest rate risks in the banking book must ensure that risks are adequately identified, measured, managed, monitored and communicated. To achieve this, institutions must include all material types of interest rate risk in risk measurements and make suitable assumptions about positions where capital or interest rates are locked in for an indefinite period. The risk value must be calculated on the basis of different types of movements in the yield curve as,

Qualitative risk management requirements

³ On 30 April 2012, Bunds with a residual maturity of one year had a 0.04% yield and those with a residual maturity of ten years had a 1.80% yield. Both values are at or close to the lowest figure for their month-end levels since January 1973.

⁴ See Basel Committee on Banking Supervision, International Convergence of Capital Measurement and Capital Standards, A Revised Framework, Comprehensive Version, June 2006, margin number 762.

pending on the composition of the institution's portfolio, the size of the risk can vary according to the change in the yield curve assumed. If institutions carry out positive maturity transformation, as they often do, the risk can reasonably be captured by an upward parallel shift in the yield curve. However, derivatives can be used to achieve a portfolio composition where parallel shifts do not pose any risk but which leads, for example, to heightened sensitivity to twists in the yield curve.

Inclusion in capital adequacy assessment

Interest rate risks in the banking book must also be included in an institution's internal capital adequacy assessment process (ICAAP), as it is a type of risk which can reasonably be supported by capital. The available financial resources defined by the institution must cover the capital needs for interest rate risks in the banking book – like those for other material risks – at all times.

MaRisk (BA) transposes requirements in Germany

Section 25a (1) of the German Banking Act (*Kreditwesengesetz*) transposes these provisions into German law. Circular 11/2010 (BA), entitled "Minimum requirements for risk management – MaRisk" (*Mindestanforderungen an das Risikomanagement – MaRisk*), fleshes out these requirements. Each institution is permitted to develop an approach that fits its own specific situation in order to fulfil the requirements, although this approach must be appropriate to the nature, scale, complexity and risk content of its business activities. Supervisors monitor the implementation of these requirements under the supervisory review process (SRP). The regular and *ad hoc* on-site inspections at institutions are a fixed component of this oversight. These inspections are necessary to enable supervisors to assess the quality, consistency and adequacy of institutions' processes.

"Basel interest rate shock" as a supervisory indicator

Alongside the qualitative requirements, the Basel framework also stipulates the use of a supervisory indicator, the "Basel interest rate shock", to identify institutions which take comparatively high interest rate risks in the banking

book.⁵ Article 124 (5) of Directive 2006/48/EC (Banking Directive) enshrines this indicator in the EU's supervisory requirements, which means that the EU member states are obliged to transpose it into national law. The European Banking Association (EBA) published a supplementary paper specifying more detailed requirements on calculating the indicator.⁶

Section 25a (1) sentence 7 of the Banking Act read in conjunction with section 24 (1) number 14 of the Banking Act transpose the "Basel interest rate shock" into German law. They specify that institutions must report to the supervisory authorities if the indicator exceeds a certain threshold. At the same time, the Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*, or BaFin) may stipulate the type of interest rate shock to use and the methodology to apply in the calculations. BaFin therefore published Circular 11/2011 (BA), entitled "Interest rate risks in the banking book; calculating the impact of a sudden and unexpected change in interest rates (*Zinsänderungsrisiken im Anlagebuch; Ermittlung der Auswirkungen einer plötzlichen und unerwarteten Zinsänderung*), in November 2011, which superseded Circular 7/2007 (BA). Among other provisions, the revised Circular envisages the use of much tougher supervisory interest rate scenarios in line with the pan-European provisions and lays the foundations for the possibility of imposing a regulatory capital add-on for interest rate risks in the banking book. The following sections outline and explain the main requirements set out in the revised Circular and their implications for the supervisory treatment of interest rate risks in the banking book.

Circular 11/2011 (BA) transposes requirements in Germany

⁵ See Basel Committee on Banking Supervision, International Convergence of Capital Measurement and Capital Standards, A Revised Framework, Comprehensive Version, June 2006, margin numbers 763 and 764, and Basel Committee on Banking Supervision, Principles for the Management and Supervision of Interest Rate Risk, July 2004.

⁶ See EBA, Technical aspects of the management of interest rate risk arising from non-trading activities under the supervisory review process, October 2006.

