

# Official Journal of the European Union

L 37



English edition

Legislation

Volume 62

8 February 2019

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<sup>(1)</sup> Text with EEA relevance.

EN

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<sup>(1)</sup> Text with EEA relevance.

## II

*(Non-legislative acts)*

## REGULATIONS

## COMMISSION DELEGATED REGULATION (EU) 2019/227

of 28 November 2018

**amending Delegated Regulation (EU) No 1062/2014 as regards certain active substances/product-type combinations for which the competent authority of the United Kingdom has been designated as the evaluating competent authority**

*(Text with EEA relevance)*

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products <sup>(1)</sup> and in particular the first subparagraph of Article 89(1) thereof,

Whereas:

- (1) Commission Delegated Regulation (EU) No 1062/2014 <sup>(2)</sup> sets out in its Annex II a list of active substance/product-type combinations included in the programme of review of existing active substances contained in biocidal products ('review programme').
- (2) The competent authority of the United Kingdom of Great Britain and Northern Ireland ('the United Kingdom') is the evaluating competent authority for several active substance/product-type combinations listed in Annex II to Delegated Regulation (EU) No 1062/2014.
- (3) The United Kingdom submitted on 29 March 2017 the notification of its intention to withdraw from the Union pursuant to Article 50 of the Treaty on European Union. As a result, the United Kingdom will withdraw from the Union on 30 March 2019 and the Union legislation will no longer apply to and in the United Kingdom. A withdrawal agreement is currently being negotiated between the European Union and the United Kingdom, which includes a 'transition period'. According to draft provisions of the Withdrawal Agreement as agreed between the EU and the United Kingdom at negotiator's level, during the transition period, a competent authority of the United Kingdom can not act as evaluating competent authority for any active substance/product-type combination included in the review programme. Moreover, there is no certainty whether the Withdrawal Agreement, once finalised, will be signed and ratified by both parties, and this before the 30 March 2019.
- (4) Therefore, as regards the active substances/product-type combinations included in the review programme for which the competent authority of the United Kingdom has been designated as the evaluating competent authority, it is necessary to designate a new evaluating competent authority from among the competent authorities of the remaining 27 Member States of the European Union, EEA countries, or Switzerland, with effect from 30 March 2019.
- (5) Notwithstanding the stage of evaluation of the application, the Member States whose competent authorities are designated to replace that of the United Kingdom should be allowed to request fees for the services provided, in accordance with Article 80 of Regulation (EU) No 528/2012.

<sup>(1)</sup> OJ L 167, 27.6.2012, p. 1.

<sup>(2)</sup> Commission Delegated Regulation (EU) No 1062/2014 of 4 August 2014 on the work programme for the systematic examination of all existing active substances contained in biocidal products referred to in Regulation (EU) No 528/2012 of the European Parliament and of the Council (OJ L 294, 10.10.2014, p. 1).

- (6) Taking into account that the review programme has to be finalised by the target date indicated in Article 89(1) of Regulation (EU) No 528/2012, appropriate time limits should be established for finalising the evaluations of the reallocated applications for active substance/product-type combinations.
- (7) Delegated Regulation (EU) No 1062/2014 should therefore be amended accordingly,

HAS ADOPTED THIS REGULATION:

#### Article 1

Delegated Regulation (EU) No 1062/2014 is amended as follows:

- (1) the following Article is inserted:

*'Article 6a*

**Applications for which the competent authority of the United Kingdom was the evaluating competent authority before 30 March 2019**

1. This Article is applicable to applications for which the competent authority of the United Kingdom was the evaluating competent authority before 30 March 2019 for the entries 79, 85, 113, 171, 187, 188, 321, 345, 346, 458, 531, 554, 571, 599, 609, 1045, 1046 and 1047 of Annex II.

2. The evaluating competent authority of a Member State having replaced the competent authority of the United Kingdom in relation to an application that has been submitted before 30 March 2019, shall inform the participant of the fees payable under Article 80(2) of Regulation (EU) No 528/2012 at the latest by 30 April 2019, and shall reject the application if the participant fails to pay the fees within a period of time fixed by the evaluating competent authority. It shall inform the participant and the Agency accordingly.

3. By derogation from the time limits laid down in Article 6(3), the assessment report and the conclusions shall be sent by the evaluating competent authority within either of the following time limits, whichever is the later:

- (a) 31 December 2020;
- (b) the time limit for submitting the assessment report pursuant to Article 6(3)(b) set out in Annex III.;

- (2) the table set out in Annex II is replaced by the table set out in the Annex to this Regulation.

#### Article 2

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

It shall apply from 30 March 2019.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 28 November 2018.

*For the Commission*  
*The President*  
Jean-Claude JUNCKER

## ANNEX

The table set out in Annex II to Delegated Regulation (EU) No 1062/2014 is replaced by the following table:

| Entry number | Substance name                                                                              | Rapporteur Member State | EC number | CAS number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|---------------------------------------------------------------------------------------------|-------------------------|-----------|------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 1            | Formaldehyde                                                                                | DE                      | 200-001-8 | 50-00-0    |   | x | x |   |   |   |   |   |   |    |    |    |    |    |    |    |    | x  |
| 9            | Bronopol                                                                                    | ES                      | 200-143-0 | 52-51-7    |   | x |   |   |   | x |   |   | x |    | x  | x  |    |    |    |    |    | x  |
| 36           | Ethanol                                                                                     | EL                      | 200-578-6 | 64-17-5    | x | x |   | x |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 37           | Formic acid                                                                                 | BE                      | 200-579-1 | 64-18-6    |   | x | x | x | x | x |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 1025         | Performic acid generated from formic acid and hydrogen peroxide                             | BE                      |           |            |   | x | x | x | x | x |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 43           | Salicylic acid                                                                              | NL                      | 200-712-3 | 69-72-7    |   | x | x | x |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 52           | Ethylene oxide                                                                              | NO                      | 200-849-9 | 75-21-8    |   | x |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 69           | Glycolic acid                                                                               | NL                      | 201-180-5 | 79-14-1    |   | x | x | x |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 1026         | Peracetic acid generated from tetraacetylenediamine (TAED) and hydrogen peroxide            | AT                      |           |            |   | x |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 1027         | Peracetic acid generated from 1,3-diacetyloxypropan-2-yl acetate and hydrogen peroxide      | AT                      |           |            |   | x |   | x |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 1028         | Peracetic acid generated from tetraacetylenediamine (TAED) and sodium perborate monohydrate | AT                      |           |            |   |   | x |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |

| Entry number | Substance name                                                                                                        | Rapporteur Member State | EC number | CAS number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------|-----------|------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 1029         | Peracetic acid generated by perhydrolysis of N-acetylcaprolactam by hydrogen peroxide in alkaline conditions          | AT                      |           |            |   | x |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 71           | L-(+)-lactic acid                                                                                                     | DE                      | 201-196-2 | 79-33-4    |   |   |   |   |   | x |   |   |   |    |    |    |    |    |    |    |    |    |
| 79           | (2R,6aS,12aS)-1,2,6,6a,12,12a-Hexahydro-2-isopropenyl-8,9-dimethoxychromeno[3,4-b]furo[2,3-h]chromen-6-one (Rotenone) | PL                      | 201-501-9 | 83-79-4    |   |   |   |   |   |   |   |   |   |    |    |    | x  |    |    |    |    |    |
| 85           | Symclosene                                                                                                            | DE                      | 201-782-8 | 87-90-1    |   | x | x | x | x |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 92           | Biphenyl-2-ol                                                                                                         | ES                      | 201-993-5 | 90-43-7    |   |   |   |   |   |   | x |   | x | x  |    |    |    |    |    |    |    |    |
| 113          | 3-Phenyl-propen-2-al (Cinnamaldehyde)                                                                                 | PL                      | 203-213-9 | 104-55-2   |   | x |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 117          | Geraniol                                                                                                              | FR                      | 203-377-1 | 106-24-1   |   |   |   |   |   |   |   |   |   |    |    |    |    | x  | x  |    |    |    |
| 122          | Glyoxal                                                                                                               | FR                      | 203-474-9 | 107-22-2   |   | x | x | x |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 133          | Hexa-2,4-dienoic acid (Sorbic acid)                                                                                   | DE                      | 203-768-7 | 110-44-1   |   |   |   |   |   | x |   |   |   |    |    |    |    |    |    |    |    |    |
| 154          | Clorophene                                                                                                            | NO                      | 204-385-8 | 120-32-1   |   | x |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 171          | 2-Phenoxyethanol                                                                                                      | IT                      | 204-589-7 | 122-99-6   | x | x |   | x |   | x |   |   |   |    |    |    | x  |    |    |    |    |    |
| 1072         | Carbon dioxide                                                                                                        | FR                      | 204-696-9 | 124-38-9   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |
| 179          | Carbon dioxide generated from propane, butane or a mixture of both by combustion                                      | FR                      |           |            |   |   |   |   |   |   |   |   |   |    |    |    |    |    | x  |    |    |    |

| Entry number | Substance name                                                                                                                                   | Rapporteur Member State | EC number | CAS number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------|------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 180          | Sodium dimethylarsinate (Sodium Cacodylate)                                                                                                      | PT                      | 204-708-2 | 124-65-2   |   |   |   |   |   |   |   |   |   |    |    |    |    |    | x  |    |    |    |
| 185          | Tosylchloramide sodium (Chloramin T)                                                                                                             | ES                      | 204-854-7 | 127-65-1   |   | x | x | x | x |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 187          | Potassium dimethyldithiocarbamate                                                                                                                | SE                      | 204-875-1 | 128-03-0   |   |   |   |   |   |   |   |   | x |    | x  | x  |    |    |    |    |    |    |
| 188          | Sodium dimethyldithiocarbamate                                                                                                                   | SE                      | 204-876-7 | 128-04-1   |   |   |   |   |   |   |   |   | x |    | x  | x  |    |    |    |    |    |    |
| 195          | Sodium 2-biphenylate                                                                                                                             | ES                      | 205-055-6 | 132-27-4   |   |   |   | x |   | x | x |   | x | x  |    |    | x  |    |    |    |    |    |
| 206          | Thiram                                                                                                                                           | BE                      | 205-286-2 | 137-26-8   |   |   |   |   |   |   |   |   | x |    |    |    |    |    |    |    |    |    |
| 210          | Metam-sodium                                                                                                                                     | BE                      | 205-293-0 | 137-42-8   |   |   |   |   |   |   |   |   | x |    | x  |    |    |    |    |    |    |    |
| 227          | 2-Thiazol-4-yl-1H-benzimidazole (Thiabendazole)                                                                                                  | ES                      | 205-725-8 | 148-79-8   |   |   |   |   |   |   | x |   | x | x  |    |    |    |    |    |    |    |    |
| 235          | Diuron                                                                                                                                           | DK                      | 206-354-4 | 330-54-1   |   |   |   |   |   |   | x |   |   | x  |    |    |    |    |    |    |    |    |
| 239          | Cyanamide                                                                                                                                        | DE                      | 206-992-3 | 420-04-2   |   |   | x |   |   |   |   |   |   |    |    |    |    |    | x  |    |    |    |
| 253          | Tetrahydro-3,5-dimethyl-1,3,5-thiadiazine-2-thione (Dazomet)                                                                                     | BE                      | 208-576-7 | 533-74-4   |   |   |   |   |   | x |   |   |   |    |    | x  |    |    |    |    |    |    |
| 283          | Terbutryn                                                                                                                                        | SK                      | 212-950-5 | 886-50-0   |   |   |   |   |   |   | x |   | x | x  |    |    |    |    |    |    |    |    |
| 292          | (1,3,4,5,6,7-Hexahydro-1,3-dioxo-2H-isoindol-2-yl)methyl (1R-trans)-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate (d-Tetramethrin) | DE                      | 214-619-0 | 1166-46-7  |   |   |   |   |   |   |   |   |   |    |    |    |    |    | x  |    |    |    |

| Entry number | Substance name                                                                                                             | Rapporteur Member State | EC number | CAS number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------|------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 321          | Monolinuron                                                                                                                | HU                      | 217-129-5 | 1746-81-2  |   | x |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 330          | N-(3-Aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine)                                                                   | PT                      | 219-145-8 | 2372-82-9  |   | x | x | x |   | x |   | x |   |    | x  | x  | x  |    |    |    |    |    |
| 336          | 2,2'-Dithiobis[N-methylbenzamide] (DTBMA)                                                                                  | PL                      | 219-768-5 | 2527-58-4  |   |   |   |   |   | x |   |   |   |    |    |    |    |    |    |    |    |    |
| 339          | 1,2-Benzisothiazol-3(2H)-one (BIT)                                                                                         | ES                      | 220-120-9 | 2634-33-5  |   | x |   |   |   | x |   |   | x |    | x  | x  | x  |    |    |    |    |    |
| 341          | 2-Methyl-2H-isothiazol-3-one (MIT)                                                                                         | SI                      | 220-239-6 | 2682-20-4  |   |   |   |   |   | x |   |   |   |    |    |    |    |    |    |    |    |    |
| 346          | Sodium dichloroisocyanurate dihydrate                                                                                      | DE                      | 220-767-7 | 51580-86-0 |   | x | x | x | x |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 345          | Troclosene sodium                                                                                                          | DE                      | 220-767-7 | 2893-78-9  |   | x | x | x | x |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 348          | Mecetronium ethylsulfate (MES)                                                                                             | PL                      | 221-106-5 | 3006-10-8  | x |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 359          | Formaldehyde released from (Ethylenedioxy)dimethanol (Reaction products of ethylene glycol with paraformaldehyde (EGForm)) | PL                      | 222-720-6 | 3586-55-8  |   | x |   |   |   | x |   |   |   |    | x  | x  | x  |    |    |    |    |    |
| 365          | Pyridine-2-thiol 1-oxide, sodium salt (Sodium pyrithione)                                                                  | SE                      | 223-296-5 | 3811-73-2  |   | x |   |   |   | x | x |   | x | x  |    |    | x  |    |    |    |    |    |
| 368          | Methenamine 3-chloroallylchloride (CTAC)                                                                                   | PL                      | 223-805-0 | 4080-31-3  |   |   |   |   |   | x |   |   |   |    |    | x  | x  |    |    |    |    |    |

| Entry number | Substance name                                                                            | Rapporteur Member State | EC number | CAS number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|-------------------------------------------------------------------------------------------|-------------------------|-----------|------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 377          | 2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol (HHT)                           | PL                      | 225-208-0 | 4719-04-4  |   |   |   |   |   | x |   |   |   |    | x  | x  | x  |    |    |    |    |    |
| 382          | Tetrahydro-1,3,4,6-tetrakis(hydroxymethyl)imidazo[4,5-d]imidazole-2,5(1H,3H)-dione (TMAD) | ES                      | 226-408-0 | 5395-50-6  |   | x |   |   |   | x |   |   |   |    | x  | x  | x  |    |    |    |    |    |
| 392          | Methylene dithiocyanate                                                                   | FR                      | 228-652-3 | 6317-18-6  |   |   |   |   |   |   |   |   |   |    |    | x  |    |    |    |    |    |    |
| 393          | 1,3-Bis(hydroxymethyl)-5,5-dimethylimidazolidine-2,4-dione (DMDMH)                        | PL                      | 229-222-8 | 6440-58-0  |   |   |   |   |   | x |   |   |   |    |    |    | x  |    |    |    |    |    |
| 397          | Didecyltrimethylammonium chloride (DDAC)                                                  | IT                      | 230-525-2 | 7173-51-5  | x | x | x | x |   | x |   |   |   | x  | x  | x  |    |    |    |    |    |    |
| 401          | Silver                                                                                    | SE                      | 231-131-3 | 7440-22-4  |   | x |   | x | x |   |   |   |   |    | x  |    |    |    |    |    |    |    |
| 1023         | Silver, as a nanomaterial                                                                 | SE                      | 231-131-3 | 7440-22-4  |   | x |   | x |   |   |   |   | x |    |    |    |    |    |    |    |    |    |
| 405          | Sulfur dioxide generated from sulfur by combustion                                        | DE                      |           |            |   |   |   | x |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 424          | Active bromine generated from sodium bromide and sodium hypochlorite                      | NL                      |           |            |   | x |   |   |   |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 1030         | Active bromine generated from sodium bromide and calcium hypochlorite                     | NL                      |           |            |   | x |   |   |   |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 1031         | Active bromine generated from sodium bromide and chlorine                                 | NL                      |           |            |   | x |   |   |   |   |   |   |   |    | x  | x  |    |    |    |    |    |    |

| Entry number | Substance name                                                                          | Rapporteur Member State | EC number | CAS number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|-----------------------------------------------------------------------------------------|-------------------------|-----------|------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 1032         | Active bromine generated from sodium bromide by electrolysis                            | NL                      |           |            |   | x |   |   |   |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 1033         | Active bromine generated from hypobromous acid and urea and bromourea                   | NL                      |           |            |   |   |   |   |   |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 1034         | Active bromine generated from sodium hypobromite and N-bromosulfamate and sulfamic acid | NL                      |           |            |   |   |   |   |   |   |   |   |   |    | x  |    |    |    |    |    |    |    |
| 1035         | Active bromine generated from ozone and bromide of natural water and sodium bromide     | NL                      |           |            |   | x |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 434          | Tetramethrin                                                                            | DE                      | 231-711-6 | 7696-12-0  |   |   |   |   |   |   |   |   |   |    |    |    |    |    | x  |    |    |    |
| 439          | Hydrogen peroxide                                                                       | FI                      | 231-765-0 | 7722-84-1  |   |   |   |   |   |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 1036         | Hydrogen peroxide released from sodium percarbonate                                     | FI                      |           |            |   | x | x |   | x |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 444          | 7a-Ethylidihydro-1H,3H,5H-oxazolo[3,4-c]oxazole (EDHO)                                  | PL                      | 231-810-4 | 7747-35-5  |   |   |   |   |   | x |   |   |   |    |    |    | x  |    |    |    |    |    |
| 450          | Silver nitrate                                                                          | SE                      | 231-853-9 | 7761-88-8  | x |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 453          | Disodium peroxodisulfate                                                                | PT                      | 231-892-1 | 7775-27-1  |   |   |   | x |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 432          | Active chlorine released from sodium hypochlorite                                       | IT                      |           |            |   |   |   |   |   |   |   |   |   |    | x  | x  |    |    |    |    |    |    |

| Entry number | Substance name                                                                                         | Rapporteur Member State | EC number | CAS number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|--------------------------------------------------------------------------------------------------------|-------------------------|-----------|------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 455          | Active chlorine released from calcium hypochlorite                                                     | IT                      |           |            |   |   |   |   |   |   |   |   |   |    | x  |    |    |    |    |    |    |    |
| 457          | Active chlorine released from chlorine                                                                 | IT                      |           |            |   |   |   |   |   |   |   |   |   |    | x  |    |    |    |    |    |    |    |
| 458          | Monochloramine generated from ammonium sulfate and a chlorine source                                   | FR                      |           |            |   |   |   |   |   |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 1016         | Silver chloride                                                                                        | SE                      | 232-033-3 | 7783-90-6  | x | x |   |   |   | x | x |   | x |    |    |    |    |    |    |    |    |    |
| 473          | Pyrethrins and Pyrethroids                                                                             | ES                      | 232-319-8 | 8003-34-7  |   |   |   |   |   |   |   |   |   |    |    |    |    | x  | x  |    |    |    |
| 491          | Chlorine dioxide                                                                                       | DE                      | 233-162-8 | 10049-04-4 |   | x | x | x | x |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 1037         | Chlorine dioxide generated from sodium chlorite by electrolysis                                        | PT                      |           |            |   | x | x | x | x |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 1038         | Chlorine dioxide generated from sodium chlorite by acidification                                       | PT                      |           |            |   | x | x | x | x |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 1039         | Chlorine dioxide generated from sodium chlorite by oxidation                                           | PT                      |           |            |   | x | x | x | x |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 1040         | Chlorine dioxide generated from sodium chlorate and hydrogen peroxide in the presence of a strong acid | PT                      |           |            |   | x |   |   | x |   |   |   |   |    | x  | x  |    |    |    |    |    |    |

| Entry number | Substance name                                                                                        | Rapporteur Member State | EC number | CAS number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|-------------------------------------------------------------------------------------------------------|-------------------------|-----------|------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 1041         | Chlorine dioxide generated from sodium chloride by electrolysis                                       | DE                      |           |            |   | x | x | x | x |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 1042         | Chlorine dioxide generated from sodium chlorite and sodium bisulfate and hydrochloric acid            | DE                      |           |            |   |   |   | x | x |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 1043         | Chlorine dioxide generated from sodium chlorite and sodium bisulfate                                  | DE                      |           |            |   | x | x | x | x |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 1044         | Chlorine dioxide generated from sodium chlorite and sodium persulfate                                 | DE                      |           |            |   | x | x | x | x |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 494          | 2,2-Dibromo-2-cyanoacetamide (DBNPA)                                                                  | DK                      | 233-539-7 | 10222-01-2 |   | x |   | x |   | x |   |   |   |    | x  | x  | x  |    |    |    |    |    |
| 501          | Carbendazim                                                                                           | DE                      | 234-232-0 | 10605-21-7 |   |   |   |   |   |   | x |   | x | x  |    |    |    |    |    |    |    |    |
| 1022         | Dialuminium chloride pentahydroxide                                                                   | NL                      | 234-933-1 | 12042-91-0 |   | x |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 515          | Bromide activated chloramine (BAC) generated from precursors ammonium bromide and sodium hypochlorite | SE                      |           |            |   |   |   |   |   |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 522          | Pyrrithione zinc                                                                                      | SE                      | 236-671-3 | 13463-41-7 |   | x |   |   |   | x | x |   | x | x  |    |    |    |    |    |    | x  |    |
| 524          | Dodecylguanidine monohydrochloride                                                                    | ES                      | 237-030-0 | 13590-97-1 |   |   |   |   |   | x |   |   |   |    | x  |    |    |    |    |    |    |    |

| Entry number | Substance name                                                                                                              | Rapporteur Member State | EC number | CAS number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------|------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 529          | Active bromine generated from bromine chloride                                                                              | NL                      |           |            |   |   |   |   |   |   |   |   |   |    | x  |    |    |    |    |    |    |    |
| 531          | (Benzyloxy)methanol                                                                                                         | AT                      | 238-588-8 | 14548-60-8 |   |   |   |   |   | x |   |   |   |    |    |    | x  |    |    |    |    |    |
| 550          | D-Gluconic acid, compound with N,N'-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidine (2:1) (CHDG)    | PT                      | 242-354-0 | 18472-51-0 | x | x | x |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 554          | p-[(Diiodomethyl)sulphonyl]toluene                                                                                          | CH                      | 243-468-3 | 20018-09-1 |   |   |   |   |   | x | x |   | x | x  |    |    |    |    |    |    |    |    |
| 559          | (Benzothiazol-2-ylthio)methyl thiocyanate (TCMTB)                                                                           | NO                      | 244-445-0 | 21564-17-0 |   |   |   |   |   |   |   |   | x |    |    | x  |    |    |    |    |    |    |
| 562          | 2-Methyl-4-oxo-3-(prop-2-ynyl)cyclopent-2-en-1-yl 2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate (Prallethrin) | EL                      | 245-387-9 | 23031-36-9 |   |   |   |   |   |   |   |   |   |    |    |    |    |    | x  |    |    |    |
| 563          | Potassium (E,E)-hexa-2,4-dienoate (Potassium Sorbate)                                                                       | DE                      | 246-376-1 | 24634-61-5 |   |   |   |   |   | x |   |   |   |    |    |    |    |    |    |    |    |    |
| 566          | Reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 1:1) (HPT)                                            | AT                      |           |            |   | x |   |   |   | x |   |   |   |    | x  |    | x  |    |    |    |    |    |
| 571          | 2-Octyl-2H-isothiazol-3-one (OIT)                                                                                           | FR                      | 247-761-7 | 26530-20-1 |   |   |   |   |   | x | x |   | x | x  | x  |    | x  |    |    |    |    |    |
| 577          | Dimethyloctadecyl[3-(trimethoxysilyl)propyl]ammonium chloride                                                               | ES                      | 248-595-8 | 27668-52-6 |   | x |   |   |   |   | x |   | x |    |    |    |    |    |    |    |    |    |

| Entry number | Substance name                                                                                      | Rapporteur Member State | EC number     | CAS number    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|-----------------------------------------------------------------------------------------------------|-------------------------|---------------|---------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 588          | Bromochloro-5,5-dimethylimidazolidine-2,4-dione (BCDMH)                                             | NL                      | 251-171-5     | 32718-18-6    |   | x |   |   |   |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 590          | 3-(4-Isopropylphenyl)-1,1-dimethylurea (Isoproturon)                                                | DE                      | 251-835-4     | 34123-59-6    |   |   |   |   |   |   | x |   |   | x  |    |    |    |    |    |    |    |    |
| 597          | 1-[2-(Allyloxy)-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole (Imazalil)                                | DE                      | 252-615-0     | 35554-44-0    |   |   | x |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 599          | S-[(6-Chloro-2-oxooxazolo [4,5-b]pyridin-3(2H)-yl)methyl] O,O-dimethyl thiophosphate (Azamethiphos) | IT                      | 252-626-0     | 35575-96-3    |   |   |   |   |   |   |   |   |   |    |    |    |    |    | x  |    |    |    |
| 608          | Dimethyltetradecyl[3-(trimethoxysilyl)propyl]ammonium chloride                                      | PL                      | 255-451-8     | 41591-87-1    |   |   |   |   |   |   |   |   | x |    |    |    |    |    |    |    |    |    |
| 1045         | <i>Eucalyptus citriodora</i> oil, hydrated, cyclized                                                | CZ                      |               | 1245629-80-4  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |
| 1046         | <i>Cymbopogon winterianus</i> oil, fractionated, hydrated, cyclized                                 | CZ                      | Not available | Not available |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |
| 1047         | <i>Eucalyptus citriodora</i> oil and citronellal, hydrated, cyclized                                | CZ                      | Not available | Not available |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |
| 609          | 2-Hydroxy- $\alpha,\alpha$ ,4-trimethylcyclohexanemethanol                                          | CZ                      | 255-953-7     | 42822-86-6    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |
| 619          | 3-Iodo-2-propynylbutylcarbamate (IPBC)                                                              | DK                      | 259-627-5     | 55406-53-6    |   |   |   |   |   |   | x |   | x | x  |    |    |    |    |    |    |    |    |

| Entry number | Substance name                                                                                                                              | Rapporteur Member State | EC number | CAS number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------|------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 620          | Tetrakis(hydroxymethyl)phosphonium sulphate(2:1) (THPS)                                                                                     | MT                      | 259-709-0 | 55566-30-8 |   |   |   |   |   | x |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 648          | 4,5-Dichloro-2-octylisothiazol-3(2H)-one (4,5-Dichloro-2-octyl-2H-isothiazol-3-one (DCOIT))                                                 | NO                      | 264-843-8 | 64359-81-5 |   |   |   |   |   |   | x |   | x | x  | x  |    |    |    |    |    |    |    |
| 656          | Reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2) (MBO)                                                            | AT                      |           |            |   | x |   |   |   | x |   |   |   |    | x  | x  | x  |    |    |    |    |    |
| 667          | Alkyl (C <sub>12-18</sub> ) dimethylbenzyl ammonium chloride (ADBAC (C <sub>12-18</sub> ))                                                  | IT                      | 269-919-4 | 68391-01-5 | x | x | x | x |   |   |   |   |   | x  | x  | x  |    |    |    |    |    | x  |
| 671          | Alkyl (C <sub>12-16</sub> ) dimethylbenzyl ammonium chloride (ADBAC/BKC (C <sub>12</sub> -C <sub>16</sub> ))                                | IT                      | 270-325-2 | 68424-85-1 | x | x | x | x |   |   |   |   |   | x  | x  | x  |    |    |    |    |    | x  |
| 673          | Didecyl dimethylammonium chloride (DDAC (C <sub>8-10</sub> ))                                                                               | IT                      | 270-331-5 | 68424-95-3 | x | x | x | x |   | x |   |   |   | x  | x  | x  |    |    |    |    |    |    |
| 690          | Quaternary ammonium compounds, benzyl-C <sub>12-18</sub> -alkyl-dimethyl, salts with 1,2-benzisothiazol-3(2H)-one 1,1-dioxide (1:1) (ADBAS) | MT                      | 273-545-7 | 68989-01-5 |   | x |   | x |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 691          | Sodium N-(hydroxymethyl)glycinate                                                                                                           | AT                      | 274-357-8 | 70161-44-3 |   |   |   |   |   | x |   |   |   |    |    |    |    |    |    |    |    |    |
| 692          | Amines, C <sub>10-16</sub> -alkyldimethyl, N-oxides                                                                                         | PT                      | 274-687-2 | 70592-80-2 |   |   |   | x |   |   |   |   |   |    |    |    |    |    |    |    |    |    |

| Entry number | Substance name                                                                                       | Rapporteur Member State | EC number | CAS number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|------------------------------------------------------------------------------------------------------|-------------------------|-----------|------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 693          | Pentapotassium bis(peroxymonosulfate)bis(sulfate) (KPMS)                                             | SI                      | 274-778-7 | 70693-62-8 |   | x | x | x | x |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 939          | Active chlorine generated from sodium chloride by electrolysis                                       | SK                      |           |            |   | x | x | x | x |   |   |   |   |    | x  | x  |    |    |    |    |    |    |
| 1048         | Active chlorine released from hypochlorous acid                                                      | SK                      |           |            |   | x | x | x | x |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 1049         | Active chlorine generated from sodium chloride and pentapotassium bis(peroxymonosulfate)bis(sulfate) | SI                      |           |            |   | x | x | x | x |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 1050         | Active chlorine generated from seawater (sodium chloride) by electrolysis                            | FR                      |           |            |   |   |   |   |   |   |   |   |   |    | x  |    |    |    |    |    |    |    |
| 1051         | Active chlorine generated from magnesium chloride hexahydrate and potassium chloride by electrolysis | FR                      |           |            |   | x |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 1052         | Active chlorine generated from magnesium chloride hexahydrate by electrolysis                        | FR                      |           |            |   | x |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 1053         | Active chlorine generated from potassium chloride by electrolysis                                    | DK                      |           |            |   | x |   | x |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 1054         | Active chlorine generated from sodium N-chlorosulfamate                                              | SI                      |           |            |   |   |   | x |   |   |   |   |   |    | x  | x  |    |    |    |    |    |    |

| Entry number | Substance name                                                                                                                                | Rapporteur Member State | EC number | CAS number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------|------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 1055         | Active chlorine generated from sodium chloride and pentapota-<br>ssium bis(peroxymonosul-<br>fate)bis(sulfate) and sulfamic<br>acid           | SI                      |           |            |   | x | x |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 1056         | Active chlorine generated from<br>hydrochloric acid by electro-<br>lysis                                                                      | SI                      |           |            |   | x |   | x | x |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 701          | Dihydrogen bis[monoperox-<br>yphthalato(2-)-O1,OO1]mag-<br>nesate(2-) (MMPP)                                                                  | PL                      | 279-013-0 | 84665-66-7 |   | x |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 1024         | Margosa extract from cold-<br>pressed oil of the kernels of<br><i>Azadirachta Indica</i> extracted<br>with super-critical carbon di-<br>oxide | DE                      |           |            |   |   |   |   |   |   |   |   |   |    |    |    |    |    | x  |    |    |    |
| 724          | Alkyl (C <sub>12</sub> -C <sub>14</sub> ) dimethylbenzyl-<br>ammonium chloride (ADBAC<br>(C <sub>12</sub> -C <sub>14</sub> ))                 | IT                      | 287-089-1 | 85409-22-9 | x | x | x | x |   |   |   |   |   | x  | x  | x  |    |    |    |    |    | x  |
| 725          | Alkyl (C <sub>12</sub> -C <sub>14</sub> ) dimethyl(ethyl-<br>benzyl)ammonium chloride<br>(ADEBAC (C <sub>12</sub> -C <sub>14</sub> ))         | IT                      | 287-090-7 | 85409-23-0 | x | x | x | x |   |   |   |   |   | x  | x  | x  |    |    |    |    |    | x  |
| 731          | <i>Chrysanthemum cinerariaefolium</i> ,<br>ext.                                                                                               | ES                      | 289-699-3 | 89997-63-7 |   |   |   |   |   |   |   |   |   |    |    |    |    |    | x  |    |    |    |

| Entry number | Substance name                                                                                                                                            | Rapporteur Member State | EC number | CAS number  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------|-------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 1057         | <i>Chrysanthemum cinerariaefolium</i> extract from open and mature flowers of <i>Tanacetum cinerariifolium</i> obtained with hydrocarbon solvent          | ES                      |           |             |   |   |   |   |   |   |   |   |   |    |    |    |    |    | x  | x  |    |    |
| 1058         | <i>Chrysanthemum cinerariaefolium</i> extract from open and mature flowers of <i>Tanacetum cinerariifolium</i> obtained with supercritical carbon dioxide | ES                      |           |             |   |   |   |   |   |   |   |   |   |    |    |    |    |    | x  | x  |    |    |
| 744          | Lavender, <i>Lavandula hybrida</i> , ext./Lavandin oil                                                                                                    | PT                      | 294-470-6 | 91722-69-9  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |
| 779          | Reaction products of: glutamic acid and N-(C <sub>12</sub> -C <sub>14</sub> -alkyl)propylenediamine (Glucoprotamin)                                       | DE                      | 403-950-8 | 164907-72-6 |   | x |   | x |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 785          | 6-(Phthalimido)peroxyhexanoic acid (PAP)                                                                                                                  | IT                      | 410-850-8 | 128275-31-0 | x | x |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 791          | 2-Butyl-benzo[d]isothiazol-3-one (BBIT)                                                                                                                   | CZ                      | 420-590-7 | 4299-07-4   |   |   |   |   |   | x | x |   | x | x  |    |    | x  |    |    |    |    |    |
| 792          | Chlorine dioxide generated from tetrachlorodecaoxide complex (TCDO) by acidification                                                                      | DE                      |           |             |   | x |   | x |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 811          | Silver sodium hydrogen zirconium phosphate                                                                                                                | SE                      | 422-570-3 | 265647-11-8 | x | x |   | x |   |   | x |   | x |    |    |    |    |    |    |    |    |    |

| Entry number | Substance name                                                                                           | Rapporteur Member State | EC number      | CAS number    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|----------------------------------------------------------------------------------------------------------|-------------------------|----------------|---------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 794          | sec-Butyl 2-(2-hydroxyethyl)pi-peridine-1-carboxylate (Icari-dine)                                       | DK                      | 423-210-8      | 119515-38-7   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |
| 797          | cis-1-(3-Chloroallyl)-3,5,7-triaza-1-azoniaadamantane chloride (cis CTAC)                                | PL                      | 426-020-3      | 51229-78-8    |   |   |   |   |   | x |   |   |   |    |    |    | x  |    |    |    |    |    |
| 813          | Peroxyoctanoic acid                                                                                      | FR                      |                | 33734-57-5    |   | x | x | x |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| 1014         | Silver zeolite                                                                                           | SE                      | Not avail-able | Not available |   | x |   | x | x |   | x |   | x |    |    |    |    |    |    |    |    |    |
| 152          | Reaction products of 5,5-di-methylhydantoin, 5-ethyl-5-methylhydantoin with bromine and chlorine (DCDMH) | NL                      | Not avail-able | Not available |   |   |   |   |   |   |   |   |   |    | x  |    |    |    |    |    |    |    |
| 459          | Reaction mass of titanium di-oxide and silver chloride                                                   | SE                      | Not avail-able | Not available | x | x |   |   |   | x | x |   | x | x  | x  |    |    |    |    |    |    |    |
| 777          | Reaction products of 5,5-di-methylhydantoin, 5-ethyl-5-methylhydantoin with chlorine (DCEMH)             | NL                      | Not avail-able | Not available |   |   |   |   |   |   |   |   |   |    | x  |    |    |    |    |    |    |    |
| 810          | Silver phosphate glass                                                                                   | SE                      | Not avail-able | 308069-39-8   |   | x |   |   |   |   | x |   | x |    |    |    |    |    |    |    |    |    |
| 824          | Silver zinc zeolite                                                                                      | SE                      | Not avail-able | 130328-20-0   |   | x |   | x |   |   | x |   | x |    |    |    |    |    |    |    |    |    |
| 1013         | Silver copper zeolite                                                                                    | SE                      | Not avail-able | 130328-19-7   |   | x |   | x |   |   | x |   | x |    |    |    |    |    |    |    |    |    |

| Entry number | Substance name                                                                                                                                                                                                         | Rapporteur Member State | EC number                | CAS number    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------------|---------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 1017         | Silver adsorbed on silicon dioxide (as a nanomaterial in the form of a stable aggregate with primary particles in the nano-scale)                                                                                      | SE                      | Not available            | Not available |   |   |   |   |   |   |   |   | x |    |    |    |    |    |    |    |    |    |
| 854          | (RS)-3-Allyl-2-methyl-4-oxocyclopent-2-enyl-(1R,3R;1R,3S)-2,2-dimethyl-3-(2-methylprop-1-enyl)-cyclopropanecarboxylate (mixture of 4 isomers 1R trans, 1R: 1R trans, 1S: 1R cis, 1R: 1R cis, 1S 4:4:1:1) (d-Allethrin) | DE                      | Plant protection product | 231937-89-6   |   |   |   |   |   |   |   |   |   |    |    |    |    |    | x  |    |    |    |
| 855          | (RS)-3-Allyl-2-methyl-4-oxocyclopent-2-enyl (1R,3R)-2,2-dimethyl-3-(2-methylprop-1-enyl)-cyclopropanecarboxylate (mixture of 2 isomers 1R trans: 1R/S only 1:3) (Esbiothrin)                                           | DE                      | Plant protection product | 260359-57-7   |   |   |   |   |   |   |   |   |   |    |    |    |    |    | x  |    |    |    |
| 843          | 4-Bromo-2-(4-chlorophenyl)-1-ethoxymethyl-5-trifluoromethylpyrrole-3-carbonitrile (Chlorfenapyr)                                                                                                                       | PT                      | Plant protection product | 122453-73-0   |   |   |   |   |   |   |   |   |   |    |    |    |    |    | x  |    |    |    |
| 859          | Polymer of N-Methylmethanamine (Einecs 204-697-4 with (chloromethyl)oxirane (Einecs 203-439-8)/Polymeric quaternary ammonium chloride (PQ Polymer)                                                                     | HU                      | Polymer                  | 25988-97-0    |   | x |   |   |   |   |   |   |   |    | x  |    |    |    |    |    |    |    |

[illegible]

| Entry number | Substance name                                                                                                                                                                                                                                            | Rapporteur Member State | EC number     | CAS number    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------------|---------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 1061         | Reaction mass of (6E)-N-(4-hydroxy-3-methoxy-2-methylphenyl)-8-methylnon-6-enamide and N-(4-hydroxy-3-methoxy-2-methylphenyl)-8-methylnonanamide                                                                                                          | BE                      | Not available | Not available |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |
| 1062         | D-Fructose                                                                                                                                                                                                                                                | AT                      | 200-333-3     | 57-48-7       |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |
| 1063         | Honey                                                                                                                                                                                                                                                     | AT                      |               | 8028-66-8     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |
| 1064         | Malt, ext.<br>Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, etc., obtained from <i>Hordeum</i> , <i>Gramineae</i> . | AT                      | 232-310-9     | 8002-48-0     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |
| 1065         | Vinegar<br>(food grade containing a maximum of 10 % acetic acid)                                                                                                                                                                                          | AT                      | Not available | 8028-52-2     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |
| 1066         | Cheese                                                                                                                                                                                                                                                    | AT                      | Not available | Not available |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |
| 1067         | Powdered egg                                                                                                                                                                                                                                              | NL                      | Not available | Not available |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |
| 1068         | <i>Saccharomyces cerevisiae</i>                                                                                                                                                                                                                           | NL                      | Not available | 68876-77-7    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |

| Entry number | Substance name                                                                                                                                                                                                                                                            | Rapporteur Member State | EC number     | CAS number    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 17 | 18 | 19 | 21 | 22 |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------------|---------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| 1069         | Concentrated apple juice                                                                                                                                                                                                                                                  | NL                      | Not available | Not available |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |
| 1070         | Orange, sweet, ext.<br>Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, etc., obtained from <i>Citrus sinensis</i> , <i>Rutaceae</i> . | CH                      | 232-433-8     | 8028-48-6     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |
| 1071         | Garlic, ext.<br>Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, etc., obtained from <i>Allium sativum</i> , <i>Liliaceae</i> .        | AT                      | 232-371-1     | 8008-99-9     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x' |    |    |

**COMMISSION IMPLEMENTING REGULATION (EU) 2019/228****of 7 February 2019****laying down technical information for the calculation of technical provisions and basic own funds for reporting with reference dates from 31 December 2018 until 30 March 2019 in accordance with Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance****(Text with EEA relevance)**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) <sup>(1)</sup>, and in particular the third subparagraph of Article 77e(2) thereof,

Whereas:

- (1) In order to ensure uniform conditions for the calculation of technical provisions and basic own funds by insurance and reinsurance undertakings for the purposes of Directive 2009/138/EC, technical information on relevant risk-free interest rate term structures, fundamental spreads for the calculation of the matching adjustment and volatility adjustments should be laid down for every reference date.
- (2) Insurance and re-insurance undertakings should use the technical information, which is based on market data related to the end of the last month preceding the first reporting reference date to which this Regulation applies. On 9 January 2019, the European Insurance and Occupational Pensions Authority provided the Commission with the technical information related to end of December 2018 market data. That information was published on 9 January 2019 in accordance with Article 77e(1) of Directive 2009/138/EC.
- (3) Given the need for the immediate availability of the technical information, it is important that this Regulation enters into force as a matter of urgency.
- (4) For prudential reasons it is necessary that insurance and reinsurance undertakings use the same technical information for calculating technical provisions and basic own funds irrespective of the date on which they report to their competent authorities. This Regulation should therefore apply from the first reporting reference date to which this Regulation applies.
- (5) To provide legal certainty as soon as possible, it is duly justified on imperative grounds of urgency related to the availability of the relevant risk-free interest rate term structure that measures provided for in this Regulation be adopted in accordance with Article 8, in conjunction with Article 4, of Regulation (EU) No 182/2011 of the European Parliament and of the Council <sup>(2)</sup>,

HAS ADOPTED THIS REGULATION:

*Article 1*

1. Insurance and reinsurance undertakings shall use the technical information referred to in paragraph 2 when calculating technical provisions and basic own funds for reporting with reference dates from 31 December 2018 until 30 March 2019.

<sup>(1)</sup> OJ L 335, 17.12.2009, p.1.

<sup>(2)</sup> Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).

2. For each relevant currency, the technical information used to calculate the best estimate in accordance with Article 77 of Directive 2009/138/EC, the matching adjustment in accordance with Article 77c of that Directive and the volatility adjustment in accordance with Article 77d of that Directive shall be the following:

- (a) the relevant risk-free rate term structures set out in Annex I;
- (b) the fundamental spreads for the calculation of the matching adjustment set out in Annex II;
- (c) for each relevant national insurance market, the volatility adjustments set out in Annex III.

#### *Article 2*

This Regulation shall enter into force on the day following that of its publication in the *Official Journal of the European Union*.

It shall apply from 31 December 2018.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 7 February 2019.

*For the Commission*

*The President*

Jean-Claude JUNCKER

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## ANNEX I

**Relevant risk-free interest rate term structures to calculate the best estimate, without any matching adjustment or volatility adjustment**

| Term to maturity<br>(in years) | Euro      | Czech koruna | Danish krone | Forint  | Krona     | Kuna    |
|--------------------------------|-----------|--------------|--------------|---------|-----------|---------|
| 1                              | – 0,333 % | 1,961 %      | – 0,343 %    | 0,438 % | – 0,178 % | 0,083 % |
| 2                              | – 0,275 % | 1,910 %      | – 0,285 %    | 1,030 % | – 0,043 % | 0,277 % |
| 3                              | – 0,177 % | 1,841 %      | – 0,187 %    | 1,591 % | 0,106 %   | 0,545 % |
| 4                              | – 0,046 % | 1,769 %      | – 0,056 %    | 1,994 % | 0,257 %   | 0,857 % |
| 5                              | 0,099 %   | 1,708 %      | 0,088 %      | 2,235 % | 0,404 %   | 1,136 % |
| 6                              | 0,238 %   | 1,664 %      | 0,228 %      | 2,422 % | 0,564 %   | 1,383 % |
| 7                              | 0,372 %   | 1,636 %      | 0,362 %      | 2,649 % | 0,707 %   | 1,609 % |
| 8                              | 0,499 %   | 1,630 %      | 0,489 %      | 2,820 % | 0,833 %   | 1,819 % |
| 9                              | 0,618 %   | 1,637 %      | 0,608 %      | 2,964 % | 0,946 %   | 2,013 % |
| 10                             | 0,726 %   | 1,652 %      | 0,716 %      | 3,125 % | 1,042 %   | 2,176 % |
| 11                             | 0,822 %   | 1,674 %      | 0,812 %      | 3,262 % | 1,184 %   | 2,312 % |
| 12                             | 0,909 %   | 1,697 %      | 0,899 %      | 3,373 % | 1,350 %   | 2,428 % |
| 13                             | 0,987 %   | 1,719 %      | 0,977 %      | 3,464 % | 1,517 %   | 2,528 % |
| 14                             | 1,054 %   | 1,743 %      | 1,043 %      | 3,540 % | 1,675 %   | 2,615 % |
| 15                             | 1,105 %   | 1,774 %      | 1,095 %      | 3,605 % | 1,820 %   | 2,692 % |
| 16                             | 1,143 %   | 1,814 %      | 1,133 %      | 3,661 % | 1,951 %   | 2,760 % |
| 17                             | 1,173 %   | 1,860 %      | 1,163 %      | 3,710 % | 2,070 %   | 2,822 % |
| 18                             | 1,202 %   | 1,911 %      | 1,192 %      | 3,753 % | 2,177 %   | 2,878 % |
| 19                             | 1,235 %   | 1,964 %      | 1,225 %      | 3,791 % | 2,273 %   | 2,929 % |
| 20                             | 1,275 %   | 2,018 %      | 1,264 %      | 3,825 % | 2,361 %   | 2,975 % |
| 21                             | 1,322 %   | 2,072 %      | 1,312 %      | 3,855 % | 2,440 %   | 3,018 % |
| 22                             | 1,376 %   | 2,126 %      | 1,366 %      | 3,883 % | 2,513 %   | 3,057 % |
| 23                             | 1,434 %   | 2,179 %      | 1,424 %      | 3,907 % | 2,579 %   | 3,093 % |
| 24                             | 1,494 %   | 2,230 %      | 1,485 %      | 3,930 % | 2,640 %   | 3,127 % |
| 25                             | 1,555 %   | 2,281 %      | 1,546 %      | 3,950 % | 2,696 %   | 3,159 % |
| 26                             | 1,617 %   | 2,329 %      | 1,608 %      | 3,968 % | 2,747 %   | 3,188 % |
| 27                             | 1,678 %   | 2,376 %      | 1,669 %      | 3,986 % | 2,795 %   | 3,216 % |
| 28                             | 1,738 %   | 2,422 %      | 1,729 %      | 4,001 % | 2,840 %   | 3,242 % |
| 29                             | 1,797 %   | 2,466 %      | 1,788 %      | 4,016 % | 2,881 %   | 3,266 % |
| 30                             | 1,854 %   | 2,508 %      | 1,846 %      | 4,029 % | 2,920 %   | 3,289 % |
| 31                             | 1,910 %   | 2,548 %      | 1,902 %      | 4,041 % | 2,956 %   | 3,311 % |
| 32                             | 1,964 %   | 2,587 %      | 1,956 %      | 4,053 % | 2,990 %   | 3,331 % |
| 33                             | 2,016 %   | 2,624 %      | 2,008 %      | 4,063 % | 3,022 %   | 3,351 % |
| 34                             | 2,066 %   | 2,660 %      | 2,059 %      | 4,073 % | 3,052 %   | 3,369 % |
| 35                             | 2,115 %   | 2,695 %      | 2,108 %      | 4,083 % | 3,081 %   | 3,387 % |
| 36                             | 2,162 %   | 2,728 %      | 2,154 %      | 4,091 % | 3,108 %   | 3,404 % |
| 37                             | 2,207 %   | 2,759 %      | 2,200 %      | 4,100 % | 3,133 %   | 3,419 % |
| 38                             | 2,250 %   | 2,790 %      | 2,243 %      | 4,107 % | 3,157 %   | 3,435 % |
| 39                             | 2,292 %   | 2,819 %      | 2,285 %      | 4,114 % | 3,180 %   | 3,449 % |

| Term to maturity<br>(in years) | Euro    | Czech koruna | Danish krone | Forint  | Krona   | Kuna    |
|--------------------------------|---------|--------------|--------------|---------|---------|---------|
| 40                             | 2,332 % | 2,847 %      | 2,325 %      | 4,121 % | 3,201 % | 3,463 % |
| 41                             | 2,370 % | 2,874 %      | 2,364 %      | 4,128 % | 3,222 % | 3,476 % |
| 42                             | 2,407 % | 2,900 %      | 2,401 %      | 4,134 % | 3,242 % | 3,489 % |
| 43                             | 2,443 % | 2,925 %      | 2,437 %      | 4,139 % | 3,260 % | 3,501 % |
| 44                             | 2,477 % | 2,949 %      | 2,472 %      | 4,145 % | 3,278 % | 3,513 % |
| 45                             | 2,510 % | 2,972 %      | 2,505 %      | 4,150 % | 3,295 % | 3,524 % |
| 46                             | 2,542 % | 2,994 %      | 2,537 %      | 4,155 % | 3,312 % | 3,535 % |
| 47                             | 2,573 % | 3,016 %      | 2,567 %      | 4,160 % | 3,327 % | 3,545 % |
| 48                             | 2,602 % | 3,036 %      | 2,597 %      | 4,164 % | 3,342 % | 3,555 % |
| 49                             | 2,631 % | 3,056 %      | 2,626 %      | 4,168 % | 3,357 % | 3,565 % |
| 50                             | 2,658 % | 3,075 %      | 2,653 %      | 4,172 % | 3,371 % | 3,574 % |
| 51                             | 2,685 % | 3,094 %      | 2,680 %      | 4,176 % | 3,384 % | 3,583 % |
| 52                             | 2,710 % | 3,111 %      | 2,705 %      | 4,180 % | 3,397 % | 3,591 % |
| 53                             | 2,735 % | 3,129 %      | 2,730 %      | 4,183 % | 3,409 % | 3,600 % |
| 54                             | 2,759 % | 3,145 %      | 2,754 %      | 4,187 % | 3,421 % | 3,608 % |
| 55                             | 2,782 % | 3,161 %      | 2,777 %      | 4,190 % | 3,432 % | 3,616 % |
| 56                             | 2,804 % | 3,177 %      | 2,799 %      | 4,193 % | 3,443 % | 3,623 % |
| 57                             | 2,825 % | 3,192 %      | 2,821 %      | 4,196 % | 3,454 % | 3,630 % |
| 58                             | 2,846 % | 3,206 %      | 2,841 %      | 4,199 % | 3,464 % | 3,637 % |
| 59                             | 2,866 % | 3,220 %      | 2,862 %      | 4,202 % | 3,474 % | 3,644 % |
| 60                             | 2,885 % | 3,234 %      | 2,881 %      | 4,204 % | 3,484 % | 3,651 % |
| 61                             | 2,904 % | 3,247 %      | 2,900 %      | 4,207 % | 3,493 % | 3,657 % |
| 62                             | 2,923 % | 3,260 %      | 2,918 %      | 4,209 % | 3,502 % | 3,663 % |
| 63                             | 2,940 % | 3,272 %      | 2,936 %      | 4,212 % | 3,510 % | 3,669 % |
| 64                             | 2,957 % | 3,284 %      | 2,953 %      | 4,214 % | 3,519 % | 3,675 % |
| 65                             | 2,974 % | 3,296 %      | 2,970 %      | 4,216 % | 3,527 % | 3,681 % |
| 66                             | 2,990 % | 3,307 %      | 2,986 %      | 4,218 % | 3,535 % | 3,686 % |
| 67                             | 3,006 % | 3,318 %      | 3,002 %      | 4,220 % | 3,543 % | 3,691 % |
| 68                             | 3,021 % | 3,329 %      | 3,017 %      | 4,222 % | 3,550 % | 3,697 % |
| 69                             | 3,036 % | 3,339 %      | 3,032 %      | 4,224 % | 3,557 % | 3,702 % |
| 70                             | 3,050 % | 3,349 %      | 3,046 %      | 4,226 % | 3,564 % | 3,707 % |
| 71                             | 3,064 % | 3,359 %      | 3,061 %      | 4,228 % | 3,571 % | 3,711 % |
| 72                             | 3,078 % | 3,368 %      | 3,074 %      | 4,230 % | 3,578 % | 3,716 % |
| 73                             | 3,091 % | 3,378 %      | 3,087 %      | 4,231 % | 3,584 % | 3,720 % |
| 74                             | 3,104 % | 3,387 %      | 3,100 %      | 4,233 % | 3,590 % | 3,725 % |
| 75                             | 3,116 % | 3,396 %      | 3,113 %      | 4,235 % | 3,597 % | 3,729 % |
| 76                             | 3,129 % | 3,404 %      | 3,125 %      | 4,236 % | 3,603 % | 3,733 % |
| 77                             | 3,140 % | 3,412 %      | 3,137 %      | 4,238 % | 3,608 % | 3,737 % |
| 78                             | 3,152 % | 3,421 %      | 3,149 %      | 4,239 % | 3,614 % | 3,741 % |
| 79                             | 3,163 % | 3,429 %      | 3,160 %      | 4,241 % | 3,619 % | 3,745 % |

| Term to maturity<br>(in years) | Euro    | Czech koruna | Danish krone | Forint  | Krona   | Kuna    |
|--------------------------------|---------|--------------|--------------|---------|---------|---------|
| 80                             | 3,174 % | 3,436 %      | 3,171 %      | 4,242 % | 3,625 % | 3,749 % |
| 81                             | 3,185 % | 3,444 %      | 3,182 %      | 4,243 % | 3,630 % | 3,753 % |
| 82                             | 3,196 % | 3,451 %      | 3,193 %      | 4,245 % | 3,635 % | 3,756 % |
| 83                             | 3,206 % | 3,458 %      | 3,203 %      | 4,246 % | 3,640 % | 3,760 % |
| 84                             | 3,216 % | 3,465 %      | 3,213 %      | 4,247 % | 3,645 % | 3,763 % |
| 85                             | 3,226 % | 3,472 %      | 3,223 %      | 4,249 % | 3,650 % | 3,767 % |
| 86                             | 3,235 % | 3,479 %      | 3,232 %      | 4,250 % | 3,654 % | 3,770 % |
| 87                             | 3,245 % | 3,485 %      | 3,242 %      | 4,251 % | 3,659 % | 3,773 % |
| 88                             | 3,254 % | 3,492 %      | 3,251 %      | 4,252 % | 3,663 % | 3,776 % |
| 89                             | 3,263 % | 3,498 %      | 3,260 %      | 4,253 % | 3,668 % | 3,779 % |
| 90                             | 3,271 % | 3,504 %      | 3,268 %      | 4,254 % | 3,672 % | 3,782 % |
| 91                             | 3,280 % | 3,510 %      | 3,277 %      | 4,255 % | 3,676 % | 3,785 % |
| 92                             | 3,288 % | 3,516 %      | 3,285 %      | 4,256 % | 3,680 % | 3,788 % |
| 93                             | 3,296 % | 3,522 %      | 3,294 %      | 4,257 % | 3,684 % | 3,791 % |
| 94                             | 3,304 % | 3,527 %      | 3,302 %      | 4,258 % | 3,688 % | 3,793 % |
| 95                             | 3,312 % | 3,533 %      | 3,309 %      | 4,259 % | 3,692 % | 3,796 % |
| 96                             | 3,320 % | 3,538 %      | 3,317 %      | 4,260 % | 3,696 % | 3,799 % |
| 97                             | 3,327 % | 3,543 %      | 3,325 %      | 4,261 % | 3,699 % | 3,801 % |
| 98                             | 3,335 % | 3,549 %      | 3,332 %      | 4,262 % | 3,703 % | 3,804 % |
| 99                             | 3,342 % | 3,554 %      | 3,339 %      | 4,263 % | 3,706 % | 3,806 % |
| 100                            | 3,349 % | 3,559 %      | 3,346 %      | 4,264 % | 3,710 % | 3,809 % |
| 101                            | 3,356 % | 3,563 %      | 3,353 %      | 4,265 % | 3,713 % | 3,811 % |
| 102                            | 3,363 % | 3,568 %      | 3,360 %      | 4,266 % | 3,716 % | 3,814 % |
| 103                            | 3,369 % | 3,573 %      | 3,367 %      | 4,267 % | 3,720 % | 3,816 % |
| 104                            | 3,376 % | 3,577 %      | 3,373 %      | 4,267 % | 3,723 % | 3,818 % |
| 105                            | 3,382 % | 3,582 %      | 3,380 %      | 4,268 % | 3,726 % | 3,820 % |
| 106                            | 3,388 % | 3,586 %      | 3,386 %      | 4,269 % | 3,729 % | 3,822 % |
| 107                            | 3,395 % | 3,591 %      | 3,392 %      | 4,270 % | 3,732 % | 3,825 % |
| 108                            | 3,401 % | 3,595 %      | 3,398 %      | 4,270 % | 3,735 % | 3,827 % |
| 109                            | 3,407 % | 3,599 %      | 3,404 %      | 4,271 % | 3,738 % | 3,829 % |
| 110                            | 3,412 % | 3,603 %      | 3,410 %      | 4,272 % | 3,741 % | 3,831 % |
| 111                            | 3,418 % | 3,607 %      | 3,416 %      | 4,273 % | 3,743 % | 3,833 % |
| 112                            | 3,424 % | 3,611 %      | 3,421 %      | 4,273 % | 3,746 % | 3,835 % |
| 113                            | 3,429 % | 3,615 %      | 3,427 %      | 4,274 % | 3,749 % | 3,836 % |
| 114                            | 3,435 % | 3,619 %      | 3,432 %      | 4,275 % | 3,751 % | 3,838 % |
| 115                            | 3,440 % | 3,623 %      | 3,438 %      | 4,275 % | 3,754 % | 3,840 % |
| 116                            | 3,445 % | 3,626 %      | 3,443 %      | 4,276 % | 3,757 % | 3,842 % |
| 117                            | 3,450 % | 3,630 %      | 3,448 %      | 4,277 % | 3,759 % | 3,844 % |
| 118                            | 3,456 % | 3,633 %      | 3,453 %      | 4,277 % | 3,762 % | 3,846 % |
| 119                            | 3,461 % | 3,637 %      | 3,458 %      | 4,278 % | 3,764 % | 3,847 % |

