Finansinspektionen's Regulatory Code

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Finansinspektionen's regulations and general guidelines regarding insurance undertakings' chosen rate of interest for calculating technical provisions;

decided on 12 November 2013.

Finansinspektionen prescribes[1] the following pursuant to Chapter 7, section 2 of the Insurance Business Ordinance (2011:257) and section 4 of the Annual Reports at Credit Institutions, Investment Firms and Insurance Undertakings Ordinance (1995:1600).

Chapter 1

Scope

Section 1 These regulations apply to insurance undertakings when choosing a rate of interest for calculating technical provisions.

An insurance undertaking shall apply these regulations in order to calculate technical provisions for life and disability insurance and to calculate technical provisions for life and disability annuities.

An insurance undertaking shall not apply these regulations to life insurance obligations for which the policyholder bears the financial risk.

Definitions

Section 2 For the purposes of these regulations, the following definitions shall apply:

– *discount rate curve*: an interest rate curve for a given currency used for calculating technical provisions,

– *insurance undertaking*: insurance companies, mutual insurance companies and insurance associations,

– *ultimate forward rate*: the forward rate specified in Appendix 2,

[1] Cf. Directive 2002/83/EC of the European Parliament and of the Council of 5 November 2002 concerning life assurance (EGT L 345, 19.12.2002, p. 1, Celex 32002L0083) and Directive 2003/41/EC of the European Parliament and the Council of 3 June 2003 on the activities and supervision of institutions for occupational retirement provision (EGT L 235, 23.9.2003, p. 10, Celex 32003L0041).

– *last liquid point*: the last fully liquid maturity with full weight, as specified in Appendix 2,

– *interest rate curve*: interest rates applicable for different maturities,

– *interest rate swap*: a contract to exchange fixed payments for floating payments linked to an interest rate,

– *forward rate*: the interest rate between two future dates, and

– *speed of convergence*: the time of convergence from the last liquid point to the ultimate forward rate, as specified in Appendix 2.

Exceptions

Section 3 Finansinspektionen may in individual cases decide on exceptions to the provisions of Chapters 2 or 3, where special circumstances prevail.

Section 4 Finansinspektionen may decide that insurance undertakings, during a limited period of time, may use alternative methods to those set out in these regulations for calculating technical provisions where Finansinspektionen considers that the conditions in the financial markets temporarily are such that the methods for calculating technical provisions set out in these regulations are likely to result in a valuation that is not consistent with the expected return on the insurance company's current and future assets and where this may pose a risk to the interests of policyholders and beneficiaries.

An insurance undertaking which intends to use such alternative methods for calculating technical provisions shall first notify Finansinspektionen of this in writing.

An insurance undertaking which uses such alternative methods to calculate technical provisions and which has submitted notification in accordance with the second paragraph, shall also notify Finansinspektionen in writing before deciding on dividends or making any other distributions or transfers of value to closely related undertakings or persons.

General guidelines

An insurance undertaking which at any time uses such alternative methods to calculate technical provisions should be restrictive in paying dividends or making any other distributions or transfers of value to related undertakings or persons during the period of time during which the decision pursuant to the first paragraph applies.

Chapter 2 Chosen rate of interest for occupational pension insurance contracts

Section 1 An insurance undertaking shall base its chosen rate of interest to discount future cash flows for occupational pension insurance on the duration of the cash flows to be valued and the currencies in which the undertaking’s insurance obligations are payable.

Section 2 Before choosing the rate of interest to be used for calculating technical provisions in accordance with section 1, an insurance undertaking shall first calculate the applicable discount rate curve using the method set out in *Appendix 1*.

When applying the method, the insurance undertaking shall base its calculations on the following parameters:

1. current market quotations for interest rate swaps in accordance with section 3, which have been adjusted for credit risk in accordance with section 4,

2. the last liquid point,

3. the ultimate forward rate, and

4. the speed of convergence.

The undertaking shall determine forward rates on the discount rate curve as a weighted average of the market rates for the corresponding maturity and the ultimate forward rate. The method for calculating the weighted average is set out in *section 1 of Appendix 1*. The market rates used shall be consistent with current market quotations and are calculated according to the method set out in *section 2 of Appendix 1*.

Section 3 An insurance undertaking shall only use market quotations for interest rate swaps that are traded in active markets when calculating the applicable discount rate curve.

General guidelines

The insurance undertaking should choose the same interest rate swaps that Finansinspektionen uses to calculate the discount rate curve that is published on Finansinspektionen's website.