Overview of the revised provisions on the “Basel interest rate shock”

The “Basel interest rate shock” approach

To obtain the “Basel interest rate shock” indicator, institutions have to calculate the economic value effects of the two interest rate scenarios specified by supervisors. They must then calculate the ratio of the economic value loss stemming from the interest rate scenario which is least favourable for the institution to the institution’s regulatory own funds in order to obtain the interest rate risk coefficient. This coefficient is the supervisory indicator for interest rate risk in the banking book.

Circular 11/2011 (BA) did not change the general procedure for calculating the interest rate shock specified in the superseded version. However, it did significantly rework the specifics in some areas. The table on page 56 provides an overview of the main provisions in the revised Circular and how they differ from the previous version.

Adjusting the interest rate scenarios as part of pan-European harmonisation ...

The change with the greatest repercussions is the adjustment to the interest rate scenarios. The revised Circular stipulates that the interest rate scenarios must be conducted as parallel shifts of +200 basis points (corresponding to +2 percentage points) and -200 basis points (corresponding to -2 percentage points) in the yield curve. This change was made in light of the EBA’s plans to harmonise the scenarios across Europe and thus adapted the German requirements to supervisory practices in the other EU member states. These prescribed uniform scenarios have replaced the methodology previously applied in Germany, under which the supervisory authorities calculated the size of the parallel shift at regular intervals using a historical simulation. Under this approach, the scenarios used in Germany from 2007 onwards were a parallel shift of +130 basis points (scenario of rising interest rates) and a parallel shift of -190 basis points (scenario of falling interest rates) in the yield curve.

Given many German credit institutions’ positive maturity transformation, the scenario of rising interest rates, which is now much more restrictive, is most relevant for them. However, it is important to bear in mind that the interest rate scenario used previously was dynamic. Any future recalculations could have entailed a significant tightening of the scenario, and perhaps even a displacement of more than 200 basis points in the yield curve. By contrast, the interest rate scenarios now prescribed by the supervisory authorities are static.

... provides certainty regarding their future form

The interest rate scenarios still involve a sudden and unexpected parallel shift in the yield curve, which means that the analysis is based on an immediate shift in the yield curve on the day of observation. This rules out including risk mitigation techniques or adjustment processes in the calculation of the economic value effects or including possible effects arising from new business. The focus on an economic value analysis means that the effects of interest rate changes under commercial law are omitted to improve comparability, making it a purely economical risk analysis.

Institutions must calculate economic value effects of an ad hoc shift in the yield curve, ...

The effects are calculated on the basis of all material banking book positions that carry interest rate risk.⁷ All on-balance sheet and off-balance sheet transactions, including margin income, must, in principle, feed into the calculations. However, positions can be omitted for the sake of simplicity if they do not, in total, make a material contribution to interest rate risk and if calculating their contribution would require a disproportionate amount of time and effort.

... including all material positions that carry interest rate risk, ...

Institutions have to calculate the economic value effects using their internal methods, procedures and parameterisations; these methods and procedures must comply with MaRisk. Calculations must therefore be carried out in line

... based on their internal procedures

⁷ For non-trading book institutions, Circular 11/2011 (BA) stipulates that trading book positions which carry interest rate risk are also to be included in the calculations.

Implementation of the “Basel interest rate shock” requirements in Germany

Item	Superseded Circular 7/2007 (BA)	New Circular 11/2011 (BA)
Deriving the interest rate scenarios	Regular historical simulation by supervisors	Standardised scenarios are mandated
Form of interest rate shock	Parallel shift in the yield curve	
Interest rate scenario 1	Rise of +130 basis points in the yield curve (dynamic, regular monitoring and, where necessary, adjustment)	Rise of +200 basis points in the yield curve (constant)
Interest rate scenario 2	Fall of -190 basis points in the yield curve (dynamic, regular monitoring and, where necessary, adjustment)	Fall of -200 basis points in the yield curve (constant)
Calculating the indicator	Institution calculates economic value loss stemming from the scenarios on the basis of internal methods, procedures and parameterisations for the management of interest rate risk	
Frequency of calculation	At least once every quarter, but also more often if positions change significantly	
Supervisory threshold	Economic value loss of more than 20% of capital stemming from an interest rate scenario	
Consequences of breaching threshold	Institution categorised as an “outlier”	Institution described as “institution with elevated interest rate risk”
Deutsche Bundesbank		

with the requirements for adequately measuring interest rate risks in the banking book. For positions in the banking book, the MaRisk requirement to make suitable assumptions about positions where capital or interest rates are locked in for an indefinite period is particularly important.

Institutions must make suitable assumptions for positions where capital or interest rates are locked in for an indefinite period ...

