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Contents

II *Non-legislative acts*

REGULATIONS

- ★ **Commission Delegated Regulation (EU) 2021/1348 of 6 May 2021 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards specifying the criteria under which competent authorities may require changes to the compliance statement of non-significant benchmarks ⁽¹⁾ 1**
- ★ **Commission Delegated Regulation (EU) 2021/1349 of 6 May 2021 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards specifying the criteria for the competent authorities' compliance assessment regarding the mandatory administration of a critical benchmark ⁽¹⁾ 4**
- ★ **Commission Delegated Regulation (EU) 2021/1350 of 6 May 2021 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards specifying the requirements to ensure that an administrator's governance arrangements are sufficiently robust ⁽¹⁾ 9**
- ★ **Commission Delegated Regulation (EU) 2021/1351 of 6 May 2021 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards specifying the characteristics of the systems and controls for the identification and reporting of any conduct that may involve manipulation or attempted manipulation of a benchmark ⁽¹⁾ 13**
- ★ **Commission Delegated Regulation (EU) 2021/1352 of 6 May 2021 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards specifying the conditions to ensure that the methodology for determining a benchmark complies with the quality requirements ⁽¹⁾ 16**
- ★ **Commission Delegated Regulation (EU) 2021/1353 of 17 May 2021 supplementing Regulation (EU) 2017/625 of the European Parliament and of the Council with regard to the cases and conditions under which competent authorities may designate official laboratories which do not fulfil the conditions in relation to all the methods they use for official controls or other official activities ⁽¹⁾ 20**

⁽¹⁾ Text with EEA relevance.

EN

Acts whose titles are printed in light type are those relating to day-to-day management of agricultural matters, and are generally valid for a limited period.

The titles of all other acts are printed in bold type and preceded by an asterisk.

- ★ **Commission Implementing Regulation (EU) 2021/1354 of 6 August 2021 laying down technical information for the calculation of technical provisions and basic own funds for reporting with reference dates from 30 June 2021 until 29 September 2021 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 ⁽¹⁾ 24**

- ★ **Commission Implementing Regulation (EU) 2021/1355 of 12 August 2021 on multiannual national control programmes for pesticides residues to be established by Member States ⁽¹⁾ 120**

⁽¹⁾ Text with EEA relevance.

II

(Non-legislative acts)

REGULATIONS

COMMISSION DELEGATED REGULATION (EU) 2021/1348

of 6 May 2021

supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards specifying the criteria under which competent authorities may require changes to the compliance statement of non-significant benchmarks

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

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

Having regard to Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014 ⁽¹⁾, and in particular Article 26(6) thereof,

Whereas:

- (1) The criteria under which competent authorities may require changes to the compliance statement referred to in Article 26(3) of that Regulation should take into account the nature of the provisions of Regulation (EU) 2016/1011 that administrators of non-significant benchmarks, in accordance with Article 26(1) of that Regulation, may choose not to apply. As some of the requirements set out in those provisions concern the organisational structure of the administrator, while others concern the benchmark or family of benchmarks concerned, the same distinction applies to the criteria under which competent authorities may require changes to the compliance statement.
- (2) In relation to requirements concerning the organisational structure of the administrator, competent authorities should be able to require changes to the compliance statement of a non-significant benchmark where they consider that the compliance statement is not clear about why the administrator concerned should be allowed not to comply with the requirements laid down in Articles 4, 5 and 6 of Regulation (EU) 2016/1011. That should in particular be the case where there is a lack of clarity about the organisational structure of the administrator concerned, about the identification of potential conflicts of interest that may arise between the persons involved in the provision of the benchmark and the other employees or parts of the administrator's organisation, the process of oversight of the provision of the non-significant benchmark, or the control framework for the provision or publication of the non-significant benchmark or for making it available.
- (3) In relation to requirements concerning the benchmark or family of benchmarks, competent authorities should be able to require changes to the compliance statement of a non-significant benchmark where they consider that the compliance statement is not clear about why the administrator concerned should be allowed not to comply with the requirements laid down in Article 11 and Articles 13 to 16 of Regulation (EU) 2016/1011. That should in particular be the case where there is a lack of clarity about the level of control over the provision of the input data, the transparency of the procedures for consulting on any material change to the non-significant benchmark's methodology, the process of reporting instances of manipulation or attempted manipulation of the non-significant

⁽¹⁾ OJ L 171, 29.6.2016, p. 1.

benchmark, the code of conduct where the non-significant benchmark is based on input data from contributors, the capacity of the administrator to review and report on its compliance with the non-significant benchmark's methodology and with Regulation (EU) 2016/1011, and, where input data is contributed by a supervised contributor, whether that is done with appropriate controls to ensure the accuracy, integrity and reliability of the input data.

- (4) This Regulation is based on the draft regulatory technical standards submitted to the Commission by the European Securities and Markets Authority (ESMA).
- (5) ESMA has conducted open public consultations on the draft regulatory technical standards on which this Regulation is based, analysed the potential related costs and benefits and requested the advice of the Securities and Markets Stakeholder Group established in accordance with Article 37 of Regulation (EU) No 1095/2010 of the European Parliament and of the Council ⁽²⁾.
- (6) In order to ensure consistency with the date of application of Article 5 of Regulation (EU) 2019/2175 of the European Parliament and of the Council ⁽³⁾, which introduced in Regulation (EU) 2016/1011 Article 26(6) of that Regulation, this Regulation should apply from 1 January 2022,

HAS ADOPTED THIS REGULATION:

Article 1

Criteria at the level of the administrator

Competent authorities may require changes to the compliance statement referred to in Article 26(3) of Regulation (EU) 2016/1011 where they consider that such statement is not clear about why the administrator concerned should be allowed not to comply with one or more of the requirements referred to in Article 26(1) of Regulation (EU) 2016/1011, and more particularly where there is a lack of clarity about:

- (a) the organisational structure of the administrator concerned and the conflicts of interest that may arise as a result of its structure;
- (b) the identification and management of conflicts of interest related to the employees of the administrator concerned, the persons whose services are placed at its disposal or under its control and the persons directly involved in the provision of the non-significant benchmark;
- (c) the process of oversight of the provision of the non-significant benchmark, taking into account the vulnerability of the benchmark concerned and the scale of the administrator's organisation;
- (d) the control framework for the provision or publication of the non-significant benchmark or for making it available, including the administrator's exposure to operational risk, business continuity risk or to the risk of disruption of the benchmark provision process.

⁽²⁾ Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC (OJ L 331, 15.12.2010, p. 84).

⁽³⁾ Regulation (EU) 2019/2175 of the European Parliament and of the Council of 18 December 2019 amending Regulation (EU) No 1093/2010 establishing a European Supervisory Authority (European Banking Authority), Regulation (EU) No 1094/2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), Regulation (EU) No 1095/2010 establishing a European Supervisory Authority (European Securities and Markets Authority), Regulation (EU) No 600/2014 on markets in financial instruments, Regulation (EU) 2016/1011 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds, and Regulation (EU) 2015/847 on information accompanying transfers of funds (OJ L 334, 27.12.2019, p. 1).

*Article 2***Criteria at the level of the benchmark or family of benchmarks**

Competent authorities may require changes to the compliance statement referred to in Article 26(3) of Regulation (EU) 2016/1011 where they consider that such statement is not clear about why the concerned administrator should not to comply with one or more of the requirements referred to in Article 26(1) of Regulation (EU) 2016/1011, and more particularly where there is a lack of clarity about:

- (a) the level of control over the provision of the input data and whether, taking into account the nature of the input data, that level of control is sufficient to ensure the accuracy, integrity and reliability of the input data;
- (b) the transparency of the procedures for consulting on any material change to the non-significant benchmark's methodology, taking into account the complexity of that methodology and the nature of the input data used;
- (c) the process of reporting instances of manipulation or attempted manipulation of the non-significant benchmark, particularly in relation to the monitoring of input data and contributors;
- (d) where the non-significant benchmark is based on input data from contributors, the code of conduct and whether, taking into account the nature of the input data, it includes safeguards for the integrity of the input data used;
- (e) the capacity of the administrator to review and report on its compliance with the non-significant benchmark's methodology and with Regulation (EU) 2016/1011;
- (f) where input data is contributed by a supervised contributor, whether that is done with appropriate controls to ensure the accuracy, integrity and reliability of the input data.

*Article 3***Entry into force and application**

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 1 January 2022.

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

Done at Brussels, 6 May 2021.

For the Commission
The President
Ursula VON DER LEYEN

COMMISSION DELEGATED REGULATION (EU) 2021/1349**of 6 May 2021****supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards specifying the criteria for the competent authorities' compliance assessment regarding the mandatory administration of a critical benchmark****(Text with EEA relevance)**

THE EUROPEAN COMMISSION,

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

Having regard to Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014 ⁽¹⁾, and in particular Article 21(5) thereof,

Whereas:

- (1) The competent authorities' assessment referred to in Article 21(2), point (b), of Regulation (EU) 2016/1011 concerns either how a critical benchmark is to be transitioned to a new administrator or how that benchmark is to be ceased to be provided. It is therefore appropriate to specify two sets of criteria to be considered by competent authorities, depending on which scenario they are assessing.
- (2) Where a critical benchmark is to be transitioned to a new administrator, the new administrator should be able to ensure the continuity of the provision of the critical benchmark in such a way that supervised entities can continue to use it without interruption and in compliance with Regulation (EU) 2016/1011. It is therefore necessary to specify the criteria that a competent authority should consider when assessing whether the new administrator can ensure such continuity.
- (3) The supervision of a critical benchmark should be ensured throughout the transition of that benchmark to a new administrator. There is a higher risk of a discontinuity in the supervision of such benchmark where the new administrator is located in a different Member State from the one of the competent authority making the assessment on how the critical benchmark is to be transitioned to that new administrator. The competent authorities concerned should cooperate to ensure that the competent authority making the assessment receives all the necessary information to determine whether the continuation of the supervision of the benchmark will be ensured throughout such transition, including an analysis focusing on the new administrator's location and its authorisation status.
- (4) When assessing how a critical benchmark is to be transitioned to a new administrator, a competent authority should analyse from an operational perspective how the provision of the critical benchmark will be transferred from the current administrator to the new administrator. The competent authority concerned should in particular consider the uninterrupted publication of the benchmark, the availability of input data, the methodology for the calculation of the benchmark and any necessary engagement with any contributors, users and other stakeholders.
- (5) A competent authority that assesses how a critical benchmark is to be ceased to be provided, should be satisfied that the benchmark can be ceased to be provided in an orderly fashion, having regard to, inter alia, the procedure for the cessation of the benchmark established by its administrator in accordance with Article 28(1) of Regulation (EU) 2016/1011. It is therefore necessary to specify the criteria which a competent authority should consider to determine whether that is the case.

⁽¹⁾ OJ L 171, 29.6.2016, p. 1.

- (6) A competent authority that assesses how a critical benchmark is to be ceased to be provided should also consider the written plans for the cessation of the benchmark referred to in Article 28(2) of Regulation (EU) 2016/1011. Those written plans of different users of a critical benchmark may not always be aligned and may not be consistent if applied at the same time. It is therefore important that competent authorities consider to what extent those written plans are compatible between different users of the benchmark, including in respect of the trigger events for the cessation of the benchmark which those written plans envisage, and how those written plans can be used to ensure the cessation of the critical benchmark in an orderly fashion.
- (7) This Regulation is based on the draft regulatory technical standards submitted to the Commission by the European Securities and Markets Authority (ESMA).
- (8) ESMA has conducted open public consultations on the draft regulatory technical standards on which this Regulation is based, analysed the potential related costs and benefits and requested the advice of the Securities and Markets Stakeholder Group established in accordance with Article 37 of Regulation (EU) No 1095/2010 of the European Parliament and of the Council ^(?).
- (9) In order to ensure consistency with the date of application of Article 5 of Regulation (EU) 2019/2175 of the European Parliament and of the Council ^(?), which introduced in Regulation (EU) 2016/1011 Article 21(5) of that Regulation, this Regulation should apply from 1 January 2022,

HAS ADOPTED THIS REGULATION:

Article 1

Criteria for assessing the transition to a new administrator

Competent authorities shall, when assessing how a critical benchmark is to be transitioned to a new administrator, consider all of the following criteria:

- (a) whether the new administrator proposed in the assessment submitted by the current administrator pursuant to Article 21(1), point (b)(i), of Regulation (EU) 2016/1011:
 - (i) is located in the same Member State as the current administrator, or in a different Member State in which case the competent authority, where necessary, shall cooperate with the competent authority of the Member State of the new administrator to assess whether the supervision of the critical benchmark will be ensured throughout the transition to the new administrator;
 - (ii) is a supervised entity and, if so, for which activities it is supervised, and whether there are any actual or potential conflicts of interest with that entity's existing activities;
 - (iii) is a user of the benchmark and, if so, whether the conflicts of interest that may arise are adequately mitigated;
 - (iv) is already authorised as a benchmark administrator under Article 34 of Regulation (EU) 2016/1011;

^(?) Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC (OJ L 331, 15.12.2010, p. 84).

^(?) Regulation (EU) 2019/2175 of the European Parliament and of the Council of 18 December 2019 amending Regulation (EU) No 1093/2010 establishing a European Supervisory Authority (European Banking Authority), Regulation (EU) No 1094/2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), Regulation (EU) No 1095/2010 establishing a European Supervisory Authority (European Securities and Markets Authority), Regulation (EU) No 600/2014 on markets in financial instruments, Regulation (EU) 2016/1011 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds, and Regulation (EU) 2015/847 on information accompanying transfers of funds (OJ L 334, 27.12.2019, p. 1).

- (v) already provides benchmarks, and if so, whether those benchmarks are critical, significant, non-significant, commodity or interest rate benchmarks;
- (b) whether the current administrator of the critical benchmark has informed any contributors, users and other stakeholders or has conducted public consultations about the possible transition of the critical benchmark to the new administrator;
- (c) the way in which the new administrator intends to calculate the critical benchmark and whether that administrator intends to amend any of the following elements related to the critical benchmark and, if so, how the administrator will ensure the compliance of those elements with Regulation (EU) 2016/1011:
 - (i) the methodology, including the quality of the input data, and its review;
 - (ii) the contingency policy for the calculation of the benchmark;
 - (iii) the procedures for handling errors in input data or in the redetermination of the benchmark;
 - (iv) the code of conduct;
- (d) whether the new administrator will have access to the same input data as the current administrator, including historical input data held by the current administrator;
- (e) whether the IT infrastructures of the new administrator have been adequately tested for the provision of the critical benchmark;
- (f) where the critical benchmark is based on input data contributed by a panel of contributors, how the new administrator intends to fulfil the requirement set out in Article 11(1), point (d), of Regulation (EU) 2016/1011 and whether the current contributors will continue to be part of the panel after the benchmark's transition to the new administrator;
- (g) the way in which the new administrator intends to publish the critical benchmark, including the standard daily publication arrangements, the frequency of publication, the address of the website and whether critical benchmark will be accessible upon payment of a fee or free of charge;
- (h) whether there is detailed plan for the transition date, and if so, whether that plan deals with all possible issues, including contractual issues, stemming from the transition of the critical benchmark to a new administrator;
- (i) legal risks involved in the transition, including the risk of contract frustration;
- (j) the accounting and tax implications of the critical benchmark being provided by a new administrator;
- (k) the impact of the transition on financial market infrastructures, including clearing houses.

