

# Finansinspektionen's Regulatory Code

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## **Finansinspektionen's regulations regarding insurance undertakings' choice of interest rate for the calculation of technical provisions;**

decided on 17 March 2011.

Finansinspektionen prescribes<sup>1</sup> 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 the interest rate they will use for the calculation of technical provisions.

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

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

### **Definitions**

**Section 2** *Insurance undertaking* refers in these regulations to insurance companies, mutual insurance companies and insurance associations.

*Covered bonds* refers in these regulations to covered bonds within the meaning of the Covered Bonds (Issuance) Act (2003:1223).

### **Exceptions**

**Section 3** Finansinspektionen decides on exceptions to these regulations where special grounds exist.

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<sup>1</sup> 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).

## **Chapter 2 Calculation of discount interest rate curve for choice of interest rate for occupational pension insurance**

**Section 1** An insurance undertaking shall choose an interest rate curve to discount future cash flows (discount interest rate curve) for occupational pension insurance which is the average of the interest rate curves set out in section 2, first and second paragraphs.

The insurance undertaking shall base its choice of interest rate to discount future cash flows on the duration of the cash flows to be valued. The undertaking shall choose an interest rate based on the point on the discount interest rate curve that corresponds to the duration of the cash flow to be valued.

**Section 2** The first interest rate curve referred to in section 1, first paragraph is determined in accordance with an appropriate interpolation between remaining future durations of the current market rates on treasury bills or government bonds.

The second interest rate curve referred to in section 1, first paragraph shall be chosen from either current market rates for agreements for the exchange of interest payments, also known as swap rates, or from current market rates on covered bonds. The interest rate curve shall be determined via an appropriate interpolation between the interest rates of remaining future durations.

The interest rate curve in the second paragraph shall be based on interest rates with remaining future durations that correspond as a minimum to the future durations used in the interest rate curve in the first paragraph. Where there are neither swap rates nor interest rates on covered bonds with future durations that correspond as a minimum to the remaining future duration used in the interest rate curve in the first paragraph, the longer of these two shall be used.

**Section 3** An insurance undertaking shall choose the market rates set out in section 2, first and second paragraphs based on the currency in which the undertaking's insurance commitments are payable. The market interest rates shall be determined as zero coupon rates, i.e. the interest rate plus the value of future coupons. The financial instruments on which the market rates are based on shall be liquid and have credit and counterparty risks that do not materially deviate from other similar financial instruments.

**Section 4** For an insurance undertaking that has cash flows with durations exceeding the longest duration on the interest rate curve determined pursuant to section 2, the discount interest rate curve for these longer durations shall be calculated pursuant to sections 5–6.

**Section 5** An insurance undertaking shall determine the differences between the interest rate curves set out in section 2, first and second paragraphs for the longest existing duration on the shorter of the two interest rate curves and for this duration less one and two years, respectively. The undertaking shall calculate the average difference by determining the average of the absolute values of these three differences.

**Section 6** Where the higher of the two interest rate curves set out in section 2, first and second paragraphs has a longer duration than the lower interest rate curve, the discount interest rate curve for these longer durations is determined to be the higher of the two interest rate curves less half of the average difference pursuant to

section 5. The discount interest rate curve for durations exceeding the longest duration for the higher of the two interest rate curves is determined to be constant and shall correspond to the interest rate of the longest duration defined in this section.

Where the lower of the two interest rate curves set out in section 2, first and second paragraphs has a longer duration than the higher interest rate curve, the discount interest rate curve for these longer durations is determined to be the lower of the two interest rate curves plus half of the average difference pursuant to section 5. The discount interest rate curve for durations exceeding the longest duration for the lower of the two interest rate curves is determined to be constant and shall correspond to the interest rate of the longest duration defined in this section.

**Section 7** An insurance undertaking that cannot break down its cash flow into durations may apply the discount interest rate curve's value pursuant to sections 1–6 at an average duration. The average duration shall be calculated based on the future cash flow discounted by an interest rate pursuant to section 2, first paragraph. If the average duration cannot be calculated in this manner, the undertaking may make an approximation in an appropriate manner.