This mainly affects positions such as savings deposits, for which the actual capital lock-in differs from the legal capital lock-in, as well as implied options in banking products. The latter are optional rights such as special redemption rights or special termination rights which are only exercised if and when bank clients so decide. The interest rate risks stemming from these products must still be included when calculating the “Basel interest rate shock” if they are material. Under MaRisk (BA), equity components which are available for an unlimited period of time must not be included in these calculations in order to allow equity to carry out its function as a risk buffer. Institutions

whose interest risk management is mainly earnings-based may use a simple fallback procedure, provided for in both the revised Circular and its predecessor. Under this procedure, institutions assign fixed maturity bands with pre-defined modified durations to positions that carry interest rate risk in order to calculate the economic value change.

Institutions must carry out these calculations at least once every quarter provided that this is permitted by the nature, scope, complexity and risk content of the interest rate risk position. However, if the interest rate risk position changes substantially, eg following completion of interest rate swaps or as a result of changes in the portfolio’s composition, prompt recalculation is required.

When institutions calculate the economic value effects stemming from the two supervisory interest rate scenarios, one scenario usually features an economic value gain, reflecting the

... and select an appropriate calculation frequency

Reporting data on the standardised interest rate shock	
Data required	Format
Economic value change in scenario of rising interest rates (+200 basis points)	Amount in euro with sign
Coefficient for scenario of rising interest rates (Economic value change in scenario of rising interest rates/regulatory capital)	Percentage with sign
Economic value change in scenario of falling interest rates (-200 basis points)	Amount in euro with sign
Coefficient for scenario of falling interest rates (Economic value change in scenario of falling interest rates/regulatory capital)	Percentage with sign
Was the fallback procedure used for the calculations?	Yes/No
Banking book economic value (not if shock is calculated using the fallback procedure)	Amount in euro with sign
Deutsche Bundesbank	

Calculation of the interest rate risk coefficient and supervisory definition of threshold

prospect of additional income. The other scenario usually results in an economic value loss and thus reflects the risk involved. The next step is for the institution to calculate the ratio of the two economic value changes computed in the scenarios to regulatory own funds. The interest rate risk coefficient is the least favourable of the two ratios for the institution and is calculated as follows:

$$\text{Interest rate risk coefficient} = \left| \frac{\text{MIN (Economic value change scenario 1; Economic value change scenario 2)}}{\text{Regulatory own funds}} \right|$$

The interest rate risk coefficient acts as a supervisory indicator for interest rate risks in the banking book under the prescribed scenarios. If an institution suffers an economic value loss of more than 20% of regulatory own funds, it is described as an “institution with elevated interest rate risk”.

Overhaul of reporting requirements

The revised Circular contains a fundamental overhaul of reporting requirements. While the previous Circular specified that only those institutions with an interest rate risk coefficient of more than 20% had to submit a report to supervisors, now all institutions are expected to submit quarterly reports (as at the end of each quarter). In future, institutions will only have to send a report to supervisors once if they overstep the 20% threshold (as required under section 24 (1) number 14 of the Banking Act), and

this can also coincide with their quarterly reporting. Institutions are then no longer obliged to submit any additional reports to supervisors above and beyond the quarterly reports even if recalculation at a later date shows the institution to have an interest rate risk coefficient of more than 20%.

The role of the interest rate risk coefficient in the supervisory assessment of interest rate risks in the banking book

The interest rate risk coefficient provides supervisors with a standardised indicator for interest rate risk in the banking book. While this standardisation entails considerable advantages, it also holds certain disadvantages which must not be overlooked. One key advantage of this approach is that it makes interest rate risks in the banking book comparable by applying standardised scenarios and using regulatory own funds as the reference variable. This allows supervisors to observe an institution’s interest rate risk-taking over time. Furthermore, the interest rate risk coefficient can be used to draw comparisons between institutions, enabling supervisors to conduct systematised obser-

Indicator’s advantages are its comparability ...

vations, analyses and evaluations of interest rate risks in the banking book.

... and ease of calculation

Another advantage is the simplicity of the indicator. Regulatory own funds, which institutions already have to calculate anyway, are used as the reference variable for calculating the coefficient. In addition, restricting the scenarios to parallel shifts means that only two of the many possible changes in the yield curve are simulated. This and the use of internal methods and procedures mean that institutions have to expend only a small amount of time and effort on calculating the indicator. Aside from their internal scenarios, institutions only need to calculate the effects of the two parallel shifts prescribed by supervisors, as they are not obliged or indeed permitted to make any changes to the procedures and parameters used in their internal risk calculations when they compute the interest rate risk coefficient.