Article 2

Criteria for assessing the cessation of the provision of a critical benchmark

1. Competent authorities shall, when assessing how a critical benchmark is to be ceased to be provided, consider all of the following criteria:
 - (a) the effectiveness of the procedure established in accordance with Article 28(1) of Regulation (EU) 2016/1011, and in particular:
 - (i) whether that procedure precisely defines the actions to be taken by the administrator to cease in an orderly fashion the provision of the critical benchmark;
 - (ii) whether, considering the circumstances of the specific case, those actions will be adequate to ensure the cessation in an orderly fashion of the provision of the critical benchmark, having also regard to the criterion referred to in point (b) of this paragraph;
 - (iii) when that procedure was produced and when it was last updated;

- (b) the written plans referred to in Article 28(2) of Regulation (EU) 2016/1011 and in particular:
 - (i) whether those written plans nominate suitable alternative benchmarks that can be referenced to substitute the critical benchmark and, if so, whether those written plans nominate the same or different alternative benchmarks;
 - (ii) where those written plans nominate the same alternative benchmark, whether that benchmark has been adopted in different asset classes;
 - (iii) whether the trigger events for the cessation of the provision of critical benchmark included in the written plans are the same among the plans produced by the supervised entities using that critical benchmark, where it is feasible to assess this;
- (c) whether the administrators of the alternative benchmarks referred to in point (b)(i) of this paragraph are authorised;
- (d) where feasible, whether the cessation of the provision of the critical benchmark would have an adverse impact on the market integrity, financial stability, consumers, the real economy, or the financing of households and businesses ⁽⁴⁾;
- (e) whether the cessation of the provision of the critical benchmark would result in a force majeure event;
- (f) the dynamics of the market or economic reality that the critical benchmark intends to measure and whether there exists input data of sufficient quality and quantity to represent that underlying market or economic reality with precision;
- (g) whether the administrator has informed any contributors to the critical benchmark, users of that benchmark and other stakeholders or has conducted public consultations about the possible cessation of the provision of the critical benchmark;
- (h) any legal risks involved in the cessation of the provision of the critical benchmark;
- (i) the accounting and tax implications of the cessation of the provision of the critical benchmark;
- (j) the impact of the cessation of the provision of the critical benchmark on market infrastructures, including clearing houses.

For the purposes of point (c), where the administrators of the alternative benchmarks referred to in point (b)(i) of this paragraph are not authorised, the competent authority shall assess the conditions of their authorisation under Article 34 of Regulation (EU) 2016/1011 and shall assess whether a period of mandatory administration of the critical benchmark is necessary to allow for authorisation of the administrators of those alternative benchmarks.

2. In addition to the criteria referred to in paragraph 1, point (a), a competent authority may assess whether the procedure established by the administrator in accordance with Article 28(1) of Regulation (EU) 2016/1011 is appropriate having regard to the following elements concerning the financial instruments, financial contracts or investment funds which reference the critical benchmark:

- (a) their volume and value;
- (b) the term, duration, maturity or expiry date of the financial instruments, financial contracts and any other document entered into for measuring the performance of an investment fund through an index or a combination of indices for the purpose of tracking the return of such index or combination of indices, of defining the asset allocation of a portfolio, or of computing the performance fees;
- (c) whether the critical benchmark will continue to be provided for use during a transitional or run-off period;

⁽⁴⁾ Commission Delegated Regulation (EU) 2018/64 of 29 September 2017 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to specifying how the criteria of Article 20(1)(c)(iii) are to be applied for assessing whether certain events would result in significant and adverse impacts on market integrity, financial stability, consumers, the real economy or the financing of households and businesses in one or more Member States (OJ L 12, 17.1.2018, p. 5).

- (d) whether the procedure referred to in Article 28(1) of Regulation (EU) 2016/1011 provides for such changes to the critical benchmark as may be necessary to ensure that the critical benchmark remains reliable and representative of the underlying market or economic reality which it intends to measure throughout the period referred to in subparagraph 2(c) of this Article;
- (e) the likelihood that any such financial instrument, financial contract or other document entered into for measuring the performance of an investment fund through an index or a combination of indices for the purpose of tracking the return of such index or combination of indices, of defining the asset allocation of a portfolio, or of computing the performance fees would be frustrated or that its terms would be breached in the event of the cessation of the provision of the critical benchmark.

Article 3

Entry into force and application

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 1 January 2022.

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

Done at Brussels, 6 May 2021.

For the Commission
The President
Ursula VON DER LEYEN

COMMISSION DELEGATED REGULATION (EU) 2021/1350**of 6 May 2021****supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards specifying the requirements to ensure that an administrator's governance arrangements are sufficiently robust****(Text with EEA relevance)**

THE EUROPEAN COMMISSION,

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

Having regard to Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014 ⁽¹⁾, and in particular Article 4(9) thereof,

Whereas:

- (1) In order to be robust, the governance arrangements of benchmark administrators should provide for an organisational structure that in a clear and documented manner specifies procedures for management decision-making, internal reporting lines and the allocation of functions and responsibilities of the persons involved in the provision of a benchmark.
- (2) Robust governance arrangements should allow to identify and to manage possible conflicts of interest that may arise within the organisational structure of benchmark administrators. Therefore, the governance arrangements of benchmark administrators should in particular specify the structure of the management body and its roles and responsibilities.
- (3) A circumstance that may give rise to a conflict of interest does not automatically exclude a person involved in that conflict of interest from being involved in the provision of a benchmark. Benchmark administrators should nevertheless identify all circumstances that may give rise to a potential or an actual conflict of interest, assess them and decide, where appropriate, on mitigating measures.
- (4) Benchmark administrators that are part of a group should duly assess any implications of the group's structure for their own governance arrangements. Such assessment should consider whether resulting conflicts of interest may compromise their ability to meet their regulatory obligations. It should also assess whether the administrators' independence could be compromised by the group structure or by the fact that a member of the administrators' management body is also a member of the board of other entities of the same group. Those benchmark administrators should adopt specific procedures for preventing and managing conflicts of interest that may arise from that group structure.
- (5) Administrators that operate as a part of a group should be able to seek synergies at group level. However, functions that are outsourced within a group should comply with Article 10 of Regulation (EU) 2016/1011 and with all other relevant provisions of that Regulation.
- (6) In accordance with the principle of proportionality, administrators of non-significant benchmarks should not be subject to an excessive administrative burden. With respect to their non-significant benchmarks, those administrators should therefore be able to opt out from certain requirements regarding their organisational structure. In addition, where it is justified in view of the nature, scale and complexity of their activities, the likelihood of a conflict of interest arising between the provision of the benchmark and any other activities of the administrator, and the level of discretion involved in the process of provision of the benchmark, certain benchmark administrators should be able to opt out from the requirement of specifying in their governance arrangements the procedure for the appointment of the management body.

⁽¹⁾ OJ L 171, 29.6.2016, p. 1.

- (7) This Regulation is based on the draft regulatory technical standards submitted to the Commission by the European Securities and Markets Authority (ESMA).
- (8) ESMA has conducted open public consultations on the draft regulatory technical standards on which this Regulation is based, analysed the potential related costs and benefits and requested the advice of the Securities and Markets Stakeholder Group established in accordance with Article 37 of Regulation (EU) No 1095/2010 of the European Parliament and of the Council ⁽²⁾.
- (9) In order to ensure consistency with the date of application of Article 5 of Regulation (EU) 2019/2175 of the European Parliament and of the Council ⁽³⁾, which introduced in Regulation (EU) 2016/1011 Article 4(9) of that Regulation, this Regulation should apply from 1 January 2022,

HAS ADOPTED THIS REGULATION:

Article 1

Decision-making procedures, allocation of functions and responsibilities and internal reporting lines

1. The governance arrangements of benchmark administrators shall be approved by the management body, if any, and shall specify, in a clear and well documented manner, all of the following:
 - (a) the procedures for the management's decision-making;
 - (b) an organisational chart of the benchmark administrator, setting out how functions and responsibilities are allocated to the persons directly involved in the provision of a benchmark;
 - (c) internal reporting lines.
2. The procedures referred to in paragraph 1, point (a), shall cover all of the following, where applicable:
 - (a) the composition, roles and responsibilities of the management body and of any related committees;
 - (b) the structure of the management body;
 - (c) the appointment of the management body.
3. The organisational chart referred to in paragraph 1, point (b), shall specify any outsourced functions within and outside the administrator's group and any shared staff within the administrator's group. In allocating functions and responsibilities, the governance arrangements of administrators shall ensure that, where persons perform multiple functions or are involved in various committees, they are able to commit sufficient time to the functions and responsibilities allocated to them and are not prevented from discharging their functions soundly, honestly and professionally.

For the purposes of the first subparagraph, administrators shall take into account the number of meetings that the relevant person has to attend, the nature of the specific position and the related responsibilities and whether the person concerned carries out any other function or activity.

⁽²⁾ Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC (OJ L 331, 15.12.2010, p. 84).

⁽³⁾ Regulation (EU) 2019/2175 of the European Parliament and of the Council of 18 December 2019 amending Regulation (EU) No 1093/2010 establishing a European Supervisory Authority (European Banking Authority), Regulation (EU) No 1094/2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), Regulation (EU) No 1095/2010 establishing a European Supervisory Authority (European Securities and Markets Authority), Regulation (EU) No 600/2014 on markets in financial instruments, Regulation (EU) 2016/1011 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds, and Regulation (EU) 2015/847 on information accompanying transfers of funds (OJ L 334, 27.12.2019, p. 1).

4. The governance arrangements of benchmark administrators shall provide for a clear remuneration framework for all persons directly involved in the provision of the benchmark, taking into account the functions and responsibilities allocated to them.
5. Benchmark administrators may choose not to apply paragraph 2, point (c), and paragraph 4 with respect to their non-significant benchmarks.
6. Benchmark administrators may choose not to apply paragraph 2, point (c), and paragraph 4 where such opt-out is appropriate and proportionate, having regard to the following:
 - (a) the nature, scale and complexity of the activities of the administrator;
 - (b) the likelihood of a conflict of interest arising between the provision of the benchmark and any other activities of the administrator;
 - (c) the level of discretion involved in the process of provision of the benchmark.

Article 2

Accountability

1. The governance arrangements of benchmark administrators shall, as part of their organisational structure, specify in a clear and well documented manner the accountability of the following persons:
 - (a) the persons responsible for decisions that could have a significant impact on the provision of the benchmark, in particular where taking those decisions is delegated
 - (b) the persons responsible for the publication or disclosure of existing or potential conflicts of interest pursuant to Article 4(5) of Regulation (EU) 2016/1011;
 - (c) the persons responsible for the establishment of specific internal control procedures to ensure the integrity and reliability of the employee or person determining the benchmark, referred to in Article 4(8) of Regulation (EU) 2016/1011;
 - (d) the persons responsible for the internal reporting of any circumstance that may give rise to conflicts of interest.
2. Benchmark administrators may choose not to apply paragraph 1, point (d), with respect to their non-significant benchmarks.

Article 3

Transparency requirements

1. The governance arrangements of benchmark administrators shall ensure that all of their managers or employees, and any other natural person whose services are placed at their disposal or under their control and who are directly involved in the provision of a benchmark, are aware of their responsibilities and of the procedures that must be followed for the proper discharge of those responsibilities.
2. Where a benchmark administrator is part of a group, the governance arrangements of that administrator shall detail any functions related to any concerned services and activities in the provision of the benchmark that have been outsourced, including to group entities, in accordance with Article 10 of Regulation (EU) 2016/1011.

Article 4

Entry into force and application

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 1 January 2022.

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

Done at Brussels, 6 May 2021.

For the Commission
The President
Ursula VON DER LEYEN

COMMISSION DELEGATED REGULATION (EU) 2021/1351**of 6 May 2021****supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards specifying the characteristics of the systems and controls for the identification and reporting of any conduct that may involve manipulation or attempted manipulation of a benchmark****(Text with EEA relevance)**

THE EUROPEAN COMMISSION,

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

Having regard to Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014 ⁽¹⁾, and in particular Article 14(4) thereof,

Whereas:

- (1) It should be ensured that the detection of benchmark manipulation or attempted manipulation is effective and adequate. It is therefore necessary that the systems and controls of a benchmark administrator are proportionate to the nature, the complexity and the risk of manipulation of the benchmark provided and that the risk of manipulation is evaluated on the basis of an objective assessment which takes into account the origin, nature, peculiarity and severity of such risk.
- (2) In order to ensure that the detection of any conduct that may involve manipulation or attempted manipulation of a benchmark is effective, it is necessary to provide for appropriate automated systems to monitor input data. However, automated systems alone are not sufficient to ensure that manipulative behaviour is effectively detected. Automated systems should therefore be complemented by an appropriate level of human analysis to be carried out by appropriately trained staff.
- (3) To ensure that competent authorities can effectively assess measures taken to identify and report misconduct, administrators should, upon request, provide the competent authority with information on the nature, complexity and risk of manipulation of the benchmark concerned, and substantiate the appropriateness of the level of automation and human analysis chosen.
- (4) The employees of a benchmark administrator that are in charge of operating the administrator's systems and controls should receive appropriate training to enable them to analyse whether or not a given data input is suspicious. Such training should ensure that those employees are aware of the features of proper input data submission and of discrepancies in input data potentially caused by manipulation or attempted manipulation. Effective training should be tailored to the nature, complexity and risk of manipulation of the benchmark provided.
- (5) Administrators may prefer to outsource functions related to the systems and controls. Such outsourcing should only be possible to the extent it does not materially impair the administrator's control over the provision of the benchmark or the ability of the relevant competent authority to supervise the benchmark, and is in any case subject to the requirements of Article 10 of Regulation (EU) 2016/1011.
- (6) This Regulation is based on the draft regulatory technical standards submitted to the Commission by the European Securities and Markets Authority (ESMA).

⁽¹⁾ OJ L 171, 29.6.2016, p. 1.

- (7) ESMA has conducted open public consultations on the draft regulatory technical standards on which this Regulation is based, analysed the potential related costs and benefits and requested the advice of the Securities and Markets Stakeholder Group established in accordance with Article 37 of Regulation (EU) No 1095/2010 of the European Parliament and of the Council ⁽⁷⁾.
- (8) In order to ensure consistency with the date of application of Article 5 of Regulation (EU) 2019/2175 of the European Parliament and of the Council ⁽⁸⁾, which introduced in Regulation (EU) 2016/1011 Article 14(4) of that Regulation, this Regulation should apply from 1 January 2022,

HAS ADOPTED THIS REGULATION:

Article 1

Adequate systems and effective control

1. The adequate systems and effective controls referred to in Article 14(1) of Regulation (EU) 2016/1011 shall be:
- (a) appropriate for and proportionate to the nature, complexity and risk of manipulation of the benchmark concerned;
 - (b) regularly, and at least annually, reviewed, and updated when necessary to ensure that those systems and controls continue to comply with point (a);
 - (c) be documented in writing in a clear and comprehensible manner, including any changes to or updates of those systems and controls.

For the purposes of point (a) of the first subparagraph, an administrator shall, on a regular basis and at least annually, assess the risk of manipulation of the benchmark provided, taking into account the following elements:

- (a) the envisaged operations required to provide the benchmark;
- (b) the potential origin, nature, peculiarity and severity of the manipulation risk;
- (c) the measures envisaged to address the risk of manipulation, including safeguards, security measures and internal procedures.

2. The adequate systems and effective controls referred to in Article 14(1) of Regulation (EU) 2016/1011 shall include, to the level appropriate to the nature, complexity and risk of manipulation of the benchmark provided, all of the following elements:

- (a) software capable of deferred automated reading, replaying and analysis of input data;
- (b) human analysis in the detection and identification of behaviour that may involve manipulation or attempted manipulation of a benchmark.

3. An administrator shall, upon request by the competent authority, provide the competent authority with the information referred to in paragraph 1, first subparagraph, points (a), (b) and (c), and substantiate the appropriateness of the level of automation and human analysis chosen, as referred to in paragraph 2.

⁽⁷⁾ Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC (OJ L 331, 15.12.2010, p. 84).

⁽⁸⁾ Regulation (EU) 2019/2175 of the European Parliament and of the Council of 18 December 2019 amending Regulation (EU) No 1093/2010 establishing a European Supervisory Authority (European Banking Authority), Regulation (EU) No 1094/2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), Regulation (EU) No 1095/2010 establishing a European Supervisory Authority (European Securities and Markets Authority), Regulation (EU) No 600/2014 on markets in financial instruments, Regulation (EU) 2016/1011 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds, and Regulation (EU) 2015/847 on information accompanying transfers of funds (OJ L 334, 27.12.2019, p. 1).

*Article 2***Training**

1. The adequate systems and effective controls referred to in Article 14(1) of Regulation (EU) 2016/1011 shall be operated by employees of the administrator who are adequately and regularly trained to:
 - (a) detect and identify any suspicious input data that could be the result of benchmark manipulation or attempted manipulation;
 - (b) promptly report any such findings to their internal reporting line.
2. In determining the content of the training referred to in paragraph 1 of this Article, an administrator shall take into account the nature, complexity and risk of manipulation of the benchmark provided as referred to in Article 1(1), point (a).