| Term to maturity<br>(in years) | Euro    | Czech koruna | Danish krone | Forint  | Krona   | Kuna    |
|--------------------------------|---------|--------------|--------------|---------|---------|---------|
| 120                            | 3,465 % | 3,640 %      | 3,463 %      | 4,278 % | 3,766 % | 3,849 % |
| 121                            | 3,470 % | 3,644 %      | 3,468 %      | 4,279 % | 3,769 % | 3,851 % |
| 122                            | 3,475 % | 3,647 %      | 3,473 %      | 4,280 % | 3,771 % | 3,852 % |
| 123                            | 3,480 % | 3,650 %      | 3,478 %      | 4,280 % | 3,773 % | 3,854 % |
| 124                            | 3,484 % | 3,654 %      | 3,482 %      | 4,281 % | 3,776 % | 3,855 % |
| 125                            | 3,489 % | 3,657 %      | 3,487 %      | 4,281 % | 3,778 % | 3,857 % |
| 126                            | 3,493 % | 3,660 %      | 3,491 %      | 4,282 % | 3,780 % | 3,858 % |
| 127                            | 3,498 % | 3,663 %      | 3,495 %      | 4,282 % | 3,782 % | 3,860 % |
| 128                            | 3,502 % | 3,666 %      | 3,500 %      | 4,283 % | 3,784 % | 3,861 % |
| 129                            | 3,506 % | 3,669 %      | 3,504 %      | 4,283 % | 3,786 % | 3,863 % |
| 130                            | 3,510 % | 3,672 %      | 3,508 %      | 4,284 % | 3,788 % | 3,864 % |
| 131                            | 3,514 % | 3,675 %      | 3,512 %      | 4,284 % | 3,790 % | 3,866 % |
| 132                            | 3,518 % | 3,678 %      | 3,516 %      | 4,285 % | 3,792 % | 3,867 % |
| 133                            | 3,522 % | 3,680 %      | 3,520 %      | 4,285 % | 3,794 % | 3,869 % |
| 134                            | 3,526 % | 3,683 %      | 3,524 %      | 4,286 % | 3,796 % | 3,870 % |
| 135                            | 3,530 % | 3,686 %      | 3,528 %      | 4,286 % | 3,798 % | 3,871 % |
| 136                            | 3,534 % | 3,688 %      | 3,532 %      | 4,287 % | 3,800 % | 3,873 % |
| 137                            | 3,538 % | 3,691 %      | 3,536 %      | 4,287 % | 3,802 % | 3,874 % |
| 138                            | 3,541 % | 3,694 %      | 3,540 %      | 4,288 % | 3,803 % | 3,875 % |
| 139                            | 3,545 % | 3,696 %      | 3,543 %      | 4,288 % | 3,805 % | 3,876 % |
| 140                            | 3,549 % | 3,699 %      | 3,547 %      | 4,289 % | 3,807 % | 3,878 % |
| 141                            | 3,552 % | 3,701 %      | 3,550 %      | 4,289 % | 3,809 % | 3,879 % |
| 142                            | 3,556 % | 3,704 %      | 3,554 %      | 4,290 % | 3,810 % | 3,880 % |
| 143                            | 3,559 % | 3,706 %      | 3,557 %      | 4,290 % | 3,812 % | 3,881 % |
| 144                            | 3,563 % | 3,709 %      | 3,561 %      | 4,290 % | 3,814 % | 3,882 % |
| 145                            | 3,566 % | 3,711 %      | 3,564 %      | 4,291 % | 3,815 % | 3,884 % |
| 146                            | 3,569 % | 3,713 %      | 3,567 %      | 4,291 % | 3,817 % | 3,885 % |
| 147                            | 3,573 % | 3,715 %      | 3,571 %      | 4,292 % | 3,818 % | 3,886 % |
| 148                            | 3,576 % | 3,718 %      | 3,574 %      | 4,292 % | 3,820 % | 3,887 % |
| 149                            | 3,579 % | 3,720 %      | 3,577 %      | 4,292 % | 3,822 % | 3,888 % |
| 150                            | 3,582 % | 3,722 %      | 3,580 %      | 4,293 % | 3,823 % | 3,889 % |

| Term to maturity<br>(in years) | Lev       | Pound sterling | Romanian leu | Zloty   | Króna   | Norwegian<br>krone |
|--------------------------------|-----------|----------------|--------------|---------|---------|--------------------|
| 1                              | – 0,383 % | 0,981 %        | 3,384 %      | 0,936 % | 4,912 % | 1,247 %            |
| 2                              | – 0,325 % | 1,062 %        | 3,716 %      | 1,325 % | 5,030 % | 1,436 %            |
| 3                              | – 0,227 % | 1,124 %        | 3,944 %      | 1,668 % | 5,185 % | 1,538 %            |
| 4                              | – 0,096 % | 1,170 %        | 4,118 %      | 1,898 % | 5,271 % | 1,627 %            |
| 5                              | 0,048 %   | 1,204 %        | 4,245 %      | 2,127 % | 5,313 % | 1,706 %            |
| 6                              | 0,188 %   | 1,236 %        | 4,349 %      | 2,315 % | 5,333 % | 1,781 %            |
| 7                              | 0,322 %   | 1,262 %        | 4,448 %      | 2,477 % | 5,340 % | 1,852 %            |
| 8                              | 0,449 %   | 1,288 %        | 4,550 %      | 2,604 % | 5,337 % | 1,917 %            |
| 9                              | 0,567 %   | 1,315 %        | 4,661 %      | 2,724 % | 5,324 % | 1,976 %            |

| Term to maturity<br>(in years) | Lev     | Pound sterling | Romanian leu | Zloty   | Króna   | Norwegian<br>krone |
|--------------------------------|---------|----------------|--------------|---------|---------|--------------------|
| 10                             | 0,675 % | 1,342 %        | 4,793 %      | 2,770 % | 5,304 % | 2,026 %            |
| 11                             | 0,771 % | 1,366 %        | 4,899 %      | 2,802 % | 5,280 % | 2,080 %            |
| 12                             | 0,858 % | 1,386 %        | 4,973 %      | 2,836 % | 5,253 % | 2,137 %            |
| 13                             | 0,936 % | 1,403 %        | 5,024 %      | 2,871 % | 5,224 % | 2,196 %            |
| 14                             | 1,002 % | 1,417 %        | 5,058 %      | 2,905 % | 5,195 % | 2,254 %            |
| 15                             | 1,054 % | 1,429 %        | 5,078 %      | 2,939 % | 5,165 % | 2,312 %            |
| 16                             | 1,091 % | 1,439 %        | 5,088 %      | 2,973 % | 5,135 % | 2,368 %            |
| 17                             | 1,121 % | 1,447 %        | 5,091 %      | 3,005 % | 5,106 % | 2,422 %            |
| 18                             | 1,150 % | 1,454 %        | 5,087 %      | 3,037 % | 5,077 % | 2,475 %            |
| 19                             | 1,183 % | 1,460 %        | 5,079 %      | 3,067 % | 5,049 % | 2,525 %            |
| 20                             | 1,223 % | 1,463 %        | 5,067 %      | 3,096 % | 5,021 % | 2,573 %            |
| 21                             | 1,271 % | 1,465 %        | 5,053 %      | 3,124 % | 4,994 % | 2,620 %            |
| 22                             | 1,326 % | 1,466 %        | 5,037 %      | 3,151 % | 4,968 % | 2,664 %            |
| 23                             | 1,385 % | 1,466 %        | 5,020 %      | 3,177 % | 4,943 % | 2,706 %            |
| 24                             | 1,446 % | 1,466 %        | 5,001 %      | 3,202 % | 4,919 % | 2,747 %            |
| 25                             | 1,508 % | 1,464 %        | 4,982 %      | 3,226 % | 4,896 % | 2,785 %            |
| 26                             | 1,571 % | 1,463 %        | 4,963 %      | 3,249 % | 4,873 % | 2,822 %            |
| 27                             | 1,633 % | 1,461 %        | 4,943 %      | 3,271 % | 4,851 % | 2,857 %            |
| 28                             | 1,694 % | 1,458 %        | 4,924 %      | 3,292 % | 4,830 % | 2,891 %            |
| 29                             | 1,754 % | 1,456 %        | 4,904 %      | 3,312 % | 4,810 % | 2,923 %            |
| 30                             | 1,813 % | 1,453 %        | 4,885 %      | 3,331 % | 4,791 % | 2,953 %            |
| 31                             | 1,870 % | 1,450 %        | 4,866 %      | 3,350 % | 4,772 % | 2,983 %            |
| 32                             | 1,925 % | 1,447 %        | 4,848 %      | 3,367 % | 4,754 % | 3,011 %            |
| 33                             | 1,978 % | 1,444 %        | 4,830 %      | 3,384 % | 4,737 % | 3,038 %            |
| 34                             | 2,029 % | 1,441 %        | 4,812 %      | 3,400 % | 4,720 % | 3,063 %            |
| 35                             | 2,079 % | 1,440 %        | 4,795 %      | 3,416 % | 4,704 % | 3,088 %            |
| 36                             | 2,126 % | 1,438 %        | 4,778 %      | 3,431 % | 4,689 % | 3,111 %            |
| 37                             | 2,172 % | 1,436 %        | 4,762 %      | 3,446 % | 4,674 % | 3,134 %            |
| 38                             | 2,216 % | 1,433 %        | 4,747 %      | 3,459 % | 4,660 % | 3,155 %            |
| 39                             | 2,259 % | 1,427 %        | 4,732 %      | 3,473 % | 4,646 % | 3,176 %            |
| 40                             | 2,300 % | 1,419 %        | 4,717 %      | 3,485 % | 4,633 % | 3,196 %            |
| 41                             | 2,339 % | 1,408 %        | 4,703 %      | 3,498 % | 4,620 % | 3,215 %            |
| 42                             | 2,377 % | 1,396 %        | 4,689 %      | 3,510 % | 4,608 % | 3,233 %            |
| 43                             | 2,413 % | 1,384 %        | 4,676 %      | 3,521 % | 4,597 % | 3,251 %            |
| 44                             | 2,448 % | 1,373 %        | 4,663 %      | 3,532 % | 4,585 % | 3,268 %            |
| 45                             | 2,482 % | 1,365 %        | 4,650 %      | 3,542 % | 4,574 % | 3,284 %            |
| 46                             | 2,514 % | 1,360 %        | 4,638 %      | 3,553 % | 4,564 % | 3,300 %            |
| 47                             | 2,546 % | 1,359 %        | 4,627 %      | 3,563 % | 4,554 % | 3,315 %            |
| 48                             | 2,576 % | 1,362 %        | 4,616 %      | 3,572 % | 4,544 % | 3,329 %            |
| 49                             | 2,605 % | 1,370 %        | 4,605 %      | 3,581 % | 4,534 % | 3,343 %            |

| Term to maturity<br>(in years) | Lev     | Pound sterling | Romanian leu | Zloty   | Króna   | Norwegian<br>krone |
|--------------------------------|---------|----------------|--------------|---------|---------|--------------------|
| 50                             | 2,632 % | 1,382 %        | 4,594 %      | 3,590 % | 4,525 % | 3,357 %            |
| 51                             | 2,659 % | 1,398 %        | 4,584 %      | 3,598 % | 4,516 % | 3,370 %            |
| 52                             | 2,685 % | 1,419 %        | 4,574 %      | 3,607 % | 4,508 % | 3,383 %            |
| 53                             | 2,710 % | 1,443 %        | 4,565 %      | 3,615 % | 4,499 % | 3,395 %            |
| 54                             | 2,735 % | 1,469 %        | 4,556 %      | 3,622 % | 4,492 % | 3,406 %            |
| 55                             | 2,758 % | 1,497 %        | 4,547 %      | 3,630 % | 4,484 % | 3,418 %            |
| 56                             | 2,781 % | 1,526 %        | 4,538 %      | 3,637 % | 4,476 % | 3,429 %            |
| 57                             | 2,803 % | 1,557 %        | 4,530 %      | 3,644 % | 4,469 % | 3,439 %            |
| 58                             | 2,824 % | 1,587 %        | 4,522 %      | 3,651 % | 4,462 % | 3,450 %            |
| 59                             | 2,844 % | 1,619 %        | 4,514 %      | 3,657 % | 4,455 % | 3,460 %            |
| 60                             | 2,864 % | 1,650 %        | 4,507 %      | 3,664 % | 4,449 % | 3,469 %            |
| 61                             | 2,883 % | 1,682 %        | 4,499 %      | 3,670 % | 4,442 % | 3,479 %            |
| 62                             | 2,902 % | 1,713 %        | 4,492 %      | 3,676 % | 4,436 % | 3,488 %            |
| 63                             | 2,920 % | 1,744 %        | 4,485 %      | 3,682 % | 4,430 % | 3,496 %            |
| 64                             | 2,937 % | 1,775 %        | 4,478 %      | 3,687 % | 4,424 % | 3,505 %            |
| 65                             | 2,954 % | 1,805 %        | 4,472 %      | 3,693 % | 4,419 % | 3,513 %            |
| 66                             | 2,971 % | 1,836 %        | 4,466 %      | 3,698 % | 4,413 % | 3,521 %            |
| 67                             | 2,986 % | 1,865 %        | 4,460 %      | 3,703 % | 4,408 % | 3,529 %            |
| 68                             | 3,002 % | 1,894 %        | 4,454 %      | 3,708 % | 4,403 % | 3,537 %            |
| 69                             | 3,017 % | 1,923 %        | 4,448 %      | 3,713 % | 4,398 % | 3,544 %            |
| 70                             | 3,032 % | 1,951 %        | 4,442 %      | 3,718 % | 4,393 % | 3,551 %            |
| 71                             | 3,046 % | 1,978 %        | 4,437 %      | 3,722 % | 4,388 % | 3,558 %            |
| 72                             | 3,060 % | 2,005 %        | 4,431 %      | 3,727 % | 4,383 % | 3,565 %            |
| 73                             | 3,073 % | 2,032 %        | 4,426 %      | 3,731 % | 4,379 % | 3,571 %            |
| 74                             | 3,086 % | 2,058 %        | 4,421 %      | 3,736 % | 4,374 % | 3,578 %            |
| 75                             | 3,099 % | 2,083 %        | 4,416 %      | 3,740 % | 4,370 % | 3,584 %            |
| 76                             | 3,112 % | 2,108 %        | 4,411 %      | 3,744 % | 4,366 % | 3,590 %            |
| 77                             | 3,124 % | 2,132 %        | 4,407 %      | 3,748 % | 4,362 % | 3,596 %            |
| 78                             | 3,135 % | 2,156 %        | 4,402 %      | 3,752 % | 4,358 % | 3,602 %            |
| 79                             | 3,147 % | 2,179 %        | 4,398 %      | 3,755 % | 4,354 % | 3,607 %            |
| 80                             | 3,158 % | 2,202 %        | 4,393 %      | 3,759 % | 4,350 % | 3,613 %            |
| 81                             | 3,169 % | 2,224 %        | 4,389 %      | 3,762 % | 4,346 % | 3,618 %            |
| 82                             | 3,180 % | 2,246 %        | 4,385 %      | 3,766 % | 4,343 % | 3,624 %            |
| 83                             | 3,190 % | 2,267 %        | 4,381 %      | 3,769 % | 4,339 % | 3,629 %            |
| 84                             | 3,200 % | 2,288 %        | 4,377 %      | 3,773 % | 4,336 % | 3,634 %            |
| 85                             | 3,210 % | 2,308 %        | 4,373 %      | 3,776 % | 4,332 % | 3,639 %            |
| 86                             | 3,220 % | 2,328 %        | 4,369 %      | 3,779 % | 4,329 % | 3,643 %            |
| 87                             | 3,230 % | 2,347 %        | 4,366 %      | 3,782 % | 4,326 % | 3,648 %            |
| 88                             | 3,239 % | 2,366 %        | 4,362 %      | 3,785 % | 4,323 % | 3,653 %            |
| 89                             | 3,248 % | 2,385 %        | 4,359 %      | 3,788 % | 4,320 % | 3,657 %            |

| Term to maturity<br>(in years) | Lev     | Pound sterling | Romanian leu | Zloty   | Króna   | Norwegian<br>krone |
|--------------------------------|---------|----------------|--------------|---------|---------|--------------------|
| 90                             | 3,257 % | 2,403 %        | 4,355 %      | 3,791 % | 4,317 % | 3,661 %            |
| 91                             | 3,266 % | 2,421 %        | 4,352 %      | 3,794 % | 4,314 % | 3,666 %            |
| 92                             | 3,274 % | 2,438 %        | 4,349 %      | 3,797 % | 4,311 % | 3,670 %            |
| 93                             | 3,282 % | 2,456 %        | 4,345 %      | 3,799 % | 4,308 % | 3,674 %            |
| 94                             | 3,290 % | 2,472 %        | 4,342 %      | 3,802 % | 4,305 % | 3,678 %            |
| 95                             | 3,298 % | 2,489 %        | 4,339 %      | 3,805 % | 4,303 % | 3,682 %            |
| 96                             | 3,306 % | 2,505 %        | 4,336 %      | 3,807 % | 4,300 % | 3,686 %            |
| 97                             | 3,314 % | 2,521 %        | 4,333 %      | 3,810 % | 4,298 % | 3,689 %            |
| 98                             | 3,321 % | 2,536 %        | 4,330 %      | 3,812 % | 4,295 % | 3,693 %            |
| 99                             | 3,329 % | 2,551 %        | 4,327 %      | 3,815 % | 4,293 % | 3,697 %            |
| 100                            | 3,336 % | 2,566 %        | 4,325 %      | 3,817 % | 4,290 % | 3,700 %            |
| 101                            | 3,343 % | 2,581 %        | 4,322 %      | 3,819 % | 4,288 % | 3,704 %            |
| 102                            | 3,350 % | 2,595 %        | 4,319 %      | 3,821 % | 4,285 % | 3,707 %            |
| 103                            | 3,357 % | 2,609 %        | 4,317 %      | 3,824 % | 4,283 % | 3,710 %            |
| 104                            | 3,363 % | 2,623 %        | 4,314 %      | 3,826 % | 4,281 % | 3,714 %            |
| 105                            | 3,370 % | 2,636 %        | 4,312 %      | 3,828 % | 4,279 % | 3,717 %            |
| 106                            | 3,376 % | 2,649 %        | 4,309 %      | 3,830 % | 4,277 % | 3,720 %            |
| 107                            | 3,382 % | 2,662 %        | 4,307 %      | 3,832 % | 4,274 % | 3,723 %            |
| 108                            | 3,389 % | 2,675 %        | 4,304 %      | 3,834 % | 4,272 % | 3,726 %            |
| 109                            | 3,395 % | 2,688 %        | 4,302 %      | 3,836 % | 4,270 % | 3,729 %            |
| 110                            | 3,401 % | 2,700 %        | 4,300 %      | 3,838 % | 4,268 % | 3,732 %            |
| 111                            | 3,406 % | 2,712 %        | 4,297 %      | 3,840 % | 4,266 % | 3,735 %            |
| 112                            | 3,412 % | 2,724 %        | 4,295 %      | 3,842 % | 4,264 % | 3,737 %            |
| 113                            | 3,418 % | 2,736 %        | 4,293 %      | 3,844 % | 4,262 % | 3,740 %            |
| 114                            | 3,423 % | 2,747 %        | 4,291 %      | 3,845 % | 4,261 % | 3,743 %            |
| 115                            | 3,429 % | 2,758 %        | 4,289 %      | 3,847 % | 4,259 % | 3,746 %            |
| 116                            | 3,434 % | 2,769 %        | 4,287 %      | 3,849 % | 4,257 % | 3,748 %            |
| 117                            | 3,439 % | 2,780 %        | 4,285 %      | 3,851 % | 4,255 % | 3,751 %            |
| 118                            | 3,445 % | 2,791 %        | 4,283 %      | 3,852 % | 4,253 % | 3,753 %            |
| 119                            | 3,450 % | 2,801 %        | 4,281 %      | 3,854 % | 4,252 % | 3,756 %            |
| 120                            | 3,455 % | 2,812 %        | 4,279 %      | 3,856 % | 4,250 % | 3,758 %            |
| 121                            | 3,459 % | 2,822 %        | 4,277 %      | 3,857 % | 4,248 % | 3,761 %            |
| 122                            | 3,464 % | 2,832 %        | 4,275 %      | 3,859 % | 4,247 % | 3,763 %            |
| 123                            | 3,469 % | 2,842 %        | 4,273 %      | 3,860 % | 4,245 % | 3,765 %            |
| 124                            | 3,474 % | 2,851 %        | 4,271 %      | 3,862 % | 4,244 % | 3,768 %            |
| 125                            | 3,478 % | 2,861 %        | 4,270 %      | 3,863 % | 4,242 % | 3,770 %            |
| 126                            | 3,483 % | 2,870 %        | 4,268 %      | 3,865 % | 4,241 % | 3,772 %            |
| 127                            | 3,487 % | 2,880 %        | 4,266 %      | 3,866 % | 4,239 % | 3,774 %            |
| 128                            | 3,492 % | 2,889 %        | 4,265 %      | 3,868 % | 4,238 % | 3,777 %            |
| 129                            | 3,496 % | 2,898 %        | 4,263 %      | 3,869 % | 4,236 % | 3,779 %            |

| Term to maturity<br>(in years) | Lev     | Pound sterling | Romanian leu | Zloty   | Króna   | Norwegian<br>krone |
|--------------------------------|---------|----------------|--------------|---------|---------|--------------------|
| 130                            | 3,500 % | 2,906 %        | 4,261 %      | 3,871 % | 4,235 % | 3,781 %            |
| 131                            | 3,504 % | 2,915 %        | 4,260 %      | 3,872 % | 4,233 % | 3,783 %            |
| 132                            | 3,509 % | 2,924 %        | 4,258 %      | 3,873 % | 4,232 % | 3,785 %            |
| 133                            | 3,513 % | 2,932 %        | 4,256 %      | 3,875 % | 4,230 % | 3,787 %            |
| 134                            | 3,517 % | 2,940 %        | 4,255 %      | 3,876 % | 4,229 % | 3,789 %            |
| 135                            | 3,521 % | 2,949 %        | 4,253 %      | 3,877 % | 4,228 % | 3,791 %            |
| 136                            | 3,524 % | 2,957 %        | 4,252 %      | 3,879 % | 4,227 % | 3,793 %            |
| 137                            | 3,528 % | 2,965 %        | 4,250 %      | 3,880 % | 4,225 % | 3,794 %            |
| 138                            | 3,532 % | 2,972 %        | 4,249 %      | 3,881 % | 4,224 % | 3,796 %            |
| 139                            | 3,536 % | 2,980 %        | 4,248 %      | 3,882 % | 4,223 % | 3,798 %            |
| 140                            | 3,539 % | 2,988 %        | 4,246 %      | 3,883 % | 4,221 % | 3,800 %            |
| 141                            | 3,543 % | 2,995 %        | 4,245 %      | 3,885 % | 4,220 % | 3,802 %            |
| 142                            | 3,547 % | 3,003 %        | 4,243 %      | 3,886 % | 4,219 % | 3,803 %            |
| 143                            | 3,550 % | 3,010 %        | 4,242 %      | 3,887 % | 4,218 % | 3,805 %            |
| 144                            | 3,554 % | 3,017 %        | 4,241 %      | 3,888 % | 4,217 % | 3,807 %            |
| 145                            | 3,557 % | 3,024 %        | 4,239 %      | 3,889 % | 4,216 % | 3,809 %            |
| 146                            | 3,560 % | 3,031 %        | 4,238 %      | 3,890 % | 4,214 % | 3,810 %            |
| 147                            | 3,564 % | 3,038 %        | 4,237 %      | 3,891 % | 4,213 % | 3,812 %            |
| 148                            | 3,567 % | 3,045 %        | 4,235 %      | 3,892 % | 4,212 % | 3,813 %            |
| 149                            | 3,570 % | 3,052 %        | 4,234 %      | 3,893 % | 4,211 % | 3,815 %            |
| 150                            | 3,573 % | 3,058 %        | 4,233 %      | 3,895 % | 4,210 % | 3,817 %            |

| Term to maturity<br>(in years) | Swiss franc | Australian<br>dollar | Baht    | Canadian dollar | Chilean peso | Colombian peso |
|--------------------------------|-------------|----------------------|---------|-----------------|--------------|----------------|
| 1                              | – 0,745 %   | 1,830 %              | 1,612 % | 2,082 %         | 2,899 %      | 4,514 %        |
| 2                              | – 0,670 %   | 1,787 %              | 1,693 % | 2,066 %         | 3,083 %      | 4,945 %        |
| 3                              | – 0,573 %   | 1,784 %              | 1,795 % | 2,069 %         | 3,259 %      | 5,231 %        |
| 4                              | – 0,466 %   | 1,843 %              | 1,873 % | 2,083 %         | 3,402 %      | 5,530 %        |
| 5                              | – 0,354 %   | 1,929 %              | 1,919 % | 2,110 %         | 3,501 %      | 5,772 %        |
| 6                              | – 0,237 %   | 2,017 %              | 1,984 % | 2,145 %         | 3,591 %      | 5,996 %        |
| 7                              | – 0,051 %   | 2,099 %              | 2,057 % | 2,186 %         | 3,678 %      | 6,231 %        |
| 8                              | – 0,008 %   | 2,169 %              | 2,123 % | 2,228 %         | 3,762 %      | 6,417 %        |
| 9                              | 0,119 %     | 2,234 %              | 2,182 % | 2,267 %         | 3,839 %      | 6,537 %        |
| 10                             | 0,216 %     | 2,294 %              | 2,235 % | 2,313 %         | 3,905 %      | 6,659 %        |
| 11                             | 0,351 %     | 2,349 %              | 2,282 % | 2,352 %         | 3,959 %      | 6,745 %        |
| 12                             | 0,376 %     | 2,396 %              | 2,323 % | 2,386 %         | 4,004 %      | 6,793 %        |
| 13                             | 0,494 %     | 2,436 %              | 2,359 % | 2,418 %         | 4,041 %      | 6,813 %        |
| 14                             | 0,490 %     | 2,469 %              | 2,394 % | 2,448 %         | 4,072 %      | 6,812 %        |
| 15                             | 0,529 %     | 2,495 %              | 2,430 % | 2,475 %         | 4,099 %      | 6,795 %        |
| 16                             | 0,580 %     | 2,515 %              | 2,468 % | 2,497 %         | 4,122 %      | 6,767 %        |
| 17                             | 0,622 %     | 2,530 %              | 2,508 % | 2,515 %         | 4,142 %      | 6,731 %        |
| 18                             | 0,654 %     | 2,543 %              | 2,548 % | 2,529 %         | 4,159 %      | 6,688 %        |
| 19                             | 0,677 %     | 2,555 %              | 2,589 % | 2,537 %         | 4,174 %      | 6,641 %        |

| Term to maturity<br>(in years) | Swiss franc | Australian<br>dollar | Baht    | Canadian dollar | Chilean peso | Colombian peso |
|--------------------------------|-------------|----------------------|---------|-----------------|--------------|----------------|
| 20                             | 0,691 %     | 2,567 %              | 2,629 % | 2,540 %         | 4,188 %      | 6,591 %        |
| 21                             | 0,696 %     | 2,578 %              | 2,669 % | 2,538 %         | 4,200 %      | 6,540 %        |
| 22                             | 0,697 %     | 2,586 %              | 2,707 % | 2,534 %         | 4,210 %      | 6,488 %        |
| 23                             | 0,700 %     | 2,590 %              | 2,745 % | 2,528 %         | 4,220 %      | 6,435 %        |
| 24                             | 0,707 %     | 2,588 %              | 2,781 % | 2,523 %         | 4,228 %      | 6,382 %        |
| 25                             | 0,721 %     | 2,578 %              | 2,816 % | 2,518 %         | 4,236 %      | 6,330 %        |
| 26                             | 0,744 %     | 2,560 %              | 2,850 % | 2,516 %         | 4,243 %      | 6,279 %        |
| 27                             | 0,773 %     | 2,539 %              | 2,883 % | 2,517 %         | 4,249 %      | 6,229 %        |
| 28                             | 0,807 %     | 2,519 %              | 2,914 % | 2,521 %         | 4,255 %      | 6,181 %        |
| 29                             | 0,845 %     | 2,503 %              | 2,945 % | 2,528 %         | 4,261 %      | 6,133 %        |
| 30                             | 0,885 %     | 2,494 %              | 2,974 % | 2,539 %         | 4,265 %      | 6,087 %        |
| 31                             | 0,926 %     | 2,492 %              | 3,002 % | 2,553 %         | 4,270 %      | 6,043 %        |
| 32                             | 0,969 %     | 2,497 %              | 3,028 % | 2,571 %         | 4,274 %      | 6,000 %        |
| 33                             | 1,011 %     | 2,507 %              | 3,054 % | 2,590 %         | 4,277 %      | 5,958 %        |
| 34                             | 1,054 %     | 2,521 %              | 3,079 % | 2,612 %         | 4,281 %      | 5,918 %        |
| 35                             | 1,096 %     | 2,538 %              | 3,103 % | 2,634 %         | 4,284 %      | 5,880 %        |
| 36                             | 1,137 %     | 2,557 %              | 3,125 % | 2,657 %         | 4,287 %      | 5,843 %        |
| 37                             | 1,178 %     | 2,578 %              | 3,147 % | 2,681 %         | 4,290 %      | 5,807 %        |
| 38                             | 1,218 %     | 2,600 %              | 3,168 % | 2,705 %         | 4,292 %      | 5,773 %        |
| 39                             | 1,257 %     | 2,623 %              | 3,188 % | 2,729 %         | 4,295 %      | 5,740 %        |
| 40                             | 1,295 %     | 2,647 %              | 3,208 % | 2,753 %         | 4,297 %      | 5,708 %        |
| 41                             | 1,332 %     | 2,670 %              | 3,226 % | 2,777 %         | 4,299 %      | 5,677 %        |
| 42                             | 1,367 %     | 2,694 %              | 3,244 % | 2,800 %         | 4,301 %      | 5,648 %        |
| 43                             | 1,402 %     | 2,718 %              | 3,262 % | 2,823 %         | 4,302 %      | 5,620 %        |
| 44                             | 1,436 %     | 2,741 %              | 3,278 % | 2,846 %         | 4,304 %      | 5,592 %        |
| 45                             | 1,468 %     | 2,765 %              | 3,294 % | 2,868 %         | 4,306 %      | 5,566 %        |
| 46                             | 1,500 %     | 2,788 %              | 3,310 % | 2,890 %         | 4,307 %      | 5,541 %        |
| 47                             | 1,530 %     | 2,810 %              | 3,324 % | 2,911 %         | 4,309 %      | 5,516 %        |
| 48                             | 1,560 %     | 2,832 %              | 3,339 % | 2,932 %         | 4,310 %      | 5,493 %        |
| 49                             | 1,588 %     | 2,854 %              | 3,353 % | 2,952 %         | 4,311 %      | 5,470 %        |
| 50                             | 1,616 %     | 2,875 %              | 3,366 % | 2,972 %         | 4,312 %      | 5,449 %        |
| 51                             | 1,642 %     | 2,896 %              | 3,379 % | 2,991 %         | 4,313 %      | 5,428 %        |
| 52                             | 1,668 %     | 2,916 %              | 3,391 % | 3,009 %         | 4,314 %      | 5,407 %        |
| 53                             | 1,693 %     | 2,935 %              | 3,403 % | 3,027 %         | 4,315 %      | 5,388 %        |
| 54                             | 1,717 %     | 2,954 %              | 3,415 % | 3,045 %         | 4,316 %      | 5,369 %        |
| 55                             | 1,741 %     | 2,973 %              | 3,426 % | 3,062 %         | 4,317 %      | 5,351 %        |
| 56                             | 1,763 %     | 2,991 %              | 3,437 % | 3,079 %         | 4,318 %      | 5,333 %        |
| 57                             | 1,785 %     | 3,008 %              | 3,447 % | 3,095 %         | 4,319 %      | 5,316 %        |
| 58                             | 1,806 %     | 3,025 %              | 3,457 % | 3,110 %         | 4,319 %      | 5,300 %        |
| 59                             | 1,827 %     | 3,042 %              | 3,467 % | 3,126 %         | 4,320 %      | 5,284 %        |

| Term to maturity<br>(in years) | Swiss franc | Australian<br>dollar | Baht    | Canadian dollar | Chilean peso | Colombian peso |
|--------------------------------|-------------|----------------------|---------|-----------------|--------------|----------------|
| 60                             | 1,847 %     | 3,058 %              | 3,477 % | 3,140 %         | 4,321 %      | 5,268 %        |
| 61                             | 1,866 %     | 3,074 %              | 3,486 % | 3,155 %         | 4,321 %      | 5,253 %        |
| 62                             | 1,885 %     | 3,089 %              | 3,495 % | 3,169 %         | 4,322 %      | 5,239 %        |
| 63                             | 1,903 %     | 3,104 %              | 3,503 % | 3,182 %         | 4,323 %      | 5,225 %        |
| 64                             | 1,921 %     | 3,118 %              | 3,512 % | 3,195 %         | 4,323 %      | 5,211 %        |
| 65                             | 1,938 %     | 3,132 %              | 3,520 % | 3,208 %         | 4,324 %      | 5,198 %        |
| 66                             | 1,954 %     | 3,145 %              | 3,528 % | 3,221 %         | 4,324 %      | 5,185 %        |
| 67                             | 1,971 %     | 3,159 %              | 3,536 % | 3,233 %         | 4,325 %      | 5,173 %        |
| 68                             | 1,986 %     | 3,171 %              | 3,543 % | 3,244 %         | 4,325 %      | 5,161 %        |
| 69                             | 2,002 %     | 3,184 %              | 3,550 % | 3,256 %         | 4,326 %      | 5,149 %        |
| 70                             | 2,016 %     | 3,196 %              | 3,557 % | 3,267 %         | 4,326 %      | 5,137 %        |
| 71                             | 2,031 %     | 3,208 %              | 3,564 % | 3,278 %         | 4,327 %      | 5,126 %        |
| 72                             | 2,045 %     | 3,219 %              | 3,571 % | 3,288 %         | 4,327 %      | 5,116 %        |
| 73                             | 2,058 %     | 3,231 %              | 3,577 % | 3,299 %         | 4,327 %      | 5,105 %        |
| 74                             | 2,072 %     | 3,242 %              | 3,584 % | 3,309 %         | 4,328 %      | 5,095 %        |
| 75                             | 2,085 %     | 3,252 %              | 3,590 % | 3,319 %         | 4,328 %      | 5,085 %        |
| 76                             | 2,097 %     | 3,263 %              | 3,596 % | 3,328 %         | 4,328 %      | 5,075 %        |
| 77                             | 2,110 %     | 3,273 %              | 3,602 % | 3,337 %         | 4,329 %      | 5,066 %        |
| 78                             | 2,122 %     | 3,283 %              | 3,608 % | 3,346 %         | 4,329 %      | 5,057 %        |
| 79                             | 2,133 %     | 3,292 %              | 3,613 % | 3,355 %         | 4,329 %      | 5,048 %        |
| 80                             | 2,145 %     | 3,302 %              | 3,619 % | 3,364 %         | 4,330 %      | 5,039 %        |
| 81                             | 2,156 %     | 3,311 %              | 3,624 % | 3,372 %         | 4,330 %      | 5,030 %        |
| 82                             | 2,167 %     | 3,320 %              | 3,629 % | 3,380 %         | 4,330 %      | 5,022 %        |
| 83                             | 2,177 %     | 3,329 %              | 3,634 % | 3,388 %         | 4,331 %      | 5,014 %        |
| 84                             | 2,187 %     | 3,337 %              | 3,639 % | 3,396 %         | 4,331 %      | 5,006 %        |
| 85                             | 2,198 %     | 3,345 %              | 3,644 % | 3,404 %         | 4,331 %      | 4,998 %        |
| 86                             | 2,207 %     | 3,354 %              | 3,649 % | 3,411 %         | 4,331 %      | 4,991 %        |
| 87                             | 2,217 %     | 3,362 %              | 3,653 % | 3,419 %         | 4,332 %      | 4,983 %        |
| 88                             | 2,226 %     | 3,369 %              | 3,658 % | 3,426 %         | 4,332 %      | 4,976 %        |
| 89                             | 2,236 %     | 3,377 %              | 3,662 % | 3,433 %         | 4,332 %      | 4,969 %        |
| 90                             | 2,245 %     | 3,384 %              | 3,666 % | 3,440 %         | 4,332 %      | 4,962 %        |
| 91                             | 2,254 %     | 3,392 %              | 3,670 % | 3,446 %         | 4,332 %      | 4,955 %        |
| 92                             | 2,262 %     | 3,399 %              | 3,675 % | 3,453 %         | 4,333 %      | 4,949 %        |
| 93                             | 2,271 %     | 3,406 %              | 3,679 % | 3,459 %         | 4,333 %      | 4,942 %        |
| 94                             | 2,279 %     | 3,413 %              | 3,683 % | 3,466 %         | 4,333 %      | 4,936 %        |
| 95                             | 2,287 %     | 3,419 %              | 3,686 % | 3,472 %         | 4,333 %      | 4,930 %        |
| 96                             | 2,295 %     | 3,426 %              | 3,690 % | 3,478 %         | 4,333 %      | 4,924 %        |
| 97                             | 2,303 %     | 3,432 %              | 3,694 % | 3,484 %         | 4,334 %      | 4,918 %        |
| 98                             | 2,310 %     | 3,439 %              | 3,698 % | 3,489 %         | 4,334 %      | 4,912 %        |
| 99                             | 2,318 %     | 3,445 %              | 3,701 % | 3,495 %         | 4,334 %      | 4,906 %        |

| Term to maturity<br>(in years) | Swiss franc | Australian<br>dollar | Baht    | Canadian dollar | Chilean peso | Colombian peso |
|--------------------------------|-------------|----------------------|---------|-----------------|--------------|----------------|
| 100                            | 2,325 %     | 3,451 %              | 3,705 % | 3,500 %         | 4,334 %      | 4,901 %        |
| 101                            | 2,332 %     | 3,457 %              | 3,708 % | 3,506 %         | 4,334 %      | 4,895 %        |
| 102                            | 2,339 %     | 3,462 %              | 3,711 % | 3,511 %         | 4,335 %      | 4,890 %        |
| 103                            | 2,346 %     | 3,468 %              | 3,715 % | 3,516 %         | 4,335 %      | 4,885 %        |
| 104                            | 2,353 %     | 3,474 %              | 3,718 % | 3,522 %         | 4,335 %      | 4,880 %        |
| 105                            | 2,359 %     | 3,479 %              | 3,721 % | 3,527 %         | 4,335 %      | 4,875 %        |
| 106                            | 2,366 %     | 3,485 %              | 3,724 % | 3,531 %         | 4,335 %      | 4,870 %        |
| 107                            | 2,372 %     | 3,490 %              | 3,727 % | 3,536 %         | 4,335 %      | 4,865 %        |
| 108                            | 2,378 %     | 3,495 %              | 3,730 % | 3,541 %         | 4,335 %      | 4,860 %        |
| 109                            | 2,385 %     | 3,500 %              | 3,733 % | 3,546 %         | 4,336 %      | 4,855 %        |
| 110                            | 2,391 %     | 3,505 %              | 3,736 % | 3,550 %         | 4,336 %      | 4,851 %        |
| 111                            | 2,397 %     | 3,510 %              | 3,739 % | 3,555 %         | 4,336 %      | 4,846 %        |
| 112                            | 2,402 %     | 3,515 %              | 3,742 % | 3,559 %         | 4,336 %      | 4,842 %        |
| 113                            | 2,408 %     | 3,519 %              | 3,744 % | 3,564 %         | 4,336 %      | 4,837 %        |
| 114                            | 2,414 %     | 3,524 %              | 3,747 % | 3,568 %         | 4,336 %      | 4,833 %        |
| 115                            | 2,419 %     | 3,529 %              | 3,750 % | 3,572 %         | 4,336 %      | 4,829 %        |
| 116                            | 2,425 %     | 3,533 %              | 3,752 % | 3,576 %         | 4,336 %      | 4,825 %        |
| 117                            | 2,430 %     | 3,538 %              | 3,755 % | 3,580 %         | 4,337 %      | 4,821 %        |
| 118                            | 2,435 %     | 3,542 %              | 3,757 % | 3,584 %         | 4,337 %      | 4,817 %        |
| 119                            | 2,440 %     | 3,546 %              | 3,760 % | 3,588 %         | 4,337 %      | 4,813 %        |
| 120                            | 2,445 %     | 3,550 %              | 3,762 % | 3,592 %         | 4,337 %      | 4,809 %        |
| 121                            | 2,450 %     | 3,554 %              | 3,764 % | 3,596 %         | 4,337 %      | 4,805 %        |
| 122                            | 2,455 %     | 3,559 %              | 3,767 % | 3,599 %         | 4,337 %      | 4,801 %        |
| 123                            | 2,460 %     | 3,563 %              | 3,769 % | 3,603 %         | 4,337 %      | 4,798 %        |
| 124                            | 2,465 %     | 3,566 %              | 3,771 % | 3,607 %         | 4,337 %      | 4,794 %        |
| 125                            | 2,470 %     | 3,570 %              | 3,774 % | 3,610 %         | 4,337 %      | 4,790 %        |
| 126                            | 2,474 %     | 3,574 %              | 3,776 % | 3,614 %         | 4,338 %      | 4,787 %        |
| 127                            | 2,479 %     | 3,578 %              | 3,778 % | 3,617 %         | 4,338 %      | 4,783 %        |
| 128                            | 2,483 %     | 3,582 %              | 3,780 % | 3,620 %         | 4,338 %      | 4,780 %        |
| 129                            | 2,487 %     | 3,585 %              | 3,782 % | 3,624 %         | 4,338 %      | 4,777 %        |
| 130                            | 2,492 %     | 3,589 %              | 3,784 % | 3,627 %         | 4,338 %      | 4,773 %        |
| 131                            | 2,496 %     | 3,592 %              | 3,786 % | 3,630 %         | 4,338 %      | 4,770 %        |
| 132                            | 2,500 %     | 3,596 %              | 3,788 % | 3,633 %         | 4,338 %      | 4,767 %        |
| 133                            | 2,504 %     | 3,599 %              | 3,790 % | 3,637 %         | 4,338 %      | 4,764 %        |
| 134                            | 2,508 %     | 3,602 %              | 3,792 % | 3,640 %         | 4,338 %      | 4,761 %        |
| 135                            | 2,512 %     | 3,606 %              | 3,794 % | 3,643 %         | 4,338 %      | 4,758 %        |
| 136                            | 2,516 %     | 3,609 %              | 3,796 % | 3,646 %         | 4,339 %      | 4,755 %        |
| 137                            | 2,520 %     | 3,612 %              | 3,798 % | 3,649 %         | 4,339 %      | 4,752 %        |
| 138                            | 2,524 %     | 3,615 %              | 3,800 % | 3,651 %         | 4,339 %      | 4,749 %        |
| 139                            | 2,528 %     | 3,619 %              | 3,801 % | 3,654 %         | 4,339 %      | 4,746 %        |

| Term to maturity<br>(in years) | Swiss franc | Australian<br>dollar | Baht    | Canadian dollar | Chilean peso | Colombian peso |
|--------------------------------|-------------|----------------------|---------|-----------------|--------------|----------------|
| 140                            | 2,532 %     | 3,622 %              | 3,803 % | 3,657 %         | 4,339 %      | 4,743 %        |
| 141                            | 2,535 %     | 3,625 %              | 3,805 % | 3,660 %         | 4,339 %      | 4,740 %        |
| 142                            | 2,539 %     | 3,628 %              | 3,807 % | 3,663 %         | 4,339 %      | 4,738 %        |
| 143                            | 2,542 %     | 3,631 %              | 3,808 % | 3,665 %         | 4,339 %      | 4,735 %        |
| 144                            | 2,546 %     | 3,633 %              | 3,810 % | 3,668 %         | 4,339 %      | 4,732 %        |
| 145                            | 2,549 %     | 3,636 %              | 3,812 % | 3,671 %         | 4,339 %      | 4,730 %        |
| 146                            | 2,553 %     | 3,639 %              | 3,813 % | 3,673 %         | 4,339 %      | 4,727 %        |
| 147                            | 2,556 %     | 3,642 %              | 3,815 % | 3,676 %         | 4,339 %      | 4,724 %        |
| 148                            | 2,560 %     | 3,645 %              | 3,816 % | 3,678 %         | 4,339 %      | 4,722 %        |
| 149                            | 2,563 %     | 3,647 %              | 3,818 % | 3,681 %         | 4,340 %      | 4,719 %        |
| 150                            | 2,566 %     | 3,650 %              | 3,820 % | 3,683 %         | 4,340 %      | 4,717 %        |

| Term to maturity<br>(in years) | Hong Kong<br>dollar | Indian rupee | Mexican peso | New Taiwan<br>dollar | New Zealand<br>dollar | Rand    |
|--------------------------------|---------------------|--------------|--------------|----------------------|-----------------------|---------|
| 1                              | 1,812 %             | 6,698 %      | 8,796 %      | 0,451 %              | 1,826 %               | 7,068 % |
| 2                              | 1,863 %             | 6,796 %      | 8,577 %      | 0,502 %              | 1,829 %               | 7,175 % |
| 3                              | 1,900 %             | 6,897 %      | 8,537 %      | 0,555 %              | 1,893 %               | 7,298 % |
| 4                              | 1,941 %             | 6,986 %      | 8,570 %      | 0,610 %              | 1,978 %               | 7,429 % |
| 5                              | 1,967 %             | 7,062 %      | 8,549 %      | 0,646 %              | 2,079 %               | 7,569 % |
| 6                              | 1,992 %             | 7,132 %      | 8,594 %      | 0,677 %              | 2,190 %               | 7,723 % |
| 7                              | 2,020 %             | 7,183 %      | 8,678 %      | 0,700 %              | 2,294 %               | 7,872 % |
| 8                              | 2,053 %             | 7,237 %      | 8,763 %      | 0,728 %              | 2,388 %               | 8,014 % |
| 9                              | 2,089 %             | 7,288 %      | 8,845 %      | 0,758 %              | 2,474 %               | 8,139 % |
| 10                             | 2,129 %             | 7,334 %      | 8,925 %      | 0,790 %              | 2,556 %               | 8,250 % |
| 11                             | 2,168 %             | 7,358 %      | 9,004 %      | 0,844 %              | 2,628 %               | 8,352 % |
| 12                             | 2,189 %             | 7,361 %      | 9,083 %      | 0,916 %              | 2,691 %               | 8,447 % |
| 13                             | 2,185 %             | 7,349 %      | 9,164 %      | 0,998 %              | 2,748 %               | 8,536 % |
| 14                             | 2,171 %             | 7,327 %      | 9,249 %      | 1,086 %              | 2,800 %               | 8,609 % |
| 15                             | 2,162 %             | 7,297 %      | 9,339 %      | 1,176 %              | 2,843 %               | 8,659 % |
| 16                             | 2,168 %             | 7,262 %      | 9,435 %      | 1,266 %              | 2,880 %               | 8,680 % |
| 17                             | 2,186 %             | 7,223 %      | 9,530 %      | 1,355 %              | 2,911 %               | 8,677 % |
| 18                             | 2,213 %             | 7,182 %      | 9,614 %      | 1,442 %              | 2,938 %               | 8,655 % |
| 19                             | 2,245 %             | 7,139 %      | 9,681 %      | 1,527 %              | 2,964 %               | 8,619 % |
| 20                             | 2,281 %             | 7,096 %      | 9,722 %      | 1,608 %              | 2,990 %               | 8,572 % |
| 21                             | 2,319 %             | 7,052 %      | 9,732 %      | 1,686 %              | 3,015 %               | 8,518 % |
| 22                             | 2,359 %             | 7,008 %      | 9,715 %      | 1,761 %              | 3,040 %               | 8,457 % |
| 23                             | 2,400 %             | 6,965 %      | 9,678 %      | 1,833 %              | 3,066 %               | 8,392 % |
| 24                             | 2,440 %             | 6,923 %      | 9,624 %      | 1,901 %              | 3,090 %               | 8,325 % |
| 25                             | 2,481 %             | 6,881 %      | 9,557 %      | 1,967 %              | 3,115 %               | 8,257 % |
| 26                             | 2,520 %             | 6,841 %      | 9,480 %      | 2,029 %              | 3,138 %               | 8,187 % |
| 27                             | 2,559 %             | 6,802 %      | 9,396 %      | 2,089 %              | 3,162 %               | 8,118 % |
| 28                             | 2,598 %             | 6,764 %      | 9,308 %      | 2,145 %              | 3,184 %               | 8,050 % |
| 29                             | 2,635 %             | 6,727 %      | 9,217 %      | 2,200 %              | 3,206 %               | 7,982 % |

| Term to maturity<br>(in years) | Hong Kong<br>dollar | Indian rupee | Mexican peso | New Taiwan<br>dollar | New Zealand<br>dollar | Rand    |
|--------------------------------|---------------------|--------------|--------------|----------------------|-----------------------|---------|
| 30                             | 2,671 %             | 6,692 %      | 9,124 %      | 2,251 %              | 3,227 %               | 7,916 % |
| 31                             | 2,705 %             | 6,657 %      | 9,030 %      | 2,301 %              | 3,247 %               | 7,852 % |
| 32                             | 2,739 %             | 6,624 %      | 8,937 %      | 2,348 %              | 3,267 %               | 7,789 % |
| 33                             | 2,771 %             | 6,592 %      | 8,845 %      | 2,393 %              | 3,286 %               | 7,728 % |
| 34                             | 2,803 %             | 6,562 %      | 8,755 %      | 2,436 %              | 3,304 %               | 7,669 % |
| 35                             | 2,833 %             | 6,532 %      | 8,666 %      | 2,477 %              | 3,321 %               | 7,612 % |
| 36                             | 2,862 %             | 6,504 %      | 8,580 %      | 2,516 %              | 3,338 %               | 7,557 % |
| 37                             | 2,890 %             | 6,476 %      | 8,496 %      | 2,554 %              | 3,355 %               | 7,504 % |
| 38                             | 2,917 %             | 6,450 %      | 8,415 %      | 2,590 %              | 3,371 %               | 7,453 % |
| 39                             | 2,943 %             | 6,425 %      | 8,337 %      | 2,624 %              | 3,386 %               | 7,404 % |
| 40                             | 2,968 %             | 6,400 %      | 8,261 %      | 2,657 %              | 3,400 %               | 7,356 % |
| 41                             | 2,992 %             | 6,377 %      | 8,188 %      | 2,689 %              | 3,414 %               | 7,311 % |
| 42                             | 3,015 %             | 6,354 %      | 8,117 %      | 2,720 %              | 3,428 %               | 7,267 % |
| 43                             | 3,037 %             | 6,333 %      | 8,049 %      | 2,749 %              | 3,441 %               | 7,225 % |
| 44                             | 3,058 %             | 6,312 %      | 7,983 %      | 2,777 %              | 3,454 %               | 7,184 % |
| 45                             | 3,079 %             | 6,292 %      | 7,920 %      | 2,804 %              | 3,466 %               | 7,145 % |
| 46                             | 3,099 %             | 6,272 %      | 7,860 %      | 2,829 %              | 3,478 %               | 7,107 % |
| 47                             | 3,118 %             | 6,253 %      | 7,801 %      | 2,854 %              | 3,489 %               | 7,071 % |
| 48                             | 3,136 %             | 6,235 %      | 7,745 %      | 2,878 %              | 3,500 %               | 7,036 % |
| 49                             | 3,154 %             | 6,218 %      | 7,691 %      | 2,901 %              | 3,510 %               | 7,002 % |
| 50                             | 3,171 %             | 6,201 %      | 7,638 %      | 2,924 %              | 3,520 %               | 6,970 % |
| 51                             | 3,188 %             | 6,185 %      | 7,588 %      | 2,945 %              | 3,530 %               | 6,939 % |
| 52                             | 3,204 %             | 6,170 %      | 7,539 %      | 2,966 %              | 3,540 %               | 6,909 % |
| 53                             | 3,219 %             | 6,155 %      | 7,493 %      | 2,985 %              | 3,549 %               | 6,880 % |
| 54                             | 3,234 %             | 6,140 %      | 7,447 %      | 3,005 %              | 3,558 %               | 6,852 % |
| 55                             | 3,249 %             | 6,126 %      | 7,404 %      | 3,023 %              | 3,567 %               | 6,824 % |
| 56                             | 3,263 %             | 6,112 %      | 7,362 %      | 3,041 %              | 3,575 %               | 6,798 % |
| 57                             | 3,276 %             | 6,099 %      | 7,321 %      | 3,059 %              | 3,583 %               | 6,773 % |
| 58                             | 3,289 %             | 6,086 %      | 7,282 %      | 3,075 %              | 3,591 %               | 6,749 % |
| 59                             | 3,302 %             | 6,074 %      | 7,244 %      | 3,092 %              | 3,598 %               | 6,725 % |
| 60                             | 3,314 %             | 6,062 %      | 7,207 %      | 3,107 %              | 3,606 %               | 6,702 % |
| 61                             | 3,326 %             | 6,051 %      | 7,171 %      | 3,123 %              | 3,613 %               | 6,680 % |
| 62                             | 3,337 %             | 6,039 %      | 7,137 %      | 3,137 %              | 3,620 %               | 6,659 % |
| 63                             | 3,349 %             | 6,029 %      | 7,104 %      | 3,152 %              | 3,626 %               | 6,638 % |
| 64                             | 3,359 %             | 6,018 %      | 7,071 %      | 3,165 %              | 3,633 %               | 6,618 % |
| 65                             | 3,370 %             | 6,008 %      | 7,040 %      | 3,179 %              | 3,639 %               | 6,598 % |
| 66                             | 3,380 %             | 5,998 %      | 7,010 %      | 3,192 %              | 3,645 %               | 6,579 % |
| 67                             | 3,390 %             | 5,988 %      | 6,980 %      | 3,205 %              | 3,651 %               | 6,561 % |
| 68                             | 3,400 %             | 5,979 %      | 6,952 %      | 3,217 %              | 3,657 %               | 6,543 % |
| 69                             | 3,409 %             | 5,970 %      | 6,924 %      | 3,229 %              | 3,663 %               | 6,526 % |

| Term to maturity<br>(in years) | Hong Kong<br>dollar | Indian rupee | Mexican peso | New Taiwan<br>dollar | New Zealand<br>dollar | Rand    |
|--------------------------------|---------------------|--------------|--------------|----------------------|-----------------------|---------|
| 70                             | 3,418 %             | 5,961 %      | 6,897 %      | 3,241 %              | 3,668 %               | 6,509 % |
| 71                             | 3,427 %             | 5,953 %      | 6,871 %      | 3,252 %              | 3,673 %               | 6,492 % |
| 72                             | 3,435 %             | 5,944 %      | 6,845 %      | 3,263 %              | 3,679 %               | 6,476 % |
| 73                             | 3,444 %             | 5,936 %      | 6,820 %      | 3,274 %              | 3,684 %               | 6,461 % |
| 74                             | 3,452 %             | 5,928 %      | 6,796 %      | 3,284 %              | 3,688 %               | 6,446 % |
| 75                             | 3,460 %             | 5,920 %      | 6,773 %      | 3,294 %              | 3,693 %               | 6,431 % |
| 76                             | 3,468 %             | 5,913 %      | 6,750 %      | 3,304 %              | 3,698 %               | 6,417 % |
| 77                             | 3,475 %             | 5,906 %      | 6,728 %      | 3,314 %              | 3,702 %               | 6,403 % |
| 78                             | 3,482 %             | 5,898 %      | 6,706 %      | 3,323 %              | 3,707 %               | 6,389 % |
| 79                             | 3,490 %             | 5,892 %      | 6,685 %      | 3,332 %              | 3,711 %               | 6,376 % |
| 80                             | 3,497 %             | 5,885 %      | 6,664 %      | 3,341 %              | 3,715 %               | 6,363 % |
| 81                             | 3,503 %             | 5,878 %      | 6,644 %      | 3,350 %              | 3,720 %               | 6,351 % |
| 82                             | 3,510 %             | 5,872 %      | 6,625 %      | 3,358 %              | 3,724 %               | 6,339 % |
| 83                             | 3,516 %             | 5,865 %      | 6,606 %      | 3,367 %              | 3,727 %               | 6,327 % |
| 84                             | 3,523 %             | 5,859 %      | 6,587 %      | 3,375 %              | 3,731 %               | 6,315 % |
| 85                             | 3,529 %             | 5,853 %      | 6,569 %      | 3,383 %              | 3,735 %               | 6,304 % |
| 86                             | 3,535 %             | 5,847 %      | 6,551 %      | 3,390 %              | 3,739 %               | 6,292 % |
| 87                             | 3,541 %             | 5,842 %      | 6,534 %      | 3,398 %              | 3,742 %               | 6,281 % |
| 88                             | 3,547 %             | 5,836 %      | 6,517 %      | 3,405 %              | 3,746 %               | 6,271 % |
| 89                             | 3,552 %             | 5,831 %      | 6,500 %      | 3,413 %              | 3,749 %               | 6,260 % |
| 90                             | 3,558 %             | 5,825 %      | 6,484 %      | 3,420 %              | 3,752 %               | 6,250 % |
| 91                             | 3,563 %             | 5,820 %      | 6,468 %      | 3,426 %              | 3,756 %               | 6,240 % |
| 92                             | 3,568 %             | 5,815 %      | 6,452 %      | 3,433 %              | 3,759 %               | 6,231 % |
| 93                             | 3,574 %             | 5,810 %      | 6,437 %      | 3,440 %              | 3,762 %               | 6,221 % |
| 94                             | 3,579 %             | 5,805 %      | 6,422 %      | 3,446 %              | 3,765 %               | 6,212 % |
| 95                             | 3,584 %             | 5,800 %      | 6,408 %      | 3,453 %              | 3,768 %               | 6,203 % |
| 96                             | 3,588 %             | 5,796 %      | 6,394 %      | 3,459 %              | 3,771 %               | 6,194 % |
| 97                             | 3,593 %             | 5,791 %      | 6,380 %      | 3,465 %              | 3,774 %               | 6,185 % |
| 98                             | 3,598 %             | 5,786 %      | 6,366 %      | 3,471 %              | 3,777 %               | 6,177 % |
| 99                             | 3,602 %             | 5,782 %      | 6,353 %      | 3,477 %              | 3,779 %               | 6,168 % |
| 100                            | 3,607 %             | 5,778 %      | 6,340 %      | 3,482 %              | 3,782 %               | 6,160 % |
| 101                            | 3,611 %             | 5,773 %      | 6,327 %      | 3,488 %              | 3,785 %               | 6,152 % |
| 102                            | 3,616 %             | 5,769 %      | 6,314 %      | 3,494 %              | 3,787 %               | 6,144 % |
| 103                            | 3,620 %             | 5,765 %      | 6,302 %      | 3,499 %              | 3,790 %               | 6,136 % |
| 104                            | 3,624 %             | 5,761 %      | 6,290 %      | 3,504 %              | 3,792 %               | 6,129 % |
| 105                            | 3,628 %             | 5,757 %      | 6,278 %      | 3,509 %              | 3,795 %               | 6,121 % |
| 106                            | 3,632 %             | 5,753 %      | 6,266 %      | 3,514 %              | 3,797 %               | 6,114 % |
| 107                            | 3,636 %             | 5,750 %      | 6,255 %      | 3,519 %              | 3,800 %               | 6,107 % |
| 108                            | 3,640 %             | 5,746 %      | 6,244 %      | 3,524 %              | 3,802 %               | 6,100 % |
| 109                            | 3,643 %             | 5,742 %      | 6,233 %      | 3,529 %              | 3,804 %               | 6,093 % |