Its drawbacks are the leeway allowed in the calculations ...

However, the decision not to impose detailed calculation requirements does entail certain drawbacks which supervisors must keep in mind when using the indicator. There is a danger, for instance, that the ways in which institutions use the leeway they are allowed when calculating the indicator on the basis of their internal methods and procedures will differ. Supervisors must be particularly alert to signs of institutions using unsuitable procedures or parameterisations in their calculations. To address this danger, banking supervisors will continue to conduct regular on-site inspections at institutions to check whether their management of interest rate risk is in line with the supervisory minimum requirements for adequate risk management. Supervisory measures would be imposed on any institution using unsuitable procedures or parameterisations to manage interest rate risks or to calculate the "Basel interest rate shock".

... and the exclusive use of parallel shifts in the scenarios

Another disadvantage stems from the fact that only parallel shifts in the yield curve are simulated. The danger is that the effects of other interest rate scenarios will not become appar-

ent even though they may model an institution's risk better than a parallel shift. It is even conceivable that an institution which is almost fully protected from the effects of a parallel shift could still suffer heavy losses if other interest rate scenarios were to materialise. In cases such as these, the interest rate risk coefficient – given its limited focus – would indicate that interest rate risk in the banking book was low, masking the actual risk situation. Supervisory requirements therefore oblige institutions to take a more nuanced view of interest rate risks in their internal management and use different types of interest rate scenario to measure them. The use of regulatory own funds as a reference variable is also not without its issues, as this means creating a ratio of the economic value effects stemming from the scenarios to a balance sheet-oriented variable. These disadvantages make the interest rate risk coefficient less meaningful, and supervisors must therefore take them into account when using it.

The overall risk situation is key to supervisors' assessment of an institution. The interest rate risk coefficient can serve as an indicator for the size of interest rate risks in the banking book. However, supervisory actions cannot be based on this coefficient alone, as it does not enable supervisors to establish whether an institution's interest rate risks in the banking book are intolerably high. An institution might take high interest rate risks in the banking book, giving it a high interest rate risk coefficient and classification as an "institution with elevated interest rate risk", yet this would not be a problem if its other risks were very low, resulting in a tolerable overall risk profile.

This is why BaFin and the Bundesbank opted for an integrated supervisory approach. Supervisors apply the interest rate risk coefficient to assess the scope of an institution's interest rate risks in the banking book, while also using the results of the "Basel interest rate shock" simulation to establish whether an institution would, all in all, be able to fulfil the regulatory capital

As the interest rate risk coefficient is not very meaningful on its own, ...

... supervisors take an integrated approach

requirements when interest rate risks in the banking book are taken into account.

Overall risk situation is always considered before imposing sanctions ...

For this purpose, the economic value loss stemming from the interest rate scenarios prescribed by supervisors is included in the calculation of regulatory capital requirements. If this check shows an institution's capital to be insufficient in relation to its overall risk profile, BaFin will consider imposing a higher capital charge for interest rate risks in the banking book under section 10 (1b) number 1 of the Banking Act. Circular 11/2011 (BA) states that a higher capital charge can also be imposed on institutions whose interest rate risk coefficient is below the threshold of 20%.

... and the interest rate risk coefficient therefore is not a ceiling on risk-taking, ...

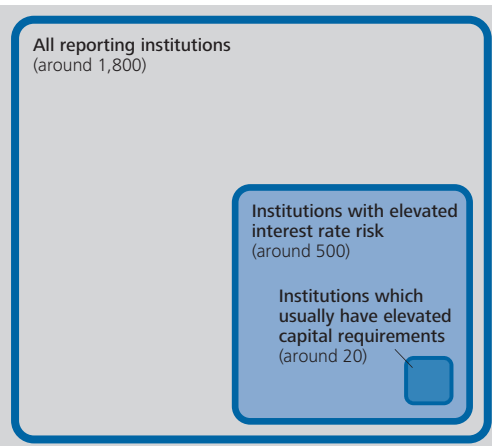
Overshooting the threshold value will not, *per se*, have any supervisory repercussions, meaning that an interest rate risk coefficient of more than 20% cannot be interpreted as a supervisory ceiling on risk-taking which limits institutions' business potential. When taking interest rate risks, an institution's primary consideration should be its ability to bear the risk rather than the size of a supervisory indicator. If an institution manages its interest rate risks appropriately and its overall capital position is adequate according to the supervisory benchmark, there is no regulatory reason why elevated risk-taking in this area, reflected in an interest rate risk coefficient of more than 20%, should be forbidden. As at 31 December 2011, around 500 institutions were categorised as having "elevated interest rate risk".