*Article 3***Input data integrity policy**

The adequate systems and effective controls referred to in Article 14(1) of Regulation (EU) 2016/1011 shall be documented in an input data integrity policy indicating:

- (a) the risk of benchmark manipulation;
- (b) a general description of the adequate systems and effective controls, including their compliance with the requirements laid down in Article 1;
- (c) a general description of the training of the employees of the administrator involved in the operation of the adequate systems and effective controls, as referred to in Article 2;
- (d) the name and contact details of the persons responsible for the adequate systems and effective controls.

*Article 4***Entry into force and application**

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 1 January 2022.

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

Done at Brussels, 6 May 2021.

For the Commission
The President
Ursula VON DER LEYEN

COMMISSION DELEGATED REGULATION (EU) 2021/1352**of 6 May 2021****supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards specifying the conditions to ensure that the methodology for determining a benchmark complies with the quality requirements****(Text with EEA relevance)**

THE EUROPEAN COMMISSION,

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

Having regard to Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014 ⁽¹⁾, and in particular Article 12(4) thereof,

Whereas:

- (1) For the methodology for determining a benchmark to be robust and reliable, that methodology should specify the nature of the input data used and any criteria to be applicable in circumstances in which the quantity or quality of input data falls below the standards necessary for the methodology to determine the benchmark accurately and reliably, it should be subject to an assessment of the relationship between the key assumptions used and the sensitivity of the benchmark computed by that methodology, it should be capable of representing the underlying market or economic reality that it seeks to measure and it should incorporate factors including parameters and input data that are most relevant to measure the underlying market.
- (2) A benchmark is calculated using a formula or other method of calculation based on underlying values. Administrators have a degree of discretion in constructing the formula, in performing the necessary calculation and in determining the input data. That degree of discretion creates a risk of manipulation. Administrators should therefore ensure that when such discretion is used, an appropriate control system is in place. Regulation (EU) 2016/1011 recognises that the construction of a benchmark methodology might embed discretion exercised by each administrator. It is important that the methodology includes clear rules identifying how and when that discretion is allowed to be exercised and in particular whether that discretion is based on an algorithm or pre-defined methodology. Furthermore, the methodology should clarify in which circumstances transaction data in the underlying market would be considered as not sufficient.
- (3) It is important that an administrator is able to construct a benchmark methodology that is resilient to different market conditions and that allows for the calculation of the benchmark in the widest set of possible market circumstances. The benchmark methodology used should therefore rely on adequate and appropriate historical values of the benchmark. For the same reason, and in particular to validate the calculation of the benchmark and to evaluate the performance of the methodology *ex post*, the benchmark methodology should be back-tested against available transaction data. Such back-testing should be an *ex post* exercise, which either uses additional available data that were not used for the calculation of the benchmark or other sources of transaction data, or reconstructs the historical values of the benchmark. To ensure that the benchmark methodology is capable of validation, it is important that back-testing is performed both at each annual review of the benchmark methodology and, depending on the type of the benchmark, either after each material change of that methodology, on an ongoing basis, or at the first provision of the benchmark. The findings from the back-testing should be reflected in the methodology.

⁽¹⁾ OJ L 171, 29.6.2016, p. 1.

- (4) A benchmark methodology that is resilient should be able to be used for the calculation of the benchmark in the widest set of possible circumstances, including in stressed market conditions. It is therefore important that administrators assess the impact of various market conditions on the methodology using historical data from realised stressed market conditions, and that for critical benchmarks, hypothetical data for unrealised stressed market conditions are used.
- (5) A benchmark methodology that is traceable and verifiable should allow for a continuous check and control of each calculation of the benchmark. Traceability should include the documentation of the different steps of the methodology and should be the basis for verifiability that would imply the ability to reconstruct the historical values of the benchmark.
- (6) In accordance with the principle of proportionality, administrators of non-significant benchmarks and of regulated-data benchmarks should not be subject to an excessive administrative burden. It is therefore appropriate that such administrators should be able to opt out from certain quality requirements for those benchmarks. In addition, where it is justified in view of the nature, scale and complexity of their activities, the likelihood of a conflict of interest arising between the provision of the benchmark and any other activities of the administrator, and the level of discretion involved in the process of provision of the benchmark, certain benchmark administrators should be able to opt out from certain requirements regarding the resilience of the methodology of the benchmark.
- (7) This Regulation is based on the draft regulatory technical standards submitted to the Commission by the European Securities and Markets Authority (ESMA).
- (8) ESMA has conducted open public consultations on the draft regulatory technical standards on which this Regulation is based, analysed the potential related costs and benefits and requested the advice of the Securities and Markets Stakeholder Group established in accordance with Article 37 of Regulation (EU) No 1095/2010 of the European Parliament and of the Council ⁽²⁾.
- (9) In order to ensure consistency with the date of application of Article 5 of Regulation (EU) 2019/2175 of the European Parliament and of the Council ⁽³⁾, which introduced in Regulation (EU) 2016/1011 Article 12(4) of that Regulation, this Regulation should apply from 1 January 2022,

HAS ADOPTED THIS REGULATION:

Article 1

Conditions to ensure that the benchmark methodology is robust and reliable

1. A benchmark methodology as referred to in Article 12(1), point (a), of Regulation (EU) 2016/1011, shall:
 - (a) be capable of representing the underlying market or economic reality that it seeks to measure and shall incorporate factors, including parameters and input data, that are most relevant to measure the underlying market;

⁽²⁾ Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC (OJ L 331, 15.12.2010, p. 84).

⁽³⁾ Regulation (EU) 2019/2175 of the European Parliament and of the Council of 18 December 2019 amending Regulation (EU) No 1093/2010 establishing a European Supervisory Authority (European Banking Authority), Regulation (EU) No 1094/2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), Regulation (EU) No 1095/2010 establishing a European Supervisory Authority (European Securities and Markets Authority), Regulation (EU) No 600/2014 on markets in financial instruments, Regulation (EU) 2016/1011 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds, and Regulation (EU) 2015/847 on information accompanying transfers of funds (OJ L 334, 27.12.2019, p. 1).

- (b) be subject to an assessment of the relationship between the key assumptions used and the sensitivity of the benchmark computed by that methodology;
 - (c) specify the nature of the input data used in the methodology;
 - (d) specify any criteria to be applicable in circumstances in which the quantity or quality of input data falls below the standards necessary for the methodology to determine the benchmark accurately and reliably.
2. Administrators of non-significant benchmarks may choose not to apply paragraph 1, point (b), for those benchmarks.
3. Administrators of regulated-data benchmarks may choose not to apply paragraph 1, points (b) and (c), for those benchmarks.

Article 2

Conditions to ensure that the benchmark methodology has clear rules identifying how and when discretion may be exercised in the determination of the benchmark

A benchmark methodology as referred to in Article 12(1), point (b), of Regulation (EU) 2016/1011 shall specify all of the following:

- (a) the step of the calculation of the benchmark at which discretion is performed;
- (b) the criteria that are to be used when exercising the discretion;
- (c) the input data that are to be taken into account;
- (d) where applicable, a non-exhaustive list of the conditions under which:
 - (i) transaction data in the underlying market are to be considered as not sufficient and the use of transaction data in related markets is needed;
 - (ii) applying the methodology does not yield a result and discretion has to be exercised in the determination of the benchmark;
- (e) the type of related markets that are to be considered appropriate for the purposes of point (d)(i).

Article 3

Conditions to ensure that the benchmark methodology is rigorous, continuous and capable of validation including, where appropriate, back-testing against available transaction data

1. A benchmark methodology as referred to in Article 12(1), point (c), of Regulation (EU) 2016/1011 shall contain all of the following:
- (a) an assessment of the adequacy and appropriateness of the historical values of the benchmark produced by that methodology;
 - (b) reliable input data, including appropriate size of the data samples, if any.
2. Benchmark administrators shall ensure that any back-testing to which the benchmark methodology is subject takes place *ex post* and refers to an appropriate time horizon.

Back-testing shall take place at least at each annual review of the benchmark methodology and following any material change of that methodology. For regulated-data benchmarks, back-testing shall take place at the first provision of the benchmark. For critical benchmarks, a monthly back-testing shall be performed.

The benchmark methodology shall include an assessment of the back-testing results, including processes to ensure that systemic anomalies highlighted by back-testing are identified and properly addressed.

*Article 4***Conditions to ensure that the benchmark methodology is resilient and ensures that the benchmark can be calculated in the widest set of possible circumstances, without compromising its integrity**

1. Administrators shall assess the impact of various market conditions on the methodology using historical data from stressed market conditions. Where no appropriate historical data are available, administrators of critical benchmarks shall use hypothetical data representing stressed market conditions.
2. Administrators shall use parameters and assumptions in the methodology to capture a variety of historical or, in the case of administrators of critical benchmarks, hypothetical conditions, including the most volatile periods experienced by the markets and taking into account a variety of hypotheses for correlation between underlying assets.
3. Administrators of non-significant benchmarks and regulated-data benchmarks may choose not to apply paragraph 2 with respect to those benchmarks.
4. Administrators may choose not to apply any of the requirements laid down in paragraphs 1 and 2, having regard to the following matters:
 - (a) the nature, scale and complexity of the provision of the benchmarks;
 - (b) the likelihood of a conflict of interest arising in the provision of the benchmarks;
 - (c) the level of discretion involved in the process of provision of benchmarks.

*Article 5***Conditions to ensure that the benchmark methodology is traceable and verifiable**

Benchmark administrators shall keep a documented audit trail of the calculation of the benchmark, including any assessment of the resilience of the methodology and the back-testing results.

*Article 6***Entry into force and application**

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 1 January 2022.

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

Done at Brussels, 6 May 2021.

For the Commission
The President
Ursula VON DER LEYEN

COMMISSION DELEGATED REGULATION (EU) 2021/1353

of 17 May 2021

supplementing Regulation (EU) 2017/625 of the European Parliament and of the Council with regard to the cases and conditions under which competent authorities may designate official laboratories which do not fulfil the conditions in relation to all the methods they use for official controls or other official activities

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

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

Having regard to Regulation (EU) 2017/625 of the European Parliament and of the Council of 15 March 2017 on official controls and other official activities performed to ensure the application of food and feed law, rules on animal health and welfare, plant health and plant protection products, amending Regulations (EC) No 999/2001, (EC) No 396/2005, (EC) No 1069/2009, (EC) No 1107/2009, (EU) No 1151/2012, (EU) No 652/2014, (EU) 2016/429 and (EU) 2016/2031 of the European Parliament and of the Council, Council Regulation (EC) No 1/2005 and (EC) No 1099/2009 and Council Directives 98/58/EC, 1999/74/EC, 2007/43/EC, 2008/119/EC and 2008/120/EC, and repealing Regulations (EC) No 854/2004 and (EC) No 882/2004 of the European Parliament and of the Council, Council Directives 89/608/EEC, 89/662/EEC, 90/425/EEC, 91/496/EEC, 96/23/EC, 96/93/EC and 97/78/EC and Council Decision 92/438/EEC (Official Controls Regulation) ⁽¹⁾, and in particular Article 41 thereof,

Whereas:

- (1) Regulation (EU) 2017/625 provides that laboratory analyses, tests and diagnoses on samples taken during official controls and other official activities are to be performed by official laboratories, which have been designated as such by the competent authorities of the Member States.
- (2) In accordance with Article 37(4), point (e) of Regulation (EU) 2017/625, official laboratories need to comply with, *inter alia*, certain accreditation criteria based on international standards. Article 37(5) provides that the scope of this accreditation shall include the methods of laboratory analysis, test or diagnosis required to be used during official laboratory operations.
- (3) The purpose of the obligation to have laboratories and methods accredited is to ensure the competence of official laboratories to produce reliable and reproducible results as a basis for harmonised official controls and other official activities within the Union.
- (4) At the same time, the accreditation process requires considerable time and resources.
- (5) Article 41 of Regulation (EU) 2017/625 therefore empowers the Commission to adopt delegated acts specifying the cases where and the conditions under which competent authorities may designate as official laboratories, laboratories which do not fulfil the conditions of Article 37(4), point (e) of that Regulation in relation to all the methods they use for official controls and other official activities. Such laboratories may be designated according to the conditions stipulated under that empowerment provided they fulfil the criteria established in Article 41, points (a) and (b) of Regulation (EU) 2017/625.
- (6) In the areas of plant health, food contact materials, food additives, food enzymes, flavourings and feed additives further efforts are needed to complete the process of accreditation. The related tasks are complex since the potential number of substances to be verified in a given matrix or the various matrix/analyte combinations implies a broad range and high number of testing methods. Accrediting all the potential combinations poses a disproportionate burden in terms of time and resources on laboratories in these areas.

⁽¹⁾ OJ L 95, 7.4.2017, p. 1.

- (7) Competent authorities should therefore be able to designate as official laboratories those laboratories that are not accredited for all the methods they use for official controls and other official activities provided that such laboratories have a quality assurance scheme in place and make use of methods characterised by the relevant criteria set out in Annex III to Regulation (EU) 2017/625, as well as by the modalities for the application of those criteria.
- (8) In the area of plant health competent authorities should be able to designate as official laboratories those laboratories that wish to use a method for which they do not have accreditation and that are already accredited for at least one method for use on a pest from the same organism group, namely nematodes, bacteria, fungi and oomycetes, viruses, viroids and phytoplasmas, insects and mites, as the pest for which the non-accredited method is used.
- (9) In accordance with Article 167(2) of Regulation (EU) 2017/625, in the area of plant health, Article 37(4), point (e) and Article 37(5) of that Regulation apply from 29 April 2022. With respect to the designation of official laboratories in the area of plant health, this Regulation should therefore also apply from 29 April 2022,

HAS ADOPTED THIS REGULATION:

Article 1

Subject matter

This Regulation establishes the cases where, and the conditions under which, laboratories which do not fulfil the conditions of accreditation laid down in Article 37(4), point (e) of Regulation (EU) 2017/625 in relation to all the methods they use for official controls or other official activities may be designated as official laboratories by the competent authorities.

Article 2

Official laboratories in the areas of food contact materials, food additives, food enzymes, flavourings and feed additives

The competent authorities may designate laboratories which do not fulfil the conditions referred to in Article 37(4), point (e) of Regulation (EU) 2017/625 in relation to all the methods of laboratory analysis, test or diagnosis they use for official controls or other official activities, as official laboratories in the areas of food contact materials, food additives, food enzymes, flavourings and feed additives provided that:

- (a) those laboratories have a quality assurance system in place to ensure that reliable results are obtained from the use of methods of laboratory analysis, test or diagnosis outside the scope of their accreditation and
- (b) the non-accredited methods used by those laboratories are characterised by the relevant criteria to the areas covered under this article set out in Annex III to Regulation (EU) 2017/625.

Article 3

Official laboratories in the areas of plant health

The competent authorities may designate laboratories which do not fulfil the conditions referred to in Article 37(4), point (e) of Regulation (EU) 2017/625 in relation to all the methods of laboratory analysis, test or diagnosis they use for official controls or other official activities, as official laboratories in the areas of plant health provided that:

- (a) those laboratories have a quality assurance system in place to ensure that reliable results are obtained from the use of methods of laboratory analysis, test or diagnosis outside the scope of their accreditation;
- (b) the non-accredited methods used by those laboratories are characterised by the relevant criteria to the area of plant health set out in Annex III to Regulation (EU) 2017/625, and
- (c) the laboratory is already accredited for at least one of the methods listed in the categories referred to in the Annex for use on a pest from the same organism group as the pest for which the non-accredited method is used.

*Article 4***Entry into force and application**

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

Article 3 shall apply from 29 April 2022.

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

Done at Brussels, 17 May 2021.