**Section 8** For insurance contracts entitled to index-linked benefits, an insurance undertaking shall estimate the adjustment of the cash flow that the future index-linking can be expected to result in. The adjusted cash flow shall be discounted by the interest rate pursuant to sections 1–7. As a measure of the adjustment, the undertaking should use the market expectations about future inflation expressed as differences in zero coupon rates between nominal and real government bonds, although always taking into account the characteristics of the index-linking.

**Section 9** An insurance undertaking may apply the highest discount interest rate curve that can be determined for occupational pension insurance pursuant to Chapter 3 instead of the curve that can be determined pursuant to this chapter.

### **Chapter 3 Calculation of the discount interest rate curve for choice of interest rate for other insurance**

**Section 1** For insurance contracts that are not contracts for occupational pension, an insurance undertaking shall choose an interest rate curve to discount future cash flows (discount interest rate curve) via an appropriate interpolation between the existing durations of current market rates on treasury bills or government bonds.

The insurance undertaking shall choose an interest rate to discount future cash flows based on the durations of the cash flows that will be discounted. The interest rate shall correspond to a maximum of the value of the discount interest rate curve pursuant to this chapter.

**Section 2** For an insurance undertaking that has cash flows for which the durations exceed the longest duration for the interest rate curve determined in accordance with section 1, first paragraph, the discount interest rate curve for these longer durations shall be determined pursuant to sections 3-4.

**Section 3** An insurance undertaking shall determine the discount interest rate curve for durations pursuant to section 2 based on an appropriate interpolation between the existing durations of either current market rates for contracts for the exchange of interest payments, also called swap rates, or current market rates on covered bonds, provided that it as a minimum has the longest duration that can be

determined pursuant to section 1, first paragraph. A deduction shall thereafter be calculated pursuant to section 5.

**Section 4** Where there are no existing durations for market rates pursuant to section 3 which exceed the durations for market rates pursuant to section 1, first paragraph, the discount interest rate curve for durations pursuant to section 2 shall be considered to be constant and shall correspond to the interest rate for the longest duration for the interest rate curve pursuant to section 1, first paragraph.

**Section 5** An insurance undertaking shall determine the differences between the interest rate curves set out in section 1, first paragraph and section 3 for the longest existing duration on the shorter of the two interest rate curves and for this duration less one and two years, respectively. The undertaking shall calculate the average difference by determining the average of the absolute values of these three differences.

The discount interest rate curve for the durations exceeding the longest duration for the interest rate curve pursuant to section 1 is determined as the interest rate curve pursuant to section 3 less the average difference pursuant to the first paragraph. The discount interest rate curve for durations exceeding the longest duration for the interest rate curve pursuant to section 3 is determined to be constant and shall correspond to the interest rate of the longest duration defined in this section.

**Section 6** An insurance undertaking shall choose the market rates set out in sections 1 and 3 based on the currency in which the undertaking's insurance commitments are payable. The market interest rates shall be determined as zero coupon rates, i.e. the interest rate plus the value of future coupons. The financial instruments on which the market rates are based on shall be liquid and have credit and counterparty risks that do not materially deviate from other similar financial instruments.

**Section 7** An insurance undertaking that cannot break down its cash flow into durations may apply the discount interest rate curve's value pursuant to sections 1–6 for an average duration. The average duration shall be calculated according to the future cash flow discounted by an interest rate pursuant to section 1, first paragraph or an approximation of this interest rate.

**Section 8** For insurance contracts entitled to index-linked benefits, an insurance undertaking shall estimate the adjustment of the cash flow that the future index-linking is expected to result in. The adjusted cash flow shall be discounted by the interest rate pursuant to sections 1–7. As a measure of the adjustment, the undertaking should use the market expectations about future inflation expressed as differences in zero coupon rates between nominal and real government bonds, although always taking into account the characteristics of the index-linking.

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1. These regulations shall enter into force on 1 May 2011, whereupon Finansinspektionen's regulations (FFFS 2008:23) regarding insurance companies' choice of interest rate in order to calculate technical provisions shall be repealed.

2. With regard to mutual benefit societies which pursuant to section 7 of the Act (2010:2044) on the Implementation of the Insurance Business Act (2010:2043) may continue to conduct business or are in liquidation, the old regulations shall apply.

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