| Term to maturity<br>(in years) | Hong Kong<br>dollar | Indian rupee | Mexican peso | New Taiwan<br>dollar | New Zealand<br>dollar | Rand    |
|--------------------------------|---------------------|--------------|--------------|----------------------|-----------------------|---------|
| 110                            | 3,647 %             | 5,739 %      | 6,222 %      | 3,534 %              | 3,806 %               | 6,086 % |
| 111                            | 3,651 %             | 5,735 %      | 6,211 %      | 3,539 %              | 3,809 %               | 6,079 % |
| 112                            | 3,654 %             | 5,732 %      | 6,201 %      | 3,543 %              | 3,811 %               | 6,073 % |
| 113                            | 3,658 %             | 5,728 %      | 6,190 %      | 3,548 %              | 3,813 %               | 6,066 % |
| 114                            | 3,661 %             | 5,725 %      | 6,180 %      | 3,552 %              | 3,815 %               | 6,060 % |
| 115                            | 3,665 %             | 5,722 %      | 6,170 %      | 3,556 %              | 3,817 %               | 6,054 % |
| 116                            | 3,668 %             | 5,719 %      | 6,161 %      | 3,561 %              | 3,819 %               | 6,048 % |
| 117                            | 3,671 %             | 5,715 %      | 6,151 %      | 3,565 %              | 3,821 %               | 6,042 % |
| 118                            | 3,674 %             | 5,712 %      | 6,142 %      | 3,569 %              | 3,823 %               | 6,036 % |
| 119                            | 3,678 %             | 5,709 %      | 6,133 %      | 3,573 %              | 3,825 %               | 6,030 % |
| 120                            | 3,681 %             | 5,706 %      | 6,124 %      | 3,577 %              | 3,827 %               | 6,025 % |
| 121                            | 3,684 %             | 5,703 %      | 6,115 %      | 3,581 %              | 3,829 %               | 6,019 % |
| 122                            | 3,687 %             | 5,700 %      | 6,106 %      | 3,585 %              | 3,830 %               | 6,013 % |
| 123                            | 3,690 %             | 5,698 %      | 6,097 %      | 3,588 %              | 3,832 %               | 6,008 % |
| 124                            | 3,693 %             | 5,695 %      | 6,089 %      | 3,592 %              | 3,834 %               | 6,003 % |
| 125                            | 3,695 %             | 5,692 %      | 6,080 %      | 3,596 %              | 3,836 %               | 5,997 % |
| 126                            | 3,698 %             | 5,689 %      | 6,072 %      | 3,599 %              | 3,837 %               | 5,992 % |
| 127                            | 3,701 %             | 5,687 %      | 6,064 %      | 3,603 %              | 3,839 %               | 5,987 % |
| 128                            | 3,704 %             | 5,684 %      | 6,056 %      | 3,606 %              | 3,841 %               | 5,982 % |
| 129                            | 3,706 %             | 5,681 %      | 6,048 %      | 3,610 %              | 3,842 %               | 5,977 % |
| 130                            | 3,709 %             | 5,679 %      | 6,041 %      | 3,613 %              | 3,844 %               | 5,972 % |
| 131                            | 3,712 %             | 5,676 %      | 6,033 %      | 3,616 %              | 3,845 %               | 5,968 % |
| 132                            | 3,714 %             | 5,674 %      | 6,026 %      | 3,620 %              | 3,847 %               | 5,963 % |
| 133                            | 3,717 %             | 5,671 %      | 6,018 %      | 3,623 %              | 3,848 %               | 5,958 % |
| 134                            | 3,719 %             | 5,669 %      | 6,011 %      | 3,626 %              | 3,850 %               | 5,954 % |
| 135                            | 3,722 %             | 5,667 %      | 6,004 %      | 3,629 %              | 3,851 %               | 5,949 % |
| 136                            | 3,724 %             | 5,664 %      | 5,997 %      | 3,632 %              | 3,853 %               | 5,945 % |
| 137                            | 3,726 %             | 5,662 %      | 5,990 %      | 3,635 %              | 3,854 %               | 5,941 % |
| 138                            | 3,729 %             | 5,660 %      | 5,983 %      | 3,638 %              | 3,856 %               | 5,936 % |
| 139                            | 3,731 %             | 5,658 %      | 5,976 %      | 3,641 %              | 3,857 %               | 5,932 % |
| 140                            | 3,733 %             | 5,655 %      | 5,970 %      | 3,644 %              | 3,859 %               | 5,928 % |
| 141                            | 3,736 %             | 5,653 %      | 5,963 %      | 3,647 %              | 3,860 %               | 5,924 % |
| 142                            | 3,738 %             | 5,651 %      | 5,957 %      | 3,650 %              | 3,861 %               | 5,920 % |
| 143                            | 3,740 %             | 5,649 %      | 5,950 %      | 3,653 %              | 3,863 %               | 5,916 % |
| 144                            | 3,742 %             | 5,647 %      | 5,944 %      | 3,656 %              | 3,864 %               | 5,912 % |
| 145                            | 3,744 %             | 5,645 %      | 5,938 %      | 3,658 %              | 3,865 %               | 5,908 % |
| 146                            | 3,746 %             | 5,643 %      | 5,932 %      | 3,661 %              | 3,866 %               | 5,904 % |
| 147                            | 3,748 %             | 5,641 %      | 5,926 %      | 3,664 %              | 3,868 %               | 5,900 % |
| 148                            | 3,750 %             | 5,639 %      | 5,920 %      | 3,666 %              | 3,869 %               | 5,897 % |
| 149                            | 3,752 %             | 5,637 %      | 5,914 %      | 3,669 %              | 3,870 %               | 5,893 % |
| 150                            | 3,754 %             | 5,635 %      | 5,908 %      | 3,671 %              | 3,871 %               | 5,889 % |

| Term to maturity<br>(in years) | Real    | Renminbi-yuan | Ringgit | Russian rouble | Singapore<br>dollar | South Korean<br>won |
|--------------------------------|---------|---------------|---------|----------------|---------------------|---------------------|
| 1                              | 6,349 % | 2,486 %       | 3,495 % | 9,220 %        | 1,715 %             | 1,766 %             |
| 2                              | 7,061 % | 2,524 %       | 3,500 % | 9,346 %        | 1,704 %             | 1,708 %             |
| 3                              | 7,724 % | 2,620 %       | 3,522 % | 9,333 %        | 1,704 %             | 1,674 %             |
| 4                              | 8,293 % | 2,703 %       | 3,597 % | 9,263 %        | 1,737 %             | 1,667 %             |
| 5                              | 8,607 % | 2,780 %       | 3,635 % | 9,193 %        | 1,791 %             | 1,662 %             |
| 6                              | 8,817 % | 2,871 %       | 3,695 % | 9,120 %        | 1,843 %             | 1,665 %             |
| 7                              | 8,938 % | 2,951 %       | 3,775 % | 9,059 %        | 1,894 %             | 1,675 %             |
| 8                              | 9,028 % | 3,007 %       | 3,864 % | 9,011 %        | 1,947 %             | 1,692 %             |
| 9                              | 9,025 % | 3,047 %       | 3,947 % | 8,963 %        | 2,002 %             | 1,709 %             |
| 10                             | 9,022 % | 3,083 %       | 4,015 % | 8,903 %        | 2,061 %             | 1,724 %             |
| 11                             | 9,001 % | 3,119 %       | 4,066 % | 8,824 %        | 2,123 %             | 1,735 %             |
| 12                             | 8,958 % | 3,156 %       | 4,110 % | 8,731 %        | 2,187 %             | 1,746 %             |
| 13                             | 8,899 % | 3,193 %       | 4,156 % | 8,628 %        | 2,249 %             | 1,757 %             |
| 14                             | 8,829 % | 3,229 %       | 4,206 % | 8,520 %        | 2,303 %             | 1,762 %             |
| 15                             | 8,753 % | 3,264 %       | 4,262 % | 8,408 %        | 2,345 %             | 1,759 %             |
| 16                             | 8,671 % | 3,298 %       | 4,323 % | 8,294 %        | 2,373 %             | 1,744 %             |
| 17                             | 8,587 % | 3,331 %       | 4,386 % | 8,181 %        | 2,392 %             | 1,726 %             |
| 18                             | 8,501 % | 3,362 %       | 4,445 % | 8,068 %        | 2,407 %             | 1,712 %             |
| 19                             | 8,415 % | 3,392 %       | 4,498 % | 7,958 %        | 2,423 %             | 1,706 %             |
| 20                             | 8,329 % | 3,421 %       | 4,543 % | 7,849 %        | 2,442 %             | 1,712 %             |
| 21                             | 8,245 % | 3,449 %       | 4,577 % | 7,744 %        | 2,466 %             | 1,731 %             |
| 22                             | 8,163 % | 3,476 %       | 4,602 % | 7,642 %        | 2,493 %             | 1,760 %             |
| 23                             | 8,082 % | 3,501 %       | 4,620 % | 7,543 %        | 2,523 %             | 1,796 %             |
| 24                             | 8,004 % | 3,526 %       | 4,632 % | 7,447 %        | 2,555 %             | 1,837 %             |
| 25                             | 7,928 % | 3,549 %       | 4,639 % | 7,356 %        | 2,588 %             | 1,882 %             |
| 26                             | 7,855 % | 3,571 %       | 4,643 % | 7,267 %        | 2,621 %             | 1,928 %             |
| 27                             | 7,785 % | 3,593 %       | 4,643 % | 7,182 %        | 2,654 %             | 1,975 %             |
| 28                             | 7,717 % | 3,613 %       | 4,642 % | 7,101 %        | 2,687 %             | 2,023 %             |
| 29                             | 7,651 % | 3,633 %       | 4,638 % | 7,023 %        | 2,719 %             | 2,071 %             |
| 30                             | 7,588 % | 3,652 %       | 4,632 % | 6,948 %        | 2,751 %             | 2,118 %             |
| 31                             | 7,528 % | 3,670 %       | 4,626 % | 6,877 %        | 2,782 %             | 2,164 %             |
| 32                             | 7,470 % | 3,687 %       | 4,618 % | 6,808 %        | 2,813 %             | 2,210 %             |
| 33                             | 7,414 % | 3,703 %       | 4,610 % | 6,743 %        | 2,842 %             | 2,254 %             |
| 34                             | 7,361 % | 3,719 %       | 4,601 % | 6,680 %        | 2,871 %             | 2,297 %             |
| 35                             | 7,310 % | 3,734 %       | 4,592 % | 6,620 %        | 2,899 %             | 2,339 %             |
| 36                             | 7,261 % | 3,749 %       | 4,583 % | 6,562 %        | 2,926 %             | 2,379 %             |
| 37                             | 7,214 % | 3,763 %       | 4,573 % | 6,507 %        | 2,951 %             | 2,418 %             |
| 38                             | 7,169 % | 3,776 %       | 4,564 % | 6,455 %        | 2,976 %             | 2,455 %             |
| 39                             | 7,126 % | 3,789 %       | 4,554 % | 6,404 %        | 3,001 %             | 2,492 %             |

| Term to maturity<br>(in years) | Real    | Renminbi-yuan | Ringgit | Russian rouble | Singapore<br>dollar | South Korean<br>won |
|--------------------------------|---------|---------------|---------|----------------|---------------------|---------------------|
| 40                             | 7,084 % | 3,802 %       | 4,545 % | 6,356 %        | 3,024 %             | 2,527 %             |
| 41                             | 7,045 % | 3,814 %       | 4,536 % | 6,309 %        | 3,046 %             | 2,560 %             |
| 42                             | 7,006 % | 3,825 %       | 4,527 % | 6,265 %        | 3,068 %             | 2,593 %             |
| 43                             | 6,970 % | 3,836 %       | 4,517 % | 6,222 %        | 3,089 %             | 2,624 %             |
| 44                             | 6,934 % | 3,847 %       | 4,509 % | 6,181 %        | 3,109 %             | 2,655 %             |
| 45                             | 6,901 % | 3,857 %       | 4,500 % | 6,141 %        | 3,129 %             | 2,684 %             |
| 46                             | 6,868 % | 3,867 %       | 4,492 % | 6,104 %        | 3,147 %             | 2,712 %             |
| 47                             | 6,837 % | 3,876 %       | 4,483 % | 6,067 %        | 3,165 %             | 2,739 %             |
| 48                             | 6,806 % | 3,886 %       | 4,475 % | 6,032 %        | 3,183 %             | 2,765 %             |
| 49                             | 6,777 % | 3,894 %       | 4,467 % | 5,998 %        | 3,200 %             | 2,790 %             |
| 50                             | 6,749 % | 3,903 %       | 4,460 % | 5,966 %        | 3,216 %             | 2,814 %             |
| 51                             | 6,722 % | 3,911 %       | 4,452 % | 5,935 %        | 3,231 %             | 2,838 %             |
| 52                             | 6,697 % | 3,919 %       | 4,445 % | 5,905 %        | 3,247 %             | 2,860 %             |
| 53                             | 6,671 % | 3,927 %       | 4,438 % | 5,876 %        | 3,261 %             | 2,882 %             |
| 54                             | 6,647 % | 3,935 %       | 4,431 % | 5,848 %        | 3,275 %             | 2,903 %             |
| 55                             | 6,624 % | 3,942 %       | 4,425 % | 5,821 %        | 3,289 %             | 2,923 %             |
| 56                             | 6,601 % | 3,949 %       | 4,418 % | 5,794 %        | 3,302 %             | 2,943 %             |
| 57                             | 6,580 % | 3,956 %       | 4,412 % | 5,769 %        | 3,315 %             | 2,962 %             |
| 58                             | 6,559 % | 3,962 %       | 4,406 % | 5,745 %        | 3,328 %             | 2,981 %             |
| 59                             | 6,538 % | 3,968 %       | 4,400 % | 5,721 %        | 3,339 %             | 2,998 %             |
| 60                             | 6,518 % | 3,975 %       | 4,395 % | 5,698 %        | 3,351 %             | 3,016 %             |
| 61                             | 6,499 % | 3,981 %       | 4,389 % | 5,676 %        | 3,362 %             | 3,032 %             |
| 62                             | 6,481 % | 3,986 %       | 4,384 % | 5,655 %        | 3,373 %             | 3,049 %             |
| 63                             | 6,463 % | 3,992 %       | 4,379 % | 5,634 %        | 3,384 %             | 3,064 %             |
| 64                             | 6,446 % | 3,998 %       | 4,374 % | 5,614 %        | 3,394 %             | 3,079 %             |
| 65                             | 6,429 % | 4,003 %       | 4,369 % | 5,595 %        | 3,404 %             | 3,094 %             |
| 66                             | 6,412 % | 4,008 %       | 4,364 % | 5,576 %        | 3,414 %             | 3,109 %             |
| 67                             | 6,396 % | 4,013 %       | 4,359 % | 5,557 %        | 3,423 %             | 3,123 %             |
| 68                             | 6,381 % | 4,018 %       | 4,355 % | 5,540 %        | 3,432 %             | 3,136 %             |
| 69                             | 6,366 % | 4,023 %       | 4,351 % | 5,522 %        | 3,441 %             | 3,149 %             |
| 70                             | 6,352 % | 4,027 %       | 4,346 % | 5,506 %        | 3,450 %             | 3,162 %             |
| 71                             | 6,337 % | 4,032 %       | 4,342 % | 5,489 %        | 3,458 %             | 3,174 %             |
| 72                             | 6,324 % | 4,036 %       | 4,338 % | 5,473 %        | 3,466 %             | 3,186 %             |
| 73                             | 6,310 % | 4,040 %       | 4,334 % | 5,458 %        | 3,474 %             | 3,198 %             |
| 74                             | 6,297 % | 4,044 %       | 4,330 % | 5,443 %        | 3,482 %             | 3,210 %             |
| 75                             | 6,285 % | 4,048 %       | 4,327 % | 5,428 %        | 3,490 %             | 3,221 %             |
| 76                             | 6,272 % | 4,052 %       | 4,323 % | 5,414 %        | 3,497 %             | 3,232 %             |
| 77                             | 6,260 % | 4,056 %       | 4,320 % | 5,400 %        | 3,504 %             | 3,242 %             |
| 78                             | 6,249 % | 4,060 %       | 4,316 % | 5,387 %        | 3,511 %             | 3,253 %             |
| 79                             | 6,237 % | 4,064 %       | 4,313 % | 5,374 %        | 3,518 %             | 3,263 %             |

| Term to maturity<br>(in years) | Real    | Renminbi-yuan | Ringgit | Russian rouble | Singapore<br>dollar | South Korean<br>won |
|--------------------------------|---------|---------------|---------|----------------|---------------------|---------------------|
| 80                             | 6,226 % | 4,067 %       | 4,309 % | 5,361 %        | 3,524 %             | 3,272 %             |
| 81                             | 6,215 % | 4,071 %       | 4,306 % | 5,348 %        | 3,531 %             | 3,282 %             |
| 82                             | 6,205 % | 4,074 %       | 4,303 % | 5,336 %        | 3,537 %             | 3,291 %             |
| 83                             | 6,194 % | 4,077 %       | 4,300 % | 5,324 %        | 3,543 %             | 3,300 %             |
| 84                             | 6,184 % | 4,081 %       | 4,297 % | 5,312 %        | 3,549 %             | 3,309 %             |
| 85                             | 6,174 % | 4,084 %       | 4,294 % | 5,301 %        | 3,555 %             | 3,318 %             |
| 86                             | 6,165 % | 4,087 %       | 4,291 % | 5,290 %        | 3,561 %             | 3,326 %             |
| 87                             | 6,155 % | 4,090 %       | 4,289 % | 5,279 %        | 3,567 %             | 3,335 %             |
| 88                             | 6,146 % | 4,093 %       | 4,286 % | 5,268 %        | 3,572 %             | 3,343 %             |
| 89                             | 6,137 % | 4,096 %       | 4,283 % | 5,258 %        | 3,577 %             | 3,351 %             |
| 90                             | 6,128 % | 4,098 %       | 4,281 % | 5,248 %        | 3,583 %             | 3,358 %             |
| 91                             | 6,120 % | 4,101 %       | 4,278 % | 5,238 %        | 3,588 %             | 3,366 %             |
| 92                             | 6,111 % | 4,104 %       | 4,276 % | 5,228 %        | 3,593 %             | 3,373 %             |
| 93                             | 6,103 % | 4,106 %       | 4,273 % | 5,219 %        | 3,598 %             | 3,381 %             |
| 94                             | 6,095 % | 4,109 %       | 4,271 % | 5,210 %        | 3,602 %             | 3,388 %             |
| 95                             | 6,087 % | 4,112 %       | 4,269 % | 5,201 %        | 3,607 %             | 3,395 %             |
| 96                             | 6,080 % | 4,114 %       | 4,266 % | 5,192 %        | 3,612 %             | 3,401 %             |
| 97                             | 6,072 % | 4,116 %       | 4,264 % | 5,183 %        | 3,616 %             | 3,408 %             |
| 98                             | 6,065 % | 4,119 %       | 4,262 % | 5,174 %        | 3,621 %             | 3,415 %             |
| 99                             | 6,057 % | 4,121 %       | 4,260 % | 5,166 %        | 3,625 %             | 3,421 %             |
| 100                            | 6,050 % | 4,123 %       | 4,258 % | 5,158 %        | 3,629 %             | 3,427 %             |
| 101                            | 6,043 % | 4,126 %       | 4,256 % | 5,150 %        | 3,633 %             | 3,434 %             |
| 102                            | 6,037 % | 4,128 %       | 4,254 % | 5,142 %        | 3,637 %             | 3,440 %             |
| 103                            | 6,030 % | 4,130 %       | 4,252 % | 5,134 %        | 3,641 %             | 3,445 %             |
| 104                            | 6,023 % | 4,132 %       | 4,250 % | 5,127 %        | 3,645 %             | 3,451 %             |
| 105                            | 6,017 % | 4,134 %       | 4,248 % | 5,119 %        | 3,649 %             | 3,457 %             |
| 106                            | 6,011 % | 4,136 %       | 4,246 % | 5,112 %        | 3,653 %             | 3,462 %             |
| 107                            | 6,004 % | 4,138 %       | 4,244 % | 5,105 %        | 3,657 %             | 3,468 %             |
| 108                            | 5,998 % | 4,140 %       | 4,242 % | 5,098 %        | 3,660 %             | 3,473 %             |
| 109                            | 5,992 % | 4,142 %       | 4,240 % | 5,091 %        | 3,664 %             | 3,479 %             |
| 110                            | 5,986 % | 4,144 %       | 4,239 % | 5,084 %        | 3,667 %             | 3,484 %             |
| 111                            | 5,981 % | 4,146 %       | 4,237 % | 5,078 %        | 3,671 %             | 3,489 %             |
| 112                            | 5,975 % | 4,148 %       | 4,235 % | 5,071 %        | 3,674 %             | 3,494 %             |
| 113                            | 5,970 % | 4,149 %       | 4,234 % | 5,065 %        | 3,678 %             | 3,499 %             |
| 114                            | 5,964 % | 4,151 %       | 4,232 % | 5,058 %        | 3,681 %             | 3,504 %             |
| 115                            | 5,959 % | 4,153 %       | 4,230 % | 5,052 %        | 3,684 %             | 3,508 %             |
| 116                            | 5,953 % | 4,155 %       | 4,229 % | 5,046 %        | 3,687 %             | 3,513 %             |
| 117                            | 5,948 % | 4,156 %       | 4,227 % | 5,040 %        | 3,690 %             | 3,518 %             |
| 118                            | 5,943 % | 4,158 %       | 4,226 % | 5,034 %        | 3,693 %             | 3,522 %             |
| 119                            | 5,938 % | 4,160 %       | 4,224 % | 5,028 %        | 3,696 %             | 3,527 %             |

| Term to maturity<br>(in years) | Real    | Renminbi-yuan | Ringgit | Russian rouble | Singapore<br>dollar | South Korean<br>won |
|--------------------------------|---------|---------------|---------|----------------|---------------------|---------------------|
| 120                            | 5,933 % | 4,161 %       | 4,223 % | 5,023 %        | 3,699 %             | 3,531 %             |
| 121                            | 5,928 % | 4,163 %       | 4,222 % | 5,017 %        | 3,702 %             | 3,535 %             |
| 122                            | 5,924 % | 4,164 %       | 4,220 % | 5,012 %        | 3,705 %             | 3,539 %             |
| 123                            | 5,919 % | 4,166 %       | 4,219 % | 5,006 %        | 3,708 %             | 3,543 %             |
| 124                            | 5,914 % | 4,167 %       | 4,217 % | 5,001 %        | 3,711 %             | 3,548 %             |
| 125                            | 5,910 % | 4,169 %       | 4,216 % | 4,996 %        | 3,713 %             | 3,552 %             |
| 126                            | 5,905 % | 4,170 %       | 4,215 % | 4,991 %        | 3,716 %             | 3,556 %             |
| 127                            | 5,901 % | 4,172 %       | 4,213 % | 4,986 %        | 3,719 %             | 3,559 %             |
| 128                            | 5,897 % | 4,173 %       | 4,212 % | 4,981 %        | 3,721 %             | 3,563 %             |
| 129                            | 5,893 % | 4,174 %       | 4,211 % | 4,976 %        | 3,724 %             | 3,567 %             |
| 130                            | 5,888 % | 4,176 %       | 4,210 % | 4,971 %        | 3,726 %             | 3,571 %             |
| 131                            | 5,884 % | 4,177 %       | 4,208 % | 4,966 %        | 3,729 %             | 3,574 %             |
| 132                            | 5,880 % | 4,178 %       | 4,207 % | 4,961 %        | 3,731 %             | 3,578 %             |
| 133                            | 5,876 % | 4,180 %       | 4,206 % | 4,957 %        | 3,733 %             | 3,581 %             |
| 134                            | 5,872 % | 4,181 %       | 4,205 % | 4,952 %        | 3,736 %             | 3,585 %             |
| 135                            | 5,868 % | 4,182 %       | 4,204 % | 4,948 %        | 3,738 %             | 3,588 %             |
| 136                            | 5,865 % | 4,183 %       | 4,203 % | 4,943 %        | 3,740 %             | 3,592 %             |
| 137                            | 5,861 % | 4,185 %       | 4,201 % | 4,939 %        | 3,743 %             | 3,595 %             |
| 138                            | 5,857 % | 4,186 %       | 4,200 % | 4,935 %        | 3,745 %             | 3,598 %             |
| 139                            | 5,853 % | 4,187 %       | 4,199 % | 4,931 %        | 3,747 %             | 3,602 %             |
| 140                            | 5,850 % | 4,188 %       | 4,198 % | 4,926 %        | 3,749 %             | 3,605 %             |
| 141                            | 5,846 % | 4,189 %       | 4,197 % | 4,922 %        | 3,751 %             | 3,608 %             |
| 142                            | 5,843 % | 4,190 %       | 4,196 % | 4,918 %        | 3,753 %             | 3,611 %             |
| 143                            | 5,839 % | 4,192 %       | 4,195 % | 4,914 %        | 3,756 %             | 3,614 %             |
| 144                            | 5,836 % | 4,193 %       | 4,194 % | 4,910 %        | 3,758 %             | 3,617 %             |
| 145                            | 5,833 % | 4,194 %       | 4,193 % | 4,906 %        | 3,760 %             | 3,620 %             |
| 146                            | 5,829 % | 4,195 %       | 4,192 % | 4,903 %        | 3,762 %             | 3,623 %             |
| 147                            | 5,826 % | 4,196 %       | 4,191 % | 4,899 %        | 3,764 %             | 3,626 %             |
| 148                            | 5,823 % | 4,197 %       | 4,190 % | 4,895 %        | 3,765 %             | 3,629 %             |
| 149                            | 5,820 % | 4,198 %       | 4,189 % | 4,891 %        | 3,767 %             | 3,632 %             |
| 150                            | 5,816 % | 4,199 %       | 4,188 % | 4,888 %        | 3,769 %             | 3,634 %             |

| Term to maturity<br>(in years) | Turkish lira | US dollar | Yen       |
|--------------------------------|--------------|-----------|-----------|
| 1                              | 21,800 %     | 2,593 %   | – 0,091 % |
| 2                              | 19,421 %     | 2,491 %   | – 0,092 % |
| 3                              | 18,795 %     | 2,422 %   | – 0,094 % |
| 4                              | 17,703 %     | 2,400 %   | – 0,090 % |
| 5                              | 16,309 %     | 2,402 %   | – 0,079 % |
| 6                              | 15,898 %     | 2,427 %   | – 0,060 % |
| 7                              | 15,751 %     | 2,461 %   | – 0,034 % |
| 8                              | 15,214 %     | 2,492 %   | – 0,003 % |
| 9                              | 14,433 %     | 2,526 %   | 0,034 %   |

| Term to maturity<br>(in years) | Turkish lira | US dollar | Yen     |
|--------------------------------|--------------|-----------|---------|
| 10                             | 13,642 %     | 2,551 %   | 0,074 % |
| 11                             | 12,965 %     | 2,586 %   | 0,115 % |
| 12                             | 12,397 %     | 2,601 %   | 0,156 % |
| 13                             | 11,912 %     | 2,618 %   | 0,198 % |
| 14                             | 11,492 %     | 2,639 %   | 0,240 % |
| 15                             | 11,125 %     | 2,659 %   | 0,280 % |
| 16                             | 10,800 %     | 2,673 %   | 0,319 % |
| 17                             | 10,510 %     | 2,683 %   | 0,357 % |
| 18                             | 10,251 %     | 2,690 %   | 0,392 % |
| 19                             | 10,016 %     | 2,695 %   | 0,426 % |
| 20                             | 9,803 %      | 2,698 %   | 0,458 % |
| 21                             | 9,608 %      | 2,699 %   | 0,487 % |
| 22                             | 9,430 %      | 2,699 %   | 0,514 % |
| 23                             | 9,266 %      | 2,698 %   | 0,537 % |
| 24                             | 9,114 %      | 2,698 %   | 0,557 % |
| 25                             | 8,974 %      | 2,697 %   | 0,572 % |
| 26                             | 8,843 %      | 2,697 %   | 0,583 % |
| 27                             | 8,721 %      | 2,696 %   | 0,593 % |
| 28                             | 8,607 %      | 2,695 %   | 0,606 % |
| 29                             | 8,501 %      | 2,694 %   | 0,622 % |
| 30                             | 8,401 %      | 2,692 %   | 0,645 % |
| 31                             | 8,307 %      | 2,689 %   | 0,674 % |
| 32                             | 8,218 %      | 2,686 %   | 0,709 % |
| 33                             | 8,135 %      | 2,682 %   | 0,748 % |
| 34                             | 8,056 %      | 2,677 %   | 0,790 % |
| 35                             | 7,981 %      | 2,672 %   | 0,833 % |
| 36                             | 7,910 %      | 2,666 %   | 0,878 % |
| 37                             | 7,843 %      | 2,659 %   | 0,923 % |
| 38                             | 7,779 %      | 2,652 %   | 0,969 % |
| 39                             | 7,718 %      | 2,643 %   | 1,014 % |
| 40                             | 7,660 %      | 2,634 %   | 1,059 % |
| 41                             | 7,605 %      | 2,623 %   | 1,103 % |
| 42                             | 7,552 %      | 2,612 %   | 1,147 % |
| 43                             | 7,502 %      | 2,602 %   | 1,190 % |
| 44                             | 7,453 %      | 2,593 %   | 1,231 % |
| 45                             | 7,407 %      | 2,585 %   | 1,272 % |
| 46                             | 7,363 %      | 2,579 %   | 1,312 % |
| 47                             | 7,321 %      | 2,575 %   | 1,350 % |
| 48                             | 7,280 %      | 2,574 %   | 1,388 % |
| 49                             | 7,241 %      | 2,575 %   | 1,424 % |

| Term to maturity<br>(in years) | Turkish lira | US dollar | Yen     |
|--------------------------------|--------------|-----------|---------|
| 50                             | 7,203 %      | 2,579 %   | 1,459 % |
| 51                             | 7,167 %      | 2,585 %   | 1,494 % |
| 52                             | 7,132 %      | 2,594 %   | 1,527 % |
| 53                             | 7,099 %      | 2,605 %   | 1,559 % |
| 54                             | 7,067 %      | 2,617 %   | 1,591 % |
| 55                             | 7,036 %      | 2,631 %   | 1,621 % |
| 56                             | 7,005 %      | 2,645 %   | 1,651 % |
| 57                             | 6,976 %      | 2,660 %   | 1,679 % |
| 58                             | 6,948 %      | 2,676 %   | 1,707 % |
| 59                             | 6,921 %      | 2,692 %   | 1,734 % |
| 60                             | 6,895 %      | 2,708 %   | 1,760 % |
| 61                             | 6,870 %      | 2,724 %   | 1,785 % |
| 62                             | 6,845 %      | 2,741 %   | 1,810 % |
| 63                             | 6,822 %      | 2,758 %   | 1,834 % |
| 64                             | 6,798 %      | 2,774 %   | 1,857 % |
| 65                             | 6,776 %      | 2,790 %   | 1,879 % |
| 66                             | 6,755 %      | 2,807 %   | 1,901 % |
| 67                             | 6,734 %      | 2,823 %   | 1,922 % |
| 68                             | 6,713 %      | 2,838 %   | 1,943 % |
| 69                             | 6,693 %      | 2,854 %   | 1,963 % |
| 70                             | 6,674 %      | 2,869 %   | 1,983 % |
| 71                             | 6,655 %      | 2,885 %   | 2,002 % |
| 72                             | 6,637 %      | 2,899 %   | 2,020 % |
| 73                             | 6,619 %      | 2,914 %   | 2,038 % |
| 74                             | 6,602 %      | 2,928 %   | 2,056 % |
| 75                             | 6,585 %      | 2,942 %   | 2,073 % |
| 76                             | 6,569 %      | 2,956 %   | 2,089 % |
| 77                             | 6,553 %      | 2,970 %   | 2,105 % |
| 78                             | 6,538 %      | 2,983 %   | 2,121 % |
| 79                             | 6,523 %      | 2,996 %   | 2,137 % |
| 80                             | 6,508 %      | 3,008 %   | 2,152 % |
| 81                             | 6,494 %      | 3,021 %   | 2,166 % |
| 82                             | 6,480 %      | 3,033 %   | 2,181 % |
| 83                             | 6,466 %      | 3,045 %   | 2,195 % |
| 84                             | 6,453 %      | 3,056 %   | 2,208 % |
| 85                             | 6,440 %      | 3,068 %   | 2,222 % |
| 86                             | 6,427 %      | 3,079 %   | 2,235 % |
| 87                             | 6,414 %      | 3,090 %   | 2,247 % |
| 88                             | 6,402 %      | 3,101 %   | 2,260 % |
| 89                             | 6,390 %      | 3,111 %   | 2,272 % |

| Term to maturity<br>(in years) | Turkish lira | US dollar | Yen     |
|--------------------------------|--------------|-----------|---------|
| 90                             | 6,379 %      | 3,121 %   | 2,284 % |
| 91                             | 6,367 %      | 3,131 %   | 2,296 % |
| 92                             | 6,356 %      | 3,141 %   | 2,307 % |
| 93                             | 6,345 %      | 3,151 %   | 2,318 % |
| 94                             | 6,335 %      | 3,160 %   | 2,329 % |
| 95                             | 6,324 %      | 3,170 %   | 2,340 % |
| 96                             | 6,314 %      | 3,179 %   | 2,350 % |
| 97                             | 6,304 %      | 3,188 %   | 2,361 % |
| 98                             | 6,294 %      | 3,196 %   | 2,371 % |
| 99                             | 6,285 %      | 3,205 %   | 2,380 % |
| 100                            | 6,275 %      | 3,213 %   | 2,390 % |
| 101                            | 6,266 %      | 3,221 %   | 2,400 % |
| 102                            | 6,257 %      | 3,230 %   | 2,409 % |
| 103                            | 6,248 %      | 3,237 %   | 2,418 % |
| 104                            | 6,240 %      | 3,245 %   | 2,427 % |
| 105                            | 6,231 %      | 3,253 %   | 2,436 % |
| 106                            | 6,223 %      | 3,260 %   | 2,444 % |
| 107                            | 6,215 %      | 3,268 %   | 2,453 % |
| 108                            | 6,207 %      | 3,275 %   | 2,461 % |
| 109                            | 6,199 %      | 3,282 %   | 2,469 % |
| 110                            | 6,191 %      | 3,289 %   | 2,477 % |
| 111                            | 6,183 %      | 3,296 %   | 2,485 % |
| 112                            | 6,176 %      | 3,302 %   | 2,492 % |
| 113                            | 6,169 %      | 3,309 %   | 2,500 % |
| 114                            | 6,161 %      | 3,315 %   | 2,507 % |
| 115                            | 6,154 %      | 3,322 %   | 2,515 % |
| 116                            | 6,147 %      | 3,328 %   | 2,522 % |
| 117                            | 6,141 %      | 3,334 %   | 2,529 % |
| 118                            | 6,134 %      | 3,340 %   | 2,536 % |
| 119                            | 6,127 %      | 3,346 %   | 2,543 % |
| 120                            | 6,121 %      | 3,352 %   | 2,549 % |
| 121                            | 6,114 %      | 3,358 %   | 2,556 % |
| 122                            | 6,108 %      | 3,363 %   | 2,562 % |
| 123                            | 6,102 %      | 3,369 %   | 2,569 % |
| 124                            | 6,096 %      | 3,374 %   | 2,575 % |
| 125                            | 6,090 %      | 3,380 %   | 2,581 % |
| 126                            | 6,084 %      | 3,385 %   | 2,587 % |
| 127                            | 6,078 %      | 3,390 %   | 2,593 % |
| 128                            | 6,072 %      | 3,396 %   | 2,599 % |
| 129                            | 6,067 %      | 3,401 %   | 2,605 % |

| Term to maturity<br>(in years) | Turkish lira | US dollar | Yen     |
|--------------------------------|--------------|-----------|---------|
| 130                            | 6,061 %      | 3,406 %   | 2,611 % |
| 131                            | 6,056 %      | 3,410 %   | 2,616 % |
| 132                            | 6,050 %      | 3,415 %   | 2,622 % |
| 133                            | 6,045 %      | 3,420 %   | 2,627 % |
| 134                            | 6,040 %      | 3,425 %   | 2,633 % |
| 135                            | 6,035 %      | 3,429 %   | 2,638 % |
| 136                            | 6,030 %      | 3,434 %   | 2,643 % |
| 137                            | 6,025 %      | 3,438 %   | 2,648 % |
| 138                            | 6,020 %      | 3,443 %   | 2,653 % |
| 139                            | 6,015 %      | 3,447 %   | 2,658 % |
| 140                            | 6,010 %      | 3,451 %   | 2,663 % |
| 141                            | 6,006 %      | 3,456 %   | 2,668 % |
| 142                            | 6,001 %      | 3,460 %   | 2,673 % |
| 143                            | 5,996 %      | 3,464 %   | 2,678 % |
| 144                            | 5,992 %      | 3,468 %   | 2,682 % |
| 145                            | 5,987 %      | 3,472 %   | 2,687 % |
| 146                            | 5,983 %      | 3,476 %   | 2,692 % |
| 147                            | 5,979 %      | 3,480 %   | 2,696 % |
| 148                            | 5,974 %      | 3,484 %   | 2,700 % |
| 149                            | 5,970 %      | 3,488 %   | 2,705 % |
| 150                            | 5,966 %      | 3,491 %   | 2,709 % |

## ANNEX II

**Fundamental spreads for the calculation of the matching adjustment**

The fundamental spreads set out in this Annex are expressed in basis points and do not include any increase in accordance with Article 77c(1)(c) of Directive 2009/138/EC.

**1. Exposures to central governments and central banks**

The fundamental spreads apply to exposures denominated in all currencies.

The fundamental spreads for durations from 11 to 30 years are equal to the fundamental spreads for duration 10 years.

| Duration (in years) | Austria | Belgium | Bulgaria | Croatia | Czech Republic | Cyprus | Denmark |
|---------------------|---------|---------|----------|---------|----------------|--------|---------|
| 1                   | 0       | 0       | 32       | 5       | 0              | 26     | 1       |
| 2                   | 0       | 0       | 40       | 5       | 0              | 43     | 0       |
| 3                   | 0       | 1       | 45       | 5       | 2              | 48     | 0       |
| 4                   | 0       | 3       | 48       | 5       | 3              | 49     | 0       |
| 5                   | 0       | 4       | 53       | 5       | 5              | 52     | 0       |
| 6                   | 1       | 5       | 56       | 5       | 7              | 55     | 0       |
| 7                   | 2       | 6       | 59       | 5       | 9              | 56     | 0       |
| 8                   | 3       | 7       | 60       | 5       | 12             | 55     | 0       |
| 9                   | 3       | 8       | 62       | 5       | 13             | 52     | 0       |
| 10                  | 3       | 8       | 64       | 5       | 14             | 51     | 0       |

| Duration (in years) | Estonia | Finland | France | Germany | Greece | Hungary | Ireland |
|---------------------|---------|---------|--------|---------|--------|---------|---------|
| 1                   | 0       | 0       | 0      | 0       | 408    | 4       | 17      |
| 2                   | 0       | 0       | 0      | 0       | 252    | 4       | 24      |
| 3                   | 1       | 0       | 0      | 0       | 223    | 4       | 26      |
| 4                   | 3       | 0       | 0      | 0       | 194    | 4       | 27      |
| 5                   | 4       | 0       | 0      | 0       | 177    | 4       | 28      |
| 6                   | 5       | 0       | 0      | 0       | 174    | 4       | 30      |
| 7                   | 6       | 0       | 0      | 0       | 170    | 4       | 30      |
| 8                   | 7       | 0       | 1      | 0       | 175    | 2       | 31      |
| 9                   | 8       | 1       | 2      | 0       | 177    | 1       | 32      |
| 10                  | 8       | 0       | 3      | 0       | 179    | 4       | 32      |

| Duration (in years) | Italy | Latvia | Lithuania | Luxembourg | Malta | Netherlands | Poland |
|---------------------|-------|--------|-----------|------------|-------|-------------|--------|
| 1                   | 6     | 5      | 5         | 0          | 17    | 0           | 4      |
| 2                   | 14    | 11     | 12        | 0          | 24    | 0           | 4      |
| 3                   | 18    | 15     | 15        | 0          | 26    | 0           | 4      |
| 4                   | 21    | 17     | 17        | 0          | 27    | 0           | 4      |
| 5                   | 23    | 19     | 19        | 0          | 28    | 0           | 4      |

| Duration (in years) | Italy | Latvia | Lithuania | Luxembourg | Malta | Netherlands | Poland |
|---------------------|-------|--------|-----------|------------|-------|-------------|--------|
| 6                   | 24    | 20     | 21        | 0          | 30    | 0           | 4      |
| 7                   | 26    | 22     | 22        | 0          | 30    | 0           | 4      |
| 8                   | 27    | 23     | 24        | 1          | 31    | 0           | 4      |
| 9                   | 29    | 24     | 25        | 2          | 32    | 0           | 4      |
| 10                  | 30    | 24     | 25        | 3          | 32    | 0           | 4      |

| Duration (in years) | Portugal | Romania | Slovakia | Slovenia | Spain | Sweden | United Kingdom |
|---------------------|----------|---------|----------|----------|-------|--------|----------------|
| 1                   | 26       | 9       | 12       | 19       | 5     | 0      | 0              |
| 2                   | 43       | 17      | 16       | 22       | 12    | 0      | 0              |
| 3                   | 48       | 20      | 19       | 27       | 15    | 0      | 0              |
| 4                   | 49       | 21      | 20       | 31       | 17    | 0      | 0              |
| 5                   | 52       | 23      | 22       | 35       | 19    | 0      | 0              |
| 6                   | 55       | 24      | 23       | 38       | 21    | 0      | 0              |
| 7                   | 56       | 25      | 24       | 40       | 22    | 0      | 0              |
| 8                   | 55       | 27      | 26       | 41       | 24    | 0      | 0              |
| 9                   | 52       | 29      | 26       | 42       | 25    | 0      | 0              |
| 10                  | 51       | 26      | 26       | 42       | 25    | 0      | 0              |

| Duration (in years) | Liechtenstein | Norway | Switzerland | Australia | Brazil | Canada | Chile |
|---------------------|---------------|--------|-------------|-----------|--------|--------|-------|
| 1                   | 0             | 0      | 0           | 0         | 12     | 0      | 17    |
| 2                   | 0             | 0      | 0           | 0         | 12     | 0      | 19    |
| 3                   | 0             | 0      | 0           | 0         | 12     | 0      | 18    |
| 4                   | 0             | 0      | 0           | 0         | 12     | 0      | 17    |
| 5                   | 0             | 0      | 0           | 0         | 12     | 0      | 16    |
| 6                   | 0             | 0      | 0           | 0         | 12     | 0      | 15    |
| 7                   | 0             | 0      | 0           | 0         | 12     | 0      | 14    |
| 8                   | 0             | 0      | 0           | 0         | 12     | 0      | 15    |
| 9                   | 0             | 0      | 0           | 0         | 12     | 0      | 16    |
| 10                  | 0             | 0      | 0           | 0         | 12     | 0      | 13    |

| Duration (in years) | China | Colombia | Hong Kong | India | Japan | Malaysia | Mexico |
|---------------------|-------|----------|-----------|-------|-------|----------|--------|
| 1                   | 0     | 11       | 0         | 10    | 0     | 0        | 9      |
| 2                   | 0     | 18       | 0         | 10    | 0     | 0        | 9      |
| 3                   | 1     | 29       | 0         | 10    | 0     | 0        | 9      |
| 4                   | 2     | 37       | 0         | 10    | 0     | 0        | 10     |
| 5                   | 2     | 39       | 0         | 10    | 0     | 0        | 10     |
| 6                   | 3     | 43       | 0         | 10    | 0     | 0        | 10     |
| 7                   | 4     | 45       | 0         | 10    | 0     | 0        | 10     |
| 8                   | 7     | 42       | 0         | 10    | 0     | 0        | 10     |
| 9                   | 5     | 40       | 0         | 10    | 1     | 0        | 9      |
| 10                  | 5     | 42       | 0         | 10    | 1     | 0        | 9      |

| Duration (in years) | New Zealand | Russia | Singapore | South Africa | South Korea | Thailand | Taiwan |
|---------------------|-------------|--------|-----------|--------------|-------------|----------|--------|
| 1                   | 0           | 0      | 0         | 5            | 10          | 0        | 4      |
| 2                   | 0           | 0      | 0         | 7            | 12          | 0        | 4      |
| 3                   | 0           | 0      | 0         | 7            | 12          | 0        | 4      |
| 4                   | 0           | 0      | 0         | 7            | 14          | 0        | 4      |
| 5                   | 0           | 1      | 0         | 6            | 15          | 0        | 4      |
| 6                   | 0           | 5      | 0         | 6            | 15          | 0        | 4      |
| 7                   | 0           | 8      | 0         | 8            | 16          | 0        | 4      |
| 8                   | 0           | 12     | 0         | 9            | 16          | 0        | 4      |
| 9                   | 0           | 18     | 0         | 9            | 16          | 0        | 4      |
| 10                  | 0           | 18     | 0         | 10           | 16          | 0        | 4      |

| Duration (in years) | United States |
|---------------------|---------------|
| 1                   | 0             |
| 2                   | 0             |
| 3                   | 0             |
| 4                   | 0             |
| 5                   | 0             |
| 6                   | 0             |
| 7                   | 0             |
| 8                   | 0             |
| 9                   | 0             |
| 10                  | 0             |

## 2. Exposures to financial institutions

### 2.1 Euro

| Duration (in years) | Credit quality step 0 | Credit quality step 1 | Credit quality step 2 | Credit quality step 3 | Credit quality step 4 | Credit quality step 5 | Credit quality step 6 |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1                   | 6                     | 20                    | 46                    | 122                   | 236                   | 566                   | 1 182                 |
| 2                   | 6                     | 20                    | 46                    | 122                   | 236                   | 566                   | 970                   |
| 3                   | 7                     | 23                    | 47                    | 115                   | 232                   | 562                   | 803                   |
| 4                   | 8                     | 25                    | 49                    | 117                   | 231                   | 561                   | 673                   |
| 5                   | 10                    | 28                    | 55                    | 120                   | 231                   | 561                   | 571                   |
| 6                   | 11                    | 30                    | 58                    | 125                   | 231                   | 561                   | 561                   |
| 7                   | 12                    | 33                    | 60                    | 127                   | 231                   | 561                   | 561                   |
| 8                   | 12                    | 33                    | 60                    | 126                   | 231                   | 561                   | 561                   |
| 9                   | 12                    | 34                    | 59                    | 125                   | 231                   | 561                   | 561                   |
| 10                  | 13                    | 35                    | 60                    | 125                   | 231                   | 561                   | 561                   |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 11                     | 13                       | 36                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 12                     | 14                       | 37                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 13                     | 14                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 14                     | 14                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 15                     | 14                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 16                     | 14                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 17                     | 14                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 18                     | 14                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 19                     | 14                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 20                     | 15                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 21                     | 15                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 22                     | 16                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 23                     | 17                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 24                     | 18                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 25                     | 18                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 26                     | 19                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 27                     | 20                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 28                     | 21                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 29                     | 21                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |
| 30                     | 22                       | 38                       | 60                       | 125                      | 231                      | 561                      | 561                      |

## 2.2 Czech koruna

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 11                       | 26                       | 51                       | 128                      | 242                      | 571                      | 1 225                    |
| 2                      | 14                       | 28                       | 53                       | 130                      | 244                      | 573                      | 1 004                    |
| 3                      | 15                       | 31                       | 55                       | 123                      | 240                      | 570                      | 830                      |
| 4                      | 16                       | 33                       | 57                       | 125                      | 239                      | 568                      | 694                      |
| 5                      | 17                       | 35                       | 62                       | 128                      | 239                      | 568                      | 587                      |
| 6                      | 18                       | 37                       | 65                       | 132                      | 238                      | 567                      | 567                      |
| 7                      | 18                       | 39                       | 66                       | 134                      | 237                      | 567                      | 567                      |
| 8                      | 18                       | 39                       | 65                       | 132                      | 237                      | 566                      | 566                      |
| 9                      | 17                       | 39                       | 65                       | 130                      | 236                      | 566                      | 566                      |
| 10                     | 18                       | 40                       | 64                       | 130                      | 236                      | 565                      | 565                      |
| 11                     | 18                       | 41                       | 64                       | 129                      | 235                      | 565                      | 565                      |
| 12                     | 17                       | 41                       | 64                       | 128                      | 235                      | 564                      | 564                      |
| 13                     | 17                       | 41                       | 63                       | 128                      | 234                      | 564                      | 564                      |
| 14                     | 17                       | 41                       | 62                       | 127                      | 234                      | 563                      | 563                      |
| 15                     | 16                       | 40                       | 62                       | 127                      | 233                      | 563                      | 563                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 16                     | 16                       | 40                       | 61                       | 126                      | 233                      | 562                      | 562                      |
| 17                     | 16                       | 39                       | 61                       | 126                      | 232                      | 562                      | 562                      |
| 18                     | 15                       | 39                       | 61                       | 126                      | 232                      | 562                      | 562                      |
| 19                     | 15                       | 39                       | 61                       | 126                      | 232                      | 562                      | 562                      |
| 20                     | 16                       | 40                       | 61                       | 126                      | 233                      | 562                      | 562                      |
| 21                     | 16                       | 40                       | 62                       | 127                      | 233                      | 563                      | 563                      |
| 22                     | 17                       | 40                       | 62                       | 127                      | 233                      | 563                      | 563                      |
| 23                     | 18                       | 40                       | 62                       | 127                      | 233                      | 563                      | 563                      |
| 24                     | 18                       | 40                       | 62                       | 127                      | 234                      | 563                      | 563                      |
| 25                     | 19                       | 41                       | 62                       | 127                      | 234                      | 563                      | 563                      |
| 26                     | 19                       | 41                       | 62                       | 127                      | 234                      | 563                      | 563                      |
| 27                     | 21                       | 41                       | 62                       | 127                      | 234                      | 563                      | 563                      |
| 28                     | 21                       | 41                       | 62                       | 127                      | 234                      | 563                      | 563                      |
| 29                     | 21                       | 41                       | 62                       | 127                      | 234                      | 563                      | 563                      |
| 30                     | 22                       | 40                       | 62                       | 127                      | 234                      | 563                      | 563                      |

### 2.3 Danish krone

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 6                        | 20                       | 46                       | 122                      | 236                      | 565                      | 1 182                    |
| 2                      | 6                        | 20                       | 46                       | 122                      | 236                      | 565                      | 970                      |
| 3                      | 7                        | 23                       | 47                       | 115                      | 232                      | 561                      | 803                      |
| 4                      | 8                        | 25                       | 49                       | 117                      | 231                      | 560                      | 673                      |
| 5                      | 10                       | 28                       | 55                       | 120                      | 231                      | 560                      | 571                      |
| 6                      | 11                       | 30                       | 58                       | 125                      | 231                      | 560                      | 560                      |
| 7                      | 12                       | 32                       | 60                       | 127                      | 231                      | 560                      | 560                      |
| 8                      | 12                       | 33                       | 59                       | 126                      | 231                      | 560                      | 560                      |
| 9                      | 12                       | 34                       | 59                       | 125                      | 231                      | 560                      | 560                      |
| 10                     | 13                       | 35                       | 59                       | 124                      | 231                      | 560                      | 560                      |
| 11                     | 13                       | 36                       | 60                       | 124                      | 231                      | 560                      | 560                      |
| 12                     | 14                       | 37                       | 60                       | 124                      | 231                      | 560                      | 560                      |
| 13                     | 14                       | 38                       | 60                       | 124                      | 231                      | 560                      | 560                      |
| 14                     | 14                       | 38                       | 60                       | 124                      | 231                      | 560                      | 560                      |
| 15                     | 14                       | 38                       | 60                       | 124                      | 231                      | 560                      | 560                      |
| 16                     | 14                       | 38                       | 60                       | 124                      | 231                      | 560                      | 560                      |
| 17                     | 14                       | 38                       | 60                       | 124                      | 231                      | 560                      | 560                      |
| 18                     | 14                       | 38                       | 60                       | 124                      | 231                      | 560                      | 560                      |
| 19                     | 14                       | 38                       | 60                       | 124                      | 231                      | 560                      | 560                      |
| 20                     | 15                       | 38                       | 60                       | 124                      | 231                      | 560                      | 560                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 21                     | 15                       | 38                       | 60                       | 124                      | 231                      | 560                      | 560                      |
| 22                     | 16                       | 38                       | 60                       | 124                      | 231                      | 560                      | 560                      |
| 23                     | 17                       | 38                       | 60                       | 124                      | 231                      | 560                      | 560                      |
| 24                     | 18                       | 38                       | 60                       | 125                      | 231                      | 560                      | 560                      |
| 25                     | 18                       | 38                       | 60                       | 125                      | 231                      | 560                      | 560                      |
| 26                     | 19                       | 38                       | 60                       | 125                      | 231                      | 560                      | 560                      |
| 27                     | 20                       | 38                       | 60                       | 125                      | 231                      | 560                      | 560                      |
| 28                     | 21                       | 38                       | 60                       | 125                      | 231                      | 560                      | 560                      |
| 29                     | 21                       | 38                       | 60                       | 125                      | 231                      | 560                      | 560                      |
| 30                     | 22                       | 38                       | 60                       | 125                      | 231                      | 560                      | 560                      |

#### 2.4 Forint

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 83                       | 97                       | 123                      | 199                      | 313                      | 642                      | 1 196                    |
| 2                      | 79                       | 93                       | 118                      | 195                      | 309                      | 638                      | 988                      |
| 3                      | 82                       | 98                       | 122                      | 190                      | 308                      | 637                      | 823                      |
| 4                      | 81                       | 98                       | 122                      | 190                      | 304                      | 633                      | 692                      |
| 5                      | 80                       | 98                       | 125                      | 190                      | 301                      | 631                      | 631                      |
| 6                      | 79                       | 99                       | 126                      | 193                      | 299                      | 629                      | 629                      |
| 7                      | 78                       | 99                       | 126                      | 193                      | 297                      | 627                      | 627                      |
| 8                      | 77                       | 98                       | 124                      | 191                      | 296                      | 625                      | 625                      |
| 9                      | 76                       | 98                       | 123                      | 188                      | 295                      | 624                      | 624                      |
| 10                     | 72                       | 95                       | 119                      | 184                      | 291                      | 620                      | 620                      |
| 11                     | 70                       | 93                       | 117                      | 182                      | 288                      | 617                      | 617                      |
| 12                     | 69                       | 93                       | 115                      | 180                      | 287                      | 616                      | 616                      |
| 13                     | 69                       | 92                       | 114                      | 179                      | 286                      | 615                      | 615                      |
| 14                     | 68                       | 92                       | 114                      | 179                      | 285                      | 615                      | 615                      |
| 15                     | 68                       | 92                       | 114                      | 178                      | 285                      | 614                      | 614                      |
| 16                     | 67                       | 91                       | 113                      | 178                      | 284                      | 614                      | 614                      |
| 17                     | 67                       | 91                       | 112                      | 177                      | 284                      | 613                      | 613                      |
| 18                     | 66                       | 90                       | 112                      | 177                      | 283                      | 612                      | 612                      |
| 19                     | 65                       | 89                       | 111                      | 176                      | 282                      | 612                      | 612                      |
| 20                     | 65                       | 88                       | 110                      | 175                      | 282                      | 611                      | 611                      |
| 21                     | 64                       | 88                       | 110                      | 174                      | 281                      | 610                      | 610                      |
| 22                     | 63                       | 87                       | 109                      | 174                      | 280                      | 609                      | 609                      |
| 23                     | 62                       | 86                       | 108                      | 173                      | 279                      | 608                      | 608                      |
| 24                     | 61                       | 85                       | 107                      | 172                      | 278                      | 607                      | 607                      |
| 25                     | 60                       | 84                       | 106                      | 171                      | 277                      | 606                      | 606                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 26                     | 59                       | 83                       | 105                      | 169                      | 276                      | 605                      | 605                      |
| 27                     | 58                       | 82                       | 104                      | 168                      | 275                      | 604                      | 604                      |
| 28                     | 57                       | 81                       | 103                      | 167                      | 274                      | 603                      | 603                      |
| 29                     | 56                       | 80                       | 101                      | 166                      | 273                      | 602                      | 602                      |
| 30                     | 55                       | 79                       | 100                      | 165                      | 272                      | 601                      | 601                      |