For the Commission
The President
Ursula VON DER LEYEN

ANNEX

CATEGORIES OF METHODS USED FOR ANALYSES, TESTS AND DIAGNOSES IN THE AREA OF PLANT HEALTH

1. Baiting, isolation and extraction methods, including:
 - Plating methods
 - Methods for extraction of target organism from matrix
 2. Morphological and morphometric methods
 3. Pathogenicity assessment methods
 4. Biochemical methods, including:
 - Enzyme electrophoresis
 - Return-Polyacrylamide Gel Electrophoresis (R-PAGE)
 5. Fingerprint methods, including:
 - Protein profiling
 - Fatty acid profiling
 - DNA profiling
 - MALDI-TOF mass spectrometry
 6. Molecular methods, including:
 - Conventional Polymerase Chain Reaction (PCR)
 - Real-time Polymerase Chain Reaction (Real Time PCR)
 - Loop-mediated isothermal amplification (LAMP)
 - Recombinase polymerase amplification (RPA)
 - Next-generation sequencing (NGS)
 - DNA barcoding
 7. Serological methods, including:
 - Immunofluorescence
 - Enzyme-linked immunosorbent assay (ELISA)
 - Immunosorbent electron microscopy
-

COMMISSION IMPLEMENTING REGULATION (EU) 2021/1354**of 6 August 2021****laying down technical information for the calculation of technical provisions and basic own funds for reporting with reference dates from 30 June 2021 until 29 September 2021 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) ⁽¹⁾, 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 5 July 2021, the European Insurance and Occupational Pensions Authority provided the Commission with the technical information related to end of June 2021 market data. That information was published on 5 July 2021 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 ⁽²⁾,

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 30 June 2021 until 29 September 2021.

⁽¹⁾ OJ L 335, 17.12.2009, p. 1.

⁽²⁾ 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 30 June 2021.

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

Done at Brussels, 6 August 2021.

For the Commission
The President
Ursula VON DER LEYEN

ANNEX I

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

Term to maturity (in years)	Euro	Czech koruna	Danish krone	Forint	Krona	Kuna
1	-0,605 %	1,015 %	-0,615 %	0,917 %	-0,120 %	-0,171 %
2	-0,555 %	1,489 %	-0,565 %	1,279 %	-0,027 %	-0,072 %
3	-0,495 %	1,720 %	-0,505 %	1,546 %	0,068 %	-0,007 %
4	-0,426 %	1,816 %	-0,436 %	1,772 %	0,178 %	0,050 %
5	-0,346 %	1,842 %	-0,356 %	1,967 %	0,284 %	0,120 %
6	-0,276 %	1,827 %	-0,286 %	2,136 %	0,352 %	0,214 %
7	-0,206 %	1,796 %	-0,216 %	2,285 %	0,408 %	0,337 %
8	-0,126 %	1,768 %	-0,136 %	2,413 %	0,472 %	0,488 %
9	-0,064 %	1,749 %	-0,074 %	2,527 %	0,557 %	0,666 %
10	0,003 %	1,744 %	-0,007 %	2,628 %	0,675 %	0,832 %
11	0,067 %	1,754 %	0,057 %	2,718 %	0,831 %	0,979 %
12	0,126 %	1,776 %	0,116 %	2,803 %	1,000 %	1,111 %
13	0,183 %	1,805 %	0,172 %	2,879 %	1,164 %	1,230 %
14	0,232 %	1,840 %	0,221 %	2,952 %	1,318 %	1,338 %
15	0,268 %	1,878 %	0,257 %	3,024 %	1,458 %	1,438 %
16	0,290 %	1,920 %	0,280 %	3,091 %	1,584 %	1,529 %
17	0,306 %	1,963 %	0,296 %	3,151 %	1,698 %	1,614 %
18	0,325 %	2,007 %	0,314 %	3,207 %	1,801 %	1,692 %
19	0,350 %	2,051 %	0,340 %	3,258 %	1,894 %	1,765 %
20	0,387 %	2,094 %	0,376 %	3,305 %	1,978 %	1,833 %
21	0,435 %	2,136 %	0,425 %	3,349 %	2,054 %	1,897 %
22	0,494 %	2,178 %	0,484 %	3,390 %	2,124 %	1,957 %
23	0,558 %	2,218 %	0,548 %	3,428 %	2,187 %	2,013 %
24	0,626 %	2,257 %	0,616 %	3,464 %	2,246 %	2,065 %
25	0,695 %	2,294 %	0,686 %	3,498 %	2,300 %	2,115 %
26	0,766 %	2,331 %	0,757 %	3,530 %	2,349 %	2,162 %
27	0,836 %	2,366 %	0,828 %	3,559 %	2,395 %	2,206 %
28	0,906 %	2,399 %	0,897 %	3,588 %	2,438 %	2,248 %
29	0,974 %	2,431 %	0,966 %	3,614 %	2,478 %	2,287 %
30	1,041 %	2,462 %	1,033 %	3,639 %	2,515 %	2,325 %
31	1,106 %	2,492 %	1,098 %	3,663 %	2,550 %	2,361 %
32	1,169 %	2,520 %	1,161 %	3,686 %	2,583 %	2,395 %
33	1,230 %	2,548 %	1,223 %	3,708 %	2,613 %	2,427 %
34	1,289 %	2,574 %	1,282 %	3,728 %	2,642 %	2,458 %

35	1,346 %	2,599 %	1,339 %	3,748 %	2,669 %	2,487 %
36	1,400 %	2,623 %	1,393 %	3,766 %	2,695 %	2,515 %
37	1,453 %	2,647 %	1,446 %	3,784 %	2,719 %	2,542 %
38	1,504 %	2,669 %	1,497 %	3,801 %	2,743 %	2,567 %
39	1,552 %	2,690 %	1,546 %	3,818 %	2,764 %	2,592 %
40	1,599 %	2,711 %	1,593 %	3,833 %	2,785 %	2,615 %
41	1,644 %	2,731 %	1,638 %	3,848 %	2,805 %	2,637 %
42	1,688 %	2,750 %	1,682 %	3,863 %	2,824 %	2,659 %
43	1,729 %	2,768 %	1,723 %	3,876 %	2,842 %	2,679 %
44	1,769 %	2,785 %	1,764 %	3,890 %	2,859 %	2,699 %
45	1,808 %	2,802 %	1,802 %	3,902 %	2,875 %	2,718 %
46	1,845 %	2,819 %	1,840 %	3,915 %	2,891 %	2,736 %
47	1,881 %	2,834 %	1,875 %	3,926 %	2,906 %	2,754 %
48	1,915 %	2,849 %	1,910 %	3,938 %	2,921 %	2,771 %
49	1,948 %	2,864 %	1,943 %	3,948 %	2,934 %	2,787 %
50	1,980 %	2,878 %	1,975 %	3,959 %	2,948 %	2,803 %
51	2,011 %	2,892 %	2,006 %	3,969 %	2,960 %	2,818 %
52	2,041 %	2,905 %	2,036 %	3,979 %	2,973 %	2,832 %
53	2,069 %	2,917 %	2,065 %	3,988 %	2,985 %	2,846 %
54	2,097 %	2,930 %	2,092 %	3,997 %	2,996 %	2,860 %
55	2,124 %	2,941 %	2,119 %	4,006 %	3,007 %	2,873 %
56	2,150 %	2,953 %	2,145 %	4,015 %	3,017 %	2,886 %
57	2,175 %	2,964 %	2,170 %	4,023 %	3,028 %	2,898 %
58	2,199 %	2,975 %	2,195 %	4,031 %	3,037 %	2,910 %
59	2,222 %	2,985 %	2,218 %	4,039 %	3,047 %	2,921 %
60	2,245 %	2,995 %	2,241 %	4,046 %	3,056 %	2,932 %
61	2,267 %	3,005 %	2,263 %	4,054 %	3,065 %	2,943 %
62	2,288 %	3,014 %	2,284 %	4,061 %	3,074 %	2,953 %
63	2,309 %	3,023 %	2,305 %	4,067 %	3,082 %	2,963 %
64	2,329 %	3,032 %	2,325 %	4,074 %	3,090 %	2,973 %
65	2,348 %	3,041 %	2,344 %	4,080 %	3,098 %	2,983 %
66	2,367 %	3,049 %	2,363 %	4,087 %	3,105 %	2,992 %
67	2,385 %	3,057 %	2,381 %	4,093 %	3,113 %	3,001 %
68	2,403 %	3,065 %	2,399 %	4,099 %	3,120 %	3,010 %
69	2,420 %	3,073 %	2,416 %	4,104 %	3,127 %	3,018 %
70	2,437 %	3,080 %	2,433 %	4,110 %	3,134 %	3,026 %

71	2,453 %	3,088 %	2,449 %	4,115 %	3,140 %	3,034 %
72	2,469 %	3,095 %	2,465 %	4,121 %	3,147 %	3,042 %
73	2,484 %	3,102 %	2,481 %	4,126 %	3,153 %	3,050 %
74	2,499 %	3,108 %	2,496 %	4,131 %	3,159 %	3,057 %
75	2,514 %	3,115 %	2,510 %	4,136 %	3,165 %	3,064 %
76	2,528 %	3,121 %	2,524 %	4,140 %	3,170 %	3,071 %
77	2,542 %	3,127 %	2,538 %	4,145 %	3,176 %	3,078 %
78	2,555 %	3,133 %	2,552 %	4,150 %	3,181 %	3,085 %
79	2,568 %	3,139 %	2,565 %	4,154 %	3,187 %	3,091 %
80	2,581 %	3,145 %	2,578 %	4,158 %	3,192 %	3,098 %
81	2,594 %	3,150 %	2,590 %	4,162 %	3,197 %	3,104 %
82	2,606 %	3,156 %	2,603 %	4,167 %	3,202 %	3,110 %
83	2,618 %	3,161 %	2,615 %	4,171 %	3,207 %	3,116 %
84	2,629 %	3,166 %	2,626 %	4,174 %	3,211 %	3,121 %
85	2,641 %	3,172 %	2,638 %	4,178 %	3,216 %	3,127 %
86	2,652 %	3,176 %	2,649 %	4,182 %	3,220 %	3,132 %
87	2,663 %	3,181 %	2,660 %	4,186 %	3,225 %	3,138 %
88	2,673 %	3,186 %	2,670 %	4,189 %	3,229 %	3,143 %
89	2,684 %	3,191 %	2,681 %	4,193 %	3,233 %	3,148 %
90	2,694 %	3,195 %	2,691 %	4,196 %	3,237 %	3,153 %
91	2,704 %	3,200 %	2,701 %	4,199 %	3,241 %	3,158 %
92	2,713 %	3,204 %	2,711 %	4,203 %	3,245 %	3,163 %
93	2,723 %	3,208 %	2,720 %	4,206 %	3,249 %	3,168 %
94	2,732 %	3,212 %	2,729 %	4,209 %	3,253 %	3,172 %
95	2,741 %	3,217 %	2,739 %	4,212 %	3,256 %	3,177 %
96	2,750 %	3,220 %	2,748 %	4,215 %	3,260 %	3,181 %
97	2,759 %	3,224 %	2,756 %	4,218 %	3,263 %	3,185 %
98	2,767 %	3,228 %	2,765 %	4,221 %	3,267 %	3,190 %
99	2,776 %	3,232 %	2,773 %	4,224 %	3,270 %	3,194 %
100	2,784 %	3,236 %	2,781 %	4,226 %	3,273 %	3,198 %
101	2,792 %	3,239 %	2,790 %	4,229 %	3,277 %	3,202 %
102	2,800 %	3,243 %	2,797 %	4,232 %	3,280 %	3,206 %
103	2,808 %	3,246 %	2,805 %	4,234 %	3,283 %	3,209 %
104	2,815 %	3,250 %	2,813 %	4,237 %	3,286 %	3,213 %
105	2,823 %	3,253 %	2,820 %	4,239 %	3,289 %	3,217 %
106	2,830 %	3,256 %	2,828 %	4,242 %	3,292 %	3,220 %
107	2,837 %	3,259 %	2,835 %	4,244 %	3,295 %	3,224 %

108	2,844 %	3,263 %	2,842 %	4,247 %	3,297 %	3,227 %
109	2,851 %	3,266 %	2,849 %	4,249 %	3,300 %	3,231 %
110	2,858 %	3,269 %	2,856 %	4,251 %	3,303 %	3,234 %
111	2,865 %	3,272 %	2,862 %	4,253 %	3,306 %	3,237 %
112	2,871 %	3,275 %	2,869 %	4,256 %	3,308 %	3,241 %
113	2,878 %	3,277 %	2,875 %	4,258 %	3,311 %	3,244 %
114	2,884 %	3,280 %	2,882 %	4,260 %	3,313 %	3,247 %
115	2,890 %	3,283 %	2,888 %	4,262 %	3,316 %	3,250 %
116	2,896 %	3,286 %	2,894 %	4,264 %	3,318 %	3,253 %
117	2,902 %	3,288 %	2,900 %	4,266 %	3,321 %	3,256 %
118	2,908 %	3,291 %	2,906 %	4,268 %	3,323 %	3,259 %
119	2,914 %	3,294 %	2,912 %	4,270 %	3,325 %	3,262 %
120	2,920 %	3,296 %	2,917 %	4,272 %	3,328 %	3,265 %
121	2,925 %	3,299 %	2,923 %	4,274 %	3,330 %	3,267 %
122	2,931 %	3,301 %	2,929 %	4,276 %	3,332 %	3,270 %
123	2,936 %	3,304 %	2,934 %	4,277 %	3,334 %	3,273 %
124	2,941 %	3,306 %	2,939 %	4,279 %	3,336 %	3,275 %
125	2,947 %	3,308 %	2,945 %	4,281 %	3,339 %	3,278 %
126	2,952 %	3,311 %	2,950 %	4,283 %	3,341 %	3,281 %
127	2,957 %	3,313 %	2,955 %	4,284 %	3,343 %	3,283 %
128	2,962 %	3,315 %	2,960 %	4,286 %	3,345 %	3,286 %
129	2,967 %	3,317 %	2,965 %	4,288 %	3,347 %	3,288 %
130	2,972 %	3,320 %	2,970 %	4,289 %	3,349 %	3,290 %
131	2,977 %	3,322 %	2,975 %	4,291 %	3,351 %	3,293 %
132	2,981 %	3,324 %	2,979 %	4,293 %	3,352 %	3,295 %
133	2,986 %	3,326 %	2,984 %	4,294 %	3,354 %	3,297 %
134	2,990 %	3,328 %	2,989 %	4,296 %	3,356 %	3,300 %
135	2,995 %	3,330 %	2,993 %	4,297 %	3,358 %	3,302 %
136	2,999 %	3,332 %	2,998 %	4,299 %	3,360 %	3,304 %
137	3,004 %	3,334 %	3,002 %	4,300 %	3,361 %	3,306 %
138	3,008 %	3,336 %	3,006 %	4,302 %	3,363 %	3,308 %
139	3,012 %	3,338 %	3,010 %	4,303 %	3,365 %	3,310 %
140	3,016 %	3,340 %	3,015 %	4,304 %	3,367 %	3,312 %
141	3,021 %	3,341 %	3,019 %	4,306 %	3,368 %	3,315 %
142	3,025 %	3,343 %	3,023 %	4,307 %	3,370 %	3,317 %
143	3,029 %	3,345 %	3,027 %	4,308 %	3,371 %	3,318 %
144	3,033 %	3,347 %	3,031 %	4,310 %	3,373 %	3,320 %
145	3,037 %	3,349 %	3,035 %	4,311 %	3,375 %	3,322 %
146	3,040 %	3,350 %	3,039 %	4,312 %	3,376 %	3,324 %

147	3,044 %	3,352 %	3,042 %	4,314 %	3,378 %	3,326 %
148	3,048 %	3,354 %	3,046 %	4,315 %	3,379 %	3,328 %
149	3,052 %	3,355 %	3,050 %	4,316 %	3,381 %	3,330 %
150	3,055 %	3,357 %	3,054 %	4,317 %	3,382 %	3,332 %