Section 4 The adjustment for credit risk referred to in section 2, first paragraph, point 1 shall be determined as a fixed deduction from current market quotations for interest rate swaps. The amount of the deduction shall be the same for all maturities up to and including the time of convergence, as specified in *Appendix 2*. However, in case the deduction exceeds the market rate for a given maturity, the deduction shall not exceed the market rate for that market quotation.

The fixed deduction shall be 35 basis points. The same deduction applies to all currencies specified in Appendix 2.

Section 5 An insurance undertaking may choose a lower rate of interest than what can be derived from the discount rate curve that the undertaking calculates in accordance with section 2 if it notifies Finansinspektionen of this in writing beforehand.

Chapter 3 Chosen rate of interest for insurance contracts other than occupational pension insurance contracts

Section 1 The provisions set out in Chapter 2 also apply to insurance contracts other than occupational pension contracts with the addition that an insurance undertaking, when adjusting for credit risk, shall deduct an additional 20 basis

points above the fixed deduction determined in Chapter 2, section 4. The same deduction applies to all currencies specified in Appendix 2.

Chapter 4 Chosen rate of interest for insurance contracts entitled to index-linked benefits

Section 1 For insurance contracts entitled to index-linked benefits, an insurance undertaking shall estimate the adjustment of the cash flow expected from the future index-linking. As a measure of the adjustment, the undertaking shall use current market expectations about future inflation, always taking into account the specific characteristics of the contractual index-linking.

The adjusted cash flow shall be discounted using the applicable interest rates set out in Chapter 2 and 3.

These regulations shall enter into force on 31 December 2013, whereupon Finansinspektionen's regulations and general guidelines (FFFS 2011:22) regarding insurance companies' choice of interest rate in order to calculate technical provisions shall be repealed.

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Appendix 1

Method for determining the discount rate curve

1 Calculating the weighted average

The formula for calculating the discount rate $z(t)$ is

$$z(t) = \left(\left(1 + f(t-1,t)\right) \cdot \left(1 + z(t-1)\right)^{t-1}\right)^{\frac{1}{t}} - 1.$$

The forward rates on the discount rate curve $f(t-1,t)$ shall be determined by the current market rates and the ultimate forward rate formula using the formula

$$f(t-1,t) = \left(1 - w(t)\right) \cdot \tilde{f}(t-1,t) + w(t) \cdot UFR,$$

where $\tilde{f}$ is the corresponding forward rate consistent with the current market quotations for interest rate swaps, adjusted for credit risk in accordance Chapter 2, section 4, and UFR is the ultimate forward rate.

The weight $w(t)$ is determined by time to maturity, t, the last liquid point, T1, and the speed of convergence, T2, applying the function

$w(t) = 0$, where $t \leq T1$,
$w(t) = (t - T1)/(T2 - T1 + 1)$, where $T1 < t \leq T2$,
$w(t) = 1$ för $t > T2$.

For maturities not corresponding to a full year, an insurance undertaking shall interpolate the applicable interest rate using an appropriate method of interpolation.

2 Calculating market rates

An insurance undertaking shall calculate the market rates by solving the following equations

$$par(t) \cdot \sum_{i=1}^{t} \frac{1}{\left(1 + \tilde{z}(i)\right)^{i}} = 1 - \frac{1}{\left(1 + \tilde{z}(t)\right)^{t}},$$

where $par(t)$ is the current market quotation of an interest rate swap with a maturity of t years, adjusted for credit risk in accordance with Chapter 2, section 4, and $\tilde{z}(t)$ is the zero-coupon rate consistent with current market quotations.

The forward rate consistent with current market quotations $\tilde{f}(t-1,t)$ is given by the formula

$$\tilde{f}(t-1,t) = \left(1 + \tilde{z}(t)\right)^{t} / \left(1 + \tilde{z}(t-1)\right)^{t-1} - 1.$$

If no market quotation exists for a given maturity, the equations should be solved by assuming constant forward rates between maturities for which market quotations exist.

Appendix 2

Last fully liquid point for interest rate swaps, ultimate forward rates and speed of convergence towards the ultimate forward rate

1 Parameter values for certain specified currencies

Currency	*Last liquid point*	*Ultimate forward rate*	*Speed of convergence to the ultimate forward rate*
SEK	10 years	4.2 %	Last liquid point + 10 years
NOK	10 years	4.2 %	Last liquid point + 10 years
DKK	20 years	4.2 %	Last liquid point + 10 years
EUR	20 years	4.2 %	Last liquid point + 40 years
GBP	50 years	4.2 %	Last liquid point + 40 years
USD	30 years	4.2 %	Last liquid point + 40 years

2 Parameter values for all other currencies

For all other currencies the same parameter values as those specified for SEK in section 1 above shall apply.