## 2.5 Krona

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 9                        | 24                       | 49                       | 126                      | 240                      | 569                      | 1 185                    |
| 2                      | 11                       | 26                       | 51                       | 128                      | 242                      | 571                      | 973                      |
| 3                      | 14                       | 29                       | 53                       | 122                      | 239                      | 568                      | 807                      |
| 4                      | 15                       | 32                       | 57                       | 124                      | 238                      | 568                      | 676                      |
| 5                      | 17                       | 35                       | 62                       | 127                      | 238                      | 568                      | 573                      |
| 6                      | 18                       | 37                       | 65                       | 132                      | 238                      | 568                      | 568                      |
| 7                      | 19                       | 39                       | 67                       | 134                      | 238                      | 567                      | 567                      |
| 8                      | 18                       | 40                       | 66                       | 132                      | 238                      | 567                      | 567                      |
| 9                      | 18                       | 40                       | 65                       | 131                      | 237                      | 566                      | 566                      |
| 10                     | 18                       | 41                       | 65                       | 130                      | 237                      | 566                      | 566                      |
| 11                     | 18                       | 41                       | 65                       | 130                      | 236                      | 566                      | 566                      |
| 12                     | 18                       | 42                       | 65                       | 129                      | 236                      | 565                      | 565                      |
| 13                     | 19                       | 42                       | 64                       | 129                      | 236                      | 565                      | 565                      |
| 14                     | 18                       | 42                       | 64                       | 129                      | 235                      | 565                      | 565                      |
| 15                     | 18                       | 42                       | 64                       | 129                      | 235                      | 565                      | 565                      |
| 16                     | 18                       | 41                       | 63                       | 128                      | 235                      | 564                      | 564                      |
| 17                     | 18                       | 41                       | 63                       | 128                      | 235                      | 564                      | 564                      |
| 18                     | 18                       | 41                       | 63                       | 128                      | 235                      | 564                      | 564                      |
| 19                     | 18                       | 41                       | 63                       | 128                      | 235                      | 564                      | 564                      |
| 20                     | 18                       | 42                       | 64                       | 129                      | 235                      | 564                      | 564                      |
| 21                     | 19                       | 42                       | 64                       | 129                      | 235                      | 565                      | 565                      |
| 22                     | 19                       | 43                       | 64                       | 129                      | 236                      | 565                      | 565                      |
| 23                     | 19                       | 43                       | 64                       | 129                      | 236                      | 565                      | 565                      |
| 24                     | 19                       | 43                       | 65                       | 129                      | 236                      | 565                      | 565                      |
| 25                     | 19                       | 43                       | 65                       | 129                      | 236                      | 565                      | 565                      |
| 26                     | 19                       | 43                       | 65                       | 129                      | 236                      | 565                      | 565                      |
| 27                     | 20                       | 43                       | 65                       | 129                      | 236                      | 565                      | 565                      |
| 28                     | 21                       | 43                       | 64                       | 129                      | 236                      | 565                      | 565                      |
| 29                     | 21                       | 43                       | 64                       | 129                      | 236                      | 565                      | 565                      |
| 30                     | 22                       | 43                       | 64                       | 129                      | 236                      | 565                      | 565                      |

## 2.6 Kuna

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 51                       | 65                       | 90                       | 167                      | 281                      | 610                      | 1 190                    |
| 2                      | 54                       | 69                       | 94                       | 171                      | 285                      | 614                      | 978                      |
| 3                      | 60                       | 76                       | 100                      | 168                      | 285                      | 614                      | 812                      |
| 4                      | 63                       | 80                       | 105                      | 172                      | 286                      | 616                      | 682                      |
| 5                      | 66                       | 84                       | 111                      | 176                      | 287                      | 616                      | 616                      |
| 6                      | 67                       | 86                       | 114                      | 181                      | 287                      | 616                      | 616                      |
| 7                      | 67                       | 88                       | 115                      | 183                      | 286                      | 616                      | 616                      |
| 8                      | 66                       | 87                       | 114                      | 180                      | 285                      | 615                      | 615                      |
| 9                      | 65                       | 87                       | 112                      | 178                      | 284                      | 613                      | 613                      |
| 10                     | 64                       | 86                       | 111                      | 176                      | 282                      | 612                      | 612                      |
| 11                     | 63                       | 86                       | 109                      | 174                      | 281                      | 610                      | 610                      |
| 12                     | 62                       | 85                       | 108                      | 173                      | 279                      | 609                      | 609                      |
| 13                     | 61                       | 84                       | 106                      | 171                      | 278                      | 607                      | 607                      |
| 14                     | 60                       | 83                       | 105                      | 170                      | 276                      | 606                      | 606                      |
| 15                     | 58                       | 82                       | 104                      | 169                      | 275                      | 605                      | 605                      |
| 16                     | 57                       | 81                       | 103                      | 168                      | 274                      | 603                      | 603                      |
| 17                     | 56                       | 80                       | 102                      | 167                      | 273                      | 603                      | 603                      |
| 18                     | 56                       | 79                       | 101                      | 166                      | 272                      | 602                      | 602                      |
| 19                     | 55                       | 79                       | 100                      | 165                      | 272                      | 601                      | 601                      |
| 20                     | 54                       | 78                       | 100                      | 165                      | 271                      | 601                      | 601                      |
| 21                     | 54                       | 77                       | 99                       | 164                      | 270                      | 600                      | 600                      |
| 22                     | 53                       | 77                       | 98                       | 163                      | 270                      | 599                      | 599                      |
| 23                     | 52                       | 76                       | 98                       | 162                      | 269                      | 598                      | 598                      |
| 24                     | 51                       | 75                       | 97                       | 162                      | 268                      | 597                      | 597                      |
| 25                     | 50                       | 74                       | 96                       | 161                      | 267                      | 597                      | 597                      |
| 26                     | 49                       | 73                       | 95                       | 160                      | 266                      | 596                      | 596                      |
| 27                     | 49                       | 72                       | 94                       | 159                      | 265                      | 595                      | 595                      |
| 28                     | 48                       | 72                       | 93                       | 158                      | 265                      | 594                      | 594                      |
| 29                     | 47                       | 71                       | 93                       | 157                      | 264                      | 593                      | 593                      |
| 30                     | 46                       | 70                       | 92                       | 157                      | 263                      | 592                      | 592                      |

## 2.7 Lev

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 5                        | 20                       | 45                       | 122                      | 235                      | 565                      | 1 181                    |
| 2                      | 5                        | 20                       | 45                       | 122                      | 235                      | 565                      | 969                      |
| 3                      | 6                        | 22                       | 46                       | 114                      | 232                      | 561                      | 803                      |
| 4                      | 7                        | 24                       | 49                       | 116                      | 230                      | 560                      | 673                      |
| 5                      | 9                        | 27                       | 54                       | 119                      | 230                      | 560                      | 570                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 6                      | 10                       | 29                       | 57                       | 124                      | 230                      | 560                      | 560                      |
| 7                      | 11                       | 32                       | 59                       | 126                      | 230                      | 560                      | 560                      |
| 8                      | 11                       | 32                       | 59                       | 125                      | 230                      | 560                      | 560                      |
| 9                      | 11                       | 33                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 10                     | 12                       | 34                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 11                     | 12                       | 35                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 12                     | 13                       | 36                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 13                     | 13                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 14                     | 13                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 15                     | 13                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 16                     | 13                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 17                     | 13                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 18                     | 14                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 19                     | 14                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 20                     | 15                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 21                     | 15                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 22                     | 16                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 23                     | 17                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 24                     | 18                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 25                     | 18                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 26                     | 19                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 27                     | 20                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 28                     | 21                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 29                     | 21                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |
| 30                     | 22                       | 37                       | 59                       | 124                      | 230                      | 560                      | 560                      |

## 2.8 Pound sterling

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 7                        | 25                       | 56                       | 154                      | 254                      | 584                      | 1 206                    |
| 2                      | 7                        | 25                       | 56                       | 154                      | 254                      | 584                      | 990                      |
| 3                      | 8                        | 27                       | 56                       | 139                      | 250                      | 579                      | 820                      |
| 4                      | 10                       | 29                       | 57                       | 128                      | 248                      | 578                      | 687                      |
| 5                      | 11                       | 31                       | 58                       | 116                      | 247                      | 577                      | 582                      |
| 6                      | 14                       | 34                       | 62                       | 108                      | 246                      | 575                      | 575                      |
| 7                      | 16                       | 37                       | 62                       | 101                      | 245                      | 574                      | 574                      |
| 8                      | 16                       | 38                       | 61                       | 93                       | 244                      | 573                      | 573                      |
| 9                      | 19                       | 45                       | 64                       | 87                       | 243                      | 572                      | 572                      |
| 10                     | 19                       | 45                       | 62                       | 84                       | 242                      | 571                      | 571                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 11                     | 17                       | 44                       | 60                       | 83                       | 241                      | 570                      | 570                      |
| 12                     | 17                       | 44                       | 61                       | 84                       | 240                      | 570                      | 570                      |
| 13                     | 17                       | 44                       | 61                       | 84                       | 240                      | 569                      | 569                      |
| 14                     | 17                       | 44                       | 61                       | 84                       | 239                      | 568                      | 568                      |
| 15                     | 17                       | 44                       | 61                       | 84                       | 238                      | 567                      | 567                      |
| 16                     | 17                       | 44                       | 61                       | 84                       | 236                      | 566                      | 566                      |
| 17                     | 17                       | 44                       | 61                       | 84                       | 236                      | 565                      | 565                      |
| 18                     | 17                       | 44                       | 61                       | 84                       | 235                      | 564                      | 564                      |
| 19                     | 17                       | 44                       | 61                       | 84                       | 235                      | 564                      | 564                      |
| 20                     | 17                       | 44                       | 61                       | 84                       | 235                      | 565                      | 565                      |
| 21                     | 17                       | 44                       | 61                       | 84                       | 236                      | 565                      | 565                      |
| 22                     | 17                       | 44                       | 61                       | 84                       | 235                      | 565                      | 565                      |
| 23                     | 17                       | 44                       | 61                       | 84                       | 235                      | 564                      | 564                      |
| 24                     | 18                       | 44                       | 61                       | 84                       | 234                      | 564                      | 564                      |
| 25                     | 18                       | 44                       | 61                       | 84                       | 234                      | 563                      | 563                      |
| 26                     | 19                       | 44                       | 61                       | 84                       | 233                      | 563                      | 563                      |
| 27                     | 20                       | 44                       | 61                       | 84                       | 233                      | 562                      | 562                      |
| 28                     | 21                       | 44                       | 61                       | 84                       | 233                      | 562                      | 562                      |
| 29                     | 21                       | 44                       | 61                       | 84                       | 232                      | 562                      | 562                      |
| 30                     | 22                       | 44                       | 61                       | 84                       | 232                      | 561                      | 561                      |

## 2.9 Romanian leu

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 86                       | 101                      | 126                      | 203                      | 317                      | 646                      | 1 251                    |
| 2                      | 84                       | 99                       | 124                      | 201                      | 314                      | 644                      | 1 031                    |
| 3                      | 83                       | 99                       | 123                      | 191                      | 309                      | 638                      | 855                      |
| 4                      | 82                       | 99                       | 123                      | 191                      | 305                      | 635                      | 717                      |
| 5                      | 81                       | 99                       | 126                      | 191                      | 302                      | 632                      | 632                      |
| 6                      | 80                       | 99                       | 127                      | 194                      | 300                      | 629                      | 629                      |
| 7                      | 78                       | 99                       | 126                      | 193                      | 297                      | 627                      | 627                      |
| 8                      | 76                       | 97                       | 123                      | 189                      | 295                      | 624                      | 624                      |
| 9                      | 73                       | 95                       | 121                      | 186                      | 292                      | 622                      | 622                      |
| 10                     | 72                       | 95                       | 119                      | 184                      | 291                      | 620                      | 620                      |
| 11                     | 71                       | 94                       | 118                      | 183                      | 289                      | 618                      | 618                      |
| 12                     | 70                       | 93                       | 116                      | 181                      | 287                      | 617                      | 617                      |
| 13                     | 69                       | 92                       | 114                      | 179                      | 286                      | 615                      | 615                      |
| 14                     | 67                       | 91                       | 113                      | 178                      | 284                      | 614                      | 614                      |
| 15                     | 66                       | 90                       | 111                      | 176                      | 283                      | 612                      | 612                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 16                     | 65                       | 88                       | 110                      | 175                      | 282                      | 611                      | 611                      |
| 17                     | 64                       | 87                       | 109                      | 174                      | 280                      | 610                      | 610                      |
| 18                     | 63                       | 86                       | 108                      | 173                      | 279                      | 609                      | 609                      |
| 19                     | 62                       | 85                       | 107                      | 172                      | 279                      | 608                      | 608                      |
| 20                     | 61                       | 85                       | 106                      | 171                      | 278                      | 607                      | 607                      |
| 21                     | 60                       | 84                       | 106                      | 170                      | 277                      | 606                      | 606                      |
| 22                     | 59                       | 83                       | 105                      | 169                      | 276                      | 605                      | 605                      |
| 23                     | 58                       | 82                       | 104                      | 168                      | 275                      | 604                      | 604                      |
| 24                     | 57                       | 81                       | 103                      | 167                      | 274                      | 603                      | 603                      |
| 25                     | 56                       | 80                       | 102                      | 166                      | 273                      | 602                      | 602                      |
| 26                     | 55                       | 79                       | 101                      | 165                      | 272                      | 601                      | 601                      |
| 27                     | 54                       | 78                       | 100                      | 164                      | 271                      | 600                      | 600                      |
| 28                     | 53                       | 77                       | 99                       | 163                      | 270                      | 599                      | 599                      |
| 29                     | 52                       | 76                       | 98                       | 162                      | 269                      | 598                      | 598                      |
| 30                     | 51                       | 75                       | 97                       | 161                      | 268                      | 597                      | 597                      |

## 2.10 Zloty

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 60                       | 74                       | 99                       | 176                      | 290                      | 619                      | 1 205                    |
| 2                      | 58                       | 73                       | 98                       | 175                      | 288                      | 618                      | 993                      |
| 3                      | 58                       | 74                       | 98                       | 166                      | 284                      | 613                      | 825                      |
| 4                      | 58                       | 75                       | 100                      | 167                      | 281                      | 611                      | 693                      |
| 5                      | 58                       | 76                       | 103                      | 168                      | 279                      | 609                      | 609                      |
| 6                      | 57                       | 76                       | 104                      | 171                      | 277                      | 607                      | 607                      |
| 7                      | 57                       | 77                       | 104                      | 172                      | 276                      | 605                      | 605                      |
| 8                      | 55                       | 76                       | 103                      | 169                      | 274                      | 603                      | 603                      |
| 9                      | 53                       | 75                       | 101                      | 166                      | 272                      | 602                      | 602                      |
| 10                     | 53                       | 75                       | 100                      | 165                      | 271                      | 601                      | 601                      |
| 11                     | 52                       | 75                       | 99                       | 164                      | 270                      | 600                      | 600                      |
| 12                     | 52                       | 75                       | 98                       | 163                      | 269                      | 599                      | 599                      |
| 13                     | 51                       | 75                       | 97                       | 162                      | 268                      | 598                      | 598                      |
| 14                     | 51                       | 75                       | 97                       | 161                      | 268                      | 597                      | 597                      |
| 15                     | 50                       | 74                       | 96                       | 161                      | 267                      | 597                      | 597                      |
| 16                     | 49                       | 73                       | 95                       | 160                      | 266                      | 595                      | 595                      |
| 17                     | 49                       | 72                       | 94                       | 159                      | 265                      | 595                      | 595                      |
| 18                     | 48                       | 72                       | 94                       | 158                      | 265                      | 594                      | 594                      |
| 19                     | 47                       | 71                       | 93                       | 158                      | 264                      | 594                      | 594                      |
| 20                     | 47                       | 71                       | 93                       | 158                      | 264                      | 593                      | 593                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 21                     | 47                       | 71                       | 93                       | 157                      | 264                      | 593                      | 593                      |
| 22                     | 46                       | 70                       | 92                       | 157                      | 263                      | 593                      | 593                      |
| 23                     | 46                       | 70                       | 92                       | 156                      | 263                      | 592                      | 592                      |
| 24                     | 45                       | 69                       | 91                       | 156                      | 262                      | 592                      | 592                      |
| 25                     | 45                       | 69                       | 90                       | 155                      | 262                      | 591                      | 591                      |
| 26                     | 44                       | 68                       | 90                       | 154                      | 261                      | 590                      | 590                      |
| 27                     | 43                       | 67                       | 89                       | 154                      | 260                      | 590                      | 590                      |
| 28                     | 43                       | 66                       | 88                       | 153                      | 260                      | 589                      | 589                      |
| 29                     | 42                       | 66                       | 88                       | 152                      | 259                      | 588                      | 588                      |
| 30                     | 41                       | 65                       | 87                       | 152                      | 258                      | 588                      | 588                      |

### 2.11 Norwegian krone

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 31                       | 45                       | 71                       | 147                      | 261                      | 590                      | 1 211                    |
| 2                      | 31                       | 46                       | 71                       | 148                      | 262                      | 591                      | 996                      |
| 3                      | 31                       | 47                       | 71                       | 140                      | 257                      | 586                      | 825                      |
| 4                      | 32                       | 49                       | 73                       | 141                      | 255                      | 584                      | 691                      |
| 5                      | 32                       | 51                       | 77                       | 143                      | 254                      | 583                      | 586                      |
| 6                      | 33                       | 52                       | 80                       | 147                      | 253                      | 582                      | 582                      |
| 7                      | 33                       | 54                       | 81                       | 148                      | 252                      | 581                      | 581                      |
| 8                      | 32                       | 53                       | 80                       | 146                      | 251                      | 581                      | 581                      |
| 9                      | 32                       | 53                       | 79                       | 144                      | 250                      | 580                      | 580                      |
| 10                     | 31                       | 54                       | 78                       | 143                      | 250                      | 579                      | 579                      |
| 11                     | 31                       | 54                       | 78                       | 143                      | 249                      | 578                      | 578                      |
| 12                     | 31                       | 54                       | 77                       | 142                      | 248                      | 578                      | 578                      |
| 13                     | 30                       | 54                       | 76                       | 141                      | 247                      | 577                      | 577                      |
| 14                     | 30                       | 54                       | 75                       | 140                      | 247                      | 576                      | 576                      |
| 15                     | 29                       | 53                       | 75                       | 140                      | 246                      | 575                      | 575                      |
| 16                     | 28                       | 52                       | 74                       | 139                      | 245                      | 575                      | 575                      |
| 17                     | 28                       | 52                       | 73                       | 138                      | 245                      | 574                      | 574                      |
| 18                     | 27                       | 51                       | 73                       | 138                      | 244                      | 574                      | 574                      |
| 19                     | 27                       | 51                       | 73                       | 138                      | 244                      | 573                      | 573                      |
| 20                     | 27                       | 51                       | 73                       | 138                      | 244                      | 573                      | 573                      |
| 21                     | 27                       | 51                       | 73                       | 138                      | 244                      | 573                      | 573                      |
| 22                     | 27                       | 51                       | 73                       | 138                      | 244                      | 573                      | 573                      |
| 23                     | 27                       | 51                       | 73                       | 137                      | 244                      | 573                      | 573                      |
| 24                     | 27                       | 51                       | 72                       | 137                      | 244                      | 573                      | 573                      |
| 25                     | 27                       | 50                       | 72                       | 137                      | 243                      | 573                      | 573                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 26                     | 26                       | 50                       | 72                       | 137                      | 243                      | 573                      | 573                      |
| 27                     | 26                       | 50                       | 72                       | 136                      | 243                      | 572                      | 572                      |
| 28                     | 26                       | 50                       | 71                       | 136                      | 243                      | 572                      | 572                      |
| 29                     | 26                       | 49                       | 71                       | 136                      | 242                      | 572                      | 572                      |
| 30                     | 25                       | 49                       | 71                       | 136                      | 242                      | 572                      | 572                      |

2.12 *Swiss franc*

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 0                        | 3                        | 26                       | 102                      | 216                      | 546                      | 1 174                    |
| 2                      | 1                        | 5                        | 27                       | 103                      | 217                      | 547                      | 964                      |
| 3                      | 2                        | 5                        | 28                       | 96                       | 214                      | 543                      | 798                      |
| 4                      | 3                        | 6                        | 31                       | 98                       | 212                      | 542                      | 669                      |
| 5                      | 4                        | 9                        | 36                       | 101                      | 212                      | 542                      | 567                      |
| 6                      | 4                        | 11                       | 39                       | 106                      | 212                      | 542                      | 542                      |
| 7                      | 5                        | 14                       | 41                       | 108                      | 212                      | 542                      | 542                      |
| 8                      | 6                        | 14                       | 41                       | 107                      | 212                      | 542                      | 542                      |
| 9                      | 7                        | 15                       | 40                       | 106                      | 212                      | 542                      | 542                      |
| 10                     | 8                        | 16                       | 41                       | 106                      | 212                      | 542                      | 542                      |
| 11                     | 8                        | 18                       | 42                       | 107                      | 213                      | 543                      | 543                      |
| 12                     | 9                        | 18                       | 41                       | 105                      | 212                      | 541                      | 541                      |
| 13                     | 10                       | 20                       | 42                       | 106                      | 213                      | 542                      | 542                      |
| 14                     | 11                       | 20                       | 41                       | 106                      | 213                      | 542                      | 542                      |
| 15                     | 11                       | 18                       | 40                       | 105                      | 211                      | 541                      | 541                      |
| 16                     | 12                       | 17                       | 39                       | 104                      | 210                      | 540                      | 540                      |
| 17                     | 12                       | 17                       | 39                       | 104                      | 210                      | 540                      | 540                      |
| 18                     | 14                       | 17                       | 39                       | 104                      | 211                      | 540                      | 540                      |
| 19                     | 14                       | 19                       | 40                       | 104                      | 211                      | 540                      | 540                      |
| 20                     | 15                       | 19                       | 40                       | 105                      | 211                      | 541                      | 541                      |
| 21                     | 15                       | 20                       | 41                       | 105                      | 212                      | 541                      | 541                      |
| 22                     | 16                       | 20                       | 41                       | 106                      | 212                      | 541                      | 541                      |
| 23                     | 17                       | 22                       | 41                       | 106                      | 212                      | 541                      | 541                      |
| 24                     | 18                       | 22                       | 41                       | 105                      | 212                      | 541                      | 541                      |
| 25                     | 18                       | 23                       | 42                       | 105                      | 212                      | 541                      | 541                      |
| 26                     | 19                       | 23                       | 43                       | 105                      | 212                      | 541                      | 541                      |
| 27                     | 19                       | 25                       | 45                       | 105                      | 212                      | 541                      | 541                      |
| 28                     | 21                       | 25                       | 46                       | 105                      | 212                      | 541                      | 541                      |
| 29                     | 21                       | 26                       | 47                       | 105                      | 212                      | 541                      | 541                      |
| 30                     | 22                       | 27                       | 48                       | 105                      | 212                      | 541                      | 541                      |

## 2.13 Australian dollar

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 47                       | 62                       | 87                       | 164                      | 277                      | 607                      | 1 222                    |
| 2                      | 47                       | 62                       | 87                       | 164                      | 277                      | 607                      | 1 002                    |
| 3                      | 48                       | 64                       | 88                       | 156                      | 273                      | 602                      | 829                      |
| 4                      | 48                       | 65                       | 89                       | 157                      | 271                      | 601                      | 694                      |
| 5                      | 49                       | 67                       | 94                       | 159                      | 270                      | 599                      | 599                      |
| 6                      | 49                       | 68                       | 96                       | 162                      | 269                      | 598                      | 598                      |
| 7                      | 49                       | 69                       | 97                       | 164                      | 268                      | 597                      | 597                      |
| 8                      | 48                       | 69                       | 95                       | 161                      | 267                      | 596                      | 596                      |
| 9                      | 47                       | 69                       | 94                       | 159                      | 266                      | 595                      | 595                      |
| 10                     | 46                       | 69                       | 93                       | 158                      | 265                      | 594                      | 594                      |
| 11                     | 46                       | 69                       | 92                       | 157                      | 264                      | 593                      | 593                      |
| 12                     | 46                       | 69                       | 92                       | 157                      | 263                      | 592                      | 592                      |
| 13                     | 45                       | 69                       | 91                       | 156                      | 262                      | 592                      | 592                      |
| 14                     | 45                       | 68                       | 90                       | 155                      | 262                      | 591                      | 591                      |
| 15                     | 44                       | 68                       | 90                       | 154                      | 261                      | 590                      | 590                      |
| 16                     | 43                       | 67                       | 89                       | 154                      | 260                      | 589                      | 589                      |
| 17                     | 43                       | 66                       | 88                       | 153                      | 259                      | 589                      | 589                      |
| 18                     | 42                       | 66                       | 88                       | 152                      | 259                      | 588                      | 588                      |
| 19                     | 41                       | 65                       | 87                       | 152                      | 258                      | 588                      | 588                      |
| 20                     | 41                       | 65                       | 87                       | 152                      | 258                      | 588                      | 588                      |
| 21                     | 41                       | 65                       | 87                       | 152                      | 258                      | 587                      | 587                      |
| 22                     | 41                       | 65                       | 86                       | 151                      | 258                      | 587                      | 587                      |
| 23                     | 40                       | 64                       | 86                       | 151                      | 257                      | 587                      | 587                      |
| 24                     | 40                       | 64                       | 85                       | 150                      | 257                      | 586                      | 586                      |
| 25                     | 39                       | 63                       | 85                       | 150                      | 256                      | 585                      | 585                      |
| 26                     | 39                       | 62                       | 84                       | 149                      | 255                      | 585                      | 585                      |
| 27                     | 38                       | 62                       | 83                       | 148                      | 255                      | 584                      | 584                      |
| 28                     | 37                       | 61                       | 83                       | 148                      | 254                      | 583                      | 583                      |
| 29                     | 37                       | 60                       | 82                       | 147                      | 253                      | 583                      | 583                      |
| 30                     | 36                       | 60                       | 82                       | 146                      | 253                      | 582                      | 582                      |

## 2.14 Baht

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 16                       | 30                       | 56                       | 132                      | 246                      | 575                      | 1 218                    |
| 2                      | 20                       | 34                       | 60                       | 136                      | 250                      | 579                      | 1 000                    |
| 3                      | 24                       | 40                       | 64                       | 132                      | 249                      | 579                      | 829                      |
| 4                      | 28                       | 45                       | 69                       | 136                      | 251                      | 580                      | 694                      |
| 5                      | 30                       | 49                       | 75                       | 141                      | 252                      | 581                      | 588                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 6                      | 29                       | 49                       | 77                       | 143                      | 250                      | 579                      | 579                      |
| 7                      | 34                       | 55                       | 82                       | 150                      | 253                      | 583                      | 583                      |
| 8                      | 33                       | 54                       | 81                       | 147                      | 252                      | 582                      | 582                      |
| 9                      | 34                       | 56                       | 81                       | 147                      | 253                      | 582                      | 582                      |
| 10                     | 36                       | 58                       | 83                       | 148                      | 254                      | 584                      | 584                      |
| 11                     | 38                       | 61                       | 84                       | 149                      | 255                      | 585                      | 585                      |
| 12                     | 39                       | 62                       | 85                       | 150                      | 256                      | 586                      | 586                      |
| 13                     | 40                       | 63                       | 85                       | 150                      | 257                      | 586                      | 586                      |
| 14                     | 40                       | 64                       | 86                       | 150                      | 257                      | 586                      | 586                      |
| 15                     | 40                       | 64                       | 86                       | 151                      | 257                      | 586                      | 586                      |
| 16                     | 40                       | 63                       | 85                       | 150                      | 256                      | 586                      | 586                      |
| 17                     | 40                       | 63                       | 85                       | 150                      | 256                      | 586                      | 586                      |
| 18                     | 39                       | 63                       | 84                       | 149                      | 256                      | 585                      | 585                      |
| 19                     | 38                       | 62                       | 84                       | 149                      | 255                      | 585                      | 585                      |
| 20                     | 38                       | 62                       | 84                       | 149                      | 255                      | 585                      | 585                      |
| 21                     | 38                       | 62                       | 84                       | 149                      | 255                      | 585                      | 585                      |
| 22                     | 38                       | 62                       | 84                       | 149                      | 255                      | 584                      | 584                      |
| 23                     | 38                       | 62                       | 83                       | 148                      | 255                      | 584                      | 584                      |
| 24                     | 37                       | 61                       | 83                       | 148                      | 254                      | 584                      | 584                      |
| 25                     | 37                       | 61                       | 83                       | 147                      | 254                      | 583                      | 583                      |
| 26                     | 36                       | 60                       | 82                       | 147                      | 253                      | 583                      | 583                      |
| 27                     | 36                       | 60                       | 82                       | 146                      | 253                      | 582                      | 582                      |
| 28                     | 35                       | 59                       | 81                       | 146                      | 252                      | 582                      | 582                      |
| 29                     | 35                       | 59                       | 80                       | 145                      | 252                      | 581                      | 581                      |
| 30                     | 34                       | 58                       | 80                       | 145                      | 251                      | 581                      | 581                      |

### 2.15 Canadian dollar

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 15                       | 29                       | 55                       | 131                      | 245                      | 574                      | 1 227                    |
| 2                      | 16                       | 31                       | 56                       | 133                      | 246                      | 576                      | 1 006                    |
| 3                      | 18                       | 34                       | 58                       | 126                      | 244                      | 573                      | 833                      |
| 4                      | 20                       | 37                       | 61                       | 129                      | 243                      | 572                      | 697                      |
| 5                      | 21                       | 40                       | 66                       | 132                      | 243                      | 572                      | 590                      |
| 6                      | 22                       | 42                       | 70                       | 136                      | 243                      | 572                      | 572                      |
| 7                      | 24                       | 44                       | 72                       | 139                      | 243                      | 572                      | 572                      |
| 8                      | 24                       | 45                       | 71                       | 137                      | 243                      | 572                      | 572                      |
| 9                      | 24                       | 46                       | 71                       | 136                      | 243                      | 572                      | 572                      |
| 10                     | 24                       | 47                       | 71                       | 136                      | 243                      | 572                      | 572                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 11                     | 25                       | 48                       | 72                       | 137                      | 243                      | 572                      | 572                      |
| 12                     | 26                       | 49                       | 72                       | 137                      | 243                      | 573                      | 573                      |
| 13                     | 26                       | 50                       | 72                       | 137                      | 243                      | 573                      | 573                      |
| 14                     | 27                       | 50                       | 72                       | 137                      | 243                      | 573                      | 573                      |
| 15                     | 27                       | 50                       | 72                       | 137                      | 243                      | 573                      | 573                      |
| 16                     | 26                       | 50                       | 72                       | 137                      | 243                      | 573                      | 573                      |
| 17                     | 26                       | 50                       | 72                       | 137                      | 243                      | 573                      | 573                      |
| 18                     | 26                       | 50                       | 72                       | 137                      | 243                      | 573                      | 573                      |
| 19                     | 26                       | 50                       | 72                       | 137                      | 243                      | 572                      | 572                      |
| 20                     | 26                       | 50                       | 72                       | 137                      | 243                      | 573                      | 573                      |
| 21                     | 26                       | 50                       | 72                       | 137                      | 243                      | 573                      | 573                      |
| 22                     | 26                       | 50                       | 72                       | 137                      | 243                      | 572                      | 572                      |
| 23                     | 26                       | 50                       | 71                       | 136                      | 243                      | 572                      | 572                      |
| 24                     | 25                       | 49                       | 71                       | 136                      | 242                      | 572                      | 572                      |
| 25                     | 25                       | 49                       | 71                       | 135                      | 242                      | 571                      | 571                      |
| 26                     | 25                       | 48                       | 70                       | 135                      | 242                      | 571                      | 571                      |
| 27                     | 24                       | 48                       | 70                       | 135                      | 241                      | 571                      | 571                      |
| 28                     | 24                       | 48                       | 70                       | 134                      | 241                      | 570                      | 570                      |
| 29                     | 24                       | 47                       | 69                       | 134                      | 240                      | 570                      | 570                      |
| 30                     | 23                       | 47                       | 69                       | 134                      | 240                      | 570                      | 570                      |

### 2.16 Chilean peso

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 50                       | 65                       | 90                       | 167                      | 280                      | 610                      | 1 242                    |
| 2                      | 53                       | 68                       | 93                       | 170                      | 283                      | 613                      | 1 021                    |
| 3                      | 57                       | 73                       | 97                       | 165                      | 282                      | 612                      | 847                      |
| 4                      | 59                       | 76                       | 101                      | 168                      | 282                      | 612                      | 710                      |
| 5                      | 61                       | 79                       | 106                      | 171                      | 283                      | 612                      | 612                      |
| 6                      | 63                       | 82                       | 110                      | 177                      | 283                      | 612                      | 612                      |
| 7                      | 64                       | 84                       | 112                      | 179                      | 283                      | 612                      | 612                      |
| 8                      | 63                       | 84                       | 111                      | 177                      | 282                      | 612                      | 612                      |
| 9                      | 63                       | 85                       | 110                      | 176                      | 282                      | 611                      | 611                      |
| 10                     | 63                       | 86                       | 110                      | 175                      | 282                      | 611                      | 611                      |
| 11                     | 64                       | 87                       | 110                      | 175                      | 281                      | 611                      | 611                      |
| 12                     | 63                       | 87                       | 109                      | 174                      | 281                      | 610                      | 610                      |
| 13                     | 63                       | 86                       | 109                      | 173                      | 280                      | 609                      | 609                      |
| 14                     | 62                       | 86                       | 108                      | 172                      | 279                      | 608                      | 608                      |
| 15                     | 61                       | 85                       | 107                      | 172                      | 278                      | 607                      | 607                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 16                     | 60                       | 84                       | 106                      | 171                      | 277                      | 607                      | 607                      |
| 17                     | 59                       | 83                       | 105                      | 170                      | 276                      | 606                      | 606                      |
| 18                     | 59                       | 83                       | 104                      | 169                      | 276                      | 605                      | 605                      |
| 19                     | 58                       | 82                       | 104                      | 168                      | 275                      | 604                      | 604                      |
| 20                     | 57                       | 81                       | 103                      | 168                      | 274                      | 604                      | 604                      |
| 21                     | 57                       | 80                       | 102                      | 167                      | 274                      | 603                      | 603                      |
| 22                     | 56                       | 80                       | 101                      | 166                      | 273                      | 602                      | 602                      |
| 23                     | 55                       | 79                       | 101                      | 165                      | 272                      | 601                      | 601                      |
| 24                     | 54                       | 78                       | 100                      | 164                      | 271                      | 600                      | 600                      |
| 25                     | 53                       | 77                       | 99                       | 164                      | 270                      | 599                      | 599                      |
| 26                     | 52                       | 76                       | 98                       | 163                      | 269                      | 598                      | 598                      |
| 27                     | 51                       | 75                       | 97                       | 162                      | 268                      | 598                      | 598                      |
| 28                     | 50                       | 74                       | 96                       | 161                      | 267                      | 597                      | 597                      |
| 29                     | 50                       | 73                       | 95                       | 160                      | 266                      | 596                      | 596                      |
| 30                     | 49                       | 72                       | 94                       | 159                      | 265                      | 595                      | 595                      |

## 2.17 Colombian peso

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 81                       | 96                       | 121                      | 198                      | 312                      | 641                      | 1 273                    |
| 2                      | 86                       | 100                      | 125                      | 202                      | 316                      | 645                      | 1 050                    |
| 3                      | 87                       | 103                      | 127                      | 195                      | 312                      | 642                      | 872                      |
| 4                      | 87                       | 104                      | 129                      | 196                      | 311                      | 640                      | 732                      |
| 5                      | 91                       | 109                      | 136                      | 201                      | 312                      | 641                      | 641                      |
| 6                      | 92                       | 112                      | 140                      | 206                      | 313                      | 642                      | 642                      |
| 7                      | 94                       | 114                      | 142                      | 209                      | 313                      | 642                      | 642                      |
| 8                      | 95                       | 116                      | 142                      | 208                      | 314                      | 643                      | 643                      |
| 9                      | 95                       | 117                      | 143                      | 208                      | 314                      | 644                      | 644                      |
| 10                     | 96                       | 118                      | 143                      | 208                      | 314                      | 644                      | 644                      |
| 11                     | 96                       | 119                      | 142                      | 207                      | 314                      | 643                      | 643                      |
| 12                     | 95                       | 119                      | 142                      | 206                      | 313                      | 642                      | 642                      |
| 13                     | 95                       | 118                      | 140                      | 205                      | 312                      | 641                      | 641                      |
| 14                     | 93                       | 117                      | 139                      | 204                      | 310                      | 639                      | 639                      |
| 15                     | 92                       | 116                      | 137                      | 202                      | 309                      | 638                      | 638                      |
| 16                     | 90                       | 114                      | 136                      | 201                      | 307                      | 637                      | 637                      |
| 17                     | 89                       | 113                      | 134                      | 199                      | 306                      | 635                      | 635                      |
| 18                     | 87                       | 111                      | 133                      | 198                      | 304                      | 634                      | 634                      |
| 19                     | 86                       | 110                      | 132                      | 197                      | 303                      | 632                      | 632                      |
| 20                     | 85                       | 109                      | 130                      | 195                      | 302                      | 631                      | 631                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 21                     | 83                       | 107                      | 129                      | 194                      | 300                      | 630                      | 630                      |
| 22                     | 82                       | 106                      | 128                      | 192                      | 299                      | 628                      | 628                      |
| 23                     | 80                       | 104                      | 126                      | 191                      | 297                      | 627                      | 627                      |
| 24                     | 79                       | 103                      | 124                      | 189                      | 296                      | 625                      | 625                      |
| 25                     | 77                       | 101                      | 123                      | 188                      | 294                      | 623                      | 623                      |
| 26                     | 76                       | 99                       | 121                      | 186                      | 292                      | 622                      | 622                      |
| 27                     | 74                       | 98                       | 120                      | 184                      | 291                      | 620                      | 620                      |
| 28                     | 73                       | 96                       | 118                      | 183                      | 289                      | 619                      | 619                      |
| 29                     | 71                       | 95                       | 117                      | 181                      | 288                      | 617                      | 617                      |
| 30                     | 70                       | 93                       | 115                      | 180                      | 286                      | 616                      | 616                      |

### 2.18 Hong Kong dollar

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 8                        | 23                       | 48                       | 125                      | 238                      | 568                      | 1 222                    |
| 2                      | 11                       | 26                       | 51                       | 128                      | 242                      | 571                      | 1 003                    |
| 3                      | 15                       | 31                       | 55                       | 123                      | 240                      | 570                      | 830                      |
| 4                      | 18                       | 35                       | 59                       | 127                      | 241                      | 570                      | 695                      |
| 5                      | 21                       | 39                       | 66                       | 131                      | 242                      | 571                      | 589                      |
| 6                      | 22                       | 42                       | 70                       | 136                      | 243                      | 572                      | 572                      |
| 7                      | 24                       | 44                       | 72                       | 139                      | 243                      | 572                      | 572                      |
| 8                      | 24                       | 45                       | 71                       | 138                      | 243                      | 572                      | 572                      |
| 9                      | 24                       | 46                       | 71                       | 137                      | 243                      | 572                      | 572                      |
| 10                     | 25                       | 47                       | 72                       | 137                      | 243                      | 572                      | 572                      |
| 11                     | 25                       | 48                       | 72                       | 136                      | 243                      | 572                      | 572                      |
| 12                     | 25                       | 49                       | 71                       | 136                      | 243                      | 572                      | 572                      |
| 13                     | 25                       | 49                       | 71                       | 136                      | 242                      | 571                      | 571                      |
| 14                     | 25                       | 48                       | 70                       | 135                      | 241                      | 571                      | 571                      |
| 15                     | 24                       | 48                       | 69                       | 134                      | 241                      | 570                      | 570                      |
| 16                     | 23                       | 47                       | 68                       | 133                      | 240                      | 569                      | 569                      |
| 17                     | 22                       | 46                       | 68                       | 133                      | 239                      | 569                      | 569                      |
| 18                     | 22                       | 46                       | 68                       | 133                      | 239                      | 568                      | 568                      |
| 19                     | 22                       | 46                       | 67                       | 132                      | 239                      | 568                      | 568                      |
| 20                     | 22                       | 46                       | 68                       | 132                      | 239                      | 568                      | 568                      |
| 21                     | 22                       | 46                       | 68                       | 133                      | 239                      | 568                      | 568                      |
| 22                     | 22                       | 46                       | 68                       | 133                      | 239                      | 568                      | 568                      |
| 23                     | 22                       | 46                       | 68                       | 133                      | 239                      | 568                      | 568                      |
| 24                     | 22                       | 46                       | 68                       | 132                      | 239                      | 568                      | 568                      |
| 25                     | 22                       | 46                       | 68                       | 132                      | 239                      | 568                      | 568                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 26                     | 22                       | 46                       | 67                       | 132                      | 239                      | 568                      | 568                      |
| 27                     | 22                       | 45                       | 67                       | 132                      | 238                      | 568                      | 568                      |
| 28                     | 21                       | 45                       | 67                       | 132                      | 238                      | 568                      | 568                      |
| 29                     | 21                       | 45                       | 67                       | 132                      | 238                      | 568                      | 568                      |
| 30                     | 22                       | 45                       | 67                       | 131                      | 238                      | 567                      | 567                      |

## 2.19 Indian rupee

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 94                       | 109                      | 134                      | 210                      | 324                      | 654                      | 1 315                    |
| 2                      | 94                       | 109                      | 134                      | 211                      | 325                      | 654                      | 1 080                    |
| 3                      | 95                       | 111                      | 135                      | 203                      | 321                      | 650                      | 895                      |
| 4                      | 96                       | 113                      | 137                      | 205                      | 319                      | 648                      | 750                      |
| 5                      | 97                       | 115                      | 142                      | 207                      | 318                      | 648                      | 648                      |
| 6                      | 97                       | 117                      | 145                      | 211                      | 318                      | 647                      | 647                      |
| 7                      | 98                       | 119                      | 146                      | 213                      | 317                      | 646                      | 646                      |
| 8                      | 98                       | 119                      | 145                      | 211                      | 317                      | 646                      | 646                      |
| 9                      | 97                       | 119                      | 144                      | 210                      | 316                      | 645                      | 645                      |
| 10                     | 96                       | 118                      | 143                      | 208                      | 314                      | 644                      | 644                      |
| 11                     | 95                       | 118                      | 141                      | 206                      | 312                      | 642                      | 642                      |
| 12                     | 93                       | 117                      | 139                      | 204                      | 311                      | 640                      | 640                      |
| 13                     | 92                       | 115                      | 137                      | 202                      | 309                      | 638                      | 638                      |
| 14                     | 90                       | 114                      | 135                      | 200                      | 307                      | 636                      | 636                      |
| 15                     | 88                       | 112                      | 134                      | 198                      | 305                      | 634                      | 634                      |
| 16                     | 86                       | 110                      | 131                      | 196                      | 303                      | 632                      | 632                      |
| 17                     | 84                       | 108                      | 130                      | 195                      | 301                      | 631                      | 631                      |
| 18                     | 83                       | 106                      | 128                      | 193                      | 300                      | 629                      | 629                      |
| 19                     | 81                       | 105                      | 127                      | 192                      | 298                      | 628                      | 628                      |
| 20                     | 80                       | 104                      | 126                      | 191                      | 297                      | 627                      | 627                      |
| 21                     | 79                       | 103                      | 125                      | 190                      | 296                      | 626                      | 626                      |
| 22                     | 78                       | 102                      | 124                      | 189                      | 295                      | 624                      | 624                      |
| 23                     | 77                       | 101                      | 123                      | 187                      | 294                      | 623                      | 623                      |
| 24                     | 76                       | 100                      | 121                      | 186                      | 293                      | 622                      | 622                      |
| 25                     | 75                       | 98                       | 120                      | 185                      | 292                      | 621                      | 621                      |
| 26                     | 74                       | 97                       | 119                      | 184                      | 290                      | 620                      | 620                      |
| 27                     | 72                       | 96                       | 118                      | 183                      | 289                      | 619                      | 619                      |
| 28                     | 71                       | 95                       | 117                      | 182                      | 288                      | 618                      | 618                      |
| 29                     | 70                       | 94                       | 116                      | 181                      | 287                      | 616                      | 616                      |
| 30                     | 69                       | 93                       | 115                      | 180                      | 286                      | 615                      | 615                      |

## 2.20 Mexican peso

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 341                      | 356                      | 381                      | 458                      | 572                      | 901                      | 1 355                    |
| 2                      | 80                       | 95                       | 120                      | 197                      | 310                      | 640                      | 1 110                    |
| 3                      | 84                       | 100                      | 124                      | 192                      | 309                      | 639                      | 919                      |
| 4                      | 87                       | 104                      | 129                      | 196                      | 311                      | 640                      | 769                      |
| 5                      | 90                       | 108                      | 135                      | 200                      | 312                      | 641                      | 651                      |
| 6                      | 92                       | 111                      | 139                      | 206                      | 312                      | 642                      | 642                      |
| 7                      | 93                       | 114                      | 141                      | 209                      | 312                      | 642                      | 642                      |
| 8                      | 94                       | 115                      | 142                      | 208                      | 313                      | 643                      | 643                      |
| 9                      | 94                       | 116                      | 142                      | 207                      | 313                      | 643                      | 643                      |
| 10                     | 95                       | 117                      | 142                      | 207                      | 313                      | 643                      | 643                      |
| 11                     | 95                       | 118                      | 142                      | 207                      | 313                      | 642                      | 642                      |
| 12                     | 96                       | 119                      | 142                      | 207                      | 313                      | 642                      | 642                      |
| 13                     | 96                       | 120                      | 142                      | 207                      | 313                      | 643                      | 643                      |
| 14                     | 97                       | 121                      | 143                      | 207                      | 314                      | 643                      | 643                      |
| 15                     | 98                       | 122                      | 143                      | 208                      | 315                      | 644                      | 644                      |
| 16                     | 99                       | 122                      | 144                      | 209                      | 316                      | 645                      | 645                      |
| 17                     | 100                      | 123                      | 145                      | 210                      | 317                      | 646                      | 646                      |
| 18                     | 101                      | 125                      | 146                      | 211                      | 318                      | 647                      | 647                      |
| 19                     | 102                      | 125                      | 147                      | 212                      | 319                      | 648                      | 648                      |
| 20                     | 102                      | 126                      | 148                      | 213                      | 319                      | 649                      | 649                      |
| 21                     | 102                      | 126                      | 148                      | 213                      | 319                      | 649                      | 649                      |
| 22                     | 102                      | 126                      | 148                      | 213                      | 319                      | 648                      | 648                      |
| 23                     | 102                      | 125                      | 147                      | 212                      | 319                      | 648                      | 648                      |
| 24                     | 101                      | 125                      | 146                      | 211                      | 318                      | 647                      | 647                      |
| 25                     | 100                      | 124                      | 145                      | 210                      | 317                      | 646                      | 646                      |
| 26                     | 99                       | 123                      | 144                      | 209                      | 316                      | 645                      | 645                      |
| 27                     | 97                       | 121                      | 143                      | 208                      | 314                      | 644                      | 644                      |
| 28                     | 96                       | 120                      | 142                      | 207                      | 313                      | 642                      | 642                      |
| 29                     | 95                       | 119                      | 140                      | 205                      | 312                      | 641                      | 641                      |
| 30                     | 93                       | 117                      | 139                      | 204                      | 310                      | 640                      | 640                      |

## 2.21 New Taiwan dollar

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 0                        | 11                       | 36                       | 112                      | 226                      | 556                      | 1 196                    |
| 2                      | 1                        | 10                       | 36                       | 112                      | 226                      | 556                      | 982                      |
| 3                      | 2                        | 12                       | 36                       | 105                      | 222                      | 551                      | 813                      |
| 4                      | 3                        | 14                       | 38                       | 106                      | 220                      | 549                      | 681                      |
| 5                      | 4                        | 16                       | 43                       | 108                      | 219                      | 549                      | 576                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 6                      | 4                        | 17                       | 45                       | 112                      | 218                      | 548                      | 548                      |
| 7                      | 5                        | 19                       | 47                       | 114                      | 218                      | 547                      | 547                      |
| 8                      | 7                        | 19                       | 45                       | 112                      | 217                      | 546                      | 546                      |
| 9                      | 7                        | 19                       | 44                       | 110                      | 216                      | 545                      | 545                      |
| 10                     | 8                        | 20                       | 44                       | 109                      | 215                      | 545                      | 545                      |
| 11                     | 8                        | 20                       | 44                       | 109                      | 215                      | 545                      | 545                      |
| 12                     | 9                        | 21                       | 44                       | 109                      | 215                      | 545                      | 545                      |
| 13                     | 10                       | 22                       | 44                       | 109                      | 215                      | 545                      | 545                      |
| 14                     | 11                       | 22                       | 44                       | 109                      | 215                      | 545                      | 545                      |
| 15                     | 11                       | 23                       | 44                       | 109                      | 216                      | 545                      | 545                      |
| 16                     | 12                       | 23                       | 44                       | 109                      | 216                      | 545                      | 545                      |
| 17                     | 12                       | 23                       | 45                       | 110                      | 216                      | 545                      | 545                      |
| 18                     | 14                       | 23                       | 45                       | 110                      | 217                      | 546                      | 546                      |
| 19                     | 15                       | 24                       | 46                       | 111                      | 217                      | 547                      | 547                      |
| 20                     | 15                       | 25                       | 47                       | 112                      | 218                      | 547                      | 547                      |
| 21                     | 16                       | 26                       | 48                       | 112                      | 219                      | 548                      | 548                      |
| 22                     | 17                       | 26                       | 48                       | 113                      | 220                      | 549                      | 549                      |
| 23                     | 17                       | 27                       | 49                       | 114                      | 220                      | 550                      | 550                      |
| 24                     | 18                       | 28                       | 49                       | 114                      | 221                      | 550                      | 550                      |
| 25                     | 18                       | 28                       | 50                       | 115                      | 221                      | 550                      | 550                      |
| 26                     | 19                       | 28                       | 50                       | 115                      | 221                      | 551                      | 551                      |
| 27                     | 20                       | 29                       | 51                       | 115                      | 222                      | 551                      | 551                      |
| 28                     | 21                       | 29                       | 51                       | 116                      | 222                      | 552                      | 552                      |
| 29                     | 21                       | 29                       | 51                       | 116                      | 222                      | 552                      | 552                      |
| 30                     | 22                       | 30                       | 51                       | 116                      | 223                      | 552                      | 552                      |

## 2.22 New Zealand dollar

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 53                       | 68                       | 93                       | 170                      | 283                      | 613                      | 1 222                    |
| 2                      | 54                       | 69                       | 94                       | 171                      | 284                      | 614                      | 1 002                    |
| 3                      | 55                       | 71                       | 95                       | 163                      | 280                      | 610                      | 830                      |
| 4                      | 55                       | 72                       | 97                       | 164                      | 279                      | 608                      | 695                      |
| 5                      | 56                       | 74                       | 101                      | 166                      | 277                      | 607                      | 607                      |
| 6                      | 57                       | 76                       | 104                      | 171                      | 277                      | 606                      | 606                      |
| 7                      | 56                       | 77                       | 104                      | 172                      | 275                      | 605                      | 605                      |
| 8                      | 56                       | 77                       | 103                      | 170                      | 275                      | 604                      | 604                      |
| 9                      | 55                       | 77                       | 102                      | 168                      | 274                      | 604                      | 604                      |
| 10                     | 54                       | 77                       | 101                      | 166                      | 273                      | 602                      | 602                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 11                     | 53                       | 76                       | 100                      | 165                      | 271                      | 601                      | 601                      |
| 12                     | 52                       | 76                       | 98                       | 163                      | 270                      | 599                      | 599                      |
| 13                     | 51                       | 75                       | 97                       | 162                      | 268                      | 597                      | 597                      |
| 14                     | 50                       | 73                       | 95                       | 160                      | 267                      | 596                      | 596                      |
| 15                     | 48                       | 72                       | 94                       | 159                      | 265                      | 595                      | 595                      |
| 16                     | 47                       | 70                       | 92                       | 157                      | 263                      | 593                      | 593                      |
| 17                     | 45                       | 69                       | 91                       | 156                      | 262                      | 592                      | 592                      |
| 18                     | 44                       | 68                       | 90                       | 155                      | 261                      | 591                      | 591                      |
| 19                     | 43                       | 67                       | 89                       | 154                      | 260                      | 590                      | 590                      |
| 20                     | 43                       | 67                       | 88                       | 153                      | 260                      | 589                      | 589                      |
| 21                     | 42                       | 66                       | 88                       | 153                      | 259                      | 589                      | 589                      |
| 22                     | 42                       | 65                       | 87                       | 152                      | 259                      | 588                      | 588                      |
| 23                     | 41                       | 65                       | 87                       | 151                      | 258                      | 587                      | 587                      |
| 24                     | 40                       | 64                       | 86                       | 151                      | 257                      | 587                      | 587                      |
| 25                     | 40                       | 63                       | 85                       | 150                      | 256                      | 586                      | 586                      |
| 26                     | 39                       | 63                       | 84                       | 149                      | 256                      | 585                      | 585                      |
| 27                     | 38                       | 62                       | 84                       | 149                      | 255                      | 584                      | 584                      |
| 28                     | 37                       | 61                       | 83                       | 148                      | 254                      | 584                      | 584                      |
| 29                     | 37                       | 61                       | 82                       | 147                      | 254                      | 583                      | 583                      |
| 30                     | 36                       | 60                       | 82                       | 147                      | 253                      | 582                      | 582                      |

### 2.23 Rand

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 115                      | 130                      | 155                      | 232                      | 346                      | 675                      | 1 322                    |
| 2                      | 116                      | 131                      | 156                      | 233                      | 347                      | 676                      | 1 086                    |
| 3                      | 119                      | 135                      | 159                      | 227                      | 344                      | 673                      | 901                      |
| 4                      | 121                      | 138                      | 162                      | 229                      | 344                      | 673                      | 755                      |
| 5                      | 122                      | 140                      | 167                      | 233                      | 344                      | 673                      | 673                      |
| 6                      | 123                      | 142                      | 170                      | 237                      | 343                      | 673                      | 673                      |
| 7                      | 124                      | 144                      | 172                      | 239                      | 343                      | 672                      | 672                      |
| 8                      | 123                      | 144                      | 170                      | 237                      | 342                      | 671                      | 671                      |
| 9                      | 122                      | 144                      | 169                      | 235                      | 341                      | 670                      | 670                      |
| 10                     | 121                      | 144                      | 168                      | 233                      | 340                      | 669                      | 669                      |
| 11                     | 121                      | 144                      | 167                      | 232                      | 338                      | 668                      | 668                      |
| 12                     | 119                      | 143                      | 165                      | 230                      | 337                      | 666                      | 666                      |
| 13                     | 117                      | 141                      | 163                      | 228                      | 335                      | 664                      | 664                      |
| 14                     | 116                      | 139                      | 161                      | 226                      | 332                      | 662                      | 662                      |
| 15                     | 113                      | 137                      | 159                      | 224                      | 330                      | 659                      | 659                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 16                     | 111                      | 134                      | 156                      | 221                      | 327                      | 657                      | 657                      |
| 17                     | 108                      | 132                      | 154                      | 219                      | 325                      | 655                      | 655                      |
| 18                     | 106                      | 130                      | 152                      | 217                      | 323                      | 652                      | 652                      |
| 19                     | 104                      | 128                      | 150                      | 215                      | 321                      | 650                      | 650                      |
| 20                     | 102                      | 126                      | 148                      | 213                      | 319                      | 649                      | 649                      |
| 21                     | 101                      | 124                      | 146                      | 211                      | 318                      | 647                      | 647                      |
| 22                     | 99                       | 123                      | 144                      | 209                      | 316                      | 645                      | 645                      |
| 23                     | 97                       | 121                      | 143                      | 207                      | 314                      | 643                      | 643                      |
| 24                     | 95                       | 119                      | 141                      | 206                      | 312                      | 642                      | 642                      |
| 25                     | 93                       | 117                      | 139                      | 204                      | 310                      | 640                      | 640                      |
| 26                     | 92                       | 115                      | 137                      | 202                      | 309                      | 638                      | 638                      |
| 27                     | 90                       | 114                      | 136                      | 200                      | 307                      | 636                      | 636                      |
| 28                     | 88                       | 112                      | 134                      | 199                      | 305                      | 635                      | 635                      |
| 29                     | 87                       | 111                      | 132                      | 197                      | 304                      | 633                      | 633                      |
| 30                     | 85                       | 109                      | 131                      | 196                      | 302                      | 631                      | 631                      |

## 2.24 Real

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 172                      | 187                      | 212                      | 289                      | 403                      | 732                      | 1 308                    |
| 2                      | 182                      | 196                      | 222                      | 298                      | 412                      | 741                      | 1 082                    |
| 3                      | 187                      | 203                      | 227                      | 295                      | 412                      | 742                      | 903                      |
| 4                      | 189                      | 206                      | 231                      | 298                      | 412                      | 742                      | 761                      |
| 5                      | 190                      | 209                      | 235                      | 301                      | 412                      | 741                      | 741                      |
| 6                      | 190                      | 210                      | 238                      | 304                      | 411                      | 740                      | 740                      |
| 7                      | 190                      | 210                      | 238                      | 305                      | 409                      | 738                      | 738                      |
| 8                      | 188                      | 210                      | 236                      | 302                      | 407                      | 737                      | 737                      |
| 9                      | 187                      | 209                      | 234                      | 300                      | 406                      | 735                      | 735                      |
| 10                     | 186                      | 209                      | 233                      | 298                      | 405                      | 734                      | 734                      |
| 11                     | 185                      | 208                      | 231                      | 296                      | 403                      | 732                      | 732                      |
| 12                     | 183                      | 206                      | 229                      | 294                      | 400                      | 729                      | 729                      |
| 13                     | 180                      | 204                      | 226                      | 291                      | 397                      | 726                      | 726                      |
| 14                     | 177                      | 201                      | 223                      | 287                      | 394                      | 723                      | 723                      |
| 15                     | 174                      | 198                      | 219                      | 284                      | 391                      | 720                      | 720                      |
| 16                     | 171                      | 194                      | 216                      | 281                      | 388                      | 717                      | 717                      |
| 17                     | 167                      | 191                      | 213                      | 278                      | 384                      | 714                      | 714                      |
| 18                     | 164                      | 188                      | 210                      | 275                      | 381                      | 711                      | 711                      |
| 19                     | 161                      | 185                      | 207                      | 272                      | 378                      | 707                      | 707                      |
| 20                     | 158                      | 182                      | 204                      | 269                      | 375                      | 704                      | 704                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 21                     | 155                      | 179                      | 201                      | 266                      | 372                      | 701                      | 701                      |
| 22                     | 152                      | 176                      | 198                      | 262                      | 369                      | 698                      | 698                      |
| 23                     | 149                      | 173                      | 194                      | 259                      | 366                      | 695                      | 695                      |
| 24                     | 146                      | 169                      | 191                      | 256                      | 362                      | 692                      | 692                      |
| 25                     | 143                      | 166                      | 188                      | 253                      | 359                      | 689                      | 689                      |
| 26                     | 139                      | 163                      | 185                      | 250                      | 356                      | 686                      | 686                      |
| 27                     | 137                      | 160                      | 182                      | 247                      | 353                      | 683                      | 683                      |
| 28                     | 134                      | 157                      | 179                      | 244                      | 350                      | 680                      | 680                      |
| 29                     | 131                      | 155                      | 176                      | 241                      | 348                      | 677                      | 677                      |
| 30                     | 128                      | 152                      | 174                      | 239                      | 345                      | 674                      | 674                      |