Term to maturity (in years)	Lev	Pound sterling	Romanian leu	Zloty	Króna	Norwegian krone
1	-0,655 %	0,056 %	1,834 %	-0,093 %	2,124 %	0,533 %
2	-0,605 %	0,271 %	2,100 %	0,248 %	2,400 %	0,937 %
3	-0,545 %	0,410 %	2,319 %	0,579 %	2,624 %	1,164 %
4	-0,476 %	0,522 %	2,512 %	0,864 %	2,805 %	1,293 %
5	-0,396 %	0,606 %	2,689 %	1,088 %	2,965 %	1,372 %
6	-0,326 %	0,679 %	2,856 %	1,257 %	3,111 %	1,422 %
7	-0,256 %	0,732 %	3,014 %	1,382 %	3,237 %	1,460 %
8	-0,176 %	0,785 %	3,166 %	1,479 %	3,340 %	1,496 %
9	-0,114 %	0,831 %	3,314 %	1,566 %	3,418 %	1,534 %
10	-0,048 %	0,872 %	3,459 %	1,652 %	3,478 %	1,579 %
11	0,016 %	0,907 %	3,576 %	1,733 %	3,524 %	1,630 %
12	0,075 %	0,936 %	3,666 %	1,809 %	3,561 %	1,685 %
13	0,132 %	0,960 %	3,735 %	1,880 %	3,590 %	1,742 %
14	0,181 %	0,979 %	3,788 %	1,947 %	3,613 %	1,799 %
15	0,217 %	0,992 %	3,830 %	2,010 %	3,631 %	1,856 %
16	0,238 %	1,002 %	3,861 %	2,069 %	3,646 %	1,911 %
17	0,255 %	1,008 %	3,886 %	2,125 %	3,658 %	1,965 %
18	0,273 %	1,014 %	3,904 %	2,177 %	3,668 %	2,018 %
19	0,299 %	1,019 %	3,917 %	2,227 %	3,676 %	2,068 %
20	0,335 %	1,026 %	3,927 %	2,273 %	3,683 %	2,116 %
21	0,385 %	1,034 %	3,934 %	2,317 %	3,688 %	2,162 %
22	0,444 %	1,042 %	3,938 %	2,359 %	3,692 %	2,207 %
23	0,509 %	1,048 %	3,940 %	2,399 %	3,695 %	2,249 %
24	0,578 %	1,053 %	3,941 %	2,436 %	3,697 %	2,290 %
25	0,649 %	1,055 %	3,940 %	2,472 %	3,699 %	2,328 %
26	0,721 %	1,053 %	3,938 %	2,505 %	3,700 %	2,365 %
27	0,793 %	1,046 %	3,935 %	2,538 %	3,701 %	2,401 %
28	0,863 %	1,036 %	3,932 %	2,568 %	3,702 %	2,434 %
29	0,933 %	1,020 %	3,928 %	2,597 %	3,702 %	2,467 %
30	1,001 %	1,000 %	3,924 %	2,625 %	3,702 %	2,497 %

31	1,067 %	0,974 %	3,919 %	2,651 %	3,701 %	2,527 %
32	1,131 %	0,945 %	3,914 %	2,676 %	3,701 %	2,555 %
33	1,193 %	0,916 %	3,909 %	2,700 %	3,700 %	2,582 %
34	1,253 %	0,888 %	3,904 %	2,723 %	3,699 %	2,608 %
35	1,310 %	0,861 %	3,899 %	2,745 %	3,698 %	2,632 %
36	1,366 %	0,837 %	3,894 %	2,766 %	3,698 %	2,656 %
37	1,419 %	0,816 %	3,889 %	2,786 %	3,696 %	2,679 %
38	1,471 %	0,798 %	3,883 %	2,805 %	3,695 %	2,700 %
39	1,520 %	0,784 %	3,878 %	2,824 %	3,694 %	2,721 %
40	1,568 %	0,774 %	3,873 %	2,841 %	3,693 %	2,741 %
41	1,614 %	0,766 %	3,868 %	2,858 %	3,692 %	2,760 %
42	1,658 %	0,763 %	3,863 %	2,874 %	3,691 %	2,779 %
43	1,700 %	0,763 %	3,858 %	2,890 %	3,689 %	2,796 %
44	1,741 %	0,766 %	3,854 %	2,905 %	3,688 %	2,813 %
45	1,780 %	0,772 %	3,849 %	2,920 %	3,687 %	2,830 %
46	1,818 %	0,782 %	3,845 %	2,933 %	3,686 %	2,846 %
47	1,854 %	0,794 %	3,840 %	2,947 %	3,684 %	2,861 %
48	1,889 %	0,810 %	3,836 %	2,960 %	3,683 %	2,875 %
49	1,923 %	0,829 %	3,832 %	2,972 %	3,682 %	2,889 %
50	1,955 %	0,851 %	3,828 %	2,984 %	3,681 %	2,903 %
51	1,986 %	0,876 %	3,824 %	2,996 %	3,680 %	2,916 %
52	2,017 %	0,904 %	3,820 %	3,007 %	3,679 %	2,929 %
53	2,046 %	0,934 %	3,816 %	3,018 %	3,677 %	2,941 %
54	2,074 %	0,965 %	3,813 %	3,028 %	3,676 %	2,953 %
55	2,101 %	0,997 %	3,809 %	3,038 %	3,675 %	2,964 %
56	2,127 %	1,030 %	3,806 %	3,048 %	3,674 %	2,975 %
57	2,153 %	1,063 %	3,802 %	3,057 %	3,673 %	2,986 %
58	2,177 %	1,097 %	3,799 %	3,066 %	3,672 %	2,996 %
59	2,201 %	1,130 %	3,796 %	3,075 %	3,671 %	3,006 %
60	2,224 %	1,163 %	3,793 %	3,084 %	3,670 %	3,016 %
61	2,246 %	1,196 %	3,790 %	3,092 %	3,669 %	3,025 %
62	2,268 %	1,229 %	3,787 %	3,100 %	3,668 %	3,034 %
63	2,289 %	1,262 %	3,784 %	3,108 %	3,667 %	3,043 %
64	2,309 %	1,294 %	3,781 %	3,115 %	3,666 %	3,052 %
65	2,328 %	1,325 %	3,778 %	3,123 %	3,665 %	3,060 %
66	2,348 %	1,356 %	3,776 %	3,130 %	3,664 %	3,068 %
67	2,366 %	1,386 %	3,773 %	3,137 %	3,663 %	3,076 %
68	2,384 %	1,416 %	3,771 %	3,143 %	3,663 %	3,084 %

69	2,402 %	1,446 %	3,768 %	3,150 %	3,662 %	3,091 %
70	2,419 %	1,474 %	3,766 %	3,156 %	3,661 %	3,098 %
71	2,435 %	1,502 %	3,764 %	3,163 %	3,660 %	3,105 %
72	2,451 %	1,530 %	3,762 %	3,169 %	3,659 %	3,112 %
73	2,467 %	1,557 %	3,759 %	3,174 %	3,659 %	3,119 %
74	2,482 %	1,583 %	3,757 %	3,180 %	3,658 %	3,125 %
75	2,497 %	1,609 %	3,755 %	3,186 %	3,657 %	3,131 %
76	2,511 %	1,634 %	3,753 %	3,191 %	3,656 %	3,138 %
77	2,525 %	1,658 %	3,751 %	3,196 %	3,656 %	3,144 %
78	2,539 %	1,682 %	3,749 %	3,201 %	3,655 %	3,149 %
79	2,552 %	1,706 %	3,747 %	3,206 %	3,654 %	3,155 %
80	2,565 %	1,729 %	3,746 %	3,211 %	3,654 %	3,161 %
81	2,578 %	1,751 %	3,744 %	3,216 %	3,653 %	3,166 %
82	2,590 %	1,773 %	3,742 %	3,221 %	3,653 %	3,171 %
83	2,602 %	1,795 %	3,740 %	3,225 %	3,652 %	3,176 %
84	2,614 %	1,816 %	3,739 %	3,230 %	3,651 %	3,181 %
85	2,626 %	1,837 %	3,737 %	3,234 %	3,651 %	3,186 %
86	2,637 %	1,857 %	3,736 %	3,238 %	3,650 %	3,191 %
87	2,648 %	1,876 %	3,734 %	3,242 %	3,650 %	3,196 %
88	2,659 %	1,896 %	3,732 %	3,247 %	3,649 %	3,200 %
89	2,669 %	1,915 %	3,731 %	3,250 %	3,649 %	3,205 %
90	2,680 %	1,933 %	3,730 %	3,254 %	3,648 %	3,209 %
91	2,690 %	1,951 %	3,728 %	3,258 %	3,647 %	3,213 %
92	2,700 %	1,969 %	3,727 %	3,262 %	3,647 %	3,218 %
93	2,709 %	1,986 %	3,725 %	3,265 %	3,646 %	3,222 %
94	2,719 %	2,003 %	3,724 %	3,269 %	3,646 %	3,226 %
95	2,728 %	2,020 %	3,723 %	3,273 %	3,646 %	3,230 %
96	2,737 %	2,036 %	3,721 %	3,276 %	3,645 %	3,234 %
97	2,746 %	2,052 %	3,720 %	3,279 %	3,645 %	3,237 %
98	2,754 %	2,068 %	3,719 %	3,283 %	3,644 %	3,241 %
99	2,763 %	2,083 %	3,718 %	3,286 %	3,644 %	3,245 %
100	2,771 %	2,098 %	3,717 %	3,289 %	3,643 %	3,248 %
101	2,780 %	2,113 %	3,715 %	3,292 %	3,643 %	3,252 %
102	2,788 %	2,127 %	3,714 %	3,295 %	3,642 %	3,255 %
103	2,795 %	2,141 %	3,713 %	3,298 %	3,642 %	3,258 %
104	2,803 %	2,155 %	3,712 %	3,301 %	3,642 %	3,262 %
105	2,811 %	2,169 %	3,711 %	3,304 %	3,641 %	3,265 %
106	2,818 %	2,182 %	3,710 %	3,306 %	3,641 %	3,268 %

107	2,825 %	2,195 %	3,709 %	3,309 %	3,640 %	3,271 %
108	2,832 %	2,208 %	3,708 %	3,312 %	3,640 %	3,274 %
109	2,840 %	2,221 %	3,707 %	3,314 %	3,640 %	3,277 %
110	2,846 %	2,233 %	3,706 %	3,317 %	3,639 %	3,280 %
111	2,853 %	2,246 %	3,705 %	3,320 %	3,639 %	3,283 %
112	2,860 %	2,258 %	3,704 %	3,322 %	3,639 %	3,286 %
113	2,866 %	2,269 %	3,703 %	3,325 %	3,638 %	3,289 %
114	2,873 %	2,281 %	3,702 %	3,327 %	3,638 %	3,291 %
115	2,879 %	2,292 %	3,701 %	3,329 %	3,638 %	3,294 %
116	2,885 %	2,304 %	3,701 %	3,332 %	3,637 %	3,297 %
117	2,891 %	2,315 %	3,700 %	3,334 %	3,637 %	3,299 %
118	2,897 %	2,325 %	3,699 %	3,336 %	3,637 %	3,302 %
119	2,903 %	2,336 %	3,698 %	3,338 %	3,636 %	3,304 %
120	2,909 %	2,347 %	3,697 %	3,341 %	3,636 %	3,307 %
121	2,915 %	2,357 %	3,696 %	3,343 %	3,636 %	3,309 %
122	2,920 %	2,367 %	3,696 %	3,345 %	3,636 %	3,311 %
123	2,926 %	2,377 %	3,695 %	3,347 %	3,635 %	3,314 %
124	2,931 %	2,387 %	3,694 %	3,349 %	3,635 %	3,316 %
125	2,937 %	2,396 %	3,693 %	3,351 %	3,635 %	3,318 %
126	2,942 %	2,406 %	3,693 %	3,353 %	3,634 %	3,321 %
127	2,947 %	2,415 %	3,692 %	3,355 %	3,634 %	3,323 %
128	2,952 %	2,424 %	3,691 %	3,357 %	3,634 %	3,325 %
129	2,957 %	2,433 %	3,690 %	3,359 %	3,634 %	3,327 %
130	2,962 %	2,442 %	3,690 %	3,361 %	3,633 %	3,329 %
131	2,967 %	2,451 %	3,689 %	3,362 %	3,633 %	3,331 %
132	2,972 %	2,460 %	3,688 %	3,364 %	3,633 %	3,333 %
133	2,976 %	2,468 %	3,688 %	3,366 %	3,633 %	3,335 %
134	2,981 %	2,477 %	3,687 %	3,368 %	3,632 %	3,337 %
135	2,986 %	2,485 %	3,686 %	3,369 %	3,632 %	3,339 %
136	2,990 %	2,493 %	3,686 %	3,371 %	3,632 %	3,341 %
137	2,994 %	2,501 %	3,685 %	3,373 %	3,632 %	3,343 %
138	2,999 %	2,509 %	3,685 %	3,374 %	3,631 %	3,345 %
139	3,003 %	2,517 %	3,684 %	3,376 %	3,631 %	3,347 %
140	3,007 %	2,525 %	3,683 %	3,378 %	3,631 %	3,349 %
141	3,012 %	2,532 %	3,683 %	3,379 %	3,631 %	3,350 %
142	3,016 %	2,540 %	3,682 %	3,381 %	3,631 %	3,352 %
143	3,020 %	2,547 %	3,682 %	3,382 %	3,630 %	3,354 %
144	3,024 %	2,554 %	3,681 %	3,384 %	3,630 %	3,356 %

145	3,028 %	2,562 %	3,680 %	3,385 %	3,630 %	3,357 %
146	3,032 %	2,569 %	3,680 %	3,387 %	3,630 %	3,359 %
147	3,036 %	2,576 %	3,679 %	3,388 %	3,629 %	3,360 %
148	3,039 %	2,582 %	3,679 %	3,390 %	3,629 %	3,362 %
149	3,043 %	2,589 %	3,678 %	3,391 %	3,629 %	3,364 %
150	3,047 %	2,596 %	3,678 %	3,392 %	3,629 %	3,365 %

Term to maturity (in years)	Swiss franc	Australian dollar	Baht	Canadian dollar	Chilean peso	Colombian peso
1	-0,800 %	0,008 %	0,371 %	0,487 %	1,120 %	2,767 %
2	-0,733 %	0,198 %	0,472 %	0,694 %	2,023 %	3,850 %
3	-0,660 %	0,409 %	0,644 %	0,962 %	2,631 %	4,690 %
4	-0,575 %	0,623 %	0,833 %	1,179 %	3,091 %	5,366 %
5	-0,477 %	0,824 %	1,020 %	1,322 %	3,454 %	5,876 %
6	-0,368 %	1,008 %	1,199 %	1,431 %	3,755 %	6,277 %
7	-0,265 %	1,172 %	1,368 %	1,524 %	4,019 %	6,600 %
8	-0,176 %	1,313 %	1,520 %	1,604 %	4,257 %	6,864 %
9	-0,106 %	1,430 %	1,659 %	1,673 %	4,463 %	7,082 %
10	-0,056 %	1,526 %	1,785 %	1,728 %	4,631 %	7,272 %
11	-0,026 %	1,613 %	1,903 %	1,772 %	4,758 %	7,404 %
12	-0,008 %	1,691 %	2,018 %	1,806 %	4,854 %	7,483 %
13	0,002 %	1,757 %	2,136 %	1,834 %	4,925 %	7,523 %
14	0,008 %	1,812 %	2,249 %	1,858 %	4,978 %	7,534 %
15	0,014 %	1,856 %	2,353 %	1,880 %	5,017 %	7,523 %
16	0,020 %	1,891 %	2,444 %	1,900 %	5,046 %	7,496 %
17	0,029 %	1,917 %	2,524 %	1,918 %	5,065 %	7,456 %
18	0,039 %	1,937 %	2,594 %	1,936 %	5,078 %	7,408 %
19	0,053 %	1,952 %	2,657 %	1,954 %	5,086 %	7,353 %
20	0,070 %	1,962 %	2,712 %	1,972 %	5,090 %	7,294 %
21	0,091 %	1,968 %	2,762 %	1,991 %	5,090 %	7,231 %
22	0,116 %	1,970 %	2,806 %	2,009 %	5,088 %	7,167 %
23	0,144 %	1,968 %	2,847 %	2,028 %	5,084 %	7,102 %
24	0,176 %	1,962 %	2,883 %	2,048 %	5,078 %	7,037 %
25	0,213 %	1,953 %	2,917 %	2,068 %	5,071 %	6,972 %
26	0,254 %	1,939 %	2,947 %	2,089 %	5,063 %	6,908 %
27	0,297 %	1,926 %	2,975 %	2,110 %	5,054 %	6,846 %
28	0,343 %	1,914 %	3,001 %	2,132 %	5,045 %	6,784 %
29	0,390 %	1,907 %	3,025 %	2,155 %	5,036 %	6,725 %
30	0,437 %	1,906 %	3,047 %	2,179 %	5,026 %	6,667 %