... as the Circular emphasises

The revised Circular and the accompanying letter to the banking industry emphasise this key point in several instances. Institutions which overstep the 20% mark are no longer termed "outliers" but "institutions with elevated interest rate risk". This reflects a change in how these institutions are viewed. The tougher scenario for rising interest rates means that many more institutions now have an interest rate risk coefficient of more than 20%. By changing the wording in the Circular, supervisors have also given a clear verbal indication

Categorisation of reporting institutions

As at 31 December 2011



Deutsche Bundesbank

that overstepping the threshold no longer makes an institution an "outlier" in their eyes – and thus a deviation from the norm. Moreover, all institutions are expected to report regularly rather than just doing so when they exceed the 20% threshold. This means that all institutions receive equal treatment, regardless of whether their interest rate risk is elevated. Supervisors also take an integrated approach when establishing whether to impose a capital add-on for interest rate risks in the banking book pursuant to section 10 (1b) number 1 of the Banking Act, which means that taking interest rate risks *per se* is not penalised.

Based on this overall analysis of risk, ie if interest rate risks in the banking book are included in the calculation of regulatory capital requirements, as at 31 December 2011 around 20 of the institutions with "elevated interest rate risk" (or 1% of all credit institutions) were shown to have risks which would usually lead to further supervisory measures, extending to the imposition of higher capital charges.

Additional supervisory measures rarely taken

■ Summary and outlook

According to the principles-based approach under Pillar 2 of the Basel framework, institutions bear the responsibility for structuring their

Institutions are the parties responsible for adequate management of interest rate risks

interest rate risk management so that it keeps risks to a tolerable level. This includes ensuring that there are sufficient available financial resources for interest rate risks when assessing capital adequacy. Banking supervisors critically assess and monitor institutions' underlying risk management processes, including through on-site inspections.

In the "Basel interest rate shock", supervisors have an indicator ...

As an indicator, the "Basel interest rate shock" plays an important role in assessing institutions' interest rate risk-taking. However, supervisors are aware of the weaknesses in the indicator's design and take these into account in their supervisory approach. Notably, the indicator is not used to limit interest rate risk-taking based purely on the figure it shows. Taking interest rate risks in the banking book is not problematic *per se* and therefore does not, in isolation, lead to supervisory measures. The Circular consequently emphasises that the 20% threshold cannot be regarded as a supervisory ceiling on interest rate risk-taking in the banking book.

... which feeds into an integrated overall risk profile ...

The only cause for concern would be if an institution's interest rate risk-taking in the banking book were to give it an overly high overall risk profile in relation to its available capital. Section 10 (1b) number 1 of the Banking Act provides supervisors with the legal grounds to penalise this kind of excessive risk-taking. Supervisors have deliberately opted for an integrated approach based on the "Basel interest rate shock" in their practical implementation of the regulations. Under this approach, supervisors impose a capital add-on for interest rate risks in the banking book if an institution's overall capital position is inadequate. Despite the tougher interest rate scenario, very few institutions are affected. Consequently, the provisions set out

in the revised Circular do not jeopardise the banking sector's desired maturity transformation function.

With the MaRisk (BA) provisions on managing interest rate risk, the "Basel interest rate shock" indicator and their legal entitlement to penalise excessive risk-taking, supervisors have an effective toolkit for dealing with interest rate risks in the banking book. This allows them to adequately address the negative impact of rising interest rates on institutions' profitability and assets even in the current phase of low interest rates.

Interest rate risks are a risk type that can be appropriately backed with regulatory own funds, which means that there are no conceptual reasons why they should not be included in the minimum capital requirements under Pillar 1 of the Basel framework. The key challenge in terms of practical implementation is to determine supervisory parameters to take account of positions where capital or interest rates are locked in for an indefinite period. Further supervisory analyses will be needed to ensure that these positions are captured adequately. Looking ahead, however, it would be conceivable to include interest rate risks in the banking book in Pillar 1 of the Basel framework if this were backed by an international consensus. The Basel Committee has already begun preliminary work in this area. It intends to decide the extent of and the schedule for further action in the course of 2012.⁸

... and is thus an appropriate addition to the supervisory toolkit

Inclusion in regulatory minimum capital requirements conceivable

⁸ See Basel Committee on Banking Supervision, Fundamental review of the trading book, Consultative document, May 2012, p 6.