### 2.25 Renminbi-yuan

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 29                       | 43                       | 69                       | 145                      | 259                      | 588                      | 1 234                    |
| 2                      | 30                       | 44                       | 70                       | 146                      | 260                      | 589                      | 1 013                    |
| 3                      | 31                       | 47                       | 71                       | 139                      | 256                      | 585                      | 839                      |
| 4                      | 32                       | 49                       | 73                       | 141                      | 255                      | 584                      | 703                      |
| 5                      | 33                       | 51                       | 78                       | 143                      | 254                      | 584                      | 596                      |
| 6                      | 33                       | 52                       | 80                       | 147                      | 253                      | 583                      | 583                      |
| 7                      | 33                       | 54                       | 81                       | 149                      | 252                      | 582                      | 582                      |
| 8                      | 32                       | 53                       | 80                       | 146                      | 251                      | 581                      | 581                      |
| 9                      | 31                       | 53                       | 79                       | 144                      | 250                      | 580                      | 580                      |
| 10                     | 31                       | 54                       | 78                       | 143                      | 250                      | 579                      | 579                      |
| 11                     | 31                       | 54                       | 78                       | 142                      | 249                      | 578                      | 578                      |
| 12                     | 31                       | 54                       | 77                       | 142                      | 248                      | 578                      | 578                      |
| 13                     | 31                       | 54                       | 76                       | 141                      | 248                      | 577                      | 577                      |
| 14                     | 30                       | 54                       | 76                       | 141                      | 247                      | 577                      | 577                      |
| 15                     | 30                       | 54                       | 76                       | 140                      | 247                      | 576                      | 576                      |
| 16                     | 30                       | 53                       | 75                       | 140                      | 247                      | 576                      | 576                      |
| 17                     | 30                       | 53                       | 75                       | 140                      | 247                      | 576                      | 576                      |
| 18                     | 30                       | 53                       | 75                       | 140                      | 247                      | 576                      | 576                      |
| 19                     | 30                       | 53                       | 75                       | 140                      | 247                      | 576                      | 576                      |
| 20                     | 30                       | 54                       | 75                       | 140                      | 247                      | 576                      | 576                      |
| 21                     | 30                       | 54                       | 76                       | 140                      | 247                      | 576                      | 576                      |
| 22                     | 30                       | 54                       | 75                       | 140                      | 247                      | 576                      | 576                      |
| 23                     | 30                       | 53                       | 75                       | 140                      | 247                      | 576                      | 576                      |
| 24                     | 30                       | 53                       | 75                       | 140                      | 246                      | 576                      | 576                      |
| 25                     | 29                       | 53                       | 75                       | 140                      | 246                      | 576                      | 576                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 26                     | 29                       | 53                       | 75                       | 139                      | 246                      | 575                      | 575                      |
| 27                     | 29                       | 53                       | 74                       | 139                      | 246                      | 575                      | 575                      |
| 28                     | 28                       | 52                       | 74                       | 139                      | 245                      | 575                      | 575                      |
| 29                     | 28                       | 52                       | 74                       | 139                      | 245                      | 574                      | 574                      |
| 30                     | 28                       | 52                       | 73                       | 138                      | 245                      | 574                      | 574                      |

## 2.26 Ringgit

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 25                       | 40                       | 65                       | 142                      | 255                      | 585                      | 1 253                    |
| 2                      | 27                       | 42                       | 67                       | 144                      | 257                      | 587                      | 1 028                    |
| 3                      | 30                       | 45                       | 69                       | 138                      | 255                      | 584                      | 851                      |
| 4                      | 32                       | 49                       | 73                       | 141                      | 255                      | 584                      | 713                      |
| 5                      | 34                       | 53                       | 79                       | 145                      | 256                      | 585                      | 604                      |
| 6                      | 36                       | 55                       | 83                       | 150                      | 256                      | 585                      | 585                      |
| 7                      | 37                       | 58                       | 85                       | 153                      | 256                      | 586                      | 586                      |
| 8                      | 37                       | 59                       | 85                       | 151                      | 256                      | 586                      | 586                      |
| 9                      | 38                       | 59                       | 85                       | 150                      | 257                      | 586                      | 586                      |
| 10                     | 39                       | 61                       | 85                       | 150                      | 257                      | 586                      | 586                      |
| 11                     | 39                       | 63                       | 86                       | 151                      | 257                      | 587                      | 587                      |
| 12                     | 40                       | 63                       | 86                       | 151                      | 257                      | 587                      | 587                      |
| 13                     | 40                       | 64                       | 86                       | 151                      | 257                      | 587                      | 587                      |
| 14                     | 40                       | 64                       | 86                       | 151                      | 257                      | 587                      | 587                      |
| 15                     | 40                       | 64                       | 86                       | 151                      | 257                      | 586                      | 586                      |
| 16                     | 40                       | 63                       | 85                       | 150                      | 257                      | 586                      | 586                      |
| 17                     | 40                       | 63                       | 85                       | 150                      | 257                      | 586                      | 586                      |
| 18                     | 40                       | 63                       | 85                       | 150                      | 257                      | 586                      | 586                      |
| 19                     | 40                       | 63                       | 85                       | 150                      | 257                      | 586                      | 586                      |
| 20                     | 40                       | 64                       | 86                       | 150                      | 257                      | 586                      | 586                      |
| 21                     | 40                       | 64                       | 86                       | 151                      | 257                      | 586                      | 586                      |
| 22                     | 40                       | 64                       | 86                       | 151                      | 257                      | 586                      | 586                      |
| 23                     | 40                       | 64                       | 86                       | 150                      | 257                      | 586                      | 586                      |
| 24                     | 40                       | 63                       | 85                       | 150                      | 257                      | 586                      | 586                      |
| 25                     | 39                       | 63                       | 85                       | 150                      | 256                      | 586                      | 586                      |
| 26                     | 39                       | 63                       | 84                       | 149                      | 256                      | 585                      | 585                      |
| 27                     | 38                       | 62                       | 84                       | 149                      | 255                      | 585                      | 585                      |
| 28                     | 38                       | 62                       | 83                       | 148                      | 255                      | 584                      | 584                      |
| 29                     | 37                       | 61                       | 83                       | 148                      | 254                      | 584                      | 584                      |
| 30                     | 37                       | 61                       | 82                       | 147                      | 254                      | 583                      | 583                      |

## 2.27 Russian rouble

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 125                      | 140                      | 165                      | 242                      | 356                      | 685                      | 1 363                    |
| 2                      | 124                      | 139                      | 164                      | 240                      | 354                      | 684                      | 1 121                    |
| 3                      | 124                      | 140                      | 164                      | 232                      | 349                      | 679                      | 928                      |
| 4                      | 124                      | 141                      | 165                      | 233                      | 347                      | 677                      | 777                      |
| 5                      | 125                      | 143                      | 170                      | 235                      | 346                      | 676                      | 676                      |
| 6                      | 124                      | 144                      | 172                      | 238                      | 345                      | 674                      | 674                      |
| 7                      | 124                      | 145                      | 172                      | 240                      | 343                      | 673                      | 673                      |
| 8                      | 124                      | 145                      | 171                      | 237                      | 343                      | 672                      | 672                      |
| 9                      | 122                      | 144                      | 170                      | 235                      | 341                      | 671                      | 671                      |
| 10                     | 122                      | 145                      | 169                      | 234                      | 341                      | 670                      | 670                      |
| 11                     | 122                      | 145                      | 169                      | 233                      | 340                      | 669                      | 669                      |
| 12                     | 121                      | 145                      | 167                      | 232                      | 339                      | 668                      | 668                      |
| 13                     | 120                      | 144                      | 166                      | 231                      | 337                      | 667                      | 667                      |
| 14                     | 119                      | 143                      | 165                      | 230                      | 336                      | 665                      | 665                      |
| 15                     | 117                      | 141                      | 163                      | 227                      | 334                      | 663                      | 663                      |
| 16                     | 115                      | 139                      | 160                      | 225                      | 332                      | 661                      | 661                      |
| 17                     | 112                      | 136                      | 158                      | 222                      | 329                      | 658                      | 658                      |
| 18                     | 110                      | 134                      | 155                      | 220                      | 327                      | 656                      | 656                      |
| 19                     | 108                      | 131                      | 153                      | 218                      | 325                      | 654                      | 654                      |
| 20                     | 105                      | 129                      | 151                      | 216                      | 322                      | 652                      | 652                      |
| 21                     | 103                      | 127                      | 149                      | 214                      | 320                      | 649                      | 649                      |
| 22                     | 101                      | 125                      | 147                      | 211                      | 318                      | 647                      | 647                      |
| 23                     | 99                       | 123                      | 144                      | 209                      | 316                      | 645                      | 645                      |
| 24                     | 97                       | 120                      | 142                      | 207                      | 313                      | 643                      | 643                      |
| 25                     | 94                       | 118                      | 140                      | 205                      | 311                      | 641                      | 641                      |
| 26                     | 92                       | 116                      | 138                      | 203                      | 309                      | 639                      | 639                      |
| 27                     | 90                       | 114                      | 136                      | 201                      | 307                      | 636                      | 636                      |
| 28                     | 88                       | 112                      | 134                      | 199                      | 305                      | 634                      | 634                      |
| 29                     | 86                       | 110                      | 132                      | 197                      | 303                      | 632                      | 632                      |
| 30                     | 84                       | 108                      | 130                      | 195                      | 301                      | 631                      | 631                      |

## 2.28 Singapore dollar

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 0                        | 10                       | 36                       | 112                      | 226                      | 555                      | 1 220                    |
| 2                      | 1                        | 13                       | 38                       | 114                      | 228                      | 558                      | 1 000                    |
| 3                      | 2                        | 16                       | 40                       | 109                      | 226                      | 555                      | 828                      |
| 4                      | 3                        | 20                       | 44                       | 112                      | 226                      | 555                      | 693                      |
| 5                      | 5                        | 23                       | 50                       | 115                      | 227                      | 556                      | 587                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 6                      | 7                        | 26                       | 54                       | 121                      | 227                      | 556                      | 556                      |
| 7                      | 8                        | 29                       | 56                       | 124                      | 227                      | 557                      | 557                      |
| 8                      | 8                        | 30                       | 56                       | 122                      | 227                      | 557                      | 557                      |
| 9                      | 8                        | 30                       | 56                       | 121                      | 227                      | 557                      | 557                      |
| 10                     | 9                        | 31                       | 56                       | 121                      | 227                      | 557                      | 557                      |
| 11                     | 9                        | 32                       | 56                       | 120                      | 227                      | 556                      | 556                      |
| 12                     | 10                       | 33                       | 55                       | 120                      | 227                      | 556                      | 556                      |
| 13                     | 10                       | 33                       | 55                       | 120                      | 226                      | 556                      | 556                      |
| 14                     | 11                       | 33                       | 55                       | 120                      | 226                      | 556                      | 556                      |
| 15                     | 12                       | 33                       | 55                       | 120                      | 226                      | 555                      | 555                      |
| 16                     | 12                       | 33                       | 54                       | 119                      | 226                      | 555                      | 555                      |
| 17                     | 14                       | 33                       | 54                       | 119                      | 226                      | 555                      | 555                      |
| 18                     | 14                       | 33                       | 54                       | 119                      | 226                      | 555                      | 555                      |
| 19                     | 15                       | 33                       | 55                       | 119                      | 226                      | 555                      | 555                      |
| 20                     | 15                       | 33                       | 55                       | 120                      | 227                      | 556                      | 556                      |
| 21                     | 16                       | 34                       | 56                       | 121                      | 227                      | 556                      | 556                      |
| 22                     | 17                       | 34                       | 56                       | 121                      | 227                      | 557                      | 557                      |
| 23                     | 18                       | 35                       | 56                       | 121                      | 228                      | 557                      | 557                      |
| 24                     | 18                       | 35                       | 57                       | 121                      | 228                      | 557                      | 557                      |
| 25                     | 19                       | 35                       | 57                       | 122                      | 228                      | 558                      | 558                      |
| 26                     | 19                       | 35                       | 57                       | 122                      | 228                      | 558                      | 558                      |
| 27                     | 21                       | 35                       | 57                       | 122                      | 228                      | 558                      | 558                      |
| 28                     | 21                       | 36                       | 57                       | 122                      | 229                      | 558                      | 558                      |
| 29                     | 21                       | 36                       | 57                       | 122                      | 229                      | 558                      | 558                      |
| 30                     | 22                       | 36                       | 57                       | 122                      | 229                      | 558                      | 558                      |

## 2.29 South Korean won

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 35                       | 50                       | 75                       | 152                      | 265                      | 595                      | 1 221                    |
| 2                      | 36                       | 50                       | 76                       | 152                      | 266                      | 595                      | 1 001                    |
| 3                      | 36                       | 52                       | 76                       | 144                      | 261                      | 590                      | 828                      |
| 4                      | 36                       | 53                       | 77                       | 145                      | 259                      | 588                      | 693                      |
| 5                      | 36                       | 55                       | 81                       | 147                      | 258                      | 587                      | 587                      |
| 6                      | 39                       | 58                       | 86                       | 153                      | 259                      | 588                      | 588                      |
| 7                      | 36                       | 57                       | 84                       | 152                      | 255                      | 585                      | 585                      |
| 8                      | 40                       | 61                       | 88                       | 154                      | 259                      | 588                      | 588                      |
| 9                      | 39                       | 61                       | 86                       | 152                      | 258                      | 587                      | 587                      |
| 10                     | 34                       | 56                       | 81                       | 146                      | 252                      | 582                      | 582                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 11                     | 30                       | 53                       | 76                       | 141                      | 247                      | 577                      | 577                      |
| 12                     | 27                       | 50                       | 73                       | 138                      | 244                      | 573                      | 573                      |
| 13                     | 24                       | 48                       | 70                       | 135                      | 241                      | 571                      | 571                      |
| 14                     | 23                       | 46                       | 68                       | 133                      | 240                      | 569                      | 569                      |
| 15                     | 21                       | 45                       | 67                       | 132                      | 238                      | 567                      | 567                      |
| 16                     | 20                       | 43                       | 65                       | 130                      | 236                      | 566                      | 566                      |
| 17                     | 19                       | 42                       | 64                       | 129                      | 236                      | 565                      | 565                      |
| 18                     | 18                       | 42                       | 64                       | 128                      | 235                      | 564                      | 564                      |
| 19                     | 18                       | 41                       | 63                       | 128                      | 235                      | 564                      | 564                      |
| 20                     | 18                       | 41                       | 63                       | 128                      | 235                      | 564                      | 564                      |
| 21                     | 18                       | 42                       | 63                       | 128                      | 235                      | 564                      | 564                      |
| 22                     | 18                       | 42                       | 63                       | 128                      | 235                      | 564                      | 564                      |
| 23                     | 18                       | 41                       | 63                       | 128                      | 235                      | 564                      | 564                      |
| 24                     | 18                       | 41                       | 63                       | 128                      | 235                      | 564                      | 564                      |
| 25                     | 19                       | 41                       | 63                       | 128                      | 234                      | 564                      | 564                      |
| 26                     | 19                       | 41                       | 63                       | 128                      | 234                      | 564                      | 564                      |
| 27                     | 20                       | 41                       | 63                       | 128                      | 234                      | 564                      | 564                      |
| 28                     | 21                       | 41                       | 63                       | 128                      | 234                      | 563                      | 563                      |
| 29                     | 21                       | 41                       | 63                       | 127                      | 234                      | 563                      | 563                      |
| 30                     | 22                       | 41                       | 63                       | 127                      | 234                      | 563                      | 563                      |

### 2.30 Turkish lira

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 194                      | 209                      | 234                      | 311                      | 424                      | 754                      | 1 617                    |
| 2                      | 191                      | 206                      | 231                      | 307                      | 421                      | 751                      | 1 298                    |
| 3                      | 187                      | 203                      | 227                      | 296                      | 413                      | 742                      | 1 068                    |
| 4                      | 184                      | 201                      | 226                      | 293                      | 407                      | 737                      | 885                      |
| 5                      | 181                      | 199                      | 226                      | 291                      | 402                      | 732                      | 739                      |
| 6                      | 177                      | 196                      | 224                      | 291                      | 397                      | 727                      | 727                      |
| 7                      | 174                      | 194                      | 222                      | 289                      | 393                      | 722                      | 722                      |
| 8                      | 169                      | 191                      | 217                      | 283                      | 388                      | 718                      | 718                      |
| 9                      | 165                      | 187                      | 213                      | 278                      | 384                      | 714                      | 714                      |
| 10                     | 162                      | 184                      | 209                      | 274                      | 380                      | 709                      | 709                      |
| 11                     | 158                      | 181                      | 205                      | 269                      | 376                      | 705                      | 705                      |
| 12                     | 155                      | 178                      | 201                      | 265                      | 372                      | 701                      | 701                      |
| 13                     | 151                      | 175                      | 197                      | 261                      | 368                      | 697                      | 697                      |
| 14                     | 147                      | 171                      | 193                      | 258                      | 364                      | 694                      | 694                      |
| 15                     | 144                      | 168                      | 189                      | 254                      | 361                      | 690                      | 690                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 16                     | 140                      | 164                      | 186                      | 251                      | 357                      | 687                      | 687                      |
| 17                     | 137                      | 161                      | 183                      | 248                      | 354                      | 684                      | 684                      |
| 18                     | 134                      | 158                      | 180                      | 245                      | 351                      | 681                      | 681                      |
| 19                     | 131                      | 155                      | 177                      | 242                      | 348                      | 678                      | 678                      |
| 20                     | 129                      | 153                      | 174                      | 239                      | 346                      | 675                      | 675                      |
| 21                     | 126                      | 150                      | 172                      | 237                      | 343                      | 672                      | 672                      |
| 22                     | 124                      | 147                      | 169                      | 234                      | 340                      | 670                      | 670                      |
| 23                     | 121                      | 145                      | 167                      | 231                      | 338                      | 667                      | 667                      |
| 24                     | 118                      | 142                      | 164                      | 229                      | 335                      | 665                      | 665                      |
| 25                     | 116                      | 140                      | 162                      | 226                      | 333                      | 662                      | 662                      |
| 26                     | 114                      | 137                      | 159                      | 224                      | 330                      | 660                      | 660                      |
| 27                     | 111                      | 135                      | 157                      | 222                      | 328                      | 658                      | 658                      |
| 28                     | 109                      | 133                      | 155                      | 219                      | 326                      | 655                      | 655                      |
| 29                     | 107                      | 131                      | 152                      | 217                      | 324                      | 653                      | 653                      |
| 30                     | 105                      | 129                      | 150                      | 215                      | 322                      | 651                      | 651                      |

## 2.31 US dollar

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 8                        | 26                       | 51                       | 108                      | 244                      | 573                      | 1 236                    |
| 2                      | 8                        | 26                       | 51                       | 108                      | 244                      | 573                      | 1 013                    |
| 3                      | 9                        | 29                       | 53                       | 102                      | 242                      | 571                      | 838                      |
| 4                      | 12                       | 34                       | 56                       | 100                      | 242                      | 572                      | 701                      |
| 5                      | 16                       | 40                       | 61                       | 103                      | 243                      | 573                      | 593                      |
| 6                      | 18                       | 43                       | 65                       | 99                       | 244                      | 573                      | 573                      |
| 7                      | 19                       | 45                       | 64                       | 92                       | 244                      | 574                      | 574                      |
| 8                      | 17                       | 44                       | 64                       | 91                       | 244                      | 574                      | 574                      |
| 9                      | 17                       | 45                       | 66                       | 95                       | 245                      | 574                      | 574                      |
| 10                     | 19                       | 48                       | 68                       | 99                       | 245                      | 574                      | 574                      |
| 11                     | 21                       | 50                       | 70                       | 102                      | 245                      | 574                      | 574                      |
| 12                     | 23                       | 53                       | 71                       | 103                      | 245                      | 574                      | 574                      |
| 13                     | 24                       | 54                       | 72                       | 103                      | 245                      | 574                      | 574                      |
| 14                     | 24                       | 55                       | 72                       | 103                      | 245                      | 574                      | 574                      |
| 15                     | 24                       | 55                       | 72                       | 103                      | 245                      | 574                      | 574                      |
| 16                     | 24                       | 55                       | 72                       | 103                      | 244                      | 574                      | 574                      |
| 17                     | 24                       | 55                       | 72                       | 103                      | 244                      | 574                      | 574                      |
| 18                     | 24                       | 55                       | 72                       | 103                      | 244                      | 574                      | 574                      |
| 19                     | 24                       | 55                       | 72                       | 103                      | 244                      | 574                      | 574                      |
| 20                     | 24                       | 55                       | 72                       | 103                      | 245                      | 574                      | 574                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 21                     | 24                       | 55                       | 72                       | 103                      | 245                      | 575                      | 575                      |
| 22                     | 24                       | 55                       | 72                       | 103                      | 245                      | 575                      | 575                      |
| 23                     | 24                       | 55                       | 72                       | 103                      | 245                      | 575                      | 575                      |
| 24                     | 24                       | 55                       | 72                       | 103                      | 245                      | 575                      | 575                      |
| 25                     | 24                       | 55                       | 72                       | 103                      | 245                      | 575                      | 575                      |
| 26                     | 24                       | 55                       | 72                       | 103                      | 245                      | 575                      | 575                      |
| 27                     | 24                       | 55                       | 72                       | 103                      | 245                      | 575                      | 575                      |
| 28                     | 24                       | 55                       | 72                       | 103                      | 245                      | 574                      | 574                      |
| 29                     | 24                       | 55                       | 72                       | 103                      | 245                      | 574                      | 574                      |
| 30                     | 24                       | 55                       | 72                       | 103                      | 245                      | 574                      | 574                      |

## 2.32 Yen

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 0                        | 3                        | 14                       | 90                       | 204                      | 533                      | 1 186                    |
| 2                      | 1                        | 5                        | 12                       | 89                       | 203                      | 532                      | 973                      |
| 3                      | 2                        | 5                        | 12                       | 80                       | 197                      | 527                      | 805                      |
| 4                      | 3                        | 6                        | 13                       | 81                       | 195                      | 524                      | 673                      |
| 5                      | 4                        | 7                        | 18                       | 83                       | 194                      | 524                      | 570                      |
| 6                      | 4                        | 8                        | 21                       | 87                       | 194                      | 523                      | 523                      |
| 7                      | 5                        | 8                        | 22                       | 90                       | 194                      | 523                      | 523                      |
| 8                      | 6                        | 9                        | 22                       | 88                       | 193                      | 523                      | 523                      |
| 9                      | 7                        | 11                       | 22                       | 87                       | 194                      | 523                      | 523                      |
| 10                     | 8                        | 11                       | 22                       | 87                       | 194                      | 523                      | 523                      |
| 11                     | 8                        | 12                       | 23                       | 87                       | 194                      | 523                      | 523                      |
| 12                     | 9                        | 12                       | 24                       | 88                       | 194                      | 523                      | 523                      |
| 13                     | 10                       | 14                       | 26                       | 88                       | 194                      | 524                      | 524                      |
| 14                     | 11                       | 14                       | 27                       | 88                       | 195                      | 524                      | 524                      |
| 15                     | 11                       | 15                       | 29                       | 88                       | 195                      | 524                      | 524                      |
| 16                     | 12                       | 16                       | 30                       | 89                       | 195                      | 524                      | 524                      |
| 17                     | 12                       | 17                       | 31                       | 89                       | 195                      | 525                      | 525                      |
| 18                     | 14                       | 17                       | 33                       | 89                       | 196                      | 525                      | 525                      |
| 19                     | 14                       | 19                       | 34                       | 90                       | 196                      | 526                      | 526                      |
| 20                     | 15                       | 19                       | 35                       | 91                       | 197                      | 527                      | 527                      |
| 21                     | 15                       | 20                       | 36                       | 91                       | 198                      | 527                      | 527                      |
| 22                     | 16                       | 20                       | 38                       | 92                       | 198                      | 528                      | 528                      |
| 23                     | 17                       | 22                       | 39                       | 92                       | 199                      | 528                      | 528                      |
| 24                     | 18                       | 22                       | 41                       | 92                       | 199                      | 528                      | 528                      |
| 25                     | 18                       | 23                       | 42                       | 93                       | 199                      | 528                      | 528                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 26                     | 19                       | 23                       | 43                       | 93                       | 199                      | 529                      | 529                      |
| 27                     | 19                       | 25                       | 45                       | 93                       | 199                      | 529                      | 529                      |
| 28                     | 21                       | 25                       | 46                       | 93                       | 199                      | 529                      | 529                      |
| 29                     | 21                       | 26                       | 47                       | 93                       | 199                      | 529                      | 529                      |
| 30                     | 22                       | 26                       | 48                       | 93                       | 199                      | 529                      | 529                      |

### 3. Other exposures

#### 3.1 Euro

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 1                        | 15                       | 21                       | 44                       | 165                      | 303                      | 3 036                    |
| 2                      | 1                        | 15                       | 21                       | 44                       | 165                      | 339                      | 2 253                    |
| 3                      | 1                        | 15                       | 24                       | 49                       | 160                      | 352                      | 1 697                    |
| 4                      | 1                        | 16                       | 27                       | 53                       | 157                      | 350                      | 1 311                    |
| 5                      | 2                        | 18                       | 30                       | 55                       | 157                      | 341                      | 1 039                    |
| 6                      | 3                        | 21                       | 33                       | 58                       | 157                      | 328                      | 844                      |
| 7                      | 5                        | 24                       | 34                       | 60                       | 157                      | 312                      | 698                      |
| 8                      | 5                        | 24                       | 36                       | 63                       | 157                      | 296                      | 587                      |
| 9                      | 5                        | 25                       | 37                       | 66                       | 157                      | 279                      | 501                      |
| 10                     | 5                        | 26                       | 39                       | 68                       | 157                      | 263                      | 432                      |
| 11                     | 6                        | 26                       | 39                       | 68                       | 157                      | 250                      | 375                      |
| 12                     | 6                        | 26                       | 39                       | 69                       | 157                      | 250                      | 329                      |
| 13                     | 6                        | 26                       | 39                       | 69                       | 157                      | 250                      | 290                      |
| 14                     | 6                        | 26                       | 39                       | 69                       | 157                      | 250                      | 257                      |
| 15                     | 6                        | 26                       | 40                       | 69                       | 157                      | 250                      | 250                      |
| 16                     | 8                        | 26                       | 43                       | 69                       | 157                      | 250                      | 250                      |
| 17                     | 8                        | 26                       | 46                       | 69                       | 157                      | 250                      | 250                      |
| 18                     | 8                        | 26                       | 48                       | 69                       | 157                      | 250                      | 250                      |
| 19                     | 9                        | 26                       | 50                       | 69                       | 157                      | 250                      | 250                      |
| 20                     | 9                        | 26                       | 53                       | 69                       | 157                      | 250                      | 250                      |
| 21                     | 9                        | 26                       | 55                       | 69                       | 157                      | 250                      | 250                      |
| 22                     | 10                       | 26                       | 58                       | 69                       | 157                      | 250                      | 250                      |
| 23                     | 10                       | 26                       | 61                       | 69                       | 157                      | 250                      | 250                      |
| 24                     | 12                       | 26                       | 63                       | 69                       | 157                      | 250                      | 250                      |
| 25                     | 12                       | 26                       | 66                       | 69                       | 157                      | 250                      | 250                      |
| 26                     | 12                       | 26                       | 68                       | 71                       | 157                      | 250                      | 250                      |
| 27                     | 13                       | 26                       | 71                       | 74                       | 157                      | 250                      | 250                      |
| 28                     | 13                       | 26                       | 73                       | 76                       | 157                      | 250                      | 250                      |
| 29                     | 13                       | 26                       | 75                       | 77                       | 157                      | 250                      | 250                      |
| 30                     | 14                       | 27                       | 78                       | 79                       | 157                      | 250                      | 250                      |

## 3.2 Czech koruna

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 7                        | 20                       | 27                       | 49                       | 171                      | 313                      | 3 152                    |
| 2                      | 9                        | 22                       | 29                       | 51                       | 173                      | 351                      | 2 338                    |
| 3                      | 8                        | 23                       | 32                       | 57                       | 168                      | 363                      | 1 758                    |
| 4                      | 8                        | 24                       | 35                       | 60                       | 165                      | 360                      | 1 355                    |
| 5                      | 9                        | 26                       | 38                       | 62                       | 164                      | 350                      | 1 071                    |
| 6                      | 10                       | 28                       | 39                       | 65                       | 164                      | 336                      | 868                      |
| 7                      | 11                       | 30                       | 41                       | 66                       | 163                      | 319                      | 717                      |
| 8                      | 10                       | 30                       | 41                       | 68                       | 163                      | 302                      | 602                      |
| 9                      | 10                       | 30                       | 43                       | 71                       | 162                      | 285                      | 512                      |
| 10                     | 10                       | 31                       | 44                       | 73                       | 162                      | 267                      | 441                      |
| 11                     | 10                       | 31                       | 44                       | 73                       | 161                      | 254                      | 383                      |
| 12                     | 9                        | 30                       | 43                       | 72                       | 161                      | 253                      | 335                      |
| 13                     | 9                        | 29                       | 42                       | 72                       | 160                      | 253                      | 295                      |
| 14                     | 8                        | 29                       | 42                       | 71                       | 160                      | 252                      | 262                      |
| 15                     | 8                        | 28                       | 41                       | 71                       | 159                      | 252                      | 252                      |
| 16                     | 8                        | 28                       | 44                       | 70                       | 158                      | 251                      | 251                      |
| 17                     | 8                        | 28                       | 46                       | 70                       | 158                      | 251                      | 251                      |
| 18                     | 8                        | 28                       | 49                       | 70                       | 158                      | 251                      | 251                      |
| 19                     | 9                        | 28                       | 51                       | 70                       | 158                      | 251                      | 251                      |
| 20                     | 9                        | 28                       | 54                       | 70                       | 159                      | 251                      | 251                      |
| 21                     | 9                        | 28                       | 56                       | 71                       | 159                      | 252                      | 252                      |
| 22                     | 10                       | 29                       | 58                       | 71                       | 159                      | 252                      | 252                      |
| 23                     | 11                       | 29                       | 61                       | 71                       | 159                      | 252                      | 252                      |
| 24                     | 12                       | 29                       | 63                       | 71                       | 159                      | 252                      | 252                      |
| 25                     | 12                       | 29                       | 66                       | 71                       | 159                      | 252                      | 252                      |
| 26                     | 12                       | 29                       | 68                       | 72                       | 159                      | 252                      | 252                      |
| 27                     | 13                       | 29                       | 71                       | 74                       | 159                      | 252                      | 252                      |
| 28                     | 13                       | 29                       | 74                       | 76                       | 159                      | 252                      | 252                      |
| 29                     | 14                       | 29                       | 77                       | 79                       | 159                      | 252                      | 252                      |
| 30                     | 14                       | 29                       | 79                       | 81                       | 159                      | 252                      | 252                      |

## 3.3 Danish krone

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 1                        | 15                       | 21                       | 44                       | 165                      | 303                      | 3 035                    |
| 2                      | 1                        | 15                       | 21                       | 44                       | 165                      | 339                      | 2 252                    |
| 3                      | 1                        | 15                       | 23                       | 49                       | 159                      | 351                      | 1 697                    |
| 4                      | 1                        | 16                       | 26                       | 52                       | 157                      | 350                      | 1 311                    |
| 5                      | 2                        | 18                       | 30                       | 54                       | 157                      | 341                      | 1 039                    |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 6                      | 3                        | 21                       | 32                       | 58                       | 157                      | 328                      | 843                      |
| 7                      | 4                        | 23                       | 34                       | 60                       | 157                      | 312                      | 698                      |
| 8                      | 4                        | 24                       | 36                       | 62                       | 157                      | 296                      | 587                      |
| 9                      | 5                        | 25                       | 37                       | 65                       | 157                      | 279                      | 501                      |
| 10                     | 5                        | 26                       | 39                       | 67                       | 157                      | 263                      | 432                      |
| 11                     | 5                        | 26                       | 39                       | 68                       | 157                      | 250                      | 375                      |
| 12                     | 6                        | 26                       | 39                       | 69                       | 157                      | 250                      | 329                      |
| 13                     | 6                        | 26                       | 39                       | 69                       | 157                      | 250                      | 290                      |
| 14                     | 6                        | 26                       | 39                       | 69                       | 157                      | 250                      | 257                      |
| 15                     | 6                        | 26                       | 40                       | 69                       | 157                      | 250                      | 250                      |
| 16                     | 8                        | 26                       | 43                       | 69                       | 157                      | 250                      | 250                      |
| 17                     | 8                        | 26                       | 46                       | 69                       | 157                      | 250                      | 250                      |
| 18                     | 8                        | 26                       | 47                       | 69                       | 157                      | 250                      | 250                      |
| 19                     | 9                        | 26                       | 50                       | 69                       | 157                      | 250                      | 250                      |
| 20                     | 9                        | 26                       | 53                       | 69                       | 157                      | 250                      | 250                      |
| 21                     | 9                        | 26                       | 55                       | 69                       | 157                      | 250                      | 250                      |
| 22                     | 10                       | 26                       | 58                       | 69                       | 157                      | 250                      | 250                      |
| 23                     | 10                       | 26                       | 61                       | 69                       | 157                      | 250                      | 250                      |
| 24                     | 12                       | 26                       | 63                       | 69                       | 157                      | 250                      | 250                      |
| 25                     | 12                       | 26                       | 66                       | 69                       | 157                      | 250                      | 250                      |
| 26                     | 12                       | 26                       | 68                       | 71                       | 157                      | 250                      | 250                      |
| 27                     | 13                       | 26                       | 71                       | 74                       | 157                      | 250                      | 250                      |
| 28                     | 13                       | 26                       | 73                       | 76                       | 157                      | 250                      | 250                      |
| 29                     | 13                       | 26                       | 75                       | 77                       | 157                      | 250                      | 250                      |
| 30                     | 14                       | 27                       | 78                       | 79                       | 157                      | 250                      | 250                      |

### 3.4 Forint

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 78                       | 92                       | 98                       | 121                      | 242                      | 337                      | 3 075                    |
| 2                      | 74                       | 87                       | 94                       | 117                      | 238                      | 346                      | 2 297                    |
| 3                      | 76                       | 90                       | 99                       | 124                      | 235                      | 360                      | 1 740                    |
| 4                      | 73                       | 89                       | 99                       | 125                      | 230                      | 360                      | 1 348                    |
| 5                      | 72                       | 88                       | 100                      | 125                      | 227                      | 352                      | 1 070                    |
| 6                      | 71                       | 89                       | 101                      | 126                      | 225                      | 338                      | 869                      |
| 7                      | 71                       | 90                       | 100                      | 126                      | 223                      | 323                      | 720                      |
| 8                      | 69                       | 89                       | 100                      | 127                      | 222                      | 314                      | 606                      |
| 9                      | 68                       | 89                       | 101                      | 129                      | 220                      | 313                      | 517                      |
| 10                     | 65                       | 86                       | 99                       | 127                      | 217                      | 309                      | 446                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 11                     | 62                       | 83                       | 96                       | 125                      | 214                      | 307                      | 388                      |
| 12                     | 61                       | 82                       | 95                       | 124                      | 212                      | 305                      | 340                      |
| 13                     | 60                       | 81                       | 94                       | 123                      | 212                      | 304                      | 304                      |
| 14                     | 60                       | 80                       | 93                       | 123                      | 211                      | 304                      | 304                      |
| 15                     | 59                       | 80                       | 93                       | 122                      | 211                      | 304                      | 304                      |
| 16                     | 59                       | 79                       | 92                       | 122                      | 210                      | 303                      | 303                      |
| 17                     | 58                       | 79                       | 92                       | 121                      | 210                      | 302                      | 302                      |
| 18                     | 57                       | 78                       | 91                       | 121                      | 209                      | 302                      | 302                      |
| 19                     | 57                       | 77                       | 90                       | 120                      | 208                      | 301                      | 301                      |
| 20                     | 56                       | 77                       | 90                       | 119                      | 207                      | 300                      | 300                      |
| 21                     | 55                       | 76                       | 89                       | 118                      | 207                      | 300                      | 300                      |
| 22                     | 54                       | 75                       | 88                       | 118                      | 206                      | 299                      | 299                      |
| 23                     | 53                       | 74                       | 87                       | 117                      | 205                      | 298                      | 298                      |
| 24                     | 52                       | 73                       | 86                       | 116                      | 204                      | 297                      | 297                      |
| 25                     | 51                       | 72                       | 85                       | 115                      | 203                      | 296                      | 296                      |
| 26                     | 50                       | 71                       | 84                       | 114                      | 202                      | 295                      | 295                      |
| 27                     | 49                       | 70                       | 83                       | 112                      | 201                      | 294                      | 294                      |
| 28                     | 48                       | 69                       | 82                       | 111                      | 200                      | 292                      | 292                      |
| 29                     | 47                       | 68                       | 81                       | 110                      | 199                      | 291                      | 291                      |
| 30                     | 46                       | 67                       | 81                       | 109                      | 198                      | 290                      | 290                      |

### 3.5 Krona

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 5                        | 18                       | 25                       | 47                       | 169                      | 304                      | 3 044                    |
| 2                      | 6                        | 20                       | 27                       | 49                       | 171                      | 340                      | 2 261                    |
| 3                      | 7                        | 22                       | 30                       | 55                       | 166                      | 353                      | 1 704                    |
| 4                      | 8                        | 23                       | 34                       | 60                       | 164                      | 352                      | 1 317                    |
| 5                      | 9                        | 25                       | 37                       | 62                       | 164                      | 343                      | 1 044                    |
| 6                      | 10                       | 28                       | 40                       | 65                       | 164                      | 329                      | 848                      |
| 7                      | 11                       | 30                       | 41                       | 67                       | 164                      | 314                      | 702                      |
| 8                      | 11                       | 31                       | 42                       | 69                       | 163                      | 297                      | 590                      |
| 9                      | 11                       | 31                       | 43                       | 72                       | 163                      | 280                      | 503                      |
| 10                     | 11                       | 31                       | 44                       | 73                       | 162                      | 264                      | 434                      |
| 11                     | 11                       | 31                       | 44                       | 74                       | 162                      | 255                      | 377                      |
| 12                     | 10                       | 31                       | 44                       | 73                       | 162                      | 255                      | 331                      |
| 13                     | 10                       | 31                       | 44                       | 73                       | 161                      | 254                      | 292                      |
| 14                     | 10                       | 30                       | 43                       | 73                       | 161                      | 254                      | 259                      |
| 15                     | 10                       | 30                       | 43                       | 73                       | 161                      | 254                      | 254                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 16                     | 9                        | 30                       | 43                       | 72                       | 160                      | 253                      | 253                      |
| 17                     | 9                        | 30                       | 46                       | 72                       | 160                      | 253                      | 253                      |
| 18                     | 9                        | 30                       | 49                       | 72                       | 160                      | 253                      | 253                      |
| 19                     | 9                        | 30                       | 51                       | 72                       | 160                      | 253                      | 253                      |
| 20                     | 9                        | 30                       | 53                       | 73                       | 161                      | 254                      | 254                      |
| 21                     | 10                       | 31                       | 56                       | 73                       | 161                      | 254                      | 254                      |
| 22                     | 10                       | 31                       | 58                       | 73                       | 161                      | 254                      | 254                      |
| 23                     | 11                       | 31                       | 61                       | 73                       | 162                      | 254                      | 254                      |
| 24                     | 12                       | 31                       | 64                       | 73                       | 162                      | 254                      | 254                      |
| 25                     | 12                       | 31                       | 66                       | 73                       | 162                      | 255                      | 255                      |
| 26                     | 12                       | 31                       | 69                       | 73                       | 162                      | 255                      | 255                      |
| 27                     | 13                       | 31                       | 71                       | 74                       | 162                      | 254                      | 254                      |
| 28                     | 13                       | 31                       | 73                       | 76                       | 162                      | 254                      | 254                      |
| 29                     | 14                       | 31                       | 77                       | 78                       | 162                      | 254                      | 254                      |
| 30                     | 14                       | 31                       | 79                       | 81                       | 161                      | 254                      | 254                      |

### 3.6 Kuna

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 46                       | 59                       | 66                       | 89                       | 210                      | 305                      | 3 057                    |
| 2                      | 50                       | 63                       | 70                       | 92                       | 214                      | 342                      | 2 272                    |
| 3                      | 53                       | 68                       | 76                       | 102                      | 212                      | 355                      | 1 715                    |
| 4                      | 56                       | 71                       | 82                       | 108                      | 212                      | 355                      | 1 328                    |
| 5                      | 57                       | 74                       | 86                       | 110                      | 213                      | 346                      | 1 054                    |
| 6                      | 59                       | 77                       | 88                       | 114                      | 213                      | 333                      | 857                      |
| 7                      | 60                       | 79                       | 90                       | 115                      | 212                      | 318                      | 710                      |
| 8                      | 59                       | 78                       | 90                       | 117                      | 211                      | 304                      | 598                      |
| 9                      | 58                       | 78                       | 90                       | 118                      | 210                      | 302                      | 510                      |
| 10                     | 56                       | 77                       | 90                       | 119                      | 208                      | 301                      | 440                      |
| 11                     | 55                       | 76                       | 89                       | 118                      | 207                      | 299                      | 383                      |
| 12                     | 54                       | 74                       | 87                       | 117                      | 205                      | 298                      | 335                      |
| 13                     | 52                       | 73                       | 86                       | 115                      | 204                      | 296                      | 296                      |
| 14                     | 51                       | 72                       | 85                       | 114                      | 202                      | 295                      | 295                      |
| 15                     | 50                       | 70                       | 83                       | 113                      | 201                      | 294                      | 294                      |
| 16                     | 49                       | 69                       | 82                       | 112                      | 200                      | 293                      | 293                      |
| 17                     | 48                       | 68                       | 81                       | 111                      | 199                      | 292                      | 292                      |
| 18                     | 47                       | 68                       | 81                       | 110                      | 198                      | 291                      | 291                      |
| 19                     | 46                       | 67                       | 80                       | 109                      | 198                      | 290                      | 290                      |
| 20                     | 46                       | 66                       | 79                       | 109                      | 197                      | 290                      | 290                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 21                     | 45                       | 66                       | 79                       | 108                      | 196                      | 289                      | 289                      |
| 22                     | 44                       | 65                       | 78                       | 107                      | 196                      | 288                      | 288                      |
| 23                     | 43                       | 64                       | 77                       | 106                      | 195                      | 288                      | 288                      |
| 24                     | 42                       | 63                       | 76                       | 106                      | 194                      | 287                      | 287                      |
| 25                     | 42                       | 62                       | 75                       | 105                      | 193                      | 286                      | 286                      |
| 26                     | 41                       | 61                       | 74                       | 104                      | 192                      | 285                      | 285                      |
| 27                     | 40                       | 61                       | 74                       | 103                      | 191                      | 284                      | 284                      |
| 28                     | 39                       | 60                       | 75                       | 102                      | 190                      | 283                      | 283                      |
| 29                     | 38                       | 59                       | 77                       | 101                      | 190                      | 282                      | 282                      |
| 30                     | 37                       | 58                       | 79                       | 101                      | 189                      | 282                      | 282                      |

## 3.7 Lev

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 0                        | 14                       | 20                       | 43                       | 164                      | 303                      | 3 033                    |
| 2                      | 0                        | 14                       | 20                       | 43                       | 164                      | 339                      | 2 251                    |
| 3                      | 1                        | 14                       | 23                       | 48                       | 159                      | 351                      | 1 696                    |
| 4                      | 1                        | 15                       | 26                       | 52                       | 156                      | 350                      | 1 310                    |
| 5                      | 2                        | 17                       | 29                       | 54                       | 156                      | 341                      | 1 038                    |
| 6                      | 2                        | 20                       | 32                       | 57                       | 156                      | 327                      | 843                      |
| 7                      | 4                        | 23                       | 34                       | 59                       | 156                      | 312                      | 698                      |
| 8                      | 4                        | 23                       | 35                       | 62                       | 156                      | 296                      | 587                      |
| 9                      | 4                        | 24                       | 36                       | 65                       | 156                      | 279                      | 500                      |
| 10                     | 4                        | 25                       | 38                       | 67                       | 156                      | 262                      | 431                      |
| 11                     | 5                        | 25                       | 38                       | 68                       | 156                      | 249                      | 375                      |
| 12                     | 6                        | 25                       | 38                       | 68                       | 156                      | 249                      | 329                      |
| 13                     | 6                        | 25                       | 38                       | 68                       | 156                      | 249                      | 290                      |
| 14                     | 6                        | 25                       | 38                       | 68                       | 156                      | 249                      | 257                      |
| 15                     | 6                        | 25                       | 40                       | 68                       | 156                      | 249                      | 249                      |
| 16                     | 8                        | 25                       | 43                       | 68                       | 156                      | 249                      | 249                      |
| 17                     | 8                        | 25                       | 46                       | 68                       | 156                      | 249                      | 249                      |
| 18                     | 8                        | 25                       | 47                       | 68                       | 156                      | 249                      | 249                      |
| 19                     | 9                        | 25                       | 50                       | 68                       | 156                      | 249                      | 249                      |
| 20                     | 9                        | 25                       | 53                       | 68                       | 156                      | 249                      | 249                      |
| 21                     | 9                        | 25                       | 55                       | 68                       | 156                      | 249                      | 249                      |
| 22                     | 10                       | 25                       | 58                       | 68                       | 156                      | 249                      | 249                      |
| 23                     | 10                       | 25                       | 61                       | 68                       | 156                      | 249                      | 249                      |
| 24                     | 12                       | 25                       | 63                       | 68                       | 156                      | 249                      | 249                      |
| 25                     | 12                       | 25                       | 66                       | 69                       | 156                      | 249                      | 249                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 26                     | 12                       | 25                       | 68                       | 71                       | 156                      | 249                      | 249                      |
| 27                     | 13                       | 25                       | 71                       | 74                       | 156                      | 249                      | 249                      |
| 28                     | 13                       | 26                       | 73                       | 76                       | 156                      | 249                      | 249                      |
| 29                     | 13                       | 26                       | 75                       | 77                       | 156                      | 249                      | 249                      |
| 30                     | 14                       | 27                       | 78                       | 79                       | 156                      | 249                      | 249                      |

### 3.8 Pound sterling

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 0                        | 11                       | 22                       | 45                       | 183                      | 309                      | 3 102                    |
| 2                      | 0                        | 11                       | 22                       | 45                       | 183                      | 346                      | 2 304                    |
| 3                      | 1                        | 11                       | 24                       | 50                       | 177                      | 359                      | 1 735                    |
| 4                      | 1                        | 13                       | 26                       | 56                       | 174                      | 357                      | 1 339                    |
| 5                      | 2                        | 16                       | 29                       | 59                       | 173                      | 347                      | 1 060                    |
| 6                      | 2                        | 18                       | 33                       | 60                       | 172                      | 333                      | 859                      |
| 7                      | 3                        | 21                       | 36                       | 60                       | 171                      | 317                      | 710                      |
| 8                      | 4                        | 23                       | 37                       | 60                       | 170                      | 300                      | 597                      |
| 9                      | 7                        | 31                       | 42                       | 58                       | 169                      | 283                      | 508                      |
| 10                     | 9                        | 34                       | 41                       | 57                       | 168                      | 266                      | 438                      |
| 11                     | 8                        | 33                       | 41                       | 56                       | 167                      | 260                      | 380                      |
| 12                     | 7                        | 32                       | 41                       | 56                       | 166                      | 259                      | 333                      |
| 13                     | 6                        | 31                       | 41                       | 56                       | 165                      | 258                      | 293                      |
| 14                     | 6                        | 31                       | 41                       | 56                       | 165                      | 257                      | 260                      |
| 15                     | 6                        | 31                       | 42                       | 56                       | 164                      | 257                      | 257                      |
| 16                     | 8                        | 31                       | 43                       | 56                       | 162                      | 255                      | 255                      |
| 17                     | 8                        | 31                       | 46                       | 56                       | 161                      | 254                      | 254                      |
| 18                     | 8                        | 31                       | 48                       | 56                       | 161                      | 254                      | 254                      |
| 19                     | 9                        | 31                       | 51                       | 57                       | 161                      | 254                      | 254                      |
| 20                     | 9                        | 31                       | 53                       | 59                       | 161                      | 254                      | 254                      |
| 21                     | 9                        | 31                       | 55                       | 61                       | 161                      | 254                      | 254                      |
| 22                     | 10                       | 31                       | 58                       | 64                       | 161                      | 254                      | 254                      |
| 23                     | 10                       | 31                       | 61                       | 66                       | 161                      | 254                      | 254                      |
| 24                     | 12                       | 31                       | 63                       | 67                       | 160                      | 253                      | 253                      |
| 25                     | 12                       | 31                       | 66                       | 70                       | 160                      | 252                      | 252                      |
| 26                     | 12                       | 31                       | 68                       | 72                       | 159                      | 252                      | 252                      |
| 27                     | 13                       | 31                       | 71                       | 74                       | 159                      | 252                      | 252                      |
| 28                     | 13                       | 31                       | 73                       | 76                       | 158                      | 251                      | 251                      |
| 29                     | 13                       | 31                       | 75                       | 77                       | 158                      | 251                      | 251                      |
| 30                     | 14                       | 31                       | 78                       | 79                       | 158                      | 250                      | 250                      |

## 3.9 Romanian leu

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 82                       | 95                       | 102                      | 124                      | 246                      | 341                      | 3 225                    |
| 2                      | 79                       | 93                       | 100                      | 122                      | 243                      | 360                      | 2 404                    |
| 3                      | 77                       | 91                       | 100                      | 125                      | 236                      | 374                      | 1 814                    |
| 4                      | 74                       | 90                       | 101                      | 127                      | 231                      | 373                      | 1 402                    |
| 5                      | 72                       | 89                       | 101                      | 126                      | 228                      | 363                      | 1 111                    |
| 6                      | 72                       | 90                       | 101                      | 127                      | 226                      | 349                      | 901                      |
| 7                      | 71                       | 90                       | 101                      | 126                      | 223                      | 332                      | 745                      |
| 8                      | 68                       | 88                       | 99                       | 126                      | 221                      | 315                      | 627                      |
| 9                      | 66                       | 86                       | 99                       | 127                      | 218                      | 311                      | 534                      |
| 10                     | 65                       | 85                       | 98                       | 127                      | 216                      | 309                      | 460                      |
| 11                     | 63                       | 84                       | 97                       | 126                      | 215                      | 308                      | 400                      |
| 12                     | 62                       | 82                       | 95                       | 125                      | 213                      | 306                      | 350                      |
| 13                     | 60                       | 81                       | 94                       | 123                      | 211                      | 304                      | 309                      |
| 14                     | 59                       | 79                       | 92                       | 122                      | 210                      | 303                      | 303                      |
| 15                     | 57                       | 78                       | 91                       | 120                      | 209                      | 301                      | 301                      |
| 16                     | 56                       | 77                       | 90                       | 119                      | 207                      | 300                      | 300                      |
| 17                     | 55                       | 76                       | 89                       | 118                      | 206                      | 299                      | 299                      |
| 18                     | 54                       | 75                       | 88                       | 117                      | 205                      | 298                      | 298                      |
| 19                     | 53                       | 74                       | 87                       | 116                      | 204                      | 297                      | 297                      |
| 20                     | 52                       | 73                       | 86                       | 115                      | 204                      | 296                      | 296                      |
| 21                     | 51                       | 72                       | 85                       | 114                      | 203                      | 296                      | 296                      |
| 22                     | 50                       | 71                       | 84                       | 114                      | 202                      | 295                      | 295                      |
| 23                     | 49                       | 70                       | 83                       | 112                      | 201                      | 294                      | 294                      |
| 24                     | 48                       | 69                       | 82                       | 111                      | 200                      | 293                      | 293                      |
| 25                     | 47                       | 68                       | 81                       | 110                      | 199                      | 291                      | 291                      |
| 26                     | 46                       | 67                       | 80                       | 109                      | 198                      | 290                      | 290                      |
| 27                     | 45                       | 66                       | 79                       | 108                      | 197                      | 289                      | 289                      |
| 28                     | 44                       | 65                       | 78                       | 107                      | 196                      | 288                      | 288                      |
| 29                     | 43                       | 64                       | 80                       | 106                      | 195                      | 287                      | 287                      |
| 30                     | 42                       | 63                       | 82                       | 105                      | 194                      | 287                      | 287                      |

## 3.10 Zloty

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 55                       | 68                       | 75                       | 98                       | 219                      | 314                      | 3 100                    |
| 2                      | 53                       | 67                       | 74                       | 96                       | 217                      | 347                      | 2 310                    |
| 3                      | 52                       | 66                       | 75                       | 100                      | 211                      | 361                      | 1 746                    |
| 4                      | 51                       | 66                       | 77                       | 103                      | 207                      | 360                      | 1 350                    |
| 5                      | 49                       | 66                       | 78                       | 103                      | 205                      | 351                      | 1 071                    |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 6                      | 49                       | 67                       | 79                       | 104                      | 203                      | 338                      | 870                      |
| 7                      | 49                       | 68                       | 79                       | 104                      | 201                      | 322                      | 720                      |
| 8                      | 47                       | 67                       | 79                       | 105                      | 200                      | 305                      | 606                      |
| 9                      | 46                       | 66                       | 79                       | 107                      | 198                      | 291                      | 517                      |
| 10                     | 45                       | 66                       | 79                       | 108                      | 197                      | 290                      | 445                      |
| 11                     | 45                       | 65                       | 78                       | 107                      | 196                      | 289                      | 387                      |
| 12                     | 44                       | 64                       | 77                       | 107                      | 195                      | 288                      | 338                      |
| 13                     | 43                       | 64                       | 77                       | 106                      | 194                      | 287                      | 298                      |
| 14                     | 42                       | 63                       | 76                       | 105                      | 194                      | 286                      | 286                      |
| 15                     | 42                       | 62                       | 75                       | 105                      | 193                      | 286                      | 286                      |
| 16                     | 40                       | 61                       | 74                       | 104                      | 192                      | 285                      | 285                      |
| 17                     | 40                       | 61                       | 74                       | 103                      | 191                      | 284                      | 284                      |
| 18                     | 39                       | 60                       | 73                       | 102                      | 191                      | 283                      | 283                      |
| 19                     | 39                       | 59                       | 72                       | 102                      | 190                      | 283                      | 283                      |
| 20                     | 39                       | 59                       | 72                       | 102                      | 190                      | 283                      | 283                      |
| 21                     | 38                       | 59                       | 72                       | 101                      | 190                      | 282                      | 282                      |
| 22                     | 38                       | 59                       | 72                       | 101                      | 189                      | 282                      | 282                      |
| 23                     | 37                       | 58                       | 71                       | 100                      | 189                      | 281                      | 281                      |
| 24                     | 37                       | 57                       | 70                       | 100                      | 188                      | 281                      | 281                      |
| 25                     | 36                       | 57                       | 70                       | 99                       | 187                      | 280                      | 280                      |
| 26                     | 35                       | 56                       | 70                       | 99                       | 187                      | 280                      | 280                      |
| 27                     | 35                       | 55                       | 72                       | 98                       | 186                      | 279                      | 279                      |
| 28                     | 34                       | 55                       | 75                       | 97                       | 185                      | 278                      | 278                      |
| 29                     | 33                       | 54                       | 77                       | 96                       | 185                      | 278                      | 278                      |
| 30                     | 33                       | 53                       | 80                       | 96                       | 184                      | 277                      | 277                      |