31	0,484 %	1,912 %	3,067 %	2,204 %	5,016 %	6,611 %
32	0,531 %	1,923 %	3,086 %	2,229 %	5,006 %	6,557 %
33	0,577 %	1,939 %	3,104 %	2,255 %	4,996 %	6,505 %
34	0,622 %	1,958 %	3,120 %	2,280 %	4,986 %	6,455 %
35	0,666 %	1,980 %	3,135 %	2,306 %	4,976 %	6,406 %
36	0,709 %	2,003 %	3,150 %	2,331 %	4,967 %	6,359 %
37	0,751 %	2,027 %	3,163 %	2,356 %	4,957 %	6,315 %
38	0,792 %	2,053 %	3,176 %	2,380 %	4,948 %	6,271 %
39	0,831 %	2,079 %	3,188 %	2,405 %	4,939 %	6,230 %
40	0,870 %	2,105 %	3,200 %	2,428 %	4,930 %	6,190 %
41	0,907 %	2,132 %	3,210 %	2,451 %	4,922 %	6,151 %
42	0,942 %	2,158 %	3,220 %	2,474 %	4,913 %	6,115 %
43	0,977 %	2,184 %	3,230 %	2,495 %	4,905 %	6,079 %
44	1,011 %	2,210 %	3,239 %	2,517 %	4,897 %	6,045 %
45	1,043 %	2,235 %	3,248 %	2,537 %	4,890 %	6,012 %
46	1,074 %	2,260 %	3,256 %	2,558 %	4,882 %	5,980 %
47	1,104 %	2,284 %	3,264 %	2,577 %	4,875 %	5,950 %
48	1,134 %	2,308 %	3,271 %	2,596 %	4,868 %	5,921 %
49	1,162 %	2,331 %	3,279 %	2,615 %	4,861 %	5,892 %
50	1,189 %	2,354 %	3,285 %	2,632 %	4,854 %	5,865 %
51	1,215 %	2,376 %	3,292 %	2,650 %	4,848 %	5,839 %
52	1,241 %	2,397 %	3,298 %	2,667 %	4,842 %	5,814 %
53	1,265 %	2,418 %	3,304 %	2,683 %	4,836 %	5,789 %
54	1,289 %	2,438 %	3,310 %	2,699 %	4,830 %	5,766 %
55	1,312 %	2,458 %	3,316 %	2,714 %	4,824 %	5,743 %
56	1,335 %	2,477 %	3,321 %	2,729 %	4,819 %	5,721 %
57	1,356 %	2,496 %	3,326 %	2,744 %	4,813 %	5,700 %
58	1,377 %	2,514 %	3,331 %	2,758 %	4,808 %	5,679 %
59	1,397 %	2,532 %	3,336 %	2,771 %	4,803 %	5,659 %
60	1,417 %	2,549 %	3,340 %	2,785 %	4,798 %	5,640 %
61	1,436 %	2,565 %	3,345 %	2,797 %	4,794 %	5,621 %
62	1,454 %	2,581 %	3,349 %	2,810 %	4,789 %	5,603 %
63	1,472 %	2,597 %	3,353 %	2,822 %	4,785 %	5,586 %
64	1,490 %	2,612 %	3,357 %	2,834 %	4,780 %	5,569 %
65	1,506 %	2,627 %	3,361 %	2,845 %	4,776 %	5,552 %
66	1,523 %	2,641 %	3,365 %	2,856 %	4,772 %	5,537 %
67	1,539 %	2,655 %	3,368 %	2,867 %	4,768 %	5,521 %
68	1,554 %	2,669 %	3,372 %	2,878 %	4,764 %	5,506 %

69	1,569 %	2,682 %	3,375 %	2,888 %	4,760 %	5,491 %
70	1,584 %	2,695 %	3,378 %	2,898 %	4,757 %	5,477 %
71	1,598 %	2,708 %	3,382 %	2,908 %	4,753 %	5,463 %
72	1,611 %	2,720 %	3,385 %	2,917 %	4,750 %	5,450 %
73	1,625 %	2,732 %	3,388 %	2,926 %	4,746 %	5,437 %
74	1,638 %	2,744 %	3,391 %	2,935 %	4,743 %	5,424 %
75	1,651 %	2,755 %	3,393 %	2,944 %	4,740 %	5,412 %
76	1,663 %	2,766 %	3,396 %	2,953 %	4,737 %	5,400 %
77	1,675 %	2,777 %	3,399 %	2,961 %	4,734 %	5,388 %
78	1,687 %	2,787 %	3,402 %	2,969 %	4,731 %	5,377 %
79	1,698 %	2,797 %	3,404 %	2,977 %	4,728 %	5,366 %
80	1,710 %	2,807 %	3,407 %	2,985 %	4,725 %	5,355 %
81	1,721 %	2,817 %	3,409 %	2,992 %	4,722 %	5,344 %
82	1,731 %	2,826 %	3,411 %	3,000 %	4,719 %	5,334 %
83	1,742 %	2,836 %	3,414 %	3,007 %	4,717 %	5,324 %
84	1,752 %	2,845 %	3,416 %	3,014 %	4,714 %	5,314 %
85	1,762 %	2,854 %	3,418 %	3,021 %	4,712 %	5,304 %
86	1,771 %	2,862 %	3,420 %	3,027 %	4,709 %	5,295 %
87	1,781 %	2,871 %	3,422 %	3,034 %	4,707 %	5,286 %
88	1,790 %	2,879 %	3,424 %	3,040 %	4,704 %	5,277 %
89	1,799 %	2,887 %	3,426 %	3,047 %	4,702 %	5,268 %
90	1,808 %	2,895 %	3,428 %	3,053 %	4,700 %	5,260 %
91	1,817 %	2,902 %	3,430 %	3,059 %	4,698 %	5,251 %
92	1,825 %	2,910 %	3,432 %	3,065 %	4,696 %	5,243 %
93	1,834 %	2,917 %	3,434 %	3,070 %	4,693 %	5,235 %
94	1,842 %	2,925 %	3,436 %	3,076 %	4,691 %	5,227 %
95	1,850 %	2,932 %	3,437 %	3,081 %	4,689 %	5,219 %
96	1,857 %	2,939 %	3,439 %	3,087 %	4,687 %	5,212 %
97	1,865 %	2,945 %	3,441 %	3,092 %	4,685 %	5,205 %
98	1,872 %	2,952 %	3,442 %	3,097 %	4,684 %	5,197 %
99	1,880 %	2,959 %	3,444 %	3,102 %	4,682 %	5,190 %
100	1,887 %	2,965 %	3,446 %	3,107 %	4,680 %	5,183 %
101	1,894 %	2,971 %	3,447 %	3,112 %	4,678 %	5,177 %
102	1,901 %	2,977 %	3,449 %	3,117 %	4,676 %	5,170 %
103	1,908 %	2,983 %	3,450 %	3,122 %	4,675 %	5,163 %
104	1,914 %	2,989 %	3,451 %	3,126 %	4,673 %	5,157 %
105	1,921 %	2,995 %	3,453 %	3,131 %	4,671 %	5,151 %
106	1,927 %	3,001 %	3,454 %	3,135 %	4,670 %	5,145 %

107	1,933 %	3,006 %	3,456 %	3,139 %	4,668 %	5,138 %
108	1,940 %	3,012 %	3,457 %	3,144 %	4,667 %	5,133 %
109	1,946 %	3,017 %	3,458 %	3,148 %	4,665 %	5,127 %
110	1,952 %	3,023 %	3,460 %	3,152 %	4,664 %	5,121 %
111	1,957 %	3,028 %	3,461 %	3,156 %	4,662 %	5,115 %
112	1,963 %	3,033 %	3,462 %	3,160 %	4,661 %	5,110 %
113	1,969 %	3,038 %	3,463 %	3,164 %	4,659 %	5,104 %
114	1,974 %	3,043 %	3,465 %	3,168 %	4,658 %	5,099 %
115	1,980 %	3,048 %	3,466 %	3,171 %	4,656 %	5,094 %
116	1,985 %	3,052 %	3,467 %	3,175 %	4,655 %	5,089 %
117	1,990 %	3,057 %	3,468 %	3,179 %	4,654 %	5,084 %
118	1,995 %	3,062 %	3,469 %	3,182 %	4,652 %	5,079 %
119	2,000 %	3,066 %	3,470 %	3,186 %	4,651 %	5,074 %
120	2,005 %	3,071 %	3,471 %	3,189 %	4,650 %	5,069 %
121	2,010 %	3,075 %	3,472 %	3,193 %	4,649 %	5,064 %
122	2,015 %	3,079 %	3,473 %	3,196 %	4,647 %	5,060 %
123	2,020 %	3,083 %	3,474 %	3,199 %	4,646 %	5,055 %
124	2,025 %	3,088 %	3,475 %	3,202 %	4,645 %	5,051 %
125	2,029 %	3,092 %	3,476 %	3,206 %	4,644 %	5,046 %
126	2,034 %	3,096 %	3,477 %	3,209 %	4,643 %	5,042 %
127	2,038 %	3,100 %	3,478 %	3,212 %	4,642 %	5,038 %
128	2,042 %	3,104 %	3,479 %	3,215 %	4,641 %	5,033 %
129	2,047 %	3,107 %	3,480 %	3,218 %	4,639 %	5,029 %
130	2,051 %	3,111 %	3,481 %	3,221 %	4,638 %	5,025 %
131	2,055 %	3,115 %	3,482 %	3,224 %	4,637 %	5,021 %
132	2,059 %	3,119 %	3,483 %	3,226 %	4,636 %	5,017 %
133	2,063 %	3,122 %	3,484 %	3,229 %	4,635 %	5,013 %
134	2,067 %	3,126 %	3,485 %	3,232 %	4,634 %	5,010 %
135	2,071 %	3,129 %	3,486 %	3,235 %	4,633 %	5,006 %
136	2,075 %	3,133 %	3,486 %	3,237 %	4,632 %	5,002 %
137	2,079 %	3,136 %	3,487 %	3,240 %	4,631 %	4,998 %
138	2,083 %	3,139 %	3,488 %	3,243 %	4,630 %	4,995 %
139	2,087 %	3,143 %	3,489 %	3,245 %	4,629 %	4,991 %
140	2,090 %	3,146 %	3,490 %	3,248 %	4,628 %	4,988 %
141	2,094 %	3,149 %	3,490 %	3,250 %	4,628 %	4,984 %
142	2,097 %	3,152 %	3,491 %	3,253 %	4,627 %	4,981 %
143	2,101 %	3,156 %	3,492 %	3,255 %	4,626 %	4,977 %
144	2,104 %	3,159 %	3,493 %	3,258 %	4,625 %	4,974 %

145	2,108 %	3,162 %	3,493 %	3,260 %	4,624 %	4,971 %
146	2,111 %	3,165 %	3,494 %	3,262 %	4,623 %	4,968 %
147	2,114 %	3,168 %	3,495 %	3,264 %	4,622 %	4,964 %
148	2,118 %	3,171 %	3,496 %	3,267 %	4,622 %	4,961 %
149	2,121 %	3,173 %	3,496 %	3,269 %	4,621 %	4,958 %
150	2,124 %	3,176 %	3,497 %	3,271 %	4,620 %	4,955 %

Term to maturity (in years)	Hong Kong dollar	Indian rupee	Mexican peso	New Taiwan dollar	New Zealand dollar	Rand
1	0,090 %	3,762 %	5,336 %	-0,002 %	0,406 %	3,815 %
2	0,200 %	4,417 %	5,904 %	0,050 %	0,692 %	4,280 %
3	0,402 %	4,922 %	6,145 %	0,097 %	0,920 %	4,985 %
4	0,599 %	5,345 %	6,330 %	0,140 %	1,117 %	5,482 %
5	0,768 %	5,673 %	6,474 %	0,178 %	1,276 %	5,879 %
6	0,906 %	5,914 %	6,588 %	0,213 %	1,422 %	6,265 %
7	1,021 %	6,094 %	6,689 %	0,244 %	1,545 %	6,637 %
8	1,115 %	6,221 %	6,785 %	0,271 %	1,653 %	6,988 %
9	1,193 %	6,325 %	6,883 %	0,296 %	1,746 %	7,314 %
10	1,256 %	6,418 %	6,986 %	0,319 %	1,821 %	7,613 %
11	1,307 %	6,485 %	7,097 %	0,366 %	1,892 %	7,885 %
12	1,351 %	6,529 %	7,210 %	0,434 %	1,961 %	8,126 %
13	1,393 %	6,556 %	7,320 %	0,514 %	2,027 %	8,333 %
14	1,436 %	6,570 %	7,423 %	0,600 %	2,090 %	8,503 %
15	1,482 %	6,575 %	7,517 %	0,689 %	2,150 %	8,631 %
16	1,532 %	6,573 %	7,599 %	0,779 %	2,207 %	8,716 %
17	1,584 %	6,566 %	7,668 %	0,868 %	2,261 %	8,765 %
18	1,638 %	6,554 %	7,722 %	0,956 %	2,312 %	8,785 %
19	1,692 %	6,540 %	7,758 %	1,040 %	2,359 %	8,783 %
20	1,746 %	6,523 %	7,775 %	1,122 %	2,404 %	8,763 %
21	1,799 %	6,504 %	7,773 %	1,201 %	2,446 %	8,729 %
22	1,850 %	6,485 %	7,755 %	1,277 %	2,485 %	8,685 %
23	1,901 %	6,465 %	7,724 %	1,350 %	2,522 %	8,633 %
24	1,949 %	6,444 %	7,683 %	1,419 %	2,557 %	8,576 %
25	1,996 %	6,424 %	7,634 %	1,485 %	2,590 %	8,514 %
26	2,041 %	6,403 %	7,580 %	1,549 %	2,621 %	8,450 %
27	2,085 %	6,382 %	7,523 %	1,609 %	2,650 %	8,384 %
28	2,127 %	6,362 %	7,462 %	1,667 %	2,678 %	8,318 %
29	2,167 %	6,342 %	7,401 %	1,722 %	2,704 %	8,252 %
30	2,205 %	6,322 %	7,338 %	1,774 %	2,729 %	8,186 %

31	2,242 %	6,303 %	7,276 %	1,824 %	2,753 %	8,121 %
32	2,277 %	6,285 %	7,214 %	1,872 %	2,776 %	8,058 %
33	2,311 %	6,266 %	7,153 %	1,918 %	2,797 %	7,995 %
34	2,344 %	6,249 %	7,093 %	1,961 %	2,818 %	7,935 %
35	2,375 %	6,232 %	7,034 %	2,003 %	2,838 %	7,876 %
36	2,405 %	6,215 %	6,977 %	2,043 %	2,856 %	7,819 %
37	2,434 %	6,199 %	6,922 %	2,081 %	2,874 %	7,764 %
38	2,461 %	6,184 %	6,868 %	2,118 %	2,891 %	7,711 %
39	2,488 %	6,169 %	6,816 %	2,153 %	2,908 %	7,660 %
40	2,513 %	6,154 %	6,766 %	2,186 %	2,924 %	7,610 %
41	2,537 %	6,140 %	6,717 %	2,219 %	2,939 %	7,563 %
42	2,561 %	6,127 %	6,670 %	2,249 %	2,953 %	7,517 %
43	2,583 %	6,114 %	6,625 %	2,279 %	2,967 %	7,472 %
44	2,605 %	6,101 %	6,581 %	2,307 %	2,981 %	7,430 %
45	2,626 %	6,089 %	6,539 %	2,335 %	2,993 %	7,389 %
46	2,646 %	6,077 %	6,499 %	2,361 %	3,006 %	7,349 %
47	2,665 %	6,066 %	6,460 %	2,386 %	3,018 %	7,311 %
48	2,684 %	6,055 %	6,422 %	2,411 %	3,029 %	7,274 %
49	2,702 %	6,044 %	6,386 %	2,434 %	3,040 %	7,239 %
50	2,719 %	6,034 %	6,351 %	2,457 %	3,051 %	7,205 %
51	2,736 %	6,024 %	6,317 %	2,478 %	3,061 %	7,172 %
52	2,752 %	6,014 %	6,284 %	2,499 %	3,071 %	7,140 %
53	2,767 %	6,005 %	6,253 %	2,519 %	3,081 %	7,110 %
54	2,782 %	5,996 %	6,223 %	2,539 %	3,090 %	7,080 %
55	2,797 %	5,987 %	6,193 %	2,558 %	3,099 %	7,052 %
56	2,811 %	5,979 %	6,165 %	2,576 %	3,108 %	7,024 %
57	2,824 %	5,971 %	6,138 %	2,594 %	3,116 %	6,997 %
58	2,837 %	5,963 %	6,111 %	2,611 %	3,124 %	6,972 %
59	2,850 %	5,955 %	6,086 %	2,627 %	3,132 %	6,947 %
60	2,862 %	5,948 %	6,061 %	2,643 %	3,139 %	6,923 %
61	2,874 %	5,941 %	6,037 %	2,659 %	3,147 %	6,899 %
62	2,886 %	5,934 %	6,014 %	2,674 %	3,154 %	6,877 %
63	2,897 %	5,927 %	5,991 %	2,688 %	3,161 %	6,855 %
64	2,908 %	5,920 %	5,970 %	2,702 %	3,168 %	6,834 %
65	2,918 %	5,914 %	5,948 %	2,716 %	3,174 %	6,813 %
66	2,928 %	5,908 %	5,928 %	2,729 %	3,181 %	6,793 %
67	2,938 %	5,902 %	5,908 %	2,742 %	3,187 %	6,774 %
68	2,948 %	5,896 %	5,889 %	2,754 %	3,193 %	6,755 %

69	2,957 %	5,890 %	5,870 %	2,767 %	3,198 %	6,737 %
70	2,966 %	5,885 %	5,852 %	2,778 %	3,204 %	6,719 %
71	2,975 %	5,879 %	5,834 %	2,790 %	3,210 %	6,702 %
72	2,984 %	5,874 %	5,817 %	2,801 %	3,215 %	6,685 %
73	2,992 %	5,869 %	5,800 %	2,812 %	3,220 %	6,669 %
74	3,000 %	5,864 %	5,784 %	2,822 %	3,225 %	6,653 %
75	3,008 %	5,859 %	5,768 %	2,833 %	3,230 %	6,637 %
76	3,016 %	5,854 %	5,753 %	2,843 %	3,235 %	6,622 %
77	3,024 %	5,850 %	5,738 %	2,853 %	3,240 %	6,608 %
78	3,031 %	5,845 %	5,723 %	2,862 %	3,244 %	6,594 %
79	3,038 %	5,841 %	5,709 %	2,871 %	3,249 %	6,580 %
80	3,045 %	5,837 %	5,695 %	2,880 %	3,253 %	6,566 %
81	3,052 %	5,833 %	5,681 %	2,889 %	3,257 %	6,553 %
82	3,059 %	5,829 %	5,668 %	2,898 %	3,262 %	6,540 %
83	3,065 %	5,825 %	5,655 %	2,906 %	3,266 %	6,527 %
84	3,071 %	5,821 %	5,642 %	2,915 %	3,270 %	6,515 %
85	3,078 %	5,817 %	5,630 %	2,923 %	3,273 %	6,503 %
86	3,084 %	5,813 %	5,618 %	2,930 %	3,277 %	6,491 %
87	3,090 %	5,810 %	5,606 %	2,938 %	3,281 %	6,480 %
88	3,095 %	5,806 %	5,595 %	2,946 %	3,285 %	6,469 %
89	3,101 %	5,803 %	5,584 %	2,953 %	3,288 %	6,458 %
90	3,106 %	5,799 %	5,573 %	2,960 %	3,292 %	6,447 %
91	3,112 %	5,796 %	5,562 %	2,967 %	3,295 %	6,437 %
92	3,117 %	5,793 %	5,551 %	2,974 %	3,298 %	6,426 %
93	3,122 %	5,790 %	5,541 %	2,981 %	3,301 %	6,416 %
94	3,127 %	5,787 %	5,531 %	2,987 %	3,305 %	6,407 %
95	3,132 %	5,784 %	5,521 %	2,994 %	3,308 %	6,397 %
96	3,137 %	5,781 %	5,511 %	3,000 %	3,311 %	6,388 %
97	3,142 %	5,778 %	5,502 %	3,006 %	3,314 %	6,379 %
98	3,147 %	5,775 %	5,493 %	3,012 %	3,317 %	6,370 %
99	3,151 %	5,772 %	5,484 %	3,018 %	3,319 %	6,361 %
100	3,156 %	5,769 %	5,475 %	3,024 %	3,322 %	6,352 %
101	3,160 %	5,767 %	5,466 %	3,030 %	3,325 %	6,344 %
102	3,164 %	5,764 %	5,458 %	3,035 %	3,328 %	6,335 %
103	3,169 %	5,762 %	5,449 %	3,041 %	3,330 %	6,327 %
104	3,173 %	5,759 %	5,441 %	3,046 %	3,333 %	6,319 %
105	3,177 %	5,757 %	5,433 %	3,051 %	3,335 %	6,311 %
106	3,181 %	5,754 %	5,425 %	3,056 %	3,338 %	6,304 %

107	3,185 %	5,752 %	5,417 %	3,061 %	3,340 %	6,296 %
108	3,189 %	5,749 %	5,410 %	3,066 %	3,343 %	6,289 %
109	3,192 %	5,747 %	5,402 %	3,071 %	3,345 %	6,281 %
110	3,196 %	5,745 %	5,395 %	3,076 %	3,347 %	6,274 %
111	3,200 %	5,743 %	5,388 %	3,081 %	3,350 %	6,267 %
112	3,203 %	5,740 %	5,381 %	3,085 %	3,352 %	6,260 %
113	3,207 %	5,738 %	5,374 %	3,090 %	3,354 %	6,254 %
114	3,210 %	5,736 %	5,367 %	3,094 %	3,356 %	6,247 %
115	3,214 %	5,734 %	5,360 %	3,099 %	3,358 %	6,241 %
116	3,217 %	5,732 %	5,354 %	3,103 %	3,361 %	6,234 %
117	3,220 %	5,730 %	5,347 %	3,107 %	3,363 %	6,228 %
118	3,223 %	5,728 %	5,341 %	3,112 %	3,365 %	6,222 %
119	3,226 %	5,726 %	5,335 %	3,116 %	3,367 %	6,216 %
120	3,230 %	5,724 %	5,329 %	3,120 %	3,368 %	6,210 %
121	3,233 %	5,723 %	5,323 %	3,124 %	3,370 %	6,204 %
122	3,236 %	5,721 %	5,317 %	3,128 %	3,372 %	6,198 %
123	3,239 %	5,719 %	5,311 %	3,131 %	3,374 %	6,192 %
124	3,242 %	5,717 %	5,305 %	3,135 %	3,376 %	6,187 %
125	3,244 %	5,715 %	5,299 %	3,139 %	3,378 %	6,181 %
126	3,247 %	5,714 %	5,294 %	3,142 %	3,379 %	6,176 %
127	3,250 %	5,712 %	5,288 %	3,146 %	3,381 %	6,170 %
128	3,253 %	5,710 %	5,283 %	3,150 %	3,383 %	6,165 %
129	3,255 %	5,709 %	5,278 %	3,153 %	3,385 %	6,160 %
130	3,258 %	5,707 %	5,272 %	3,157 %	3,386 %	6,155 %
131	3,261 %	5,706 %	5,267 %	3,160 %	3,388 %	6,150 %
132	3,263 %	5,704 %	5,262 %	3,163 %	3,389 %	6,145 %
133	3,266 %	5,702 %	5,257 %	3,167 %	3,391 %	6,140 %
134	3,268 %	5,701 %	5,252 %	3,170 %	3,393 %	6,135 %
135	3,271 %	5,699 %	5,247 %	3,173 %	3,394 %	6,130 %
136	3,273 %	5,698 %	5,243 %	3,176 %	3,396 %	6,126 %
137	3,275 %	5,697 %	5,238 %	3,179 %	3,397 %	6,121 %
138	3,278 %	5,695 %	5,233 %	3,182 %	3,399 %	6,117 %
139	3,280 %	5,694 %	5,229 %	3,185 %	3,400 %	6,112 %
140	3,282 %	5,692 %	5,224 %	3,188 %	3,402 %	6,108 %
141	3,285 %	5,691 %	5,220 %	3,191 %	3,403 %	6,104 %
142	3,287 %	5,690 %	5,215 %	3,194 %	3,404 %	6,099 %
143	3,289 %	5,688 %	5,211 %	3,197 %	3,406 %	6,095 %
144	3,291 %	5,687 %	5,207 %	3,200 %	3,407 %	6,091 %

145	3,293 %	5,686 %	5,203 %	3,202 %	3,408 %	6,087 %
146	3,295 %	5,684 %	5,198 %	3,205 %	3,410 %	6,083 %
147	3,298 %	5,683 %	5,194 %	3,208 %	3,411 %	6,079 %
148	3,300 %	5,682 %	5,190 %	3,210 %	3,412 %	6,075 %
149	3,302 %	5,681 %	5,186 %	3,213 %	3,413 %	6,071 %
150	3,304 %	5,680 %	5,182 %	3,216 %	3,415 %	6,067 %

Term to maturity (in years)	Real	Renminbi-yuan	Ringgit	Russian rouble	Singapore dollar	South Korean won
1	6,222 %	2,229 %	1,579 %	5,931 %	0,200 %	0,896 %
2	7,045 %	2,352 %	1,818 %	6,369 %	0,401 %	1,177 %
3	7,477 %	2,464 %	2,092 %	6,562 %	0,667 %	1,343 %
4	7,843 %	2,561 %	2,330 %	6,667 %	0,847 %	1,453 %
5	8,139 %	2,646 %	2,534 %	6,716 %	0,984 %	1,515 %
6	8,395 %	2,720 %	2,718 %	6,751 %	1,111 %	1,553 %
7	8,620 %	2,786 %	2,895 %	6,780 %	1,223 %	1,584 %
8	8,816 %	2,848 %	3,062 %	6,805 %	1,315 %	1,614 %
9	8,993 %	2,907 %	3,228 %	6,832 %	1,386 %	1,637 %
10	9,167 %	2,964 %	3,391 %	6,864 %	1,434 %	1,649 %
11	9,285 %	3,018 %	3,550 %	6,896 %	1,461 %	1,649 %
12	9,348 %	3,071 %	3,700 %	6,922 %	1,476 %	1,643 %
13	9,370 %	3,122 %	3,838 %	6,942 %	1,484 %	1,635 %
14	9,362 %	3,170 %	3,963 %	6,953 %	1,489 %	1,628 %
15	9,330 %	3,217 %	4,076 %	6,952 %	1,496 %	1,625 %
16	9,282 %	3,261 %	4,178 %	6,939 %	1,505 %	1,625 %
17	9,221 %	3,302 %	4,267 %	6,917 %	1,518 %	1,631 %
18	9,150 %	3,342 %	4,344 %	6,887 %	1,535 %	1,643 %
19	9,074 %	3,380 %	4,408 %	6,851 %	1,558 %	1,661 %
20	8,993 %	3,416 %	4,458 %	6,812 %	1,586 %	1,684 %
21	8,909 %	3,450 %	4,495 %	6,770 %	1,620 %	1,714 %
22	8,824 %	3,483 %	4,521 %	6,727 %	1,658 %	1,748 %
23	8,739 %	3,514 %	4,537 %	6,682 %	1,699 %	1,786 %
24	8,654 %	3,543 %	4,545 %	6,638 %	1,741 %	1,825 %
25	8,570 %	3,572 %	4,548 %	6,593 %	1,784 %	1,865 %
26	8,488 %	3,598 %	4,546 %	6,549 %	1,828 %	1,905 %
27	8,408 %	3,624 %	4,541 %	6,505 %	1,871 %	1,945 %
28	8,330 %	3,648 %	4,532 %	6,462 %	1,913 %	1,985 %
29	8,254 %	3,672 %	4,521 %	6,420 %	1,955 %	2,025 %
30	8,181 %	3,694 %	4,509 %	6,380 %	1,996 %	2,063 %

31	8,110 %	3,715 %	4,495 %	6,340 %	2,035 %	2,101 %
32	8,042 %	3,735 %	4,480 %	6,302 %	2,074 %	2,138 %
33	7,976 %	3,755 %	4,465 %	6,265 %	2,111 %	2,173 %
34	7,913 %	3,773 %	4,449 %	6,229 %	2,147 %	2,207 %
35	7,852 %	3,791 %	4,433 %	6,194 %	2,182 %	2,241 %
36	7,794 %	3,808 %	4,417 %	6,161 %	2,216 %	2,273 %
37	7,738 %	3,825 %	4,400 %	6,129 %	2,248 %	2,304 %
38	7,684 %	3,840 %	4,384 %	6,098 %	2,280 %	2,334 %
39	7,632 %	3,855 %	4,369 %	6,068 %	2,310 %	2,362 %
40	7,582 %	3,870 %	4,353 %	6,039 %	2,339 %	2,390 %
41	7,534 %	3,884 %	4,338 %	6,012 %	2,367 %	2,417 %
42	7,488 %	3,897 %	4,323 %	5,985 %	2,394 %	2,443 %
43	7,444 %	3,910 %	4,309 %	5,959 %	2,420 %	2,467 %
44	7,402 %	3,922 %	4,295 %	5,935 %	2,445 %	2,491 %
45	7,361 %	3,934 %	4,281 %	5,911 %	2,469 %	2,514 %
46	7,322 %	3,945 %	4,268 %	5,888 %	2,492 %	2,537 %
47	7,284 %	3,957 %	4,255 %	5,866 %	2,514 %	2,558 %
48	7,248 %	3,967 %	4,242 %	5,844 %	2,536 %	2,579 %
49	7,213 %	3,977 %	4,230 %	5,824 %	2,557 %	2,599 %
50	7,179 %	3,987 %	4,218 %	5,804 %	2,577 %	2,618 %
51	7,147 %	3,997 %	4,207 %	5,785 %	2,596 %	2,636 %
52	7,115 %	4,006 %	4,196 %	5,766 %	2,615 %	2,654 %
53	7,085 %	4,015 %	4,185 %	5,749 %	2,633 %	2,671 %
54	7,056 %	4,024 %	4,174 %	5,731 %	2,650 %	2,688 %
55	7,028 %	4,032 %	4,164 %	5,715 %	2,667 %	2,704 %
56	7,001 %	4,040 %	4,155 %	5,699 %	2,683 %	2,720 %
57	6,975 %	4,048 %	4,145 %	5,683 %	2,699 %	2,735 %
58	6,949 %	4,055 %	4,136 %	5,668 %	2,714 %	2,750 %
59	6,925 %	4,063 %	4,127 %	5,653 %	2,729 %	2,764 %
60	6,901 %	4,070 %	4,118 %	5,639 %	2,743 %	2,778 %
61	6,878 %	4,077 %	4,110 %	5,626 %	2,757 %	2,791 %
62	6,856 %	4,083 %	4,102 %	5,613 %	2,770 %	2,804 %
63	6,834 %	4,090 %	4,094 %	5,600 %	2,783 %	2,816 %
64	6,813 %	4,096 %	4,086 %	5,587 %	2,796 %	2,828 %
65	6,793 %	4,102 %	4,079 %	5,575 %	2,808 %	2,840 %
66	6,774 %	4,108 %	4,072 %	5,563 %	2,820 %	2,851 %
67	6,755 %	4,114 %	4,065 %	5,552 %	2,832 %	2,862 %
68	6,736 %	4,119 %	4,058 %	5,541 %	2,843 %	2,873 %