### 3.11 Norwegian krone

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 26                       | 40                       | 46                       | 69                       | 190                      | 310                      | 3 116                    |
| 2                      | 26                       | 40                       | 47                       | 69                       | 191                      | 348                      | 2 317                    |
| 3                      | 25                       | 40                       | 48                       | 73                       | 184                      | 361                      | 1 746                    |
| 4                      | 24                       | 40                       | 50                       | 76                       | 180                      | 359                      | 1 348                    |
| 5                      | 24                       | 41                       | 53                       | 77                       | 180                      | 350                      | 1 068                    |
| 6                      | 25                       | 43                       | 54                       | 80                       | 179                      | 336                      | 866                      |
| 7                      | 25                       | 44                       | 55                       | 81                       | 178                      | 320                      | 716                      |
| 8                      | 25                       | 44                       | 56                       | 83                       | 177                      | 303                      | 602                      |
| 9                      | 24                       | 45                       | 57                       | 85                       | 176                      | 285                      | 513                      |
| 10                     | 24                       | 45                       | 58                       | 86                       | 176                      | 268                      | 442                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 11                     | 23                       | 44                       | 57                       | 86                       | 175                      | 268                      | 384                      |
| 12                     | 23                       | 43                       | 56                       | 86                       | 174                      | 267                      | 336                      |
| 13                     | 22                       | 43                       | 56                       | 85                       | 173                      | 266                      | 296                      |
| 14                     | 21                       | 42                       | 55                       | 84                       | 173                      | 265                      | 265                      |
| 15                     | 20                       | 41                       | 54                       | 84                       | 172                      | 265                      | 265                      |
| 16                     | 20                       | 40                       | 53                       | 83                       | 171                      | 264                      | 264                      |
| 17                     | 19                       | 40                       | 53                       | 82                       | 170                      | 263                      | 263                      |
| 18                     | 19                       | 39                       | 52                       | 82                       | 170                      | 263                      | 263                      |
| 19                     | 18                       | 39                       | 52                       | 82                       | 170                      | 263                      | 263                      |
| 20                     | 18                       | 39                       | 54                       | 82                       | 170                      | 263                      | 263                      |
| 21                     | 18                       | 39                       | 57                       | 82                       | 170                      | 263                      | 263                      |
| 22                     | 18                       | 39                       | 59                       | 82                       | 170                      | 263                      | 263                      |
| 23                     | 18                       | 39                       | 61                       | 81                       | 170                      | 263                      | 263                      |
| 24                     | 18                       | 39                       | 64                       | 81                       | 169                      | 262                      | 262                      |
| 25                     | 18                       | 39                       | 66                       | 81                       | 169                      | 262                      | 262                      |
| 26                     | 18                       | 38                       | 70                       | 81                       | 169                      | 262                      | 262                      |
| 27                     | 17                       | 38                       | 72                       | 81                       | 169                      | 262                      | 262                      |
| 28                     | 17                       | 38                       | 74                       | 80                       | 168                      | 261                      | 261                      |
| 29                     | 17                       | 38                       | 77                       | 80                       | 168                      | 261                      | 261                      |
| 30                     | 17                       | 37                       | 79                       | 81                       | 168                      | 261                      | 261                      |

### 3.12 Swiss franc

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 0                        | 0                        | 3                        | 24                       | 145                      | 301                      | 3 015                    |
| 2                      | 0                        | 1                        | 6                        | 25                       | 146                      | 337                      | 2 238                    |
| 3                      | 1                        | 2                        | 9                        | 30                       | 141                      | 349                      | 1 686                    |
| 4                      | 1                        | 3                        | 11                       | 34                       | 138                      | 348                      | 1 302                    |
| 5                      | 2                        | 4                        | 14                       | 36                       | 138                      | 339                      | 1 032                    |
| 6                      | 2                        | 4                        | 17                       | 39                       | 138                      | 325                      | 837                      |
| 7                      | 3                        | 6                        | 19                       | 41                       | 138                      | 310                      | 693                      |
| 8                      | 4                        | 6                        | 22                       | 44                       | 138                      | 294                      | 583                      |
| 9                      | 4                        | 8                        | 25                       | 47                       | 138                      | 277                      | 497                      |
| 10                     | 4                        | 8                        | 28                       | 49                       | 138                      | 261                      | 428                      |
| 11                     | 4                        | 10                       | 30                       | 51                       | 139                      | 245                      | 373                      |
| 12                     | 6                        | 10                       | 32                       | 49                       | 138                      | 231                      | 326                      |
| 13                     | 6                        | 12                       | 35                       | 50                       | 139                      | 232                      | 288                      |
| 14                     | 6                        | 12                       | 37                       | 50                       | 139                      | 231                      | 255                      |
| 15                     | 6                        | 14                       | 40                       | 49                       | 137                      | 230                      | 230                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 16                     | 8                        | 14                       | 43                       | 49                       | 136                      | 229                      | 229                      |
| 17                     | 8                        | 15                       | 45                       | 52                       | 136                      | 229                      | 229                      |
| 18                     | 8                        | 16                       | 47                       | 54                       | 136                      | 229                      | 229                      |
| 19                     | 9                        | 17                       | 50                       | 56                       | 137                      | 229                      | 229                      |
| 20                     | 9                        | 18                       | 53                       | 59                       | 137                      | 230                      | 230                      |
| 21                     | 9                        | 19                       | 55                       | 60                       | 138                      | 231                      | 231                      |
| 22                     | 10                       | 20                       | 57                       | 62                       | 138                      | 231                      | 231                      |
| 23                     | 10                       | 20                       | 59                       | 64                       | 138                      | 231                      | 231                      |
| 24                     | 10                       | 22                       | 62                       | 66                       | 138                      | 231                      | 231                      |
| 25                     | 12                       | 22                       | 64                       | 68                       | 138                      | 230                      | 230                      |
| 26                     | 12                       | 24                       | 67                       | 70                       | 138                      | 230                      | 230                      |
| 27                     | 13                       | 24                       | 69                       | 72                       | 137                      | 230                      | 230                      |
| 28                     | 13                       | 25                       | 72                       | 74                       | 139                      | 230                      | 230                      |
| 29                     | 13                       | 26                       | 74                       | 77                       | 139                      | 230                      | 230                      |
| 30                     | 14                       | 27                       | 78                       | 79                       | 141                      | 230                      | 230                      |

### 3.13 Australian dollar

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 42                       | 56                       | 63                       | 85                       | 206                      | 313                      | 3 146                    |
| 2                      | 42                       | 56                       | 63                       | 85                       | 206                      | 350                      | 2 333                    |
| 3                      | 41                       | 56                       | 64                       | 90                       | 200                      | 362                      | 1 756                    |
| 4                      | 40                       | 56                       | 67                       | 92                       | 197                      | 361                      | 1 355                    |
| 5                      | 40                       | 57                       | 69                       | 93                       | 196                      | 351                      | 1 073                    |
| 6                      | 41                       | 58                       | 70                       | 95                       | 195                      | 337                      | 870                      |
| 7                      | 41                       | 60                       | 71                       | 97                       | 194                      | 321                      | 720                      |
| 8                      | 40                       | 60                       | 71                       | 98                       | 192                      | 304                      | 605                      |
| 9                      | 39                       | 60                       | 72                       | 100                      | 191                      | 287                      | 515                      |
| 10                     | 39                       | 60                       | 72                       | 101                      | 191                      | 283                      | 444                      |
| 11                     | 38                       | 59                       | 72                       | 101                      | 190                      | 282                      | 386                      |
| 12                     | 37                       | 58                       | 71                       | 101                      | 189                      | 282                      | 338                      |
| 13                     | 37                       | 57                       | 70                       | 100                      | 188                      | 281                      | 298                      |
| 14                     | 36                       | 57                       | 70                       | 99                       | 187                      | 280                      | 280                      |
| 15                     | 35                       | 56                       | 69                       | 99                       | 187                      | 280                      | 280                      |
| 16                     | 34                       | 55                       | 68                       | 98                       | 186                      | 279                      | 279                      |
| 17                     | 34                       | 55                       | 68                       | 97                       | 185                      | 278                      | 278                      |
| 18                     | 33                       | 54                       | 67                       | 96                       | 185                      | 277                      | 277                      |
| 19                     | 33                       | 54                       | 67                       | 96                       | 184                      | 277                      | 277                      |
| 20                     | 33                       | 53                       | 66                       | 96                       | 184                      | 277                      | 277                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 21                     | 32                       | 53                       | 66                       | 96                       | 184                      | 277                      | 277                      |
| 22                     | 32                       | 53                       | 66                       | 95                       | 183                      | 276                      | 276                      |
| 23                     | 32                       | 52                       | 65                       | 95                       | 183                      | 276                      | 276                      |
| 24                     | 31                       | 52                       | 65                       | 94                       | 182                      | 275                      | 275                      |
| 25                     | 30                       | 51                       | 66                       | 94                       | 182                      | 275                      | 275                      |
| 26                     | 30                       | 51                       | 69                       | 93                       | 181                      | 274                      | 274                      |
| 27                     | 29                       | 50                       | 72                       | 92                       | 181                      | 273                      | 273                      |
| 28                     | 28                       | 49                       | 74                       | 92                       | 180                      | 273                      | 273                      |
| 29                     | 28                       | 49                       | 77                       | 91                       | 179                      | 272                      | 272                      |
| 30                     | 27                       | 48                       | 79                       | 90                       | 179                      | 271                      | 271                      |

## 3.14 Baht

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 11                       | 24                       | 31                       | 54                       | 175                      | 312                      | 3 134                    |
| 2                      | 15                       | 29                       | 35                       | 58                       | 179                      | 350                      | 2 328                    |
| 3                      | 17                       | 32                       | 41                       | 66                       | 177                      | 362                      | 1 754                    |
| 4                      | 20                       | 35                       | 46                       | 72                       | 176                      | 361                      | 1 354                    |
| 5                      | 22                       | 39                       | 51                       | 75                       | 178                      | 351                      | 1 072                    |
| 6                      | 21                       | 39                       | 51                       | 76                       | 176                      | 337                      | 869                      |
| 7                      | 27                       | 46                       | 57                       | 82                       | 179                      | 321                      | 719                      |
| 8                      | 26                       | 45                       | 57                       | 84                       | 178                      | 304                      | 604                      |
| 9                      | 27                       | 47                       | 59                       | 87                       | 179                      | 286                      | 515                      |
| 10                     | 29                       | 49                       | 62                       | 91                       | 180                      | 273                      | 443                      |
| 11                     | 30                       | 51                       | 64                       | 93                       | 181                      | 274                      | 385                      |
| 12                     | 31                       | 51                       | 64                       | 94                       | 182                      | 275                      | 337                      |
| 13                     | 31                       | 52                       | 65                       | 94                       | 182                      | 275                      | 297                      |
| 14                     | 31                       | 52                       | 65                       | 94                       | 183                      | 276                      | 276                      |
| 15                     | 31                       | 52                       | 65                       | 95                       | 183                      | 276                      | 276                      |
| 16                     | 31                       | 52                       | 65                       | 94                       | 182                      | 275                      | 275                      |
| 17                     | 31                       | 52                       | 65                       | 94                       | 182                      | 275                      | 275                      |
| 18                     | 30                       | 51                       | 64                       | 93                       | 181                      | 274                      | 274                      |
| 19                     | 30                       | 50                       | 63                       | 93                       | 181                      | 274                      | 274                      |
| 20                     | 30                       | 50                       | 63                       | 93                       | 181                      | 274                      | 274                      |
| 21                     | 30                       | 50                       | 63                       | 93                       | 181                      | 274                      | 274                      |
| 22                     | 29                       | 50                       | 63                       | 93                       | 181                      | 274                      | 274                      |
| 23                     | 29                       | 50                       | 63                       | 92                       | 180                      | 273                      | 273                      |
| 24                     | 29                       | 49                       | 65                       | 92                       | 180                      | 273                      | 273                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 25                     | 28                       | 49                       | 67                       | 91                       | 180                      | 272                      | 272                      |
| 26                     | 28                       | 48                       | 70                       | 91                       | 179                      | 272                      | 272                      |
| 27                     | 27                       | 48                       | 72                       | 90                       | 179                      | 271                      | 271                      |
| 28                     | 27                       | 47                       | 75                       | 90                       | 178                      | 271                      | 271                      |
| 29                     | 26                       | 47                       | 77                       | 89                       | 178                      | 270                      | 270                      |
| 30                     | 26                       | 46                       | 79                       | 89                       | 177                      | 270                      | 270                      |

### 3.15 Canadian dollar

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 10                       | 24                       | 30                       | 53                       | 174                      | 314                      | 3 158                    |
| 2                      | 11                       | 25                       | 31                       | 54                       | 175                      | 352                      | 2 343                    |
| 3                      | 12                       | 26                       | 35                       | 60                       | 171                      | 364                      | 1 764                    |
| 4                      | 12                       | 28                       | 38                       | 64                       | 169                      | 362                      | 1 360                    |
| 5                      | 13                       | 30                       | 42                       | 66                       | 169                      | 352                      | 1 077                    |
| 6                      | 14                       | 32                       | 44                       | 69                       | 169                      | 338                      | 873                      |
| 7                      | 16                       | 35                       | 46                       | 71                       | 169                      | 322                      | 722                      |
| 8                      | 16                       | 36                       | 47                       | 74                       | 168                      | 304                      | 606                      |
| 9                      | 17                       | 37                       | 49                       | 77                       | 169                      | 287                      | 516                      |
| 10                     | 17                       | 38                       | 51                       | 79                       | 169                      | 270                      | 445                      |
| 11                     | 17                       | 38                       | 51                       | 80                       | 169                      | 262                      | 386                      |
| 12                     | 18                       | 38                       | 51                       | 81                       | 169                      | 262                      | 338                      |
| 13                     | 18                       | 38                       | 51                       | 81                       | 169                      | 262                      | 298                      |
| 14                     | 18                       | 39                       | 52                       | 81                       | 169                      | 262                      | 264                      |
| 15                     | 18                       | 39                       | 52                       | 81                       | 169                      | 262                      | 262                      |
| 16                     | 18                       | 38                       | 51                       | 81                       | 169                      | 262                      | 262                      |
| 17                     | 18                       | 38                       | 51                       | 81                       | 169                      | 262                      | 262                      |
| 18                     | 18                       | 38                       | 51                       | 81                       | 169                      | 262                      | 262                      |
| 19                     | 17                       | 38                       | 51                       | 81                       | 169                      | 262                      | 262                      |
| 20                     | 18                       | 38                       | 54                       | 81                       | 169                      | 262                      | 262                      |
| 21                     | 18                       | 38                       | 57                       | 81                       | 169                      | 262                      | 262                      |
| 22                     | 17                       | 38                       | 59                       | 81                       | 169                      | 262                      | 262                      |
| 23                     | 17                       | 38                       | 62                       | 80                       | 169                      | 261                      | 261                      |
| 24                     | 17                       | 38                       | 64                       | 80                       | 168                      | 261                      | 261                      |
| 25                     | 16                       | 37                       | 66                       | 80                       | 168                      | 261                      | 261                      |
| 26                     | 16                       | 37                       | 70                       | 79                       | 167                      | 260                      | 260                      |
| 27                     | 16                       | 36                       | 72                       | 79                       | 167                      | 260                      | 260                      |
| 28                     | 15                       | 36                       | 74                       | 78                       | 167                      | 259                      | 259                      |
| 29                     | 15                       | 36                       | 77                       | 79                       | 166                      | 259                      | 259                      |
| 30                     | 15                       | 35                       | 79                       | 81                       | 166                      | 259                      | 259                      |

## 3.16 Chilean peso

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 45                       | 59                       | 66                       | 88                       | 209                      | 318                      | 3 200                    |
| 2                      | 48                       | 62                       | 68                       | 91                       | 212                      | 357                      | 2 381                    |
| 3                      | 51                       | 65                       | 74                       | 99                       | 210                      | 370                      | 1 796                    |
| 4                      | 51                       | 67                       | 78                       | 104                      | 208                      | 369                      | 1 387                    |
| 5                      | 53                       | 70                       | 82                       | 106                      | 208                      | 359                      | 1 099                    |
| 6                      | 55                       | 73                       | 84                       | 110                      | 209                      | 345                      | 891                      |
| 7                      | 56                       | 75                       | 86                       | 111                      | 209                      | 329                      | 737                      |
| 8                      | 56                       | 75                       | 87                       | 114                      | 208                      | 311                      | 620                      |
| 9                      | 56                       | 76                       | 88                       | 116                      | 208                      | 301                      | 528                      |
| 10                     | 56                       | 77                       | 90                       | 118                      | 208                      | 300                      | 455                      |
| 11                     | 56                       | 77                       | 90                       | 119                      | 207                      | 300                      | 395                      |
| 12                     | 55                       | 76                       | 89                       | 118                      | 206                      | 299                      | 346                      |
| 13                     | 54                       | 75                       | 88                       | 117                      | 206                      | 298                      | 305                      |
| 14                     | 53                       | 74                       | 87                       | 117                      | 205                      | 298                      | 298                      |
| 15                     | 52                       | 73                       | 86                       | 116                      | 204                      | 297                      | 297                      |
| 16                     | 52                       | 72                       | 85                       | 115                      | 203                      | 296                      | 296                      |
| 17                     | 51                       | 72                       | 85                       | 114                      | 202                      | 295                      | 295                      |
| 18                     | 50                       | 71                       | 84                       | 113                      | 201                      | 294                      | 294                      |
| 19                     | 49                       | 70                       | 83                       | 113                      | 201                      | 294                      | 294                      |
| 20                     | 49                       | 69                       | 82                       | 112                      | 200                      | 293                      | 293                      |
| 21                     | 48                       | 69                       | 82                       | 111                      | 199                      | 292                      | 292                      |
| 22                     | 47                       | 68                       | 81                       | 110                      | 199                      | 291                      | 291                      |
| 23                     | 46                       | 67                       | 80                       | 109                      | 198                      | 290                      | 290                      |
| 24                     | 45                       | 66                       | 79                       | 109                      | 197                      | 290                      | 290                      |
| 25                     | 44                       | 65                       | 78                       | 108                      | 196                      | 289                      | 289                      |
| 26                     | 43                       | 64                       | 77                       | 107                      | 195                      | 288                      | 288                      |
| 27                     | 43                       | 63                       | 76                       | 106                      | 194                      | 287                      | 287                      |
| 28                     | 42                       | 62                       | 76                       | 105                      | 193                      | 286                      | 286                      |
| 29                     | 41                       | 62                       | 78                       | 104                      | 192                      | 285                      | 285                      |
| 30                     | 40                       | 61                       | 82                       | 103                      | 191                      | 284                      | 284                      |

## 3.17 Colombian peso

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 76                       | 90                       | 97                       | 119                      | 241                      | 336                      | 3 284                    |
| 2                      | 81                       | 94                       | 101                      | 124                      | 245                      | 366                      | 2 451                    |
| 3                      | 80                       | 95                       | 104                      | 129                      | 240                      | 381                      | 1 851                    |
| 4                      | 80                       | 95                       | 106                      | 132                      | 236                      | 380                      | 1 432                    |
| 5                      | 82                       | 99                       | 111                      | 135                      | 238                      | 371                      | 1 136                    |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 6                      | 84                       | 102                      | 114                      | 139                      | 238                      | 357                      | 923                      |
| 7                      | 86                       | 105                      | 116                      | 142                      | 239                      | 341                      | 764                      |
| 8                      | 87                       | 107                      | 118                      | 145                      | 240                      | 332                      | 643                      |
| 9                      | 88                       | 108                      | 121                      | 149                      | 240                      | 333                      | 548                      |
| 10                     | 89                       | 109                      | 122                      | 151                      | 240                      | 333                      | 472                      |
| 11                     | 88                       | 109                      | 122                      | 151                      | 240                      | 332                      | 410                      |
| 12                     | 87                       | 108                      | 121                      | 150                      | 239                      | 331                      | 359                      |
| 13                     | 86                       | 107                      | 120                      | 149                      | 237                      | 330                      | 330                      |
| 14                     | 84                       | 105                      | 118                      | 148                      | 236                      | 329                      | 329                      |
| 15                     | 83                       | 104                      | 117                      | 146                      | 234                      | 327                      | 327                      |
| 16                     | 82                       | 102                      | 115                      | 145                      | 233                      | 326                      | 326                      |
| 17                     | 80                       | 101                      | 114                      | 143                      | 232                      | 324                      | 324                      |
| 18                     | 79                       | 100                      | 113                      | 142                      | 230                      | 323                      | 323                      |
| 19                     | 77                       | 98                       | 111                      | 141                      | 229                      | 322                      | 322                      |
| 20                     | 76                       | 97                       | 110                      | 139                      | 228                      | 320                      | 320                      |
| 21                     | 75                       | 95                       | 108                      | 138                      | 226                      | 319                      | 319                      |
| 22                     | 73                       | 94                       | 107                      | 136                      | 225                      | 317                      | 317                      |
| 23                     | 72                       | 92                       | 105                      | 135                      | 223                      | 316                      | 316                      |
| 24                     | 70                       | 91                       | 104                      | 133                      | 221                      | 314                      | 314                      |
| 25                     | 68                       | 89                       | 102                      | 132                      | 220                      | 313                      | 313                      |
| 26                     | 67                       | 88                       | 101                      | 130                      | 218                      | 311                      | 311                      |
| 27                     | 65                       | 86                       | 99                       | 129                      | 217                      | 310                      | 310                      |
| 28                     | 64                       | 85                       | 98                       | 127                      | 215                      | 308                      | 308                      |
| 29                     | 62                       | 83                       | 96                       | 125                      | 214                      | 307                      | 307                      |
| 30                     | 61                       | 82                       | 95                       | 124                      | 212                      | 305                      | 305                      |

### 3.18 Hong Kong dollar

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 3                        | 17                       | 23                       | 46                       | 167                      | 313                      | 3 145                    |
| 2                      | 7                        | 20                       | 27                       | 49                       | 171                      | 350                      | 2 335                    |
| 3                      | 8                        | 23                       | 32                       | 57                       | 168                      | 363                      | 1 758                    |
| 4                      | 10                       | 26                       | 36                       | 62                       | 167                      | 361                      | 1 356                    |
| 5                      | 12                       | 29                       | 41                       | 65                       | 168                      | 351                      | 1 074                    |
| 6                      | 14                       | 32                       | 44                       | 69                       | 168                      | 337                      | 870                      |
| 7                      | 16                       | 35                       | 46                       | 72                       | 169                      | 321                      | 719                      |
| 8                      | 16                       | 36                       | 48                       | 74                       | 169                      | 304                      | 605                      |
| 9                      | 17                       | 37                       | 49                       | 77                       | 169                      | 286                      | 515                      |
| 10                     | 17                       | 38                       | 51                       | 80                       | 169                      | 269                      | 443                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 11                     | 17                       | 38                       | 51                       | 80                       | 169                      | 262                      | 385                      |
| 12                     | 17                       | 38                       | 51                       | 80                       | 168                      | 261                      | 337                      |
| 13                     | 16                       | 37                       | 50                       | 80                       | 168                      | 261                      | 297                      |
| 14                     | 16                       | 37                       | 50                       | 79                       | 167                      | 260                      | 263                      |
| 15                     | 15                       | 36                       | 49                       | 78                       | 167                      | 259                      | 259                      |
| 16                     | 14                       | 35                       | 48                       | 77                       | 166                      | 258                      | 258                      |
| 17                     | 14                       | 35                       | 48                       | 77                       | 165                      | 258                      | 258                      |
| 18                     | 13                       | 34                       | 49                       | 77                       | 165                      | 258                      | 258                      |
| 19                     | 13                       | 34                       | 51                       | 76                       | 165                      | 257                      | 257                      |
| 20                     | 13                       | 34                       | 54                       | 77                       | 165                      | 258                      | 258                      |
| 21                     | 13                       | 34                       | 57                       | 77                       | 165                      | 258                      | 258                      |
| 22                     | 13                       | 34                       | 58                       | 77                       | 165                      | 258                      | 258                      |
| 23                     | 13                       | 34                       | 61                       | 77                       | 165                      | 258                      | 258                      |
| 24                     | 13                       | 34                       | 64                       | 77                       | 165                      | 258                      | 258                      |
| 25                     | 13                       | 34                       | 66                       | 76                       | 165                      | 257                      | 257                      |
| 26                     | 13                       | 34                       | 69                       | 76                       | 164                      | 257                      | 257                      |
| 27                     | 13                       | 34                       | 72                       | 76                       | 164                      | 257                      | 257                      |
| 28                     | 13                       | 33                       | 74                       | 76                       | 164                      | 257                      | 257                      |
| 29                     | 14                       | 33                       | 77                       | 79                       | 164                      | 257                      | 257                      |
| 30                     | 14                       | 33                       | 79                       | 81                       | 164                      | 257                      | 257                      |

### 3.19 Indian rupee

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 89                       | 103                      | 109                      | 132                      | 253                      | 348                      | 3 399                    |
| 2                      | 89                       | 103                      | 110                      | 132                      | 254                      | 377                      | 2 528                    |
| 3                      | 89                       | 103                      | 112                      | 137                      | 248                      | 391                      | 1 906                    |
| 4                      | 88                       | 104                      | 114                      | 140                      | 245                      | 389                      | 1 471                    |
| 5                      | 89                       | 105                      | 117                      | 142                      | 244                      | 379                      | 1 165                    |
| 6                      | 89                       | 107                      | 119                      | 144                      | 243                      | 364                      | 944                      |
| 7                      | 90                       | 109                      | 120                      | 146                      | 243                      | 346                      | 780                      |
| 8                      | 90                       | 110                      | 121                      | 148                      | 243                      | 335                      | 655                      |
| 9                      | 90                       | 110                      | 122                      | 150                      | 242                      | 334                      | 558                      |
| 10                     | 88                       | 109                      | 122                      | 151                      | 240                      | 333                      | 480                      |
| 11                     | 87                       | 108                      | 121                      | 150                      | 238                      | 331                      | 417                      |
| 12                     | 85                       | 106                      | 119                      | 148                      | 236                      | 329                      | 365                      |
| 13                     | 83                       | 104                      | 117                      | 146                      | 234                      | 327                      | 327                      |
| 14                     | 81                       | 102                      | 115                      | 144                      | 233                      | 325                      | 325                      |
| 15                     | 79                       | 100                      | 113                      | 142                      | 231                      | 324                      | 324                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 16                     | 77                       | 98                       | 111                      | 140                      | 229                      | 321                      | 321                      |
| 17                     | 76                       | 96                       | 109                      | 139                      | 227                      | 320                      | 320                      |
| 18                     | 74                       | 95                       | 108                      | 137                      | 225                      | 318                      | 318                      |
| 19                     | 73                       | 93                       | 106                      | 136                      | 224                      | 317                      | 317                      |
| 20                     | 72                       | 92                       | 105                      | 135                      | 223                      | 316                      | 316                      |
| 21                     | 71                       | 91                       | 104                      | 134                      | 222                      | 315                      | 315                      |
| 22                     | 69                       | 90                       | 103                      | 133                      | 221                      | 314                      | 314                      |
| 23                     | 68                       | 89                       | 102                      | 131                      | 220                      | 312                      | 312                      |
| 24                     | 67                       | 88                       | 101                      | 130                      | 219                      | 311                      | 311                      |
| 25                     | 66                       | 87                       | 100                      | 129                      | 217                      | 310                      | 310                      |
| 26                     | 65                       | 86                       | 99                       | 128                      | 216                      | 309                      | 309                      |
| 27                     | 64                       | 84                       | 97                       | 127                      | 215                      | 308                      | 308                      |
| 28                     | 63                       | 83                       | 96                       | 126                      | 214                      | 307                      | 307                      |
| 29                     | 61                       | 82                       | 95                       | 125                      | 213                      | 306                      | 306                      |
| 30                     | 60                       | 81                       | 94                       | 124                      | 212                      | 305                      | 305                      |

## 3.20 Mexican peso

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 337                      | 350                      | 357                      | 379                      | 501                      | 596                      | 3 510                    |
| 2                      | 75                       | 89                       | 96                       | 118                      | 239                      | 387                      | 2 604                    |
| 3                      | 77                       | 92                       | 101                      | 126                      | 236                      | 400                      | 1 960                    |
| 4                      | 80                       | 95                       | 106                      | 132                      | 236                      | 398                      | 1 511                    |
| 5                      | 82                       | 98                       | 110                      | 135                      | 237                      | 387                      | 1 195                    |
| 6                      | 84                       | 102                      | 114                      | 139                      | 238                      | 372                      | 968                      |
| 7                      | 86                       | 105                      | 116                      | 141                      | 238                      | 354                      | 800                      |
| 8                      | 87                       | 106                      | 118                      | 145                      | 239                      | 336                      | 672                      |
| 9                      | 87                       | 107                      | 120                      | 148                      | 239                      | 332                      | 572                      |
| 10                     | 87                       | 108                      | 121                      | 150                      | 239                      | 332                      | 493                      |
| 11                     | 87                       | 108                      | 121                      | 150                      | 239                      | 332                      | 428                      |
| 12                     | 87                       | 108                      | 121                      | 151                      | 239                      | 332                      | 375                      |
| 13                     | 88                       | 109                      | 122                      | 151                      | 239                      | 332                      | 332                      |
| 14                     | 88                       | 109                      | 122                      | 151                      | 240                      | 333                      | 333                      |
| 15                     | 89                       | 110                      | 123                      | 152                      | 240                      | 333                      | 333                      |
| 16                     | 90                       | 111                      | 124                      | 153                      | 241                      | 334                      | 334                      |
| 17                     | 91                       | 112                      | 125                      | 154                      | 242                      | 335                      | 335                      |
| 18                     | 92                       | 113                      | 126                      | 155                      | 243                      | 336                      | 336                      |
| 19                     | 93                       | 114                      | 127                      | 156                      | 244                      | 337                      | 337                      |
| 20                     | 94                       | 114                      | 127                      | 157                      | 245                      | 338                      | 338                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 21                     | 94                       | 114                      | 127                      | 157                      | 245                      | 338                      | 338                      |
| 22                     | 93                       | 114                      | 127                      | 157                      | 245                      | 338                      | 338                      |
| 23                     | 93                       | 114                      | 127                      | 156                      | 244                      | 337                      | 337                      |
| 24                     | 92                       | 113                      | 126                      | 155                      | 244                      | 336                      | 336                      |
| 25                     | 91                       | 112                      | 125                      | 154                      | 243                      | 335                      | 335                      |
| 26                     | 90                       | 111                      | 124                      | 153                      | 241                      | 334                      | 334                      |
| 27                     | 89                       | 110                      | 123                      | 152                      | 240                      | 333                      | 333                      |
| 28                     | 87                       | 108                      | 121                      | 151                      | 239                      | 332                      | 332                      |
| 29                     | 86                       | 107                      | 120                      | 149                      | 237                      | 330                      | 330                      |
| 30                     | 85                       | 105                      | 118                      | 148                      | 236                      | 329                      | 329                      |

### 3.21 *New Taiwan dollar*

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 0                        | 5                        | 11                       | 34                       | 155                      | 306                      | 3 075                    |
| 2                      | 0                        | 5                        | 11                       | 34                       | 155                      | 343                      | 2 282                    |
| 3                      | 1                        | 5                        | 13                       | 38                       | 149                      | 356                      | 1 719                    |
| 4                      | 1                        | 5                        | 16                       | 41                       | 146                      | 354                      | 1 326                    |
| 5                      | 2                        | 6                        | 18                       | 42                       | 145                      | 344                      | 1 050                    |
| 6                      | 2                        | 8                        | 20                       | 45                       | 144                      | 330                      | 851                      |
| 7                      | 3                        | 10                       | 21                       | 46                       | 144                      | 314                      | 704                      |
| 8                      | 4                        | 10                       | 22                       | 48                       | 143                      | 297                      | 592                      |
| 9                      | 4                        | 10                       | 25                       | 50                       | 142                      | 280                      | 504                      |
| 10                     | 4                        | 10                       | 28                       | 52                       | 141                      | 264                      | 434                      |
| 11                     | 5                        | 10                       | 31                       | 53                       | 141                      | 247                      | 377                      |
| 12                     | 6                        | 10                       | 33                       | 53                       | 141                      | 234                      | 330                      |
| 13                     | 6                        | 12                       | 35                       | 53                       | 141                      | 234                      | 291                      |
| 14                     | 6                        | 12                       | 38                       | 53                       | 141                      | 234                      | 258                      |
| 15                     | 6                        | 14                       | 40                       | 53                       | 141                      | 234                      | 234                      |
| 16                     | 8                        | 14                       | 43                       | 53                       | 141                      | 234                      | 234                      |
| 17                     | 8                        | 15                       | 46                       | 54                       | 142                      | 235                      | 235                      |
| 18                     | 8                        | 16                       | 48                       | 54                       | 142                      | 235                      | 235                      |
| 19                     | 9                        | 17                       | 50                       | 57                       | 143                      | 236                      | 236                      |
| 20                     | 9                        | 19                       | 53                       | 59                       | 144                      | 237                      | 237                      |
| 21                     | 9                        | 19                       | 56                       | 62                       | 145                      | 238                      | 238                      |
| 22                     | 10                       | 20                       | 58                       | 64                       | 145                      | 238                      | 238                      |
| 23                     | 10                       | 21                       | 61                       | 65                       | 146                      | 239                      | 239                      |
| 24                     | 12                       | 22                       | 63                       | 67                       | 146                      | 239                      | 239                      |
| 25                     | 12                       | 22                       | 66                       | 70                       | 147                      | 240                      | 240                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 26                     | 12                       | 24                       | 68                       | 72                       | 147                      | 240                      | 240                      |
| 27                     | 13                       | 25                       | 71                       | 74                       | 148                      | 240                      | 240                      |
| 28                     | 13                       | 26                       | 73                       | 76                       | 148                      | 241                      | 241                      |
| 29                     | 14                       | 27                       | 76                       | 78                       | 148                      | 241                      | 241                      |
| 30                     | 14                       | 27                       | 79                       | 80                       | 149                      | 241                      | 241                      |

### 3.22 New Zealand dollar

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 48                       | 62                       | 69                       | 91                       | 212                      | 313                      | 3 145                    |
| 2                      | 49                       | 63                       | 69                       | 92                       | 213                      | 350                      | 2 334                    |
| 3                      | 48                       | 63                       | 72                       | 97                       | 208                      | 363                      | 1 758                    |
| 4                      | 48                       | 63                       | 74                       | 100                      | 204                      | 361                      | 1 357                    |
| 5                      | 48                       | 64                       | 76                       | 101                      | 203                      | 352                      | 1 075                    |
| 6                      | 49                       | 67                       | 78                       | 104                      | 203                      | 338                      | 872                      |
| 7                      | 49                       | 68                       | 79                       | 104                      | 201                      | 322                      | 722                      |
| 8                      | 48                       | 68                       | 80                       | 106                      | 201                      | 305                      | 607                      |
| 9                      | 48                       | 68                       | 80                       | 109                      | 200                      | 293                      | 517                      |
| 10                     | 47                       | 68                       | 81                       | 109                      | 199                      | 291                      | 445                      |
| 11                     | 46                       | 66                       | 79                       | 109                      | 197                      | 290                      | 387                      |
| 12                     | 44                       | 65                       | 78                       | 107                      | 195                      | 288                      | 339                      |
| 13                     | 42                       | 63                       | 76                       | 106                      | 194                      | 287                      | 299                      |
| 14                     | 41                       | 62                       | 75                       | 104                      | 192                      | 285                      | 285                      |
| 15                     | 40                       | 60                       | 73                       | 103                      | 191                      | 284                      | 284                      |
| 16                     | 38                       | 59                       | 72                       | 101                      | 189                      | 282                      | 282                      |
| 17                     | 37                       | 57                       | 70                       | 100                      | 188                      | 281                      | 281                      |
| 18                     | 36                       | 56                       | 69                       | 99                       | 187                      | 280                      | 280                      |
| 19                     | 35                       | 55                       | 68                       | 98                       | 186                      | 279                      | 279                      |
| 20                     | 34                       | 55                       | 68                       | 97                       | 186                      | 278                      | 278                      |
| 21                     | 34                       | 54                       | 67                       | 97                       | 185                      | 278                      | 278                      |
| 22                     | 33                       | 54                       | 67                       | 96                       | 184                      | 277                      | 277                      |
| 23                     | 32                       | 53                       | 66                       | 95                       | 184                      | 276                      | 276                      |
| 24                     | 32                       | 52                       | 65                       | 95                       | 183                      | 276                      | 276                      |
| 25                     | 31                       | 52                       | 67                       | 94                       | 182                      | 275                      | 275                      |
| 26                     | 30                       | 51                       | 70                       | 93                       | 182                      | 274                      | 274                      |
| 27                     | 29                       | 50                       | 72                       | 93                       | 181                      | 274                      | 274                      |
| 28                     | 29                       | 50                       | 75                       | 92                       | 180                      | 273                      | 273                      |
| 29                     | 28                       | 49                       | 77                       | 91                       | 180                      | 272                      | 272                      |
| 30                     | 27                       | 48                       | 80                       | 91                       | 179                      | 272                      | 272                      |

3.23 *Rand*

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 110                      | 124                      | 131                      | 153                      | 275                      | 369                      | 3 418                    |
| 2                      | 112                      | 125                      | 132                      | 154                      | 276                      | 379                      | 2 543                    |
| 3                      | 112                      | 127                      | 135                      | 161                      | 271                      | 393                      | 1 918                    |
| 4                      | 113                      | 128                      | 139                      | 165                      | 269                      | 391                      | 1 481                    |
| 5                      | 114                      | 131                      | 143                      | 167                      | 269                      | 381                      | 1 173                    |
| 6                      | 115                      | 133                      | 145                      | 170                      | 269                      | 367                      | 952                      |
| 7                      | 116                      | 135                      | 146                      | 172                      | 269                      | 361                      | 787                      |
| 8                      | 115                      | 135                      | 146                      | 173                      | 268                      | 361                      | 662                      |
| 9                      | 115                      | 135                      | 147                      | 175                      | 267                      | 360                      | 564                      |
| 10                     | 114                      | 135                      | 148                      | 176                      | 266                      | 359                      | 486                      |
| 11                     | 113                      | 134                      | 147                      | 176                      | 264                      | 357                      | 422                      |
| 12                     | 111                      | 132                      | 145                      | 174                      | 262                      | 355                      | 370                      |
| 13                     | 109                      | 130                      | 143                      | 172                      | 260                      | 353                      | 353                      |
| 14                     | 107                      | 127                      | 140                      | 170                      | 258                      | 351                      | 351                      |
| 15                     | 104                      | 125                      | 138                      | 168                      | 256                      | 349                      | 349                      |
| 16                     | 102                      | 123                      | 136                      | 165                      | 253                      | 346                      | 346                      |
| 17                     | 100                      | 120                      | 133                      | 163                      | 251                      | 344                      | 344                      |
| 18                     | 97                       | 118                      | 131                      | 161                      | 249                      | 342                      | 342                      |
| 19                     | 95                       | 116                      | 129                      | 159                      | 247                      | 340                      | 340                      |
| 20                     | 94                       | 114                      | 127                      | 157                      | 245                      | 338                      | 338                      |
| 21                     | 92                       | 113                      | 126                      | 155                      | 243                      | 336                      | 336                      |
| 22                     | 90                       | 111                      | 124                      | 153                      | 242                      | 334                      | 334                      |
| 23                     | 88                       | 109                      | 122                      | 152                      | 240                      | 333                      | 333                      |
| 24                     | 87                       | 107                      | 120                      | 150                      | 238                      | 331                      | 331                      |
| 25                     | 85                       | 105                      | 118                      | 148                      | 236                      | 329                      | 329                      |
| 26                     | 83                       | 104                      | 117                      | 146                      | 234                      | 327                      | 327                      |
| 27                     | 81                       | 102                      | 115                      | 144                      | 233                      | 325                      | 325                      |
| 28                     | 80                       | 100                      | 113                      | 143                      | 231                      | 324                      | 324                      |
| 29                     | 78                       | 99                       | 112                      | 141                      | 229                      | 322                      | 322                      |
| 30                     | 76                       | 97                       | 110                      | 140                      | 228                      | 321                      | 321                      |

3.24 *Real*

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 168                      | 181                      | 188                      | 210                      | 332                      | 427                      | 3 380                    |
| 2                      | 177                      | 191                      | 197                      | 220                      | 341                      | 436                      | 2 532                    |
| 3                      | 180                      | 195                      | 204                      | 229                      | 340                      | 434                      | 1 921                    |
| 4                      | 182                      | 197                      | 208                      | 234                      | 338                      | 432                      | 1 490                    |
| 5                      | 182                      | 199                      | 211                      | 235                      | 338                      | 431                      | 1 183                    |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 6                      | 182                      | 200                      | 212                      | 237                      | 336                      | 429                      | 961                      |
| 7                      | 182                      | 201                      | 212                      | 238                      | 335                      | 428                      | 795                      |
| 8                      | 181                      | 201                      | 212                      | 239                      | 333                      | 426                      | 668                      |
| 9                      | 180                      | 200                      | 212                      | 240                      | 332                      | 425                      | 568                      |
| 10                     | 179                      | 199                      | 212                      | 241                      | 330                      | 423                      | 489                      |
| 11                     | 177                      | 198                      | 211                      | 240                      | 328                      | 421                      | 425                      |
| 12                     | 174                      | 195                      | 208                      | 238                      | 326                      | 419                      | 419                      |
| 13                     | 171                      | 192                      | 205                      | 235                      | 323                      | 416                      | 416                      |
| 14                     | 168                      | 189                      | 202                      | 232                      | 320                      | 413                      | 413                      |
| 15                     | 165                      | 186                      | 199                      | 228                      | 317                      | 409                      | 409                      |
| 16                     | 162                      | 183                      | 196                      | 225                      | 313                      | 406                      | 406                      |
| 17                     | 159                      | 180                      | 193                      | 222                      | 310                      | 403                      | 403                      |
| 18                     | 156                      | 176                      | 189                      | 219                      | 307                      | 400                      | 400                      |
| 19                     | 153                      | 173                      | 186                      | 216                      | 304                      | 397                      | 397                      |
| 20                     | 149                      | 170                      | 183                      | 213                      | 301                      | 394                      | 394                      |
| 21                     | 146                      | 167                      | 180                      | 210                      | 298                      | 391                      | 391                      |
| 22                     | 143                      | 164                      | 177                      | 206                      | 295                      | 387                      | 387                      |
| 23                     | 140                      | 161                      | 174                      | 203                      | 291                      | 384                      | 384                      |
| 24                     | 137                      | 158                      | 171                      | 200                      | 288                      | 381                      | 381                      |
| 25                     | 134                      | 155                      | 168                      | 197                      | 285                      | 378                      | 378                      |
| 26                     | 131                      | 151                      | 164                      | 194                      | 282                      | 375                      | 375                      |
| 27                     | 128                      | 149                      | 162                      | 191                      | 279                      | 372                      | 372                      |
| 28                     | 125                      | 146                      | 159                      | 188                      | 276                      | 369                      | 369                      |
| 29                     | 122                      | 143                      | 156                      | 185                      | 273                      | 366                      | 366                      |
| 30                     | 119                      | 140                      | 153                      | 183                      | 271                      | 364                      | 364                      |

### 3.25 Renminbi-yuan

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 24                       | 38                       | 44                       | 67                       | 188                      | 316                      | 3 179                    |
| 2                      | 25                       | 38                       | 45                       | 68                       | 189                      | 354                      | 2 360                    |
| 3                      | 24                       | 39                       | 47                       | 73                       | 183                      | 367                      | 1 779                    |
| 4                      | 24                       | 40                       | 50                       | 76                       | 180                      | 365                      | 1 373                    |
| 5                      | 24                       | 41                       | 53                       | 78                       | 180                      | 356                      | 1 087                    |
| 6                      | 25                       | 43                       | 55                       | 80                       | 179                      | 342                      | 882                      |
| 7                      | 26                       | 45                       | 56                       | 81                       | 178                      | 325                      | 729                      |
| 8                      | 25                       | 44                       | 56                       | 83                       | 177                      | 308                      | 613                      |
| 9                      | 24                       | 44                       | 57                       | 85                       | 176                      | 290                      | 522                      |
| 10                     | 24                       | 44                       | 57                       | 86                       | 175                      | 273                      | 449                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 11                     | 23                       | 44                       | 57                       | 86                       | 175                      | 268                      | 390                      |
| 12                     | 23                       | 43                       | 56                       | 86                       | 174                      | 267                      | 342                      |
| 13                     | 22                       | 43                       | 56                       | 85                       | 173                      | 266                      | 301                      |
| 14                     | 22                       | 42                       | 55                       | 85                       | 173                      | 266                      | 267                      |
| 15                     | 21                       | 42                       | 55                       | 84                       | 173                      | 265                      | 265                      |
| 16                     | 21                       | 42                       | 55                       | 84                       | 172                      | 265                      | 265                      |
| 17                     | 21                       | 42                       | 55                       | 84                       | 172                      | 265                      | 265                      |
| 18                     | 21                       | 42                       | 55                       | 84                       | 172                      | 265                      | 265                      |
| 19                     | 21                       | 42                       | 55                       | 84                       | 172                      | 265                      | 265                      |
| 20                     | 21                       | 42                       | 55                       | 84                       | 173                      | 265                      | 265                      |
| 21                     | 21                       | 42                       | 57                       | 84                       | 173                      | 265                      | 265                      |
| 22                     | 21                       | 42                       | 60                       | 84                       | 173                      | 265                      | 265                      |
| 23                     | 21                       | 42                       | 62                       | 84                       | 172                      | 265                      | 265                      |
| 24                     | 21                       | 42                       | 65                       | 84                       | 172                      | 265                      | 265                      |
| 25                     | 21                       | 41                       | 67                       | 84                       | 172                      | 265                      | 265                      |
| 26                     | 20                       | 41                       | 70                       | 83                       | 172                      | 265                      | 265                      |
| 27                     | 20                       | 41                       | 72                       | 83                       | 171                      | 264                      | 264                      |
| 28                     | 20                       | 41                       | 75                       | 83                       | 171                      | 264                      | 264                      |
| 29                     | 19                       | 40                       | 78                       | 83                       | 171                      | 264                      | 264                      |
| 30                     | 19                       | 40                       | 80                       | 82                       | 171                      | 263                      | 263                      |

### 3.26 Ringgit

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 20                       | 34                       | 41                       | 63                       | 184                      | 321                      | 3 231                    |
| 2                      | 22                       | 36                       | 42                       | 65                       | 186                      | 359                      | 2 399                    |
| 3                      | 23                       | 38                       | 46                       | 71                       | 182                      | 372                      | 1 806                    |
| 4                      | 24                       | 40                       | 50                       | 76                       | 181                      | 370                      | 1 394                    |
| 5                      | 26                       | 43                       | 55                       | 79                       | 182                      | 360                      | 1 104                    |
| 6                      | 28                       | 46                       | 57                       | 83                       | 182                      | 346                      | 895                      |
| 7                      | 30                       | 49                       | 60                       | 85                       | 182                      | 329                      | 740                      |
| 8                      | 30                       | 50                       | 61                       | 88                       | 182                      | 312                      | 622                      |
| 9                      | 30                       | 51                       | 63                       | 91                       | 182                      | 294                      | 530                      |
| 10                     | 31                       | 52                       | 65                       | 93                       | 183                      | 277                      | 456                      |
| 11                     | 32                       | 52                       | 65                       | 95                       | 183                      | 276                      | 396                      |
| 12                     | 32                       | 53                       | 66                       | 95                       | 183                      | 276                      | 347                      |
| 13                     | 32                       | 53                       | 66                       | 95                       | 183                      | 276                      | 306                      |
| 14                     | 32                       | 52                       | 65                       | 95                       | 183                      | 276                      | 276                      |
| 15                     | 31                       | 52                       | 65                       | 95                       | 183                      | 276                      | 276                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 16                     | 31                       | 52                       | 65                       | 94                       | 182                      | 275                      | 275                      |
| 17                     | 31                       | 52                       | 65                       | 94                       | 182                      | 275                      | 275                      |
| 18                     | 31                       | 52                       | 65                       | 94                       | 182                      | 275                      | 275                      |
| 19                     | 31                       | 52                       | 65                       | 94                       | 182                      | 275                      | 275                      |
| 20                     | 31                       | 52                       | 65                       | 95                       | 183                      | 276                      | 276                      |
| 21                     | 31                       | 52                       | 65                       | 95                       | 183                      | 276                      | 276                      |
| 22                     | 31                       | 52                       | 65                       | 95                       | 183                      | 276                      | 276                      |
| 23                     | 31                       | 52                       | 65                       | 94                       | 183                      | 275                      | 275                      |
| 24                     | 31                       | 52                       | 66                       | 94                       | 182                      | 275                      | 275                      |
| 25                     | 31                       | 51                       | 69                       | 94                       | 182                      | 275                      | 275                      |
| 26                     | 30                       | 51                       | 71                       | 93                       | 182                      | 274                      | 274                      |
| 27                     | 30                       | 50                       | 74                       | 93                       | 181                      | 274                      | 274                      |
| 28                     | 29                       | 50                       | 76                       | 92                       | 181                      | 273                      | 273                      |
| 29                     | 29                       | 49                       | 79                       | 92                       | 180                      | 273                      | 273                      |
| 30                     | 28                       | 49                       | 82                       | 91                       | 180                      | 272                      | 272                      |

### 3.27 Russian rouble

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 120                      | 134                      | 141                      | 163                      | 285                      | 379                      | 3 533                    |
| 2                      | 119                      | 133                      | 139                      | 162                      | 283                      | 390                      | 2 631                    |
| 3                      | 117                      | 132                      | 141                      | 166                      | 276                      | 404                      | 1 981                    |
| 4                      | 116                      | 132                      | 143                      | 169                      | 273                      | 402                      | 1 527                    |
| 5                      | 116                      | 133                      | 145                      | 170                      | 272                      | 391                      | 1 207                    |
| 6                      | 116                      | 134                      | 146                      | 171                      | 270                      | 375                      | 976                      |
| 7                      | 117                      | 136                      | 147                      | 172                      | 269                      | 362                      | 806                      |
| 8                      | 116                      | 136                      | 147                      | 174                      | 268                      | 361                      | 676                      |
| 9                      | 115                      | 135                      | 147                      | 176                      | 267                      | 360                      | 575                      |
| 10                     | 115                      | 135                      | 148                      | 177                      | 266                      | 359                      | 494                      |
| 11                     | 114                      | 135                      | 148                      | 177                      | 266                      | 358                      | 429                      |
| 12                     | 113                      | 134                      | 147                      | 176                      | 264                      | 357                      | 374                      |
| 13                     | 112                      | 133                      | 146                      | 175                      | 263                      | 356                      | 356                      |
| 14                     | 110                      | 131                      | 144                      | 174                      | 262                      | 355                      | 355                      |
| 15                     | 108                      | 129                      | 142                      | 171                      | 260                      | 352                      | 352                      |
| 16                     | 106                      | 127                      | 140                      | 169                      | 257                      | 350                      | 350                      |
| 17                     | 103                      | 124                      | 137                      | 166                      | 255                      | 348                      | 348                      |
| 18                     | 101                      | 122                      | 135                      | 164                      | 253                      | 345                      | 345                      |
| 19                     | 99                       | 120                      | 133                      | 162                      | 250                      | 343                      | 343                      |
| 20                     | 97                       | 118                      | 131                      | 160                      | 248                      | 341                      | 341                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 21                     | 94                       | 115                      | 128                      | 158                      | 246                      | 339                      | 339                      |
| 22                     | 92                       | 113                      | 126                      | 155                      | 244                      | 336                      | 336                      |
| 23                     | 90                       | 111                      | 124                      | 153                      | 241                      | 334                      | 334                      |
| 24                     | 88                       | 109                      | 122                      | 151                      | 239                      | 332                      | 332                      |
| 25                     | 86                       | 106                      | 119                      | 149                      | 237                      | 330                      | 330                      |
| 26                     | 84                       | 104                      | 117                      | 147                      | 235                      | 328                      | 328                      |
| 27                     | 81                       | 102                      | 115                      | 145                      | 233                      | 326                      | 326                      |
| 28                     | 79                       | 100                      | 113                      | 143                      | 231                      | 324                      | 324                      |
| 29                     | 77                       | 98                       | 111                      | 141                      | 229                      | 322                      | 322                      |
| 30                     | 76                       | 96                       | 109                      | 139                      | 227                      | 320                      | 320                      |

### 3.28 Singapore dollar

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 0                        | 5                        | 11                       | 34                       | 155                      | 312                      | 3 140                    |
| 2                      | 0                        | 7                        | 13                       | 36                       | 157                      | 350                      | 2 329                    |
| 3                      | 1                        | 9                        | 17                       | 42                       | 153                      | 362                      | 1 753                    |
| 4                      | 1                        | 11                       | 21                       | 47                       | 152                      | 360                      | 1 352                    |
| 5                      | 2                        | 14                       | 26                       | 50                       | 152                      | 350                      | 1 071                    |
| 6                      | 2                        | 17                       | 28                       | 54                       | 153                      | 336                      | 868                      |
| 7                      | 3                        | 20                       | 31                       | 56                       | 153                      | 320                      | 718                      |
| 8                      | 4                        | 21                       | 32                       | 59                       | 153                      | 303                      | 603                      |
| 9                      | 4                        | 21                       | 33                       | 62                       | 153                      | 286                      | 514                      |
| 10                     | 4                        | 22                       | 35                       | 64                       | 153                      | 269                      | 443                      |
| 11                     | 5                        | 22                       | 35                       | 64                       | 153                      | 252                      | 385                      |
| 12                     | 6                        | 22                       | 35                       | 64                       | 152                      | 245                      | 337                      |
| 13                     | 6                        | 22                       | 36                       | 64                       | 152                      | 245                      | 297                      |
| 14                     | 6                        | 21                       | 38                       | 64                       | 152                      | 245                      | 263                      |
| 15                     | 6                        | 21                       | 41                       | 64                       | 152                      | 245                      | 245                      |
| 16                     | 8                        | 21                       | 44                       | 63                       | 151                      | 244                      | 244                      |
| 17                     | 8                        | 21                       | 46                       | 63                       | 152                      | 244                      | 244                      |
| 18                     | 8                        | 21                       | 49                       | 63                       | 152                      | 244                      | 244                      |
| 19                     | 9                        | 21                       | 51                       | 64                       | 152                      | 245                      | 245                      |
| 20                     | 9                        | 22                       | 54                       | 64                       | 152                      | 245                      | 245                      |
| 21                     | 9                        | 22                       | 57                       | 65                       | 153                      | 246                      | 246                      |
| 22                     | 10                       | 23                       | 59                       | 65                       | 153                      | 246                      | 246                      |
| 23                     | 11                       | 23                       | 61                       | 66                       | 154                      | 246                      | 246                      |
| 24                     | 12                       | 23                       | 64                       | 68                       | 154                      | 247                      | 247                      |
| 25                     | 12                       | 23                       | 66                       | 71                       | 154                      | 247                      | 247                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 26                     | 12                       | 24                       | 69                       | 72                       | 154                      | 247                      | 247                      |
| 27                     | 13                       | 25                       | 72                       | 74                       | 154                      | 247                      | 247                      |
| 28                     | 13                       | 26                       | 74                       | 76                       | 154                      | 247                      | 247                      |
| 29                     | 14                       | 27                       | 77                       | 79                       | 154                      | 247                      | 247                      |
| 30                     | 14                       | 28                       | 79                       | 81                       | 155                      | 247                      | 247                      |

## 3.29 South Korean won

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 30                       | 44                       | 51                       | 73                       | 194                      | 313                      | 3 142                    |
| 2                      | 31                       | 44                       | 51                       | 74                       | 195                      | 350                      | 2 330                    |
| 3                      | 29                       | 44                       | 52                       | 78                       | 188                      | 362                      | 1 753                    |
| 4                      | 28                       | 44                       | 54                       | 80                       | 185                      | 360                      | 1 352                    |
| 5                      | 28                       | 45                       | 57                       | 81                       | 184                      | 350                      | 1 070                    |
| 6                      | 31                       | 49                       | 60                       | 86                       | 185                      | 336                      | 867                      |
| 7                      | 29                       | 48                       | 59                       | 84                       | 181                      | 319                      | 716                      |
| 8                      | 33                       | 52                       | 64                       | 91                       | 185                      | 302                      | 602                      |
| 9                      | 32                       | 52                       | 64                       | 93                       | 184                      | 285                      | 512                      |
| 10                     | 26                       | 47                       | 60                       | 89                       | 178                      | 271                      | 441                      |
| 11                     | 22                       | 43                       | 56                       | 85                       | 173                      | 266                      | 383                      |
| 12                     | 18                       | 39                       | 52                       | 82                       | 170                      | 263                      | 335                      |
| 13                     | 16                       | 37                       | 50                       | 79                       | 167                      | 260                      | 295                      |
| 14                     | 14                       | 35                       | 48                       | 77                       | 165                      | 258                      | 262                      |
| 15                     | 12                       | 33                       | 46                       | 76                       | 164                      | 257                      | 257                      |
| 16                     | 11                       | 32                       | 45                       | 74                       | 162                      | 255                      | 255                      |
| 17                     | 10                       | 31                       | 46                       | 73                       | 161                      | 254                      | 254                      |
| 18                     | 9                        | 30                       | 48                       | 73                       | 161                      | 254                      | 254                      |
| 19                     | 9                        | 30                       | 51                       | 72                       | 160                      | 253                      | 253                      |
| 20                     | 9                        | 30                       | 54                       | 72                       | 160                      | 253                      | 253                      |
| 21                     | 9                        | 30                       | 56                       | 72                       | 160                      | 253                      | 253                      |
| 22                     | 10                       | 30                       | 58                       | 72                       | 160                      | 253                      | 253                      |
| 23                     | 11                       | 30                       | 61                       | 72                       | 160                      | 253                      | 253                      |
| 24                     | 12                       | 30                       | 63                       | 72                       | 160                      | 253                      | 253                      |
| 25                     | 12                       | 30                       | 66                       | 72                       | 160                      | 253                      | 253                      |
| 26                     | 12                       | 29                       | 68                       | 72                       | 160                      | 253                      | 253                      |
| 27                     | 13                       | 29                       | 71                       | 74                       | 160                      | 253                      | 253                      |
| 28                     | 13                       | 29                       | 73                       | 76                       | 160                      | 253                      | 253                      |
| 29                     | 14                       | 29                       | 77                       | 78                       | 160                      | 253                      | 253                      |
| 30                     | 14                       | 29                       | 79                       | 80                       | 160                      | 252                      | 252                      |

## 3.30 Turkish lira

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 189                      | 203                      | 210                      | 232                      | 353                      | 448                      | 4 237                    |
| 2                      | 186                      | 200                      | 206                      | 229                      | 350                      | 449                      | 3 087                    |
| 3                      | 181                      | 196                      | 204                      | 229                      | 340                      | 462                      | 2 310                    |
| 4                      | 177                      | 192                      | 203                      | 229                      | 333                      | 455                      | 1 761                    |
| 5                      | 172                      | 189                      | 201                      | 226                      | 328                      | 436                      | 1 373                    |
| 6                      | 169                      | 187                      | 199                      | 224                      | 323                      | 417                      | 1 106                    |
| 7                      | 166                      | 185                      | 196                      | 222                      | 319                      | 411                      | 910                      |
| 8                      | 162                      | 182                      | 193                      | 220                      | 314                      | 407                      | 759                      |
| 9                      | 158                      | 178                      | 190                      | 219                      | 310                      | 403                      | 640                      |
| 10                     | 154                      | 175                      | 188                      | 217                      | 306                      | 399                      | 546                      |
| 11                     | 150                      | 171                      | 184                      | 213                      | 302                      | 395                      | 470                      |
| 12                     | 146                      | 167                      | 180                      | 209                      | 298                      | 391                      | 409                      |
| 13                     | 142                      | 163                      | 176                      | 206                      | 294                      | 387                      | 387                      |
| 14                     | 139                      | 159                      | 172                      | 202                      | 290                      | 383                      | 383                      |
| 15                     | 135                      | 156                      | 169                      | 198                      | 286                      | 379                      | 379                      |
| 16                     | 132                      | 152                      | 165                      | 195                      | 283                      | 376                      | 376                      |
| 17                     | 129                      | 149                      | 162                      | 192                      | 280                      | 373                      | 373                      |
| 18                     | 126                      | 146                      | 159                      | 189                      | 277                      | 370                      | 370                      |
| 19                     | 123                      | 143                      | 156                      | 186                      | 274                      | 367                      | 367                      |
| 20                     | 120                      | 141                      | 154                      | 183                      | 271                      | 364                      | 364                      |
| 21                     | 117                      | 138                      | 151                      | 181                      | 269                      | 362                      | 362                      |
| 22                     | 115                      | 136                      | 149                      | 178                      | 266                      | 359                      | 359                      |
| 23                     | 112                      | 133                      | 146                      | 175                      | 264                      | 356                      | 356                      |
| 24                     | 110                      | 130                      | 143                      | 173                      | 261                      | 354                      | 354                      |
| 25                     | 107                      | 128                      | 141                      | 170                      | 259                      | 351                      | 351                      |
| 26                     | 105                      | 126                      | 139                      | 168                      | 256                      | 349                      | 349                      |
| 27                     | 103                      | 123                      | 136                      | 166                      | 254                      | 347                      | 347                      |
| 28                     | 100                      | 121                      | 134                      | 163                      | 252                      | 345                      | 345                      |
| 29                     | 98                       | 119                      | 132                      | 161                      | 250                      | 342                      | 342                      |
| 30                     | 96                       | 117                      | 130                      | 159                      | 247                      | 340                      | 340                      |

## 3.31 US dollar

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 0                        | 14                       | 26                       | 53                       | 173                      | 316                      | 3 185                    |
| 2                      | 0                        | 14                       | 26                       | 53                       | 173                      | 354                      | 2 361                    |
| 3                      | 1                        | 17                       | 28                       | 57                       | 169                      | 366                      | 1 775                    |
| 4                      | 1                        | 20                       | 32                       | 62                       | 168                      | 364                      | 1 369                    |
| 5                      | 2                        | 23                       | 37                       | 68                       | 169                      | 354                      | 1 083                    |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 6                      | 4                        | 26                       | 39                       | 69                       | 170                      | 340                      | 878                      |
| 7                      | 6                        | 30                       | 42                       | 71                       | 170                      | 323                      | 726                      |
| 8                      | 9                        | 34                       | 46                       | 74                       | 170                      | 306                      | 610                      |
| 9                      | 10                       | 37                       | 49                       | 76                       | 170                      | 288                      | 519                      |
| 10                     | 11                       | 38                       | 51                       | 76                       | 170                      | 271                      | 447                      |
| 11                     | 12                       | 40                       | 52                       | 78                       | 170                      | 263                      | 388                      |
| 12                     | 13                       | 41                       | 54                       | 79                       | 171                      | 263                      | 340                      |
| 13                     | 14                       | 42                       | 54                       | 79                       | 170                      | 263                      | 299                      |
| 14                     | 14                       | 43                       | 55                       | 80                       | 170                      | 263                      | 265                      |
| 15                     | 14                       | 43                       | 55                       | 80                       | 170                      | 263                      | 263                      |
| 16                     | 14                       | 43                       | 55                       | 80                       | 170                      | 263                      | 263                      |
| 17                     | 14                       | 43                       | 55                       | 80                       | 170                      | 263                      | 263                      |
| 18                     | 14                       | 43                       | 55                       | 80                       | 170                      | 263                      | 263                      |
| 19                     | 14                       | 43                       | 55                       | 80                       | 170                      | 263                      | 263                      |
| 20                     | 14                       | 43                       | 55                       | 80                       | 171                      | 264                      | 264                      |
| 21                     | 14                       | 43                       | 57                       | 80                       | 171                      | 264                      | 264                      |
| 22                     | 14                       | 43                       | 59                       | 80                       | 171                      | 264                      | 264                      |
| 23                     | 14                       | 43                       | 62                       | 80                       | 171                      | 264                      | 264                      |
| 24                     | 14                       | 43                       | 65                       | 80                       | 171                      | 264                      | 264                      |
| 25                     | 14                       | 43                       | 67                       | 80                       | 171                      | 264                      | 264                      |
| 26                     | 14                       | 43                       | 70                       | 80                       | 171                      | 264                      | 264                      |
| 27                     | 14                       | 43                       | 72                       | 80                       | 171                      | 264                      | 264                      |
| 28                     | 14                       | 43                       | 74                       | 80                       | 171                      | 264                      | 264                      |
| 29                     | 14                       | 43                       | 77                       | 80                       | 171                      | 263                      | 263                      |
| 30                     | 14                       | 43                       | 79                       | 81                       | 170                      | 263                      | 263                      |

## 3.32 Yen

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                      | 0                        | 0                        | 3                        | 12                       | 133                      | 304                      | 3 048                    |
| 2                      | 0                        | 1                        | 6                        | 14                       | 132                      | 340                      | 2 260                    |
| 3                      | 1                        | 2                        | 9                        | 17                       | 124                      | 352                      | 1 701                    |
| 4                      | 1                        | 3                        | 12                       | 20                       | 121                      | 350                      | 1 312                    |
| 5                      | 2                        | 4                        | 15                       | 23                       | 120                      | 341                      | 1 039                    |
| 6                      | 2                        | 4                        | 17                       | 26                       | 120                      | 327                      | 842                      |
| 7                      | 3                        | 6                        | 19                       | 28                       | 119                      | 311                      | 696                      |
| 8                      | 4                        | 6                        | 22                       | 30                       | 119                      | 294                      | 585                      |
| 9                      | 4                        | 8                        | 25                       | 33                       | 119                      | 277                      | 498                      |
| 10                     | 4                        | 8                        | 28                       | 35                       | 119                      | 261                      | 429                      |

| Duration<br>(in years) | Credit quality<br>step 0 | Credit quality<br>step 1 | Credit quality<br>step 2 | Credit quality<br>step 3 | Credit quality<br>step 4 | Credit quality<br>step 5 | Credit quality<br>step 6 |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 11                     | 4                        | 10                       | 30                       | 38                       | 120                      | 245                      | 373                      |
| 12                     | 6                        | 10                       | 32                       | 40                       | 120                      | 229                      | 326                      |
| 13                     | 6                        | 12                       | 35                       | 42                       | 120                      | 215                      | 288                      |
| 14                     | 6                        | 12                       | 37                       | 46                       | 120                      | 213                      | 255                      |
| 15                     | 6                        | 14                       | 40                       | 47                       | 121                      | 214                      | 227                      |
| 16                     | 8                        | 14                       | 43                       | 49                       | 121                      | 214                      | 214                      |
| 17                     | 8                        | 15                       | 45                       | 52                       | 121                      | 214                      | 214                      |
| 18                     | 8                        | 16                       | 47                       | 54                       | 122                      | 215                      | 215                      |
| 19                     | 9                        | 17                       | 50                       | 56                       | 124                      | 215                      | 215                      |
| 20                     | 9                        | 17                       | 53                       | 59                       | 127                      | 216                      | 216                      |
| 21                     | 9                        | 19                       | 55                       | 60                       | 128                      | 216                      | 216                      |
| 22                     | 10                       | 20                       | 57                       | 62                       | 130                      | 217                      | 217                      |
| 23                     | 10                       | 20                       | 59                       | 64                       | 131                      | 217                      | 217                      |
| 24                     | 10                       | 22                       | 62                       | 66                       | 133                      | 218                      | 218                      |
| 25                     | 12                       | 22                       | 64                       | 68                       | 135                      | 218                      | 218                      |
| 26                     | 12                       | 24                       | 67                       | 70                       | 136                      | 218                      | 218                      |
| 27                     | 13                       | 24                       | 69                       | 72                       | 137                      | 218                      | 218                      |
| 28                     | 13                       | 25                       | 72                       | 74                       | 138                      | 218                      | 218                      |
| 29                     | 13                       | 26                       | 74                       | 77                       | 139                      | 218                      | 218                      |
| 30                     | 14                       | 27                       | 76                       | 79                       | 141                      | 218                      | 218                      |

## ANNEX III

**Volatility adjustment to the relevant risk-free interest rate term structure**

| Currency          | National insurance market | Volatility adjustment (in bps) |
|-------------------|---------------------------|--------------------------------|
| Euro              | Austria                   | 24                             |
| Euro              | Belgium                   | 24                             |
| Euro              | Cyprus                    | 24                             |
| Euro              | Estonia                   | 24                             |
| Euro              | Finland                   | 24                             |
| Euro              | France                    | 24                             |
| Euro              | Germany                   | 24                             |
| Euro              | Greece                    | 24                             |
| Euro              | Ireland                   | 24                             |
| Euro              | Italy                     | 24                             |
| Euro              | Latvia                    | 24                             |
| Euro              | Lithuania                 | 24                             |
| Euro              | Luxembourg                | 24                             |
| Euro              | Malta                     | 24                             |
| Euro              | Netherlands               | 24                             |
| Euro              | Portugal                  | 24                             |
| Euro              | Slovakia                  | 24                             |
| Euro              | Slovenia                  | 24                             |
| Euro              | Spain                     | 24                             |
| Czech koruna      | Czech Republic            | 17                             |
| Danish krone      | Denmark                   | 45                             |
| Forint            | Hungary                   | 5                              |
| Krona             | Sweden                    | 12                             |
| Kuna              | Croatia                   | 12                             |
| Lev               | Bulgaria                  | – 2                            |
| Pound sterling    | United Kingdom            | 27                             |
| Romanian leu      | Romania                   | 5                              |
| Zloty             | Poland                    | 9                              |
| Króna             | Iceland                   | 28                             |
| Norwegian krone   | Norway                    | 42                             |
| Swiss franc       | Liechtenstein             | 4                              |
| Swiss franc       | Switzerland               | 4                              |
| Australian dollar | Australia                 | 13                             |
| Canadian dollar   | Canada                    | 27                             |
| US dollar         | United States             | 56                             |
| Yen               | Japan                     | 3                              |

## COMMISSION REGULATION (EU) 2019/229

of 7 February 2019

**amending Regulation (EC) No 2073/2005 on microbiological criteria for foodstuffs as regards certain methods, the food safety criterion for *Listeria monocytogenes* in sprouted seeds, and the process hygiene criterion and food safety criterion for unpasteurised fruit and vegetable juices (ready-to-eat)**

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs <sup>(1)</sup>, and in particular Article 4(4) and Article 12 thereof,

Whereas:

- (1) Commission Regulation (EC) No 2073/2005 <sup>(2)</sup> lays down the microbiological criteria for certain micro-organisms and the implementing rules to be complied with by food business operators in respect of the general and specific hygiene requirements referred to in Article 4 of Regulation (EC) No 852/2004.
- (2) The European Committee for Standardisation and the International Organisation for Standardisation recently revised a number of reference methods and a protocol to verify compliance with microbiological criteria. Regulation (EC) No 2073/2005 therefore needs to be updated accordingly. The update should concern in particular the requirements for the use of alternative methods in light of the revised reference standard protocol EN ISO 16140-2, the way results are reported in accordance with the new revised methods and the new references of certain methods for the detection of *Salmonella* (EN ISO 6579-1), of *Cronobacter* (EN ISO 22964) and of staphylococcal enterotoxin (EN ISO 19020), for the detection and the quantification of histamine (EN ISO 19343), for the enumeration of aerobic colony count (EN ISO 4833-1) and for the colony-count method for *Enterobacteriaceae* (EN ISO 21528).
- (3) The micro-organism *Enterobacter sakazakii* was reclassified in 2007 and was named *Cronobacter* spp.
- (4) The full names of the two *Salmonella* serotypes are '*Salmonella enterica* subsp. *enterica* serotype Typhimurium' and '*Salmonella enterica* subsp. *enterica* serotype Enteritidis'. In accordance with the recommendations of the World Health Organisation Collaborating Centre for Reference and Research on *Salmonella* <sup>(3)</sup>, Regulation (EC) No 2073/2005 should refer to those serotypes in the same way.
- (5) Regulation (EC) No 2073/2005 sets a food safety criterion for '*Listeria monocytogenes* in ready-to-eat foods unable to support the growth of *Listeria monocytogenes*, other than those intended for infants and for special medical purposes'. In accordance with an opinion of the European Food Safety Authority of 15 November 2011 <sup>(4)</sup>, sprouted seeds support the growth of *Listeria monocytogenes* and should therefore be covered by the criterion for ready-to-eat foods able to support the growth of *Listeria monocytogenes*, other than those intended for infants and for special medical purposes.
- (6) Annex I to Regulation (EC) No 2073/2005 sets a food safety criterion for *Salmonella* and a process hygiene criterion for *E. coli* for unpasteurised fruit and vegetable juices (ready-to-eat). Given that alternative processes to pasteurisation exist, which achieve a similar bactericidal effect, the food safety criterion for *Salmonella* and a process hygiene criterion for *E. coli* for unpasteurised fruit and vegetable juices (ready-to-eat) should not apply to fruit and vegetable juices (ready-to-eat) that have been subject to bactericidal process with a similar effect to pasteurisation on *E. coli* and *Salmonella*.
- (7) It is appropriate to transitionally allow current alternative methods to be further applied in order to give sufficient time to food business operators to adapt their methods, as some certificates of alternative methods based on the previous standard ISO 16140:2003 may still be valid until end of 2021.

<sup>(1)</sup> OJ L 139, 30.4.2004, p. 1.<sup>(2)</sup> Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs (OJ L 338, 22.12.2005, p. 1).<sup>(3)</sup> Popoff M Y, Le Minor L. Antigenic formulas of the *Salmonella* serovars, 7th revision. World Health Organisation Collaborating Centre for Reference and Research on *Salmonella*. Paris, France: Pasteur Institute; 1997.<sup>(4)</sup> EFSA Scientific Opinion on the risk posed by Shiga toxin-producing *Escherichia coli* (STEC) and other pathogenic bacteria in seeds and sprouted seeds; EFSA Journal 2011;9(11):2424.

- (8) Regulation (EC) No 2073/2005 should therefore be amended accordingly.
- (9) The measures provided for in this Regulation are in accordance with the opinion of the Standing Committee on Plants, Animals, Food and Feed,

HAS ADOPTED THIS REGULATION:

*Article 1*

**Amendments to Regulation (EC) No 2073/2005**

Regulation (EC) No 2073/2005 is amended as follows:

(1) in Article 2 the following points are inserted after point (m):

- ‘(n) “a broad range of foods”, as referred to in EN ISO 16140-2, means food as defined by the first subparagraph of Article 2 of Regulation (EC) No 178/2002 of the European Parliament and of the Council (\*);
- (o) “independent certification body” means a body which is independent from the organisation that manufactures or distributes the alternative method and which provides a written assurance, in the form of a certificate, testifying that the validated alternative method meets the requirements of EN ISO 16140-2;
- (p) “production process assurance of the manufacturer” means a production process whose management system guarantees that the validated alternative method remains conform to the characteristics required by EN ISO 16140-2 and ensures that mistakes and defects in the alternative method are prevented;
- (\*) Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, p. 1).’;

(2) Article 5 is amended as follows:

(a) the third subparagraph of paragraph 2 is replaced by the following:

‘Food business operators manufacturing dried infant formulae or dried foods for special medical purposes intended for infants below six months, which pose a *Cronobacter* spp. risk shall monitor the processing areas and equipment for Enterobacteriaceae as part of their sampling scheme.’;

(b) the third and fourth subparagraphs of paragraph 5 are replaced by the following:

‘The use of alternative analytical methods is acceptable provided they are:

- validated against the specific reference method provided for in Annex I in accordance with the protocol set out in standard EN ISO 16140-2, and
- validated for the food category specified in the relevant microbiological criterion set in Annex I the compliance with which is verified by the food business operator, or validated for a broad range of food as referred to in EN ISO 16140-2.

Proprietary methods may be used as alternative analytical methods, provided they are:

- validated, in accordance with the protocol set out in standard EN ISO 16140-2, against the specific reference method provided for verifying compliance with the microbiological criteria laid down in Annex I, as provided for in the third subparagraph, and
- certified by an independent certification body.

The certification of the proprietary method referred to in the second indent of the fourth subparagraph shall:

- be subject, at least every 5 years, to reassessment through renewal procedures,
- show that the production process assurance of the manufacturer was evaluated, and
- include a summary of or a reference to the validation results of the proprietary method and a statement on the quality management of the production process of the method.

Food business operators may use other analytical methods than those validated or certified as provided for in the third, fourth and fifth subparagraphs, where such methods have been validated in accordance with internationally accepted protocols and their use has been authorised by the competent authority.’;

(3) Annex I is amended in accordance with the Annex to this Regulation.

*Article 2*

**Transitional provision**

Until 31 December 2021, food business operators may apply the alternative analytical methods referred to in Article 5 of Regulation (EC) No 2073/2005 applicable before being amended by Article 1 of this Regulation.

*Article 3*

**Entry into force**

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 7 February 2019.

*For the Commission*

*The President*

Jean-Claude JUNKER

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## ANNEX

Annex I to Regulation (EC) No 2073/2005 is amended as follows:

(1) Chapter 1 is amended as follows:

- (a) in rows 1.1, 1.2, 1.4 to 1.20, 1.22 to 1.24, 1.28 and 1.29, in the column 'Limits', the term 'Absence' is replaced by the terms 'Not detected';
- (b) in the column 'Analytical reference method':
  - (i) in rows 1.4 to 1.20, 1.22 and 1.23, 'EN/ISO 6579' is replaced by 'EN ISO 6579-1';
  - (ii) in rows 1.21, the terms 'European screening method of the CRL for coagulase positive staphylococci <sup>(13)</sup>' are replaced by the terms 'EN ISO 19020';
  - (iii) in row 1.24, 'ISO/TS 22964' is replaced by 'EN ISO 22964';
  - (iv) in rows 1.26 to 1.27a, 'HPLC <sup>(19)</sup>' is replaced by 'EN ISO 19343';
  - (v) in row 1.28, 'EN/ISO 6579 (for detection) White- Kaufmann-Le Minor scheme (for serotyping)' is replaced by 'EN ISO 6579-1 (for detection) White- Kauffmann-Le Minor scheme (for serotyping)';
- (c) in row 1.24, in the column 'Micro-organisms/their toxins, metabolites', the terms '*Enterobacter sakazakii*' are deleted;
- (d) in row 1.28, in the column 'Micro-organisms/their toxins, metabolites', the terms '*Salmonella typhimurium* <sup>(21)</sup> *Salmonella enteritidis*' are replaced by the terms '*Salmonella* Typhimurium <sup>(21)</sup> *Salmonella* Enteritidis';
- (e) in the second indent of footnote 4, the terms 'excluding sprouted seeds,' are deleted;
- (f) footnotes 13 and 19 are deleted;
- (g) in footnote 14, the terms '*E. sakazakii*' are replaced by the terms '*Cronobacter* spp.';
- (h) under the heading 'Interpretation of the test results', the terms '*Enterobacter sakazakii*' are replaced by the terms '*Cronobacter* spp.';
- (i) in row 1.20, in the column 'Food category', the terms 'Unpasteurised fruit and vegetable juices (ready- to-eat)' are replaced by the following:
 

'Unpasteurised (\*) fruit and vegetable juices (ready- to-eat)

(\*) The term unpasteurised means that the juice has not been subjected to pasteurisation obtained by time-temperature combinations or to other processes validated to achieve an equivalent bactericidal effect to pasteurisation as regards its effect on *Salmonella*.

(2) Chapter 2 is amended as follows:

- (a) in rows 2.1.1, 2.1.2., 2.1.6., 2.1.7. the terms 'ISO 4833' are replaced by the terms 'EN ISO 4833-1';
- (b) in rows 2.1.3 to 2.1.5, 2.2.9 and 2.2.10, in the column 'Limits', the term 'Absence' is replaced by the terms 'Not detected';
- (c) in the column 'Analytical reference method':
  - (i) in rows 2.1.1, 2.1.2, 2.2.1, 2.2.7, 2.2.8 and 2.3.1, the terms 'ISO 21528-2' are replaced by the terms 'EN ISO 21528-2';
  - (ii) in row 2.1.3 and 2.1.4, the terms 'EN/ISO 6579' are replaced by the terms 'EN ISO 6579-1';
  - (iii) in row 2.1.5, the terms 'EN/ISO 6579 (for detection)' are replaced by the terms 'EN ISO 6579-1';
  - (iv) in rows 2.2.9 and 2.2.10, the terms 'ISO 21528-1' are replaced by the terms 'EN ISO 21528-1';
- (d) in Section 2.1 'Meat and products thereof', footnote 10 is replaced by the following:
 

'Where *Salmonella* spp. is found, the isolates shall be further serotyped for *Salmonella* Typhimurium and *Salmonella* Enteritidis in order to verify compliance with the microbiological criterion set out in Row 1.28 of Chapter 1.';

- (e) in Section 2.2 'Milk and dairy products', in footnote 9, the terms 'E. sakazakii' are replaced by the terms 'Cronobacter spp.';
- (f) in row 2.5.2, in the column 'Food category', the terms 'Unpasteurised fruit and vegetable juices (ready-to-eat)' are replaced by the following:

'Unpasteurised (\*) fruit and vegetable juices (ready-to-eat)

(\*) The term unpasteurised means that the juice has not been subjected to pasteurisation obtained by time-temperature combinations or to other processes validated to achieve an equivalent bactericidal effect to pasteurisation as regards its effect on *E.coli*.

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**COMMISSION IMPLEMENTING REGULATION (EU) 2019/230****of 7 February 2019**

**correcting certain language versions of Implementing Regulation (EU) 2017/2330 concerning the authorisation of Iron(II) carbonate, Iron(III) chloride hexahydrate, Iron(II) sulphate monohydrate, Iron(II) sulphate heptahydrate, Iron(II) fumarate, Iron(II) chelate of amino acids hydrate, Iron(II) chelate of protein hydrolysates and Iron(II) chelate of glycine hydrate as feed additives for all animal species and of Iron dextran as feed additive for piglets and amending Regulations (EC) No 1334/2003 and (EC) No 479/2006**

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 1831/2003 of the European Parliament and of the Council of 22 September 2003 on additives for use in animal nutrition <sup>(1)</sup>, and in particular Article 9(2) thereof,

Whereas:

- (1) The Croatian, Czech and French language versions of Commission Implementing Regulation (EU) 2017/2330 <sup>(2)</sup> contain an error in Article 3 as regards the use of ferric oxide in animal nutrition.
- (2) The Croatian, Czech and French language versions of Implementing Regulation (EU) 2017/2330 should therefore be corrected accordingly. The other language versions are not affected.
- (3) The measures provided for in this Regulation are in accordance with the opinion of the Standing Committee on Plants, Animals, Food and Feed,

HAS ADOPTED THIS REGULATION:

*Article 1*

(does not concern the English language)

*Article 2*

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 7 February 2019.

*For the Commission*

*The President*

Jean-Claude JUNCKER

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<sup>(1)</sup> OJ L 268, 18.10.2003, p. 29.

<sup>(2)</sup> Commission Implementing Regulation (EU) 2017/2330 of 14 December 2017 concerning the authorisation of Iron(II) carbonate, Iron(III) chloride hexahydrate, Iron(II) sulphate monohydrate, Iron(II) sulphate heptahydrate, Iron(II) fumarate, Iron(II) chelate of amino acids hydrate, Iron(II) chelate of protein hydrolysates and Iron(II) chelate of glycine hydrate as feed additives for all animal species and of Iron dextran as feed additive for piglets and amending Regulations (EC) No 1334/2003 and (EC) No 479/2006 (OJ L 333, 15.12.2017, p. 41).

**COMMISSION IMPLEMENTING REGULATION (EU) 2019/231****of 7 February 2019****on the minimum selling price for skimmed milk powder for the 32nd partial invitation to tender within the tendering procedure opened by Implementing Regulation (EU) 2016/2080**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) No 1308/2013 of the European Parliament and of the Council of 17 December 2013 establishing a common organisation of the markets in agricultural products and repealing Council Regulations (EEC) No 922/72, (EEC) No 234/79, (EC) No 1037/2001 and (EC) No 1234/2007 <sup>(1)</sup>,

Having regard to Commission Implementing Regulation (EU) 2016/1240 of 18 May 2016 laying down rules for the application of Regulation (EU) No 1308/2013 of the European Parliament and of the Council with regard to public intervention and aid for private storage <sup>(2)</sup>, and in particular Article 32 thereof,

Whereas:

- (1) Commission Implementing Regulation (EU) 2016/2080 <sup>(3)</sup> has opened the sale of skimmed milk powder by a tendering procedure.
- (2) In the light of the tenders received for the 32nd partial invitation to tender, a minimum selling price should be fixed.
- (3) The measures provided for in this Regulation are in accordance with the opinion of the Committee for the Common Organisation of the Agricultural Markets,

HAS ADOPTED THIS REGULATION:

*Article 1*

For the 32nd partial invitation to tender for the selling of skimmed milk powder within the tendering procedure opened by Implementing Regulation (EU) 2016/2080, in respect of which the period during which tenders were to be submitted ended on 5 February 2019, the minimum selling price shall be 162,20 EUR/100 kg.

*Article 2*

This Regulation shall enter into force on the day of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 7 February 2019.

*For the Commission,  
On behalf of the President,  
Jerzy PLEWA*

*Director-General  
Directorate-General for Agriculture and Rural Development*

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<sup>(1)</sup> OJ L 347, 20.12.2013, p. 671.

<sup>(2)</sup> OJ L 206, 30.7.2016, p. 71.

<sup>(3)</sup> Commission Implementing Regulation (EU) 2016/2080 of 25 November 2016 opening the sale of skimmed milk powder by a tendering procedure (OJ L 321, 29.11.2016, p. 45).

# DECISIONS

## COUNCIL DECISION (EU) 2019/232

of 16 July 2018

**establishing the position to be adopted on behalf of the European Union within the Regional Steering Committee of the Transport Community as regards the adoption of the rules of procedure of that committee**

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 91 and Article 100(2), in conjunction with Article 218(9) thereof,

Having regard to the proposal from the European Commission,

Whereas:

- (1) The Treaty establishing the Transport Community ('the TCT') was signed by the Union in accordance with Council Decision (EU) 2017/1937 <sup>(1)</sup>.
- (2) In accordance with Article 41(3) of the TCT, the TCT applies provisionally between the Union, the Republic of Albania, Bosnia and Herzegovina and Kosovo \* since 9 October 2017, and between those Parties and the Republic of Serbia since 29 November 2017.
- (3) Pursuant to Article 24(5) of the TCT, the Regional Steering Committee of the Transport Community ('the Steering Committee') is to adopt its rules of procedure.
- (4) It is appropriate to establish the position to be adopted on the Union's behalf within the Steering Committee as regards the adoption of the rules of procedure of that committee, since the decision as regards those rules will be binding on the Union.
- (5) The position of the Union within the Steering Committee should therefore be based on the attached draft decision,

HAS ADOPTED THIS DECISION:

### *Article 1*

The position to be adopted on behalf of the Union within the Regional Steering Committee of the Transport Community ('the Steering Committee') shall be based on the draft Decision of the Steering Committee attached to this Decision.

Minor changes to that draft Decision may be agreed to by the representatives of the Union within the Steering Committee without further decision by the Council.

<sup>(1)</sup> Council Decision (EU) 2017/1937 of 11 July 2017 on the signing, on behalf of the European Union, and provisional application of the Treaty establishing the Transport Community (OJ L 278, 27.10.2017, p. 1).

\* This designation is without prejudice to positions on status, and is in line with United Nations Security Council Resolution 1244 (1999) and the ICJ Opinion on the Kosovo declaration of independence.

*Article 2*

This Decision is addressed to the Commission.

Done at Brussels, 16 July 2018.

*For the Council*  
*The President*  
J. BOGNER-STRAUSS

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DRAFT

**DECISION No 2018/1 OF THE REGIONAL STEERING COMMITTEE OF THE TRANSPORT  
COMMUNITY**

**of ...**

**on the adoption of its Rules of Procedure**

THE REGIONAL STEERING COMMITTEE OF THE TRANSPORT COMMUNITY,

Having regard to the Treaty establishing the Transport Community, and in particular Article 24(5) thereof,

HAS DECIDED AS FOLLOWS:

*Sole Article*

The Rules of Procedure of the Regional Steering Committee of the Transport Community, attached to this Decision, are hereby adopted.

Done in ..., on ... 2018.

*For the Regional Steering Committee  
The President*

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**RULES OF PROCEDURE OF THE REGIONAL STEERING COMMITTEE OF THE TRANSPORT COMMUNITY****I. GENERAL**

1. These Rules of Procedure establish the internal procedures for operation of the Regional Steering Committee ('the Steering Committee') as an institution under the Treaty establishing the Transport Community ('the Treaty') between the European Union and the South East European Parties (the Republic of Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Kosovo \*, Montenegro and the Republic of Serbia).
2. In case of any contradiction between these Rules of Procedure and the Treaty, the provisions of the Treaty shall apply.

**II. MEMBERS, OBSERVERS AND OTHER PARTICIPANTS**

1. The members of the Steering Committee should, in principle, be senior officials in the respective ministries in charge of transport.
2. The act of appointment of a member shall provide evidence that the member is mandated to express the position of the respective Contracting Party in a manner binding on that Party.
3. Without prejudice to the position of observers in accordance with the second sentence of Article 24(2) of the Treaty, the Presidency and the Vice-Presidency as referred to in paragraph 2 of Section III may, where appropriate, agree to invite representatives of other states, international organisations or other bodies, including representatives of the civil society, to attend, on an ad hoc basis, specific meetings of the Steering Committee or one or more parts thereof.
4. Where the Presidency and the Vice-Presidency agree to invite representatives of other states, international organisations or other bodies, the Presidency shall inform the Contracting Parties and the Permanent Secretariat of the Transport Community ('the Secretariat') at least three weeks before the meeting. The Contracting Parties and the Secretariat may submit their views to the Presidency within five working days from receiving this information.

**III. PRESIDENCY**

1. Each South East European Party shall hold the Presidency of the Steering Committee for one calendar year and shall follow in alphabetical order as provided in subparagraph (b) of Article 2(1) of the Treaty. The first South East European Party to hold the Presidency shall be the Republic of Albania.
2. The Presidency shall chair the Steering Committee meetings. It shall be assisted by one representative of the European Union who shall hold the Vice-Presidency.
3. Should the Presidency not be in a position to perform its duties for a particular meeting, that meeting shall be chaired by the representative of the European Union who holds the Vice-Presidency.

**IV. PREPARATION OF MEETINGS**

1. The meetings of the Steering Committee shall take place at the seat of the Secretariat. Nevertheless, the Presidency may decide on another place for a Steering Committee meeting after consultations with the Vice-Presidency and the Secretariat and considering the relevant financial, administrative and organisational aspects. Except in duly justified cases, that decision shall be made at least two months prior to the relevant meeting.
2. Contributions by the Secretariat to the organisational costs of the meetings outside the seat of the Secretariat shall be subject to its internal budgetary rules.
3. The dates of the meetings shall be agreed by the Presidency, the Vice-Presidency and the Secretariat. In principle, the dates shall be agreed at least two months prior to the relevant meeting.

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\* This designation is without prejudice to positions on status, and is in line with United Nations Security Council Resolution 1244 (1999) and the ICJ Opinion on the Kosovo declaration of independence.

4. The draft agenda of the meeting shall be agreed by the Presidency and the Vice-Presidency. The draft agenda and any documents related to it shall be distributed to the members and the observers at least six weeks prior to the relevant meeting. The members may make comments and propose that new items be added. Material of interest to other states, international organisations or other bodies invited in accordance with paragraph 3 of Section II shall also be distributed to them.
5. The Secretariat shall be responsible for the preparation of the meetings. It shall inform the Presidency and the Vice-Presidency periodically and upon request about the preparation process and follow their requests and guidance in this regard.

V. MEETINGS OF THE STEERING COMMITTEE – PROCEDURAL RULES

1. The meetings of the Steering Committee shall not be public unless the Steering Committee decides otherwise.
2. Any member of the Steering Committee, observer or other participant of the meeting may be accompanied by officials who assist them. The names and functions of those officials shall be notified in advance to the Secretariat. As a principle, those officials shall not be more than three for any member, and not more than two for any observer in the meeting. However, the Presidency may further advise on the maximum number of representatives per delegation.
3. The Steering Committee shall be considered as meeting the required quorum only if four South East European Parties and the European Union are represented.
4. In accordance with Article 24(3) of the Treaty, the Steering Committee shall act by unanimity. Abstention by a member shall not prevent the Steering Committee from taking action provided that there is a quorum as required by paragraph 3 of this Section.
5. The agenda for the meeting shall be approved at its beginning. In urgent circumstances, new items may be included during the meeting subject to the agreement of the Presidency and the Vice-Presidency.
6. Observers may participate in the discussions and may make statements upon permission or when invited to do so by the Presidency.
7. Representatives of other states, international organisations or other bodies invited in accordance with paragraph 3 of Section II may participate in the discussions upon permission or when invited to do so by the Presidency, but they shall not take action of any kind in the Steering Committee.
8. The Conclusions of each meeting shall be drawn up with the assistance of the Secretariat.
9. The Conclusions shall record all measures adopted at the meeting as well as the positions of the members and any statement by observers regarding actions proposed to be taken by the Steering Committee.
10. The Conclusions shall be signed by the Presidency and distributed to the members and the observers. Where it is not possible to prepare the draft Conclusions by the end of the relevant meeting, the Presidency shall ensure that they are prepared and distributed within seven calendar days after the meeting. Any member may request corrections within seven calendar days upon receipt of the draft Conclusions. The Presidency shall arrange that the final version is distributed within seven days upon the expiry of the deadline for comments.
11. The Conclusions of meetings may not in any way restrict the scope or effects of legal acts or the Treaty. No statements or conclusions which contradict binding legal provisions shall be made. The Conclusions of meetings shall not form part of legal acts, nor shall they have any normative effect.

VI. FORMS OF ACTION AND PROCEDURE TO BE FOLLOWED BY THE STEERING COMMITTEE

General

1. The Steering Committee acts by adopting recommendations and decisions (together referred to as 'Measures'), according to each case.  
  
The adoption of rules intended to ensure the functioning of the Steering Committee shall be considered as being the adoption of a decision.
2. Once a Measure is adopted or amended, it shall promptly be signed by the Presidency and then circulated by the Secretariat to all Contracting Parties.

3. Measures shall enter into force on the day of their adoption, unless they provide otherwise.
4. Unless otherwise specified in these Rules of Procedure, the adoption or amendment of Measures shall follow the same procedure.
5. Any request for the adoption or amendment of a Measure from a member or the Secretariat shall be made in writing at least 30 calendar days before the meeting of the Steering Committee at which it shall be discussed.
6. The request shall be sent to the Presidency with all members and the Secretariat in copy. It shall be accompanied by relevant explanatory notes.
7. In duly justified cases, Measures may be adopted or amended without being obliged to adhere to the forms and procedures set out in paragraphs 4 to 6 of this Section.

#### Adoption of Measures by correspondence

8. The Steering Committee may adopt or amend Measures by correspondence, in the intervals between its meetings. Upon request by a member or the Secretariat for a Measure to be taken by correspondence, or upon its own initiative, the Presidency shall decide whether the matter warrants that a procedure by correspondence is to be followed, in consultation and agreement with the Vice-Presidency.
9. Where the Presidency has decided that a procedure by correspondence is to be followed, it shall instruct the Secretariat to dispatch the request to the members together with such information as the Presidency considers necessary, in consultation and agreement with the Vice-Presidency. In consultation and agreement with the Vice-Presidency, the Presidency shall also specify whether and, if so, under which conditions, amendments to the request may be made by the members.
10. In consultation and agreement with the Vice-Presidency, the Presidency shall determine the date and hour by which responses must be received, which shall in no case be earlier than 10 calendar days from the date of transmission of the information referred to in paragraph 9 of this Section. In exceptional circumstances, upon request or at its own discretion, the Presidency may, in consultation and agreement with the Vice-Presidency, extend the time limit for the receipt of responses. Any member who has not replied within the given time limit in writing, including via e-mail, shall be regarded as abstaining.
11. The Steering Committee shall act by unanimity. Unanimity shall be considered to have been achieved where at least four South East European Parties and the European Union have responded in favour of the Measure concerned and where no Party has opposed it.

#### VII. DISCLOSURE OF INFORMATION

1. Unless otherwise decided, the finalised documents of the meetings (agenda, Conclusions, etc.) shall be made public on the website of the Secretariat.
2. The right of access to documents held by the Steering Committee shall be laid down in accordance with Article 38(2) and (3) of the Treaty.

#### VIII. FINAL PROVISIONS

1. Observers and representatives of other states, international organisations or other bodies invited in accordance with paragraph 3 of Section II shall follow any requirements for confidentiality which apply to the members of the Steering Committee. Such requirements shall be reflected in the Conclusions of the relevant meeting.
2. Prior to attending relevant discussions, representatives of other states, international organisations or other bodies invited in accordance with paragraph 3 of Section II shall be requested to sign a confidentiality statement. Such a confidentiality statement shall contain a commitment to respect the confidentiality rules referred to in paragraph 1 of this Section. They shall be excluded from those discussions if they refuse to sign such a statement.
3. All acts of the Steering Committee shall be signed by the Presidency.

4. Any amendments to these Rules of Procedure shall be adopted by a decision of the Steering Committee.
5. If application of these Rules of Procedure to a specific situation gives rise to a difficulty of interpretation, the Presidency shall provide advice to resolve the situation, in consultation and agreement with the Vice-Presidency.
6. Following one year from the entry into force of these Rules of Procedure, based on practical experience with their application, the Secretariat may propose amendments to these Rules of Procedure as it deems useful or necessary. Where a member of the Steering Committee wishes to propose such an amendment, it shall consult first with the Secretariat.

These Rules of Procedure shall enter into force on the day of their adoption by the Steering Committee.

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**COUNCIL DECISION (EU) 2019/233****of 6 November 2018**

**on the position to be taken on behalf of the European Union in the relevant Committees of the United Nations Economic Commission for Europe as regards the proposals for modifications to UN Regulations Nos 3, 4, 6, 7, 11, 14, 16, 17, 19, 23, 24, 27, 29, 34, 37, 38, 43, 44, 46, 48, 50, 53, 60, 67, 69, 70, 74, 77, 83, 86, 87, 91, 94, 95, 98, 99, 100, 101, 104, 105, 110, 112, 113, 119, 121, 123, 128, 129, 132 and 137 and to UN Global Technical Regulation No 9, and as regards the proposals for three new UN Regulations**

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 114, in conjunction with Article 218(9) thereof,

Having regard to the proposal from the European Commission,

Whereas:

- (1) By Council Decision 97/836/EC <sup>(1)</sup>, the Union acceded to the Agreement of the United Nations Economic Commission for Europe (UNECE) concerning the adoption of uniform technical prescriptions for wheeled vehicles, equipment and parts which can be fitted to and/or be used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of those prescriptions (the 'Revised 1958 Agreement').
- (2) By Council Decision 2000/125/EC <sup>(2)</sup>, the Union acceded to the Agreement concerning the establishing of global technical regulations for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles (the 'Parallel Agreement').
- (3) Directive 2007/46/EC of the European Parliament and of the Council <sup>(3)</sup> replaced the approval systems of the Member States with a Union approval procedure and established a harmonised framework containing administrative provisions and general technical requirements for all new vehicles, systems, components and separate technical units. That Directive incorporated regulations adopted under the Revised 1958 Agreement ('UN Regulations') in the EU type-approval system, either as requirements for type-approval or as alternatives to Union legislation. Since the adoption of Directive 2007/46/EC, UN regulations have been increasingly incorporated into Union legislation.
- (4) In the light of experience and technical developments, the requirements relating to certain elements or features covered by UN Regulations Nos 3, 4, 6, 7, 11, 14, 16, 17, 19, 23, 24, 27, 29, 34, 37, 38, 43, 44, 46, 48, 50, 53, 60, 67, 69, 70, 74, 77, 83, 86, 87, 91, 94, 95, 98, 99, 100, 101, 104, 105, 110, 112, 113, 119, 121, 123, 128, 129, 132 and 137, as well as by UN Global Technical Regulation 9 need to be modified.
- (5) In order to clarify and consolidate the component-related requirements currently contained in several UN Regulations, three new UN Regulations on light-signalling devices (LSD), road illumination devices (RID) and retro-reflective devices (RRD) need to be adopted. They will replace and repeal UN Regulations Nos 3, 4, 6, 7, 19, 23, 27, 38, 50, 69, 70, 77, 87, 91, 98, 104, 112, 113, 119 and 123 without changing any of the detailed technical requirements already in force to date.
- (6) It is appropriate to establish the position to be taken on the Union's behalf in the Administrative Committee of the Revised 1958 Agreement and in the Executive Committee of the Parallel Agreement as regards the adoption of those modifications and those new UN Regulations, as the Regulations will be binding on the Union and capable of decisively influencing the content of Union law in the field of vehicle type-approval.

<sup>(1)</sup> Council Decision 97/836/EC of 27 November 1997 with a view to accession by the European Community to the Agreement of the United Nations Economic Commission for Europe concerning the adoption of uniform technical prescriptions for wheeled vehicles, equipment and parts which can be fitted to and/or be used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions ('Revised 1958 Agreement') (OJ L 346, 17.12.1997, p. 78).

<sup>(2)</sup> Council Decision 2000/125/EC of 31 January 2000 concerning the conclusion of the Agreement concerning the establishing of global technical regulations for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles ('Parallel Agreement') (OJ L 35, 10.2.2000, p. 12).

<sup>(3)</sup> Directive 2007/46/EC of the European Parliament and of the Council of 5 September 2007 establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles (Framework Directive) (OJ L 263, 9.10.2007, p. 1).

- (7) In those Committees, the Union is to be represented by the Commission in accordance with Article 17(1) of the Treaty on European Union,

HAS ADOPTED THIS DECISION:

*Article 1*

The position to be taken on the Union's behalf in the Administrative Committee of the Revised 1958 Agreement and the Executive Committee of the Parallel Agreement during the period from 12 to 16 November 2018 shall be to vote in favour of the proposals listed in the Annex to this Decision.

*Article 2*

This Decision is addressed to the Commission.

Done at Brussels, 6 November 2018.

*For the Council*  
*The President*  
H. LÖGER

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## ANNEX

| Regulation No | Agenda item title                                                                                                                                                        | Document reference <sup>(1)</sup> |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| 3             | Proposal for the 03 series of amendments to UN Regulation No 3 (Retro-reflecting devices)                                                                                | ECE/TRANS/WP.29/2018/91           |
| 4             | Proposal for the 01 series of amendments to UN Regulation No 4 (Illumination of rear registration plates)                                                                | ECE/TRANS/WP.29/2018/92           |
| 6             | Proposal for the 02 series of amendments to UN Regulation No 6 (Direction indicators)                                                                                    | ECE/TRANS/WP.29/2018/93           |
| 7             | Proposal for the 03 series of amendments to UN Regulation No 7 (Position, stop and end-outline lamps)                                                                    | ECE/TRANS/WP.29/2018/94           |
| 11            | Proposal for Supplement 2 to the 04 series of amendments to UN Regulation No 11 (Door latches and hinges)                                                                | ECE/TRANS/WP.29/2018/127          |
| 11            | Proposal for Corrigendum 1 to the 04 series of amendments to UN Regulation No 11 (Door latches and hinges)                                                               | ECE/TRANS/WP.29/2018/155          |
| 14            | Proposal for Corrigendum 2 to Revision 5 to UN Regulation No 14 (Safety-belt anchorages)                                                                                 | ECE/TRANS/WP.29/2018/156          |
| 16            | Proposal for Supplement 11 to the 06 series of amendments to UN Regulation No 16 (Safety-belts)                                                                          | ECE/TRANS/WP.29/2018/128          |
| 16            | Proposal for Supplement 4 to the 07 series of amendments to UN Regulation No 16 (Safety-belts)                                                                           | ECE/TRANS/WP.29/2018/129          |
| 16            | Proposal for the 08 series of amendments to UN Regulation No 16 (Safety-belts)                                                                                           | ECE/TRANS/WP.29/2018/141          |
| 17            | Proposal for the 09 series of amendments to UN Regulation No 17 (Strength of seats)                                                                                      | ECE/TRANS/WP.29/2018/142          |
| 19            | Proposal for the 05 series of amendments to UN Regulation No 19 (Front fog lamps)                                                                                        | ECE/TRANS/WP.29/2018/95           |
| 23            | Proposal for the 01 series of amendments to UN Regulation No 23 (Reversing lamps)                                                                                        | ECE/TRANS/WP.29/2018/96           |
| 24            | Proposal for Supplement 4 to the 03 series of amendments to UN Regulation No 24 (Visible pollutants, measurement of power of Compression Ignition engine (Diesel smoke)) | ECE/TRANS/WP.29/2018/143          |
| 27            | Proposal for the 05 series of amendments to UN Regulation No 27 (Advance warning triangles)                                                                              | ECE/TRANS/WP.29/2018/97           |
| 29            | Proposal for Supplement 4 to the 03 series of amendments to UN Regulation No 29 (Cabs of commercial vehicles)                                                            | ECE/TRANS/WP.29/2018/130          |

| Regulation No | Agenda item title                                                                                                                        | Document reference <sup>(1)</sup> |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| 34            | Proposal for Supplement 6 to the 02 series of amendments to UN Regulation No 34 (Prevention of fire risks)                               | ECE/TRANS/WP.29/2018/120          |
| 34            | Proposal for Supplement 2 to the 03 series of amendments to UN Regulation No 34 (Prevention of fire risks)                               | ECE/TRANS/WP.29/2018/121          |
| 37            | Proposal for Supplement 47 to the 03 series of amendments to UN Regulation No 37 (Filament light sources)                                | ECE/TRANS/WP.29/2018/83           |
| 38            | Proposal for the 01 series of amendments to UN Regulation No 38 (Rear fog lamps)                                                         | ECE/TRANS/WP.29/2018/98           |
| 43            | Proposal for Supplement 8 to the 01 series of amendments to UN Regulation No 43 (Safety glazing)                                         | ECE/TRANS/WP.29/2018/122          |
| 44            | Proposal Supplement 15 to the 04 series of amendments to UN Regulation No 44 (Child restraint systems)                                   | ECE/TRANS/WP.29/2018/131          |
| 46            | Proposal for Supplement 6 to the 04 series of amendments to UN Regulation No 46 (Devices for indirect vision)                            | ECE/TRANS/WP.29/2018/123          |
| 48            | Proposal for Supplement 11 to the 06 series of amendments to UN Regulation No 48 (Installation of lighting and light-signalling devices) | ECE/TRANS/WP.29/2018/84           |
| 48            | Proposal for Supplement 12 to the 05 series of amendments to UN Regulation No 48 (Installation of lighting and light-signalling devices) | ECE/TRANS/WP.29/2018/85           |
| 48            | Proposal for Supplement 11 to the 06 series of amendments to UN Regulation No 48 (Installation of lighting and light-signalling devices) | ECE/TRANS/WP.29/2018/99/Rev.1     |
| 48            | Proposal for Supplement 12 to the 05 series of amendments to UN Regulation No 48 (Installation of lighting and light-signalling devices) | ECE/TRANS/WP.29/2018/100          |
| 48            | Proposal for Supplement 18 to the 04 series of amendments to UN Regulation No 48 (Installation of lighting and light-signalling devices) | ECE/TRANS/WP.29/2018/101          |
| 48            | Proposal for Supplement 6 to the 03 series of amendments to UN Regulation No 48 (Installation of lighting and light-signalling devices)  | ECE/TRANS/WP.29/2018/102          |
| 50            | Proposal for the 01 series of amendments to UN Regulation No 50 (Position, stop, direction indicator lamps for mopeds and motorcycles)   | ECE/TRANS/WP.29/2018/103          |

| Regulation No | Agenda item title                                                                                                                                                    | Document reference <sup>(1)</sup> |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| 53            | Proposal for Supplement 2 to the 02 series of amendments to UN Regulation No 53 (Installation of lighting and light-signalling devices for L <sub>3</sub> vehicles)  | ECE/TRANS/WP.29/2018/86           |
| 53            | Proposal for Supplement 20 to the 01 series of amendments to UN Regulation No 53 (Installation of lighting and light-signalling devices for L <sub>3</sub> vehicles) | ECE/TRANS/WP.29/2018/87           |
| 53            | Proposal for Supplement 2 to the 02 series of amendments to UN Regulation No 53 (Installation of lighting and light-signalling devices for L <sub>3</sub> vehicles)  | ECE/TRANS/WP.29/2018/104/Rev.1    |
| 53            | Proposal for Supplement 20 to the 01 series of amendments to UN Regulation No 53 (Installation of lighting and light-signalling devices for L <sub>3</sub> vehicles) | ECE/TRANS/WP.29/2018/105          |
| 60            | Proposal for Corrigendum 1 to Revision 1 to UN Regulation No 60 (Driver operated controls for mopeds/motorcycles)                                                    | ECE/TRANS/WP.29/2018/152          |
| 67            | Proposal for the 02 series of amendments to UN Regulation No 67 (LPG vehicles)                                                                                       | ECE/TRANS/WP.29/2018/124          |
| 69            | Proposal for the 02 series of amendments to UN Regulation No 69 (Rear-marking plates for slow moving vehicles)                                                       | ECE/TRANS/WP.29/2018/106          |
| 70            | Proposal for the 02 series of amendments to UN Regulation No 70 (Rear-marking plates for heavy and long vehicles)                                                    | ECE/TRANS/WP.29/2018/107          |
| 74            | Proposal for Supplement 10 to the 01 series of amendments to UN Regulation No 74 (Installation of lighting and light-signalling devices for mopeds)                  | ECE/TRANS/WP.29/2018/88           |
| 74            | Proposal for Supplement 10 to the 01 series of amendments to UN Regulation No 74 (Installation of lighting and light-signalling devices for mopeds)                  | ECE/TRANS/WP.29/2018/108/Rev.1    |
| 77            | Proposal for the 01 series of amendments to UN Regulation No 77 (Parking lamps)                                                                                      | ECE/TRANS/WP.29/2018/109          |
| 83            | Proposal for Supplement 2 to the 03 series of amendments to UN Regulation No 83 (Emissions of M <sub>1</sub> and N <sub>1</sub> vehicles)                            | ECE/TRANS/WP.29/2018/144          |
| 83            | Proposal for Supplement 1 to the 04 series of amendments to UN Regulation No 83 (Emissions of M <sub>1</sub> and N <sub>1</sub> vehicles)                            | ECE/TRANS/WP.29/2018/145          |
| 83            | Proposal for Supplement 12 to the 05 series of amendments to UN Regulation No 83 (Emissions of M <sub>1</sub> and N <sub>1</sub> vehicles)                           | ECE/TRANS/WP.29/2018/146          |
| 83            | Proposal for Supplement 12 to the 06 series of amendments to UN Regulation No 83 (Emissions of M <sub>1</sub> and N <sub>1</sub> vehicles)                           | ECE/TRANS/WP.29/2018/147          |
| 83            | Proposal for Supplement 18 to the 07 series of amendments to UN Regulation No 83 (Emissions of M <sub>1</sub> and N <sub>1</sub> vehicles)                           | ECE/TRANS/WP.29/2018/148          |

| Regulation No | Agenda item title                                                                                                                                                 | Document reference (1)                  |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| 86            | Proposal for Supplement 1 to the 01 series of amendments to UN Regulation No 86 (Installation of lighting and light-signalling devices for agricultural vehicles) | ECE/TRANS/WP.29/2018/110/Rev.1          |
| 86            | Proposal for Supplement 7 to UN Regulation No 86 (Installation of lighting and light-signalling devices for agricultural vehicles)                                | ECE/TRANS/WP.29/2018/111                |
| 87            | Proposal for the 01 series of amendments to UN Regulation No 87 (Daytime running lamps)                                                                           | ECE/TRANS/WP.29/2018/112                |
| 91            | Proposal for the 01 series of amendments to UN Regulation No 91 (Side marker lamps)                                                                               | ECE/TRANS/WP.29/2018/113                |
| 94            | Proposal Supplement 1 to the 03 series of amendments to UN Regulation No 94 (Frontal collision)                                                                   | ECE/TRANS/WP.29/2018/132                |
| 95            | Proposal for Supplement 7 to the 03 series of amendments to UN Regulation No 95 (Lateral collision)                                                               | ECE/TRANS/WP.29/2018/133                |
| 98            | Proposal for the 02 series of amendments to UN Regulation No 98 (Headlamps with gas-discharge light sources)                                                      | ECE/TRANS/WP.29/2018/114                |
| 99            | Proposal for Supplement 14 to the 03 series of amendments to UN Regulation No 99 (Gas-discharge light sources)                                                    | ECE/TRANS/WP.29/2018/89                 |
| 100           | Proposal for Supplement 5 to the 01 series of amendments to UN Regulation No 100 (Electric power trained vehicles)                                                | ECE/TRANS/WP.29/2018/134 + WP.29-176-03 |
| 100           | Proposal for Supplement 4 to the 02 series of amendments to UN Regulation No 100 (Electric power trained vehicles)                                                | ECE/TRANS/WP.29/2018/135                |
| 101           | Proposal for Supplement 10 to UN Regulation No 101 (CO <sub>2</sub> emission/fuel consumption)                                                                    | ECE/TRANS/WP.29/2018/149                |
| 101           | Proposal for Supplement 8 to 01 series of amendments to UN Regulation No 101 (CO <sub>2</sub> emission/fuel consumption)                                          | ECE/TRANS/WP.29/2018/150                |
| 104           | Proposal for the 01 series of amendments to UN Regulation No 104 (Retro-reflective markings)                                                                      | ECE/TRANS/WP.29/2018/115                |
| 105           | Proposal for Supplement 1 to the 06 series of amendments to UN Regulation No 105 (ADR vehicles)                                                                   | ECE/TRANS/WP.29/2018/126                |
| 110           | Proposal for Supplement 1 to the 03 series of amendments to UN Regulation No 110 (CNG and LNG vehicles)                                                           | ECE/TRANS/WP.29/2018/125                |
| 110           | Proposal for Corrigendum 1 to Revision 3 to UN Regulation No 110 (CNG and LNG vehicles)                                                                           | ECE/TRANS/WP.29/2018/153                |
| 112           | Proposal for the 02 series of amendments to UN Regulation No 112 (Headlamps emitting an asymmetrical passing-beam)                                                | ECE/TRANS/WP.29/2018/116                |

| Regulation No | Agenda item title                                                                                                                  | Document reference <sup>(1)</sup> |
|---------------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| 113           | Proposal for the 03 series of amendments to UN Regulation No 113 (Headlamps emitting a symmetrical passing-beam)                   | ECE/TRANS/WP.29/2018/117          |
| 119           | Proposal for the 02 series of amendments to UN Regulation No 119 (Cornering lamps)                                                 | ECE/TRANS/WP.29/2018/118          |
| 121           | Proposal for Corrigendum 1 to Revision 2 to UN Regulation No 121 (Identification of controls, tell-tales and indicators)           | ECE/TRANS/WP.29/2018/154          |
| 123           | Proposal for the 02 series of amendments to UN Regulation No 123 (Adaptive front lighting systems (AFS))                           | ECE/TRANS/WP.29/2018/119          |
| 128           | Proposal for Supplement 8 to the original version of UN Regulation No 128 (LED light sources)                                      | ECE/TRANS/WP.29/2018/90           |
| 129           | Proposal for Supplement 8 to UN Regulation No 129 (Enhanced Child Restraint Systems)                                               | ECE/TRANS/WP.29/2018/136          |
| 129           | Proposal for Supplement 5 to the 01 series of amendments to UN Regulation No 129 (Enhanced Child Restraint Systems)                | ECE/TRANS/WP.29/2018/137          |
| 129           | Proposal for Supplement 4 to the 02 series of amendments to UN Regulation No 129 (Enhanced Child Restraint Systems)                | ECE/TRANS/WP.29/2018/138          |
| 129           | Proposal for Supplement 1 to the 03 series of amendments to UN Regulation No 129 (Enhanced Child Restraint Systems)                | ECE/TRANS/WP.29/2018/139          |
| 132           | Proposal for Supplement 1 to 01 series of amendments to UN Regulation No 132 (Retrofit Emissions Control devices (REC))            | ECE/TRANS/WP.29/2018/151          |
| 137           | Proposal for Supplement 2 to the 01 series of amendments to UN Regulation No 137. (Frontal impact with focus on restraint systems) | ECE/TRANS/WP.29/2018/140          |
| New UN Reg    | Proposal for a new UN Regulation on Light-Signalling Devices (LSD)                                                                 | ECE/TRANS/WP.29/2018/157          |
| New UN Reg    | Proposal for a new UN Regulation on Road Illumination Devices (RID)                                                                | ECE/TRANS/WP.29/2018/158          |
| New UN Reg    | Proposal for a new UN Regulation on Retro-Reflective Devices (RRD)                                                                 | ECE/TRANS/WP.29/2018/159          |

<sup>(1)</sup> All documents referenced in the table are publicly available at: <http://www.unece.org/trans/main/wp29/wp29wgs/wp29gen/gen2018.html>

| GTR No   | Agenda item title                                           | Document reference             |
|----------|-------------------------------------------------------------|--------------------------------|
| UN GTR 9 | Proposal for Amendment 2 to UN GTR No 9 (Pedestrian safety) | ECE/TRANS/WP.29/2018/160 & 161 |

**COUNCIL DECISION (EU) 2019/234****of 5 February 2019**

**on the position to be taken on behalf of the European Union within the Joint Council established under the Economic Partnership Agreement between the European Union and its Member States, of the one part, and the SADC EPA States, of the other part, as regards the adoption of the rules of procedure of the Joint Council and of the Trade and Development Committee**

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 207, in conjunction with Article 218(9) thereof,

Having regard to the proposal from the European Commission,

Whereas:

- (1) The Economic Partnership Agreement between the European Union and its Member States, of the one part, and the SADC EPA States, of the other part <sup>(1)</sup> ('the Agreement'), was signed by the European Union and its Member States on 10 June 2016. It has been provisionally applied between the Union, of the one part, and Botswana, Lesotho, Namibia, Eswatini and South Africa, of the other part, since 10 October 2016, and between the Union and Mozambique since 4 February 2018.
- (2) Pursuant to Article 102(1) of the Agreement, the Joint Council is to have the power to take decisions in respect of all matters covered by this Agreement. Pursuant to points (h) and (i) of Article 101(3) of the Agreement, the Joint Council establishes its own rules of procedure and the rules of procedure of the Trade and Development Committee.
- (3) The Joint Council is to adopt decisions with regard to its rules of procedure and the rules of procedure of the Trade and Development Committee during its first meeting.
- (4) It is appropriate to establish the position to be taken on the Union's behalf within the Joint Council, as the envisaged Joint Council decision will be binding on the Union.
- (5) The position of the Union within the Joint Council should therefore be based on the attached draft Decision,

HAS ADOPTED THIS DECISION:

*Article 1*

The position to be taken on the Union's behalf in the first Joint Council meeting as regards its rules of procedure and the rules of procedure of the Trade and Development Committee shall be based on the draft Decision of the Joint Council attached to this Decision.

*Article 2*

This Decision shall enter into force on the date of its adoption.

Done at Brussels, 5 February 2019.

*For the Council*  
*The President*  
G. CIAMBA

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<sup>(1)</sup> OJ L 250, 16.9.2016, p. 3.

DRAFT

**DECISION No 1/2019 OF THE JOINT COUNCIL ESTABLISHED UNDER THE ECONOMIC  
PARTNERSHIP AGREEMENT BETWEEN THE EUROPEAN UNION AND ITS MEMBER STATES,  
OF THE ONE PART, AND THE SADC EPA STATES, OF THE OTHER PART**

**of ...**

**on the adoption of the rules of procedure of the Joint Council and of the Trade and Development  
Committee**

THE JOINT COUNCIL,

Having regard to the Economic Partnership Agreement between the European Union and its Member States, of the one part, and the SADC EPA States, of the other part ('the Agreement'), and in particular Articles 100, 101 and 102 thereof,

HAS ADOPTED THIS DECISION:

*Article 1*

The rules of procedure of the Joint Council are established as set out in Annex I to this Decision.

*Article 2*

The rules of procedure of the Trade and Development Committee are established as set out in Annex II to this Decision.

*Article 3*

This Decision shall enter into force on the date of its adoption.

Done at ...,

*For the Joint Council*

*Minister for Trade of*

*EU representative*

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## ANNEX I

## RULES OF PROCEDURE OF THE JOINT COUNCIL

## CHAPTER I

## ORGANISATION

## Article 1

**Composition and Chair**

1. The Joint Council established under Article 100 of the Economic Partnership Agreement between the European Union and its Member States, of the one part, and the SADC EPA States, of the other part ('the Agreement'), shall perform its duties as provided for in Articles 100 and 101 of the Agreement.
2. Reference to 'the Parties' in these rules of procedure shall be made in accordance with the definition provided for in Article 104 of the Agreement, namely the SADC EPA States and the EU Party (meaning the European Union or its Member States or the European Union and its Member States, having regard to their respective areas of competence).
3. In accordance with Article 101(1) of the Agreement, the Joint Council shall be composed, on the one hand, of the relevant members of the Council of the European Union and relevant members of the European Commission or their representatives, and, on the other hand, of the relevant Ministers of the SADC EPA States or their representatives.
4. The Joint Council meetings shall be chaired, at ministerial level, alternately for periods of 12 months by representatives of the EU Party, having regard to the respective areas of competence of the Union and its Member States, and by a representative of the SADC EPA States. The first Joint Council meeting shall be co-chaired by the Parties.
5. The mandate referred to in paragraph 4 that corresponds to the first period shall begin on the day following the first Joint Council meeting and end on 31 December of the same year. The chairmanship of that first period shall be held by [a representative of the SADC EPA States] [by the EU Party].

## Article 2

**Meetings**

1. In accordance with Article 102(4) of the Agreement, the Joint Council shall meet at regular intervals, not exceeding a period of two years, and extraordinarily whenever circumstances so require, if the Parties so agree.
2. The Joint Council meetings shall be held alternately in Brussels or in the territory of one of the SADC EPA States, unless the Parties agree otherwise.
3. Unless the Parties agree otherwise, the Joint Council meetings shall be convened by the Party holding the chair, after consulting the other Party.
4. The Parties may agree to hold the meetings of the Joint Council via electronic means.

## Article 3

**Observers**

The Joint Council may decide to invite observers to attend its meetings on an *ad hoc* basis and determine which agenda items will be open to those observers.

## Article 4

**Secretariat**

1. The General Secretariat of the Council of the European Union and the European Commission on the one hand, and the SADC EPA Unit within the SADC Secretariat on the other hand, shall act alternately for periods of 12 months as the Secretariat of the Joint Council ('the Secretariat'). Those periods shall coincide with the chairmanship arrangements established under Article 1(4) and (5).
2. On the part of the EU Party, provisional agendas and draft minutes shall be drawn up by the European Commission and all official documents intended for, or emanating from, the Joint Council shall be circulated by the General Secretariat of the Council of the European Union.

## CHAPTER II

### FUNCTIONING

#### Article 5

##### Documents

Where the deliberations of the Joint Council are based on written supporting documents, such documents shall be numbered and circulated by the Secretariat as documents of the Joint Council.

#### Article 6

##### Notification and agenda for the meetings

1. The Secretariat shall notify the Parties of the convening of a Joint Council meeting and request inputs for the agenda no later than 30 days before the meeting. In case of an urgent matter or unforeseen circumstances to be considered, the meeting may be convened at short notice.
2. A provisional agenda shall be drawn up by the Secretariat for each meeting. It shall be forwarded by the Secretariat to the Chair and to the members of the Joint Council no later than 14 days before the meeting.
3. The provisional agenda shall include items in respect of which the Secretariat has received a request for inclusion by a Party.
4. The agenda shall be adopted by the Joint Council at the beginning of each meeting. Items other than those on the provisional agenda may be placed on the agenda if the Parties so agree.
5. The Chairperson of the Joint Council may, upon agreement by all Parties, invite experts to attend its meetings in order to provide information on specific subjects.

#### Article 7

##### Minutes

1. Draft minutes of each meeting shall be drawn up by the Secretariat within 21 days following the meeting, unless otherwise decided by mutual consent of the Parties.
2. The minutes shall, as a rule, indicate in respect of each item on the agenda:
  - (a) the documents submitted to the Joint Council;
  - (b) any statement which a member of the Joint Council requested to be entered in the minutes; and
  - (c) issues agreed upon by the Parties, such as decisions adopted, recommendations made and operational conclusions adopted.
3. The draft minutes of each meeting shall be approved in writing by both Parties within 42 days following the meeting, unless otherwise agreed by the Parties. Once approved, two copies of the minutes shall be signed by the Secretary and each of the Parties shall receive an original copy of these authentic documents.

#### Article 8

##### Decisions and recommendations

1. In accordance with Article 102 of the Agreement, the Joint Council shall adopt decisions or recommendations by consensus in the cases provided for in the Agreement.
2. Where the Joint Council is empowered under the Agreement to adopt decisions or recommendations, such acts shall be entitled 'Decision' or 'Recommendation' respectively in the minutes. The Secretariat shall give any adopted decision or recommendation a serial number, the date of adoption and a description of its subject-matter. Each decision or recommendation shall provide for the date of its entry into force.
3. In the event that an SADC EPA State is unable to attend a Joint Council meeting, the decisions or recommendations agreed to during that meeting shall be communicated to that member by the Secretariat. The SADC EPA State concerned shall provide a written response within 10 calendar days from dispatch of the decisions or recommendations, indicating those decisions or recommendations it disagrees with, including the reasons thereof. In the absence of that written response within the given deadline, the decisions or recommendations shall be deemed adopted. In the event that the SADC EPA State that did not attend the meeting disagrees with one or several decisions or recommendations, the procedure provided for in paragraph 4 shall apply.

4. In the period between meetings, the Joint Council may adopt decisions or recommendations by written procedure or by electronic means if both Parties so agree. A written procedure shall consist of an exchange of notes between representatives of the Parties.

5. Decisions and recommendations adopted by the Joint Council shall be authenticated by two original copies signed by a representative of the European Commission on behalf of the EU Party and by a representative of the SADC EPA States.

#### *Article 9*

##### **Public Access**

1. The Joint Council meetings shall not be public, unless otherwise decided by the Parties.
2. The Parties may decide to publish the decisions and recommendations of the Joint Council.

#### *Article 10*

##### **Working languages**

Unless otherwise decided by the Parties, all the correspondence and communication between the Parties relating to the work of the Joint Council, as well as the deliberations during the Joint Council meetings, shall be carried out in English or Portuguese.

#### **CHAPTER III**

##### **FINAL PROVISIONS**

#### *Article 11*

##### **Expenses**

1. Each Party shall meet any expenses it incurs as a result of participating in the Joint Council meetings, both with regard to staff, travel and subsistence expenditure and with regard to postal and telecommunications expenditure.
2. Expenses in connection with the organisation of a meeting, the provision of interpretation services and the reproduction of documents shall be borne by the Party hosting the meeting.

#### *Article 12*

##### **Trade and Development Committee**

In accordance with Article 103(5) of the Agreement, the Trade and Development Committee shall report and be responsible to the Joint Council.

#### *Article 13*

##### **Amendment of the rules of procedure**

These rules of procedure may be amended in writing by a decision of the Joint Council adopted in accordance with Article 8.

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## ANNEX II

## RULES OF PROCEDURE OF THE TRADE AND DEVELOPMENT COMMITTEE

## CHAPTER I

## ORGANISATION

## Article 1

**Composition and Chair**

1. The Trade and Development Committee established under Article 103 of the Economic Partnership Agreement between the European Union and its Member States, of the one part, and the SADC EPA States, of the other part ('the Agreement'), shall perform its duties in accordance with that Article.
2. Reference to 'the Parties' in these rules of procedure shall be made in accordance with the definition provided for in Article 104 of the Agreement, namely the SADC EPA States and the EU Party (meaning the European Union or its Member States or the European Union and its Member States, having regard to their respective areas of competence).
3. In accordance with Article 103(1) of the Agreement, the Trade and Development Committee shall be composed of representatives of the Parties, normally at the level of senior officials.
4. The meetings of the Trade and Development Committee shall be chaired alternately by a senior official of the European Commission and by a senior official of the SADC EPA States. The first meeting of the Trade and Development Committee shall be co-chaired by the relevant representatives of the Parties.
5. The mandate referred to paragraph 4 that corresponds to the first period shall begin on the date of the first meeting of the Trade and Development Committee and end on 31 December of the same year.

## Article 2

**Meetings**

1. The Trade and Development Committee shall meet at regular intervals, at least once a year, and at the request of either Party. The meetings shall be held alternately in Brussels or in the territory of one of the SADC EPA States, unless the Parties agree otherwise.
2. Unless the Parties agree otherwise, meetings of the Trade and Development Committee shall be convened by the Party holding the chair, after consulting the other Party.
3. The Parties may agree to hold the meetings of the Trade and Development Committee via electronic means.

## Article 3

**Observers**

The Trade and Development Committee may decide to invite observers to attend its meetings on an *ad hoc* basis and determine which agenda items will be open to those observers.

## Article 4

**Secretariat**

1. The Party hosting the meeting of the Trade and Development Committee shall act as the Secretariat of the Trade and Development Committee ('the Secretariat').
2. When the meeting takes place via electronic means, the Party holding the chair shall act as the Secretariat.

## CHAPTER II

## FUNCTIONING

## Article 5

**Documents**

Where the deliberations of the Trade and Development Committee are based on written supporting documents, such documents shall be numbered and circulated by the Secretariat as documents of the Trade and Development Committee.

*Article 6***Notification and agenda for the meetings**

1. The Secretariat shall notify the Parties of the convening of a meeting and request inputs for the agenda no later than 30 days before the meeting. In case of an urgent matter or unforeseen circumstances to be considered, the meeting may be convened at short notice.
2. A provisional agenda shall be drawn up by the Secretariat for each meeting. It shall be forwarded by the Secretariat to the Chair and to the members of the Trade and Development Committee no later than 14 days before the meeting.
3. The provisional agenda shall include items in respect of which the Secretariat has received a request for inclusion by a Party.
4. The agenda shall be adopted by the Trade and Development Committee at the beginning of each meeting. Items other than those on the provisional agenda may be placed on the agenda if the Parties so agree.
5. The Chairperson of the Trade and Development Committee may, upon agreement by all Parties, invite experts to attend its meetings in order to provide information on specific subjects.

*Article 7***Report of meeting**

Unless the Parties agree otherwise, the report of each meeting shall be drawn up by the Secretariat and adopted at the end of each meeting.

*Article 8***Decisions and recommendations**

1. In accordance with Article 103(6) of the Agreement, the Trade and Development Committee shall adopt decisions or recommendations by consensus in the cases provided for in the Agreement or where such power has been delegated to it by the Joint Council.
2. Where the Trade and Development Committee is empowered under the Agreement to adopt decisions or recommendations, or where such power has been delegated to it by the Joint Council, such acts shall be entitled 'Decision' or 'Recommendation' respectively in the report of the meetings referred to in Article 7. The Secretariat shall give any adopted decision or recommendation a serial number, the date of adoption and a description of its subject-matter. Each decision or recommendation shall provide for the date of its entry into force.
3. In the event that a SADC EPA State is unable to attend a meeting, the decisions or recommendations agreed during that meeting shall be communicated to that member by the Secretariat. The SADC EPA State concerned shall provide a written response within 10 calendar days from dispatch of the decisions or recommendations, indicating those decisions or recommendations it disagrees with, including the reasons thereof. In the absence of that written response within the given deadline, the decisions or recommendations shall be deemed adopted. In the event that the SADC EPA State that did not attend the meeting disagrees with one or several decisions or recommendations, the procedure provided for in paragraph 4 shall apply.
4. In the period between meetings, the Trade and Development Committee may adopt decisions or recommendations by written procedure or by electronic means if both Parties so agree. A written procedure shall consist of an exchange of notes between representatives of the Parties.
5. Decisions and recommendations adopted by the Trade and Development Committee shall be authenticated by two original copies signed by a representative of the EU and by a representative of the SADC EPA States.

*Article 9***Public Access**

1. The meetings of the Trade and Development Committee shall not be public, unless otherwise decided by the Parties.
2. The Parties may decide to publish the decisions and recommendations of the Trade and Development Committee.

**CHAPTER III****FINAL PROVISIONS***Article 10***Expenses**

1. Each Party shall meet any expenses it incurs as a result of participating in the meetings of the Trade and Development Committee, both with regard to staff, travel and subsistence expenditure and with regard to postal and telecommunications expenditure.
2. Expenses in connection with the organisation of a meeting, the provision of interpretation services and the reproduction of documents shall be borne by the Party hosting the meeting.

*Article 11***Special Committees and other bodies**

1. The Special Committee on Customs and Trade Facilitation, established under Article 50 of the Agreement, the agricultural partnership, established under Article 68 of the Agreement, and the Special Committee on geographical indications and trade in wines and spirits, established under Article 13 of Protocol 3 of the Agreement, shall report to the Trade and Development Committee.
2. In accordance with point (f) of Article 50(2) of the Agreement and Article 13(5) of Protocol 3 of the Agreement respectively, the Special Committee on Customs and Trade Facilitation and the Special Committee on geographical indications and trade in wines and spirits shall determine their own rules of procedure.
3. In accordance with Article 68(3) of the Agreement, the operational rules for the agricultural partnership shall be established by common agreement of the Parties acting within the Trade and Development Committee.
4. Pursuant to Article 103(3) of the Agreement, the Trade and Development Committee may establish any special technical groups to deal with specific matters that fall within their competence.
5. The Trade and Development Committee shall establish the rules of procedure of the special technical groups referred to in paragraph 4. The Trade and Development Committee may decide to abolish special technical groups and define or amend their terms of reference.
6. Special technical groups shall report to the Trade and Development Committee after each meeting.

*Article 12***Amendment of the rules of procedure**

These rules of procedure may be amended in writing by a decision of the Trade and Development Committee adopted in accordance with Article 8.

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**COMMISSION IMPLEMENTING DECISION (EU) 2019/235****of 24 January 2019****on amending Decision 2008/411/EC as regards an update of relevant technical conditions applicable to the 3 400-3 800 MHz frequency band***(notified under document C(2019) 262)***(Text with EEA relevance)**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code <sup>(1)</sup>,

Having regard to Decision No 676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision) <sup>(2)</sup>, and in particular Article 4(3) thereof,

Whereas:

- (1) Commission Decision 2008/411/EC <sup>(3)</sup> harmonises the technical conditions for using the spectrum in the 3 400-3 800 MHz frequency band for the terrestrial provision of electronic communications services in the Community and was amended by Commission Implementing Decision 2014/276/EU <sup>(4)</sup>.
- (2) Article 6(3) of Decision No 243/2012/EU of the European Parliament and the Council <sup>(5)</sup> establishing a multiannual radio spectrum policy programme, requires Member States to help providers of electronic communication services regularly upgrade their networks to the latest, most efficient technology, in order to create their own spectrum dividends in line with the principles of service and technological neutrality. Initial commercial deployments around the world of next-generation (5G) terrestrial systems are expected as of 2020.
- (3) The Commission's Communication 'Connectivity for a Competitive Digital Single Market — Towards a European Gigabit Society' <sup>(6)</sup> sets out new connectivity objectives for the Union to be achieved through the widespread deployment and take-up of very high capacity networks. To this end, the Commission's Communication '5G for Europe: An Action Plan' <sup>(7)</sup> identifies the need for action at the EU level, including the identification and harmonisation of spectrum for 5G based on the opinion of the Radio Spectrum Policy Group (RSPG), in order to ensure the objective of uninterrupted 5G coverage in all urban areas and major terrestrial transport paths by 2025.
- (4) In its 'Strategic roadmap towards 5G for Europe: Opinion on spectrum related aspects for next-generation wireless systems (5G)' <sup>(8)</sup>, the Radio Spectrum Policy Group (RSPG) identifies the 3 400-3 800 MHz frequency band as the primary pioneer band for 5G use in the Union.

<sup>(1)</sup> OJ L 321, 17.12.2018, p. 36.

<sup>(2)</sup> OJ L 108, 24.4.2002, p. 1.

<sup>(3)</sup> Commission Decision 2008/411/EC of 21 May 2008 on the harmonisation of the 3 400-3 800 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community (OJ L 144, 4.6.2008, p. 77).

<sup>(4)</sup> Commission Implementing Decision 2014/276/EU of 2 May 2014 on amending Decision 2008/411/EC on the harmonisation of the 3 400-3 800 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community (OJ L 139, 14.5.2014, p. 18).

<sup>(5)</sup> Decision No 243/2012/EU of the European Parliament and of the Council of 14 March 2012 establishing a multiannual radio spectrum policy programme (OJ L 81, 21.3.2012, p. 7).

<sup>(6)</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'Connectivity for a Competitive Digital Single Market — Towards a European Gigabit Society' COM(2016) 587 final.

<sup>(7)</sup> Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions '5G for Europe: An Action Plan', COM(2016) 588 final.

<sup>(8)</sup> Document RSPG16-032 final of 9 November 2016, 'Strategic roadmap towards 5G for Europe: Opinion on spectrum related aspects for next-generation wireless systems (5G)'.

- (5) In its complementary opinion 'Strategic roadmap towards 5G for Europe: RSPG second opinion on 5G networks' <sup>(9)</sup>, the RSPG acknowledges that the availability of the primary 5G band, 3 400-3 800 MHz, will be key for the success of 5G in the Union. It therefore urges Member States to consider appropriate measures to defragment this band in time to authorise sufficiently large blocks of spectrum by 2020.
- (6) The European Electronic Communications Code requires Member States to allow the use of 3 400-3 800 MHz band for terrestrial systems capable of providing next generation (5G) wireless broadband electronic communication services by 31 December 2020. It also requires Member States to take all appropriate measures to facilitate the roll-out of 5G, including reorganising the 3 400-3 800 MHz band to allow sufficiently large blocks of spectrum. Therefore, to enable the roll-out of 5G, a timely amendment of the harmonised technical conditions is necessary.
- (7) In December 2016, pursuant to Article 4(2) of Decision No 676/2002/EC, the Commission gave the European Conference of Postal and Telecommunications Administrations (CEPT) a mandate to develop harmonised technical conditions for spectrum use in support of the introduction of next-generation (5G) terrestrial wireless systems in the frequency bands 3 400-3 800 MHz and 24,25-27,5 GHz in the Union.
- (8) In response to that mandate, on 9 July 2018 the CEPT issued a report (CEPT Report 67) on the technical conditions for spectrum harmonisation in support of the introduction of next generation (5G) terrestrial wireless systems in the 3 400-3 800 MHz frequency band. CEPT Report 67 provides harmonised technical conditions for both non-active antenna systems (non-AAS) and active antenna systems (AAS), which are terrestrial wireless systems capable of providing wireless broadband electronic communications services under synchronised, semi-synchronised and unsynchronised operations. It also calls for the co-existence of wireless broadband electronic communications services with services in adjacent bands (below 3 400 MHz and above 3 800 MHz).
- (9) The results of CEPT Report 67 should be applied across the Union and implemented by the Member States without delay. This will foster the use of the entire 3 400-3 800 MHz frequency band with the aim of putting the Union at the forefront of 5G deployment. When applying this implementing Decision, Member States should choose their preferred next generation (5G) terrestrial wireless systems based on either synchronised, semi-synchronised and unsynchronised network operations and ensure an efficient use of spectrum. Member States should also take into account the results of the ECC Report 296 on synchronisation.
- (10) Taking into account Article 54 of the European Electronic Communications Code, Member States should aim at ensuring a defragmentation of the 3 400-3 800 MHz frequency band so as to provide opportunities to access large portions of contiguous spectrum in line with the goal of gigabit connectivity. This includes facilitating trading and/or leasing of existing rights of use. Large contiguous spectrum portions of preferably 80-100 MHz facilitate the efficient deployment of 5G wireless broadband services, for example using Active Antenna Systems (AAS), with high throughput, high reliability and low latency in line with the policy objective of gigabit connectivity. This objective is of particular importance for a defragmentation.
- (11) The legal framework for using the 3 400-3 800 MHz frequency band set out by Decision 2008/411/EC should remain unchanged in terms of ensuring continued protection of existing services, other than terrestrial electronic communications networks, within the band. In particular, if retained in the band, earth stations in the fixed satellite service (FSS, space-to-earth) should be given continued protection through appropriate coordination between those systems and wireless broadband networks managed at national level on a case-by-case basis.
- (12) CEPT's Electronic Communications Committee (ECC) has issued the ECC Report 254, which provides guidance to Member States on the coexistence between wireless broadband electronic communication services, fixed services (FS) and FSS in the 3 600-3 800 MHz frequency band. Further guidance to operators and administrations for the operation of 4G and 5G networks in the same or in adjacent channels, while ensuring an efficient use of spectrum with a view to network synchronisation, are provided in ECC report 296.
- (13) Cross-border agreements may be necessary to ensure that Member States implement the parameters set by this Decision, thus avoiding harmful interference and improving spectrum efficiency and non-fragmentation in spectrum use.

<sup>(9)</sup> Document RSPG18-05 final of 30 January 2018, 'Strategic roadmap towards 5G for Europe: second opinion on 5G networks'.

- (14) Decision 2008/411/EC should therefore be amended accordingly.
- (15) The measures provided for this Decision are in accordance with the opinion of the Radio Spectrum Committee,

HAS ADOPTED THIS DECISION:

*Article 1*

Decision 2008/411/EC is amended as follows:

- (1) in Article 2, paragraph 1 is replaced by the following:

‘1. Without prejudice to the protection and continued operation of other existing use in this band, when Member States designate and make available, on a non-exclusive basis the 3 400-3 800 MHz frequency band for terrestrial electronic communications networks, they shall do so in compliance with the parameters set out in the Annex.’;

- (2) Article 4a is replaced by the following:

*‘Article 4a*

Member States shall report on the application of this Decision on 30 September 2019 at the latest.’;

- (3) the Annex is replaced by the text in the Annex to this Decision.

*Article 2*

This Decision is addressed to the Member States.

Done at Brussels, 24 January 2019.

*For the Commission*  
Mariya GABRIEL  
*Member of the Commission*

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## ANNEX

## PARAMETERS REFERRED TO IN ARTICLE 2

## A. DEFINITIONS

*Active antenna systems* (AAS) means a base station and an antenna system where the amplitude and/or phase between antenna elements is continually adjusted resulting in an antenna pattern that varies in response to short term changes in the radio environment. This excludes long-term beam shaping such as fixed electrical down tilt. In AAS base stations the antenna system is integrated as part of the base station system or product.

*Synchronised* operation means operation of two or more different time division duplex (TDD) networks, where simultaneous uplink (UL) and downlink (DL) transmissions do not occur, that is at any given moment in time either all networks transmit in downlink or all networks transmit in uplink. This requires the alignment of all DL and UL transmissions for all TDD networks involved as well as synchronising the beginning of the frame across all networks.

*Unsynchronised* operation means operation of two or more different TDD networks, where at any given moment in time at least one network transmits in DL while at least one network transmits in UL. This might happen if the TDD networks either do not align all DL and UL transmissions or do not synchronise at the beginning of the frame.

*Semi-synchronised* operation means operation of two or more different TDD networks, where part of the frame is consistent with synchronised operation, while the remaining portion of the frame is consistent with unsynchronised operation. This requires the adoption of a frame structure for all TDD networks involved, including slots where the UL/DL direction is not specified, as well as synchronising the beginning of the frame across all networks.

*Total radiated power* (TRP) is a measure of how much power a composite antenna radiates. It equals the total conducted power input into the antenna array system less any losses in the antenna array system. TRP means the integral of the power transmitted in different directions over the entire radiation sphere as shown in the formula:

$$TRP \stackrel{\text{def}}{=} \frac{1}{4\pi} \int_0^{2\pi} \int_0^{\pi} P(\theta, \varphi) \sin(\theta) d\theta d\varphi$$

where  $P(\vartheta, \varphi)$  is the power radiated by an antenna array system in direction  $(\vartheta, \varphi)$  given by the formula:

$$P(\vartheta, \varphi) = P_{Tx} g(\vartheta, \varphi)$$

where  $P_{Tx}$  denotes the conducted power (measured in Watts), which is input to the array system, and  $g(\vartheta, \varphi)$  denotes the array systems directional gain along the  $(\vartheta, \varphi)$  direction.

## B. GENERAL PARAMETERS

Within the 3 400-3 800 MHz frequency band:

1. the duplex mode of operation shall be time division duplex (TDD);
2. the assigned block sizes shall be in multiples of 5 MHz. The lower frequency limit of an assigned block shall be aligned with or spaced at multiples of 5 MHz from the lower band edge of 3 400 MHz <sup>(1)</sup>;
3. there shall be spectrum available providing the opportunity to access sufficiently large portions of contiguous spectrum, preferably 80-100 MHz, for wireless broadband electronic communications services;
4. base stations and terminal stations transmission shall be in compliance with the technical conditions specified in Part C and Part D, respectively.

## C. TECHNICAL CONDITIONS FOR BASE STATIONS — BLOCK EDGE MASK

The following technical parameters for base stations called block edge mask (BEM) are an essential component of conditions necessary to ensure coexistence between neighbouring networks, in the absence of bilateral or multilateral agreements between operators of such neighbouring networks. Less stringent technical parameters, if agreed among the operators of such networks, may also be used.

<sup>(1)</sup> If assigned blocks need to be offset to accommodate other existent users, a raster of 100 kHz must be used. Narrower blocks can be defined adjacent to other users, to allow efficient use of spectrum.

The BEM consists of several elements given in Table 1. The in-block power limit is applied to a block owned by an operator. The baseline power limit, designed to protect the spectrum of other operators, the transitional region power limit, enabling filter roll-off from the in-block to the baseline power limit, and the restricted baseline power limit applicable to cases of unsynchronised or semi-synchronised operation represent out-of-block elements. The additional baseline power limit is an out-of-band power limit which is used either for the protection of radar operation below 3 400 MHz or for the protection of fixed satellite services (FSS) and fixed services (FS) above 3 800 MHz.

Tables 2 to 7 contain the power limits for the different BEM elements for TDD networks providing wireless broadband (WBB) electronic communications services (ECS). Power limits are provided for synchronised, unsynchronised and semi-synchronised WBB ECS networks.

In Tables 3 and 4, the power level  $P_{Max}$  is the maximum carrier power in dBm for the base station in question.  $P_{Max}$  is defined and measured as the equivalent isotropically radiated power (e.i.r.p.) per antenna for base stations with non-active antenna systems (non-AAS). For AAS, base stations  $P_{Max}$  is defined as the maximum mean carrier power in dBm for the base station and measured as TRP per carrier in a given cell.

In Tables 3, 4, and 7 the power limits are determined relative to a fixed upper limit by means of the formula  $\text{Min}(P_{Max} - A, B)$ , which sets the lower (or stricter) of two values: (1)  $(P_{Max} - A)$  expressing the maximum carrier power  $P_{Max}$  minus a relative offset A, and (2) the fixed upper limit B.

To obtain a BEM for a specific block, the BEM elements that are defined in Table 1 are combined in the following steps:

1. in-block power limit is used for the block assigned to the operator;
2. transitional regions are determined, and corresponding power limits are used;
3. baseline power limit is used in the case of synchronised WBB ECS networks for spectrum within the band except from the operator's block in question and the corresponding transitional regions;
4. restricted baseline power limits are used in the case of unsynchronised and semi-synchronised WBB ECS networks;
5. for spectrum below 3 400 MHz the respective additional baseline power limit is used;
6. for coexistence with FSS/FS above 3 800 MHz an additional baseline power limit is used.

The Figure below provides an example of the combination of different BEM elements.

Figure

### Example of base station BEM elements and power limits

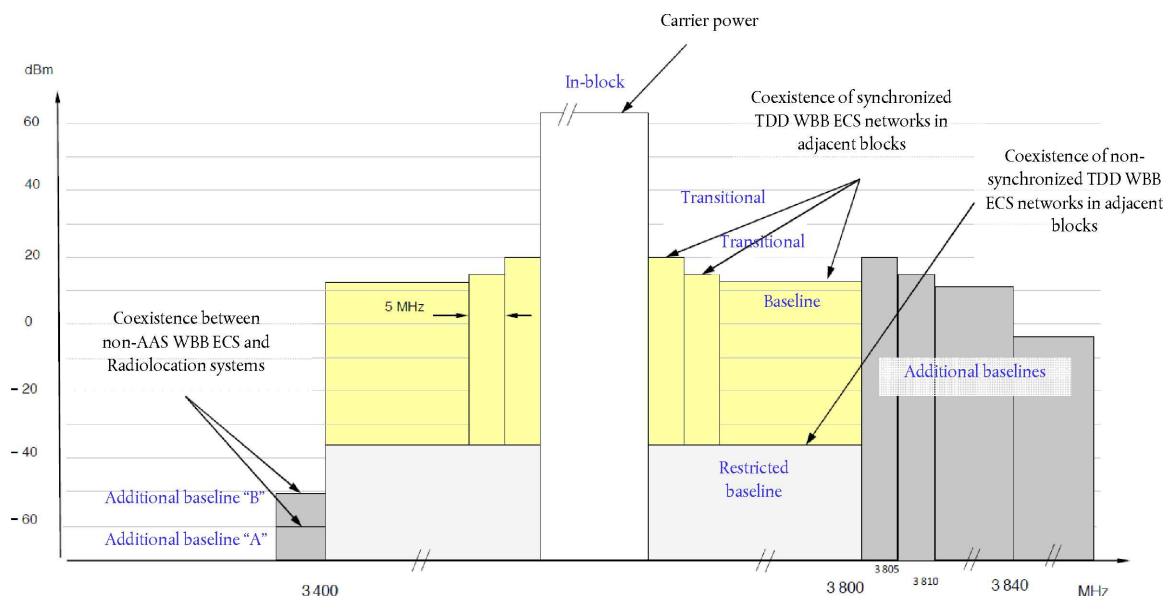


Table 1

**Definition of BEM elements**

| BEM element         | Definition                                                                                                                                                                                                                                                                           |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| In-block            | Refers to a block for which the BEM is derived.                                                                                                                                                                                                                                      |
| Baseline            | Spectrum within 3 400-3 800 MHz used for WBB ECS, with the exception of the block assigned to the operator and the corresponding transitional regions.                                                                                                                               |
| Transitional region | Spectrum within 0 to 10 MHz below and 0 to 10 MHz above the block assigned to the operator. Transitional regions do not apply to TDD blocks assigned to other operators, unless networks are synchronised. The transitional regions do not apply below 3 400 MHz or above 3 800 MHz. |
| Additional baseline | Spectrum below 3 400 MHz and above 3 800 MHz.                                                                                                                                                                                                                                        |
| Restricted baseline | Spectrum used for WBB ECS by networks unsynchronised or semi-synchronised with the operator's block in question.                                                                                                                                                                     |

*Explanatory note to Table 1*

The BEM elements are applicable to base stations with different power levels, typically referred to as macro, micro, pico, and femto base stations <sup>(2)</sup>.

Table 2

**In-block power limit for non-AAS and AAS base stations**

| BEM element | Frequency range                | Power limit for non-AAS and AAS base stations |
|-------------|--------------------------------|-----------------------------------------------|
| In-block    | Block assigned to the operator | Not obligatory.                               |

*Explanatory note to Table 2*

In the specific case of femto base stations, power control shall be applied to minimize interference to adjacent channels. The requirement on power control for femto base stations results from the need to reduce interference from equipment that may be deployed by consumers and may thus not be coordinated with surrounding networks. Member States wishing to include a limit in their authorisation or to use a limit for coordination purposes may define such limits on a national basis.

Table 3

**Baseline power limits for non-AAS and AAS base stations with synchronised network operation**

| BEM element | Frequency range                                                                                                    | Non-AAS e.i.r.p limit                                            | AAS TRP limit                                                    |
|-------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|
| Baseline    | Below – 10 MHz offset from lower block edge<br>Above 10 MHz offset from upper block edge<br>Within 3 400-3 800 MHz | Min( $P_{\text{Max}} - 43, 13$ ) dBm/<br>(5 MHz) per antenna (*) | Min( $P_{\text{Max}'} - 43, 1$ ) dBm/(5 MHz) per cell (**) (***) |

(\*)  $P_{\text{Max}}$  is the maximum mean carrier power in dBm for the base station measured as e.i.r.p. per carrier per antenna

(\*\*)  $P_{\text{Max}'}$  is the maximum mean carrier power in dBm for the base station measured as TRP per carrier in a given cell

(\*\*\*) In a multi-sector base station, the radiated power limit applies to each one of the individual sectors.

<sup>(2)</sup> These terms are not uniquely defined and refer to cellular base stations with different power levels, which decrease in the following order: macro, micro, pico, femto. In particular, femto cells are small base stations with the lowest power levels, which are typically used indoors.

*Explanatory note to Table 3*

The applied fixed upper limit (13 dBm/(5 MHz) for non-AAS or 1 dBm/(5 MHz) for AAS) provides an upper bound on the interference from a base station. When two TDD blocks are synchronised, there will be no interference between base stations.

Table 4

**Transitional region power limits, for non-AAS and AAS base stations with synchronised WBB ECS network operation**

| BEM element         | Frequency range                                                                             | Non-AAS e.i.r.p limit                                                             | AAS TRP limit                                                                          |
|---------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Transitional region | – 5 to 0 MHz offset from lower block edge or<br>0 to 5 MHz offset from upper block edge     | $\text{Min}(P_{\text{Max}} - 40, 21) \text{ dBm}/(5 \text{ MHz})$ per antenna (*) | $\text{Min}(P_{\text{Max}'} - 40, 16) \text{ dBm}/(5 \text{ MHz})$ per cell (**) (***) |
| Transitional region | – 10 to – 5 MHz offset from lower block edge or<br>5 to 10 MHz offset from upper block edge | $\text{Min}(P_{\text{Max}} - 43, 15) \text{ dBm}/(5 \text{ MHz})$ per antenna (*) | $\text{Min}(P_{\text{Max}'} - 43, 12) \text{ dBm}/(5 \text{ MHz})$ per cell (**) (***) |

(\*)  $P_{\text{Max}}$  is the maximum mean carrier power in dBm for the base station measured as e.i.r.p. per carrier per antenna

(\*\*)  $P_{\text{Max}'}$  is the maximum mean carrier power in dBm for the base station measured as TRP per carrier in a given cell

(\*\*\*) In a multi-sector base station, the radiated power limit applies to each one of the individual sectors.

Table 5

**Restricted baseline power limits for non-AAS and AAS base stations with unsynchronised and semi-synchronised WBB ECS network operation**

| BEM element         | Frequency range                                                                                                                | Non AAS e.i.r.p limit         | AAS TRP limit                 |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------|
| Restricted baseline | Unsynchronised and semi synchronised blocks, below the lower block edge and above the upper block edge, within 3 400-3 800 MHz | – 34 dBm/(5 MHz) per cell (*) | – 43 dBm/(5 MHz) per cell (*) |

(\*) In a multi-sector base station, the radiated power limit applies to each one of the individual sectors.

*Explanatory note to Table 5*

These restricted power limits are used for unsynchronised and semi-synchronised operations of base stations, if no geographic separation is available. In addition, depending on national circumstances, Member States may define a relaxed alternative restricted baseline power limit applying to specific implementation cases to ensure a more efficient usage of spectrum.

Table 6

**Additional baseline power limits for non-AAS and AAS base stations (\*) below 3 400 MHz for country-specific cases**

| Case | BEM element                                                       | Frequency range                             | Non-AAS e.i.r.p limit    | AAS TRP limit               |
|------|-------------------------------------------------------------------|---------------------------------------------|--------------------------|-----------------------------|
| A    | Member States with military radiolocation systems below 3 400 MHz | Additional baseline<br>Below 3 400 MHz (**) | – 59 dBm/MHz per antenna | – 52 dBm/MHz per cell (***) |

| Case |                                                                                             | BEM element         | Frequency range      | Non-AAS e.i.r.p limit    | AAS TRP limit  |
|------|---------------------------------------------------------------------------------------------|---------------------|----------------------|--------------------------|----------------|
| B    | Member States with military radiolocation systems below 3 400 MHz                           | Additional baseline | Below 3 400 MHz (**) | – 50 dBm/MHz per antenna |                |
| C    | Member States without adjacent band usage or with usage that does not need extra protection | Additional baseline | Below 3 400 MHz      | Not applicable           | Not applicable |

(\*) Alternative measures may be required on a case by case basis for indoor AAS base stations on a national basis.

(\*\*) In cases where Member States have already implemented a guard band when issuing licences for terrestrial systems capable of providing WBB ECS before the adoption of this Decision and in accordance with Commission Decision 2008/411/EC, those Member States may apply the additional baseline only below such guard band, provided it complies with the protection of radars in the adjacent band and with cross-border obligations.

(\*\*\*) In a multi-sector base station, the radiated power limit applies to each one of the individual sectors

#### Explanatory note to Table 6

The additional baseline power limits reflect the need for protection of military radiolocation in some countries. Member States may select the limits from case A or B for non AAS depending on the level of protection required for the radar in the region in question. A coordination zone of up to 12 km around fixed terrestrial radars, based on AAS TRP limit of – 52 dBm/MHz per cell, may be required. Such coordination is under responsibility of the relevant Member State.

Other mitigation measures like geographical separation, coordination on a case-by-case basis or an additional guard band may be necessary. In case of indoor deployments, Member States may define a relaxed limit applying to specific implementation cases.

Table 7

#### Additional baseline power limits above 3 800 MHz for base stations for coexistence with FSS/FS

| BEM element         | Frequency range | Non-AAS e.i.r.p limit                                                             | AAS TRP power limit                                                                    |
|---------------------|-----------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Additional baseline | 3 800-3 805 MHz | $\text{Min}(P_{\text{Max}} - 40, 21) \text{ dBm}/(5 \text{ MHz})$ per antenna (*) | $\text{Min}(P_{\text{Max}'} - 40, 16) \text{ dBm}/(5 \text{ MHz})$ per cell (**) (***) |
|                     | 3 805-3 810 MHz | $\text{Min}(P_{\text{Max}} - 43, 15) \text{ dBm}/(5 \text{ MHz})$ per antenna (*) | $\text{Min}(P_{\text{Max}'} - 43, 12) \text{ dBm}/(5 \text{ MHz})$ per cell (**) (***) |
|                     | 3 810-3 840 MHz | $\text{Min}(P_{\text{Max}} - 43, 13) \text{ dBm}/(5 \text{ MHz})$ per antenna (*) | $\text{Min}(P_{\text{Max}'} - 43, 1) \text{ dBm}/(5 \text{ MHz})$ per cell (**) (***)  |
|                     | Above 3 840 MHz | – 2 dBm/(5 MHz) per antenna (*)                                                   | – 14 dBm/(5 MHz) per cell (***)                                                        |

(\*)  $P_{\text{Max}}$  is the maximum mean carrier power in dBm for the base station measured as e.i.r.p. per carrier per antenna

(\*\*)  $P_{\text{Max}'}$  is the maximum mean carrier power in dBm for the base station measured as TRP per carrier in a given cell

(\*\*\*) In a multi-sector base station, the radiated power limit refers to the level corresponding to each one of the individual sectors

#### Explanatory note to Table 7

The additional baseline power limits are applied at the 3 800 MHz band edge to support the coordination process to be carried out at national level.

## D. TECHNICAL CONDITIONS FOR TERMINAL STATIONS

Table 8

**In-block requirement — terminal station BEM in-block power limit**

|                        |            |
|------------------------|------------|
| Maximum in-block power | 28 dBm TRP |
|------------------------|------------|

*Explanatory note to Table 8*

The inblock radiated power limit for fixed/nomadic terminal stations may exceed the limit in Table 8 provided cross-border obligations are fulfilled. For such terminal stations mitigation measures to protect radar below 3 400 MHz may be necessary, for example, geographical separation or an additional guard band.

**COMMISSION DECISION (EU) 2019/236****of 7 February 2019**

**laying down internal rules concerning the provision of information to data subjects and the restriction of certain of their rights in the context of the processing of personal data by the European Commission for the purposes of internal security of the Union institutions**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 249(1) thereof,

Whereas:

- (1) The Commission needs to operate in a safe and secure environment. To accomplish that it needs a coherent, integrated approach as regards its security, providing appropriate levels of protection for persons, assets and information commensurate with identified risks, and ensuring efficient and timely delivery of security. The Commission faces major threats and challenges in the field of security, in particular as regards terrorism, cyber-attacks and political and commercial espionage.
- (2) In order to ensure security of persons, assets and information, the Commission, notably through its Security Directorate of the Directorate General for Human Resources and Security takes measures as provided for in Commission Decision (EU, Euratom) 2015/443 <sup>(1)</sup> which involve the processing of several categories of personal data. Those measures include the conduct of security background checks pursuant to Article 7(5), threat assessments pursuant to Article 12 and security inquiries pursuant to Article 13 of Decision (EU, Euratom) 2015/443. In the framework of its investigative mandate, the Commission collects information of investigative interest, including personal data, from various sources — public authorities and natural persons — and exchanges it with other Union institutions, bodies, offices and agencies, with competent authorities of Member States and third countries, and with international organisations before, during and after the inquiry or coordination activities.
- (3) The categories of personal data processed by the Commission are, for example, identification data, contact data, professional data and data related to or brought in connection with the subject matter of a security background check, threat assessment or a security inquiry. The personal data are stored in a secured electronic environment, to prevent unlawful access or transfer of data to persons outside the Commission. The personal data are retained in the services of the Commission in charge of the inquiry until the end of the inquiry. Different retention periods apply to different processing activities, depending on the category of the inquiry, namely whether in the field of suspected criminal offences, counter-intelligence or counter-terrorism. At the end of the retention period, the case-related information including personal data is eliminated <sup>(2)</sup>.
- (4) While carrying out its tasks, the Commission, as a controller, is bound to respect the rights of natural persons in relation to the processing of personal data recognised by Article 8(1) of the Charter of Fundamental Rights of the European Union and by Article 16(1) of the Treaty on the Functioning of the European Union, as well as the rights provided for in Regulation (EU) 2018/1725 of the European Parliament and of the Council <sup>(3)</sup>. At the same time, the Commission is required to comply with strict rules of confidentiality as laid down in Article 9 of Decision (EU, Euratom) 2015/443.
- (5) In certain circumstances, it is necessary to reconcile the rights of data subjects pursuant to Regulation (EU) 2018/1725 with the need that the Commission effectively carries out its tasks of ensuring the security of persons, assets and information in the Commission pursuant to Decision (EU, Euratom) 2015/443, in particular security inquiries, as well as with full respect for fundamental rights and freedoms of other data subjects. To that effect, Article 25(1) (c), (d) and (h) of Regulation (EU) 2018/1725 provides the Commission with the possibility

<sup>(1)</sup> Commission Decision (EU, Euratom) 2015/443 of 13 March 2015 on Security in the Commission (OJ L 72, 17.3.2015, p. 41).

<sup>(2)</sup> Retention of files in the Commission is regulated by the Common retention list, a regulatory document (the last version is SEC(2012) 713) in the form of a retention schedule that establishes the retention periods for the different types of Commission files.

<sup>(3)</sup> Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC (OJ L 295, 21.11.2018, p. 39).

to restrict the application of Articles 14 to 17, 19, 20, and 35, as well as the principle of transparency laid down in Article 4(1)(a), insofar its provisions correspond to the rights and obligations provided for in Articles 14 to 17, 19 and 20 of that Regulation.

- (6) In order to ensure that the Commission effectively carries out its tasks of ensuring the security of persons, assets and information in the Commission pursuant to Decision (EU, Euratom) 2015/443, in particular its security inquiries, while respecting the standards of protection of personal data under Regulation (EU) 2018/1725, it is necessary to adopt internal rules under which the Commission may restrict data subjects' rights in accordance with Article 25(1)(c), (d) and (h) of Regulation (EU) 2018/1725.
- (7) Those internal rules should cover all processing operations carried out by the Commission in the performance of its tasks to ensure security of persons, assets and information in the Commission pursuant to Decision (EU, Euratom) 2015/443, in particular its investigative function in the area of security. They should apply to processing operations carried out prior to the opening of an investigation, during investigations and during the monitoring of the follow-up to the outcome of investigations.
- (8) In order to comply with Articles 14, 15 and 16 of Regulation (EU) 2018/1725, the Commission should inform all individuals of its activities involving processing of their personal data and of their rights in a transparent and coherent manner by means of a data protection notice published on the Commission's website.
- (9) In addition, the Commission should individually inform, in an appropriate format, the data subjects involved in a security inquiry that is to say, the persons concerned and witnesses. The Commission should furthermore individually inform persons whose data are processed in the context of security measures taken under Article 7(5) and 12(1)(d) and (e) of Decision (EU, Euratom) 2015/443, namely in searches of Commission premises and communication and information systems and equipment.
- (10) On the basis of Article 25 of Regulation (EU) 2018/1725, it may be necessary for the Commission to restrict the provision of information to data subjects and the exercise of other rights of data subjects in order to protect, in particular, a security inquiry, its investigation tools and methods, the security inquiries and proceedings of other public authorities, as well as the rights of other persons related to that security inquiry, investigations and/or proceedings.
- (11) In some cases, providing particular information to the data subjects or revealing the existence of an inquiry or of security measures taken under Article 12(1)(d) and (e) of Decision (EU, Euratom) 2015/443, namely searches of Commission premises and communication and information systems and equipment, could render impossible or seriously impair the purpose of the inquiry and the capability of the Commission to ensure its security and in particular to conduct security inquiries effectively in the future.
- (12) In addition, in order to maintain effective cooperation, as referred to in Article 17(2) and (3) of Decision (EU, Euratom) 2015/443, it may be necessary for the Commission to restrict the application of data subjects' rights in order to protect processing operations of other Union institutions, bodies, offices and agencies, or of competent authorities of the Member States. To that effect, the Commission should consult those institutions, bodies, offices, agencies, authorities on the relevant grounds for imposing restrictions and on the necessity and proportionality of the restrictions.
- (13) The Commission may also have to restrict the provision of information to data subjects and the application of other rights of data subjects in relation to personal data received from third countries or international organisations, in order to fulfil its duty of cooperation with those countries or organisation and thus safeguard an important objective of general public interest of the Union. However, in some circumstances the interest or fundamental rights of the data subject may override the interest of international cooperation.
- (14) The Commission should handle all restrictions in a transparent manner and register each application of restrictions in the corresponding record system.
- (15) Pursuant to Article 25(8) of Regulation (EU) 2018/1725, controllers may defer, omit or deny the provision of information on the reasons for the application of a restriction to the data subject if providing that information would in any way compromise the purpose of the restriction. This is, in particular, the case of restrictions to the rights provided for in Articles 16 and 35 of Regulation (EU) 2018/1725.

- (16) The Commission should regularly review the restrictions imposed in order to ensure that the data subject's rights to be informed in accordance with Articles 16 and 35 of Regulation (EU) 2018/1725 are restricted only as long as such restrictions are necessary to allow the Commission to ensure its security and in particular to conduct its security inquiries.
- (17) Where other rights of data subjects are restricted, the controller should assess on a case-by-case basis whether the communication of the restriction would compromise its purpose.
- (18) The Data Protection Officer of the Commission should carry out an independent review of the application of restrictions, with a view to ensuring compliance with this Decision.
- (19) The European Data Protection Supervisor delivered an opinion on 10 December 2018,

HAS ADOPTED THIS DECISION:

#### *Article 1*

### **Subject matter and scope**

1. This Decision lays down the rules to be followed by the Commission to inform data subjects of the processing of their data in accordance with Articles 14, 15 and 16 of Regulation (EU) 2018/1725 when carrying out all of its tasks pursuant to Decision (EU, Euratom) 2015/443.

It also lays down the conditions under which the Commission may restrict the application of Articles 4, 14 to 17, 19, 20 and 35 of Regulation (EU) 2018/1725, in accordance with Article 25(1) (c), (d) and (h) of that Regulation.

2. This Decision applies to the processing of personal data by the Commission for the purpose of or in relation to the activities carried out in order to ensure security of persons, assets and information in the Commission pursuant to Decision (EU, Euratom) 2015/443.

#### *Article 2*

### **Applicable exceptions and restrictions**

1. Where the Commission exercises its duties with respect to data subjects' rights under Regulation (EU) 2018/1725, it shall consider whether any of the exceptions laid down in that Regulation apply.

2. Subject to Articles 3 to 7 of this Decision, the Commission may restrict the application of Articles 14 to 17, 19, 20 and 35 of Regulation (EU) 2018/1725 as well as the principle of transparency laid down in Article 4(1)(a) of that Regulation in so far as its provisions correspond to the rights and obligations provided for in Articles 14 to 17, 19 and 20 of Regulation (EU) 2018/1725, where the exercise of those rights and obligations would jeopardise the internal security of Union institutions, bodies, offices or agencies including of their electronic communications networks, inter alia by revealing its investigative tools and methods in the context of security inquiries, or would adversely affect the rights and freedoms of other data subjects.

3. Subject to Articles 3 to 7, the Commission may restrict the rights and obligations referred to in paragraph 2 of this Article in relation to personal data obtained from other Union institutions, bodies, agencies and offices, competent authorities of Member States or third countries or from international organisations, in the following circumstances:

- (a) where the exercise of those rights and obligations could be restricted by other Union institutions, bodies, agencies and offices on the basis of other acts provided for in Article 25 of Regulation (EU) 2018/1725 or in accordance with Chapter IX of that Regulation or in accordance with Regulation (EU) 2016/794 of the European Parliament and of the Council <sup>(4)</sup> or Council Regulation (EU) 2017/1939 <sup>(5)</sup>;

<sup>(4)</sup> Regulation (EU) 2016/794 of the European Parliament and of the Council of 11 May 2016 on the European Union Agency for Law Enforcement Cooperation (Europol) and replacing and repealing Council Decisions 2009/371/JHA, 2009/934/JHA, 2009/935/JHA, 2009/936/JHA and 2009/968/JHA (OJ L 135, 24.5.2016, p. 53).

<sup>(5)</sup> Council Regulation (EU) 2017/1939 of 12 October 2017 implementing enhanced cooperation on the establishment of the European Public Prosecutor's Office ('the EPPO', OJ L 283, 31.10.2017, p. 1).

- (b) where the exercise of those rights and obligations could be restricted by competent authorities of Member States on the basis of acts referred to in Article 23 of Regulation (EU) 2016/679 of the European Parliament and of the Council <sup>(6)</sup>, or under national measures transposing Articles 13(3), 15(3) or 16(3) of Directive (EU) 2016/680 of the European Parliament and of the Council <sup>(7)</sup>;
- (c) where the exercise of those rights and obligations could jeopardise the Commission's cooperation with third countries or international organisations regarding information exchanges on potential counter-intelligence and counter-terrorist threats and in the conduct of its security inquiries.

Before applying restrictions in the circumstances referred to in points (a) and (b) of the first subparagraph, the Commission shall consult the relevant Union institutions, bodies, agencies, offices or competent authorities of the Member States, unless it is clear to the Commission that the application of a restriction is provided for by one of the acts referred to in those points or such consultation would jeopardise the purpose of its activities under Decision (EU, Euratom) 2015/443.

Point (c) of the first subparagraph of this paragraph shall not apply where the interest of the Commission to cooperate with third countries or international organisations is overridden by the interests or fundamental rights and freedoms of the data subjects.

4. Paragraphs 1, 2 and 3 are without prejudice to the application of other Commission decisions laying down internal rules concerning the provision of information to data subjects and the restriction of certain rights under Article 25 of Regulation (EU) 2018/1725 and to Article 23 of the Rules of Procedure of the Commission.

### Article 3

#### Provision of information to data subjects

1. The Commission shall publish on its website data protection notices that inform all data subjects of its activities involving processing of their personal data which it carries out in order to fulfil its tasks pursuant to Decision (EU, Euratom) 2015/443.
2. The Commission shall individually inform witnesses and the persons concerned by a security inquiry of the processing of their personal data in an appropriate format. It shall also individually inform persons whose data are processed in the context of security measures taken under Article 7(5) and Article 12(1) (d) and (e) of Decision (EU, Euratom) 2015/443, namely in searches of Commission premises and communication and information systems and equipment.
3. Where the Commission restricts, wholly or partly, the provision of the information to data subjects referred to in paragraph 2 of this Article, it shall record and register the reasons for the restriction in accordance with Article 6 of this decision.

### Article 4

#### Right to access by data subjects, right of erasure and right to restriction of processing

1. Where the Commission restricts, wholly or partly, the right of access to data by data subjects, the right of erasure or the right to restriction of processing as referred to in Articles 17, 19 and 20 respectively of Regulation (EU) 2018/1725, it shall inform the data subject concerned, in its reply to the request for access, erasure or restriction of processing, of the restriction applied and of the principal reasons thereof, and of the possibility of lodging a complaint with the European Data Protection Supervisor or of seeking a judicial remedy in the Court of Justice of the European Union.
2. The provision of information concerning the reasons for the restriction referred to in paragraph 1 of this Article may be deferred, omitted or denied for as long as it would undermine the purpose of the restriction.
3. The Commission shall record and register the reasons for the restriction in accordance with Article 6 of this decision.

<sup>(6)</sup> Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (OJ L 119, 4.5.2016, p. 1).

<sup>(7)</sup> Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA (OJ L 119, 4.5.2016, p. 89).

4. Where the right of access is wholly or partly restricted, the data subject may exercise his or her right of access through the intermediary of the European Data Protection Supervisor, in accordance with Article 25(6), (7) and (8) of Regulation (EU) 2018/1725.

#### *Article 5*

### **Communication of a personal data breach to data subjects**

Where the Commission restricts the communication of a personal data breach to the data subject, as referred to in Article 35 of Regulation (EU) 2018/1725, it shall record and register the reasons for the restriction in accordance with Article 6 of this Decision.

#### *Article 6*

### **Recording and registering of restrictions**

1. The Commission shall record the reasons for any restriction applied pursuant to this Decision, including an assessment of the necessity and proportionality of the restriction taking into account the relevant elements in Article 25(2) of Regulation (EU) 2018/1725.

To that end, the record shall state how the exercise of the right would jeopardise the purpose of the Commission's tasks under Decision (EU, Euratom) 2015/443, or of restrictions applied pursuant to Article 2(2) or (3), or would adversely affect the rights and freedoms of other data subjects.

2. The record and, where applicable, the documents containing underlying factual and legal elements shall be registered. They shall be made available to the European Data Protection Supervisor on request.

#### *Article 7*

### **Duration of restrictions**

1. Restrictions referred to in Articles 3, 4 and 5 of this decision shall continue to apply as long as the reasons justifying them remain applicable.

2. Where the reasons for a restriction referred to in Article 3 or 5 of this decision no longer apply, the Commission shall lift the restriction and provide the reasons for the restriction to the data subject. At the same time, the Commission shall inform the data subject of the possibility of lodging a complaint with the European Data Protection Supervisor at any time or of seeking a judicial remedy in the Court of Justice of the European Union.

3. The Commission shall review the application of the restrictions referred to in Articles 4 and 6 every six months from their application and at the closure of the relevant investigation. Thereafter, the Commission shall monitor the need to maintain any restriction/deferral on an annual basis.

#### *Article 8*

### **Review by the Data Protection Officer**

1. The Data Protection Officer of the Commission shall be informed, without undue delay, whenever data subjects' rights are restricted in accordance with this Decision. Upon request, the Data Protection Officer shall be provided with access to the record and any documents containing underlying factual and legal elements.

2. The Data Protection Officer of the Commission may request a review of the restrictions. The Data Protection Officer shall be informed about the outcome of the requested review.

3. The information exchanges with the Data Protection Officer throughout the procedure shall be recorded in the appropriate form.

*Article 9*

This Decision shall enter into force on the third day following that of its publication in the Official Journal of the European Union.

Done at Brussels, 7 February 2019.

*For the Commission*

*The President*

Jean-Claude JUNCKER

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