69	6,718 %	4,125 %	4,051 %	5,530 %	2,854 %	2,884 %
70	6,701 %	4,130 %	4,045 %	5,520 %	2,864 %	2,894 %
71	6,684 %	4,135 %	4,039 %	5,510 %	2,875 %	2,904 %
72	6,667 %	4,140 %	4,033 %	5,500 %	2,885 %	2,913 %
73	6,651 %	4,145 %	4,027 %	5,490 %	2,894 %	2,923 %
74	6,635 %	4,150 %	4,021 %	5,481 %	2,904 %	2,932 %
75	6,620 %	4,155 %	4,015 %	5,472 %	2,913 %	2,941 %
76	6,605 %	4,159 %	4,010 %	5,463 %	2,922 %	2,949 %
77	6,591 %	4,163 %	4,005 %	5,454 %	2,931 %	2,958 %
78	6,577 %	4,168 %	3,999 %	5,446 %	2,939 %	2,966 %
79	6,563 %	4,172 %	3,994 %	5,438 %	2,948 %	2,974 %
80	6,550 %	4,176 %	3,989 %	5,430 %	2,956 %	2,982 %
81	6,537 %	4,180 %	3,985 %	5,422 %	2,964 %	2,989 %
82	6,524 %	4,184 %	3,980 %	5,415 %	2,971 %	2,997 %
83	6,512 %	4,188 %	3,975 %	5,407 %	2,979 %	3,004 %
84	6,500 %	4,191 %	3,971 %	5,400 %	2,986 %	3,011 %
85	6,488 %	4,195 %	3,967 %	5,393 %	2,994 %	3,018 %
86	6,476 %	4,198 %	3,962 %	5,386 %	3,001 %	3,025 %
87	6,465 %	4,202 %	3,958 %	5,379 %	3,007 %	3,031 %
88	6,454 %	4,205 %	3,954 %	5,373 %	3,014 %	3,038 %
89	6,443 %	4,209 %	3,950 %	5,366 %	3,021 %	3,044 %
90	6,433 %	4,212 %	3,946 %	5,360 %	3,027 %	3,050 %
91	6,423 %	4,215 %	3,942 %	5,354 %	3,033 %	3,056 %
92	6,412 %	4,218 %	3,939 %	5,348 %	3,039 %	3,062 %
93	6,403 %	4,221 %	3,935 %	5,342 %	3,046 %	3,068 %
94	6,393 %	4,224 %	3,931 %	5,336 %	3,051 %	3,073 %
95	6,384 %	4,227 %	3,928 %	5,330 %	3,057 %	3,079 %
96	6,374 %	4,230 %	3,925 %	5,325 %	3,063 %	3,084 %
97	6,365 %	4,233 %	3,921 %	5,319 %	3,068 %	3,090 %
98	6,356 %	4,235 %	3,918 %	5,314 %	3,074 %	3,095 %
99	6,348 %	4,238 %	3,915 %	5,309 %	3,079 %	3,100 %
100	6,339 %	4,241 %	3,912 %	5,304 %	3,084 %	3,105 %
101	6,331 %	4,243 %	3,908 %	5,299 %	3,089 %	3,110 %
102	6,323 %	4,246 %	3,905 %	5,294 %	3,094 %	3,115 %
103	6,315 %	4,248 %	3,902 %	5,289 %	3,099 %	3,119 %
104	6,307 %	4,250 %	3,900 %	5,284 %	3,104 %	3,124 %
105	6,299 %	4,253 %	3,897 %	5,280 %	3,109 %	3,128 %
106	6,292 %	4,255 %	3,894 %	5,275 %	3,113 %	3,133 %

107	6,284 %	4,257 %	3,891 %	5,271 %	3,118 %	3,137 %
108	6,277 %	4,260 %	3,888 %	5,266 %	3,122 %	3,141 %
109	6,270 %	4,262 %	3,886 %	5,262 %	3,127 %	3,146 %
110	6,263 %	4,264 %	3,883 %	5,258 %	3,131 %	3,150 %
111	6,256 %	4,266 %	3,881 %	5,254 %	3,135 %	3,154 %
112	6,249 %	4,268 %	3,878 %	5,250 %	3,139 %	3,158 %
113	6,242 %	4,270 %	3,876 %	5,246 %	3,143 %	3,162 %
114	6,236 %	4,272 %	3,873 %	5,242 %	3,147 %	3,166 %
115	6,229 %	4,274 %	3,871 %	5,238 %	3,151 %	3,169 %
116	6,223 %	4,276 %	3,868 %	5,234 %	3,155 %	3,173 %
117	6,217 %	4,278 %	3,866 %	5,230 %	3,159 %	3,177 %
118	6,211 %	4,280 %	3,864 %	5,227 %	3,163 %	3,180 %
119	6,205 %	4,282 %	3,862 %	5,223 %	3,166 %	3,184 %
120	6,199 %	4,284 %	3,860 %	5,220 %	3,170 %	3,187 %
121	6,193 %	4,285 %	3,857 %	5,216 %	3,174 %	3,191 %
122	6,187 %	4,287 %	3,855 %	5,213 %	3,177 %	3,194 %
123	6,182 %	4,289 %	3,853 %	5,209 %	3,180 %	3,197 %
124	6,176 %	4,291 %	3,851 %	5,206 %	3,184 %	3,201 %
125	6,171 %	4,292 %	3,849 %	5,203 %	3,187 %	3,204 %
126	6,165 %	4,294 %	3,847 %	5,200 %	3,190 %	3,207 %
127	6,160 %	4,296 %	3,845 %	5,196 %	3,194 %	3,210 %
128	6,155 %	4,297 %	3,843 %	5,193 %	3,197 %	3,213 %
129	6,150 %	4,299 %	3,841 %	5,190 %	3,200 %	3,216 %
130	6,145 %	4,300 %	3,840 %	5,187 %	3,203 %	3,219 %
131	6,140 %	4,302 %	3,838 %	5,184 %	3,206 %	3,222 %
132	6,135 %	4,303 %	3,836 %	5,181 %	3,209 %	3,225 %
133	6,130 %	4,305 %	3,834 %	5,179 %	3,212 %	3,227 %
134	6,126 %	4,306 %	3,832 %	5,176 %	3,215 %	3,230 %
135	6,121 %	4,308 %	3,831 %	5,173 %	3,218 %	3,233 %
136	6,116 %	4,309 %	3,829 %	5,170 %	3,220 %	3,236 %
137	6,112 %	4,311 %	3,827 %	5,167 %	3,223 %	3,238 %
138	6,107 %	4,312 %	3,826 %	5,165 %	3,226 %	3,241 %
139	6,103 %	4,313 %	3,824 %	5,162 %	3,229 %	3,244 %
140	6,099 %	4,315 %	3,822 %	5,160 %	3,231 %	3,246 %
141	6,094 %	4,316 %	3,821 %	5,157 %	3,234 %	3,249 %
142	6,090 %	4,317 %	3,819 %	5,154 %	3,236 %	3,251 %
143	6,086 %	4,318 %	3,818 %	5,152 %	3,239 %	3,254 %
144	6,082 %	4,320 %	3,816 %	5,150 %	3,242 %	3,256 %

145	6,078 %	4,321 %	3,815 %	5,147 %	3,244 %	3,258 %
146	6,074 %	4,322 %	3,813 %	5,145 %	3,246 %	3,261 %
147	6,070 %	4,323 %	3,812 %	5,142 %	3,249 %	3,263 %
148	6,066 %	4,325 %	3,810 %	5,140 %	3,251 %	3,265 %
149	6,062 %	4,326 %	3,809 %	5,138 %	3,254 %	3,267 %
150	6,059 %	4,327 %	3,808 %	5,136 %	3,256 %	3,270 %

Term to maturity (in years)	Turkish lira	US dollar	Yen
1	17,835 %	0,083 %	-0,156 %
2	18,093 %	0,227 %	-0,132 %
3	18,166 %	0,474 %	-0,126 %
4	18,102 %	0,694 %	-0,122 %
5	17,923 %	0,874 %	-0,114 %
6	17,688 %	1,017 %	-0,101 %
7	17,408 %	1,134 %	-0,084 %
8	17,091 %	1,229 %	-0,064 %
9	16,772 %	1,305 %	-0,043 %
10	16,456 %	1,371 %	-0,018 %
11	16,143 %	1,429 %	0,007 %
12	15,832 %	1,479 %	0,033 %
13	15,524 %	1,520 %	0,061 %
14	15,219 %	1,555 %	0,090 %
15	14,919 %	1,586 %	0,117 %
16	14,624 %	1,614 %	0,143 %
17	14,335 %	1,638 %	0,168 %
18	14,053 %	1,658 %	0,193 %
19	13,779 %	1,674 %	0,217 %
20	13,513 %	1,685 %	0,242 %
21	13,255 %	1,693 %	0,266 %
22	13,007 %	1,697 %	0,289 %
23	12,767 %	1,701 %	0,310 %
24	12,537 %	1,706 %	0,328 %
25	12,316 %	1,711 %	0,341 %
26	12,105 %	1,718 %	0,350 %
27	11,902 %	1,724 %	0,358 %
28	11,708 %	1,727 %	0,369 %
29	11,523 %	1,724 %	0,386 %
30	11,347 %	1,715 %	0,411 %

31	11,178 %	1,699 %	0,444 %
32	11,017 %	1,678 %	0,483 %
33	10,863 %	1,654 %	0,528 %
34	10,716 %	1,628 %	0,576 %
35	10,576 %	1,603 %	0,626 %
36	10,442 %	1,579 %	0,677 %
37	10,315 %	1,557 %	0,729 %
38	10,193 %	1,537 %	0,782 %
39	10,076 %	1,520 %	0,834 %
40	9,965 %	1,505 %	0,885 %
41	9,858 %	1,493 %	0,936 %
42	9,756 %	1,483 %	0,986 %
43	9,658 %	1,477 %	1,035 %
44	9,565 %	1,474 %	1,083 %
45	9,475 %	1,473 %	1,130 %
46	9,389 %	1,475 %	1,175 %
47	9,306 %	1,481 %	1,219 %
48	9,227 %	1,488 %	1,262 %
49	9,151 %	1,499 %	1,304 %
50	9,078 %	1,513 %	1,345 %
51	9,007 %	1,529 %	1,384 %
52	8,939 %	1,548 %	1,422 %
53	8,874 %	1,568 %	1,459 %
54	8,811 %	1,590 %	1,495 %
55	8,750 %	1,612 %	1,529 %
56	8,692 %	1,636 %	1,563 %
57	8,635 %	1,660 %	1,596 %
58	8,581 %	1,684 %	1,627 %
59	8,528 %	1,709 %	1,658 %
60	8,477 %	1,734 %	1,688 %
61	8,428 %	1,758 %	1,717 %
62	8,380 %	1,783 %	1,745 %
63	8,334 %	1,807 %	1,772 %
64	8,289 %	1,831 %	1,798 %
65	8,246 %	1,854 %	1,824 %
66	8,204 %	1,878 %	1,849 %
67	8,163 %	1,901 %	1,873 %
68	8,123 %	1,923 %	1,896 %

69	8,085 %	1,945 %	1,919 %
70	8,048 %	1,967 %	1,942 %
71	8,011 %	1,989 %	1,963 %
72	7,976 %	2,009 %	1,984 %
73	7,942 %	2,030 %	2,005 %
74	7,908 %	2,050 %	2,025 %
75	7,876 %	2,070 %	2,044 %
76	7,844 %	2,089 %	2,063 %
77	7,814 %	2,108 %	2,082 %
78	7,784 %	2,126 %	2,100 %
79	7,754 %	2,144 %	2,117 %
80	7,726 %	2,162 %	2,134 %
81	7,698 %	2,179 %	2,151 %
82	7,671 %	2,196 %	2,167 %
83	7,645 %	2,212 %	2,183 %
84	7,619 %	2,228 %	2,199 %
85	7,594 %	2,244 %	2,214 %
86	7,569 %	2,260 %	2,229 %
87	7,545 %	2,275 %	2,243 %
88	7,522 %	2,290 %	2,258 %
89	7,499 %	2,304 %	2,271 %
90	7,476 %	2,318 %	2,285 %
91	7,454 %	2,332 %	2,298 %
92	7,433 %	2,346 %	2,311 %
93	7,412 %	2,359 %	2,324 %
94	7,391 %	2,372 %	2,336 %
95	7,371 %	2,385 %	2,349 %
96	7,352 %	2,398 %	2,361 %
97	7,332 %	2,410 %	2,372 %
98	7,314 %	2,422 %	2,384 %
99	7,295 %	2,434 %	2,395 %
100	7,277 %	2,445 %	2,406 %
101	7,259 %	2,457 %	2,417 %
102	7,242 %	2,468 %	2,427 %
103	7,225 %	2,479 %	2,438 %
104	7,208 %	2,489 %	2,448 %
105	7,192 %	2,500 %	2,458 %
106	7,176 %	2,510 %	2,467 %

107	7,160 %	2,520 %	2,477 %
108	7,144 %	2,530 %	2,487 %
109	7,129 %	2,540 %	2,496 %
110	7,114 %	2,549 %	2,505 %
111	7,100 %	2,559 %	2,514 %
112	7,085 %	2,568 %	2,523 %
113	7,071 %	2,577 %	2,531 %
114	7,057 %	2,586 %	2,540 %
115	7,044 %	2,595 %	2,548 %
116	7,030 %	2,604 %	2,556 %
117	7,017 %	2,612 %	2,564 %
118	7,004 %	2,620 %	2,572 %
119	6,991 %	2,629 %	2,580 %
120	6,979 %	2,637 %	2,587 %
121	6,967 %	2,645 %	2,595 %
122	6,954 %	2,652 %	2,602 %
123	6,942 %	2,660 %	2,610 %
124	6,931 %	2,668 %	2,617 %
125	6,919 %	2,675 %	2,624 %
126	6,908 %	2,682 %	2,631 %
127	6,897 %	2,689 %	2,637 %
128	6,886 %	2,697 %	2,644 %
129	6,875 %	2,703 %	2,651 %
130	6,864 %	2,710 %	2,657 %
131	6,854 %	2,717 %	2,664 %
132	6,844 %	2,724 %	2,670 %
133	6,833 %	2,730 %	2,676 %
134	6,823 %	2,737 %	2,682 %
135	6,813 %	2,743 %	2,688 %
136	6,804 %	2,749 %	2,694 %
137	6,794 %	2,756 %	2,700 %
138	6,785 %	2,762 %	2,706 %
139	6,775 %	2,768 %	2,712 %
140	6,766 %	2,774 %	2,717 %
141	6,757 %	2,779 %	2,723 %
142	6,748 %	2,785 %	2,728 %
143	6,740 %	2,791 %	2,734 %
144	6,731 %	2,797 %	2,739 %

145	6,722 %	2,802 %	2,744 %
146	6,714 %	2,807 %	2,749 %
147	6,706 %	2,813 %	2,754 %
148	6,697 %	2,818 %	2,759 %
149	6,689 %	2,823 %	2,764 %
150	6,681 %	2,829 %	2,769 %

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	30	5	0	24	1
2	0	0	38	5	0	39	0
3	0	1	43	5	1	45	0
4	0	2	45	5	2	46	0
5	0	3	50	5	4	49	0
6	1	4	52	5	6	51	0
7	2	5	55	5	8	52	0
8	2	6	57	5	11	52	0
9	3	7	59	5	12	49	0
10	3	8	60	5	13	49	0

Duration (in years)	Estonia	Finland	France	Germany	Greece	Hungary	Ireland
1	0	0	0	0	375	4	15
2	0	0	0	0	233	4	21
3	1	0	0	0	207	4	24
4	2	0	0	0	181	4	25
5	3	0	0	0	166	4	26
6	4	0	0	0	163	4	27
7	5	0	0	0	161	4	28
8	6	0	1	0	165	2	29
9	7	0	2	0	167	1	29
10	8	0	3	0	169	4	30

Duration (in years)	Italy	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland
1	6	4	5	0	15	0	4
2	14	10	11	0	21	0	4
3	19	13	14	0	24	0	4
4	21	15	16	0	25	0	4
5	24	17	18	0	26	0	4
6	25	18	20	0	27	0	4
7	27	20	21	0	28	0	4
8	28	21	23	1	29	0	4
9	30	22	24	2	29	0	4
10	31	23	25	2	30	0	4

Duration (in years)	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden	United Kingdom
1	24	9	12	17	5	0	0
2	39	16	15	20	11	0	0
3	45	18	17	25	14	0	0
4	46	19	18	29	16	0	0
5	49	21	20	32	18	0	0
6	51	22	21	35	20	0	0
7	52	23	22	37	21	0	0
8	52	25	24	38	23	0	0
9	49	26	24	39	24	0	0
10	49	24	24	39	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	18
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	15
10	0	0	0	0	12	0	13

Duration (in years)	China	Colombia	Hong Kong	India	Japan	Malaysia	Mexico
1	0	12	0	10	0	0	9
2	0	18	0	10	0	0	9
3	2	28	0	10	0	0	10
4	3	35	0	10	0	0	10
5	3	37	0	10	0	0	10
6	3	40	0	10	0	0	10
7	4	42	0	10	0	0	10
8	8	40	0	10	0	0	10
9	5	37	0	10	0	0	10
10	5	40	0	10	1	0	10

Duration (in years)	New Zealand	Russia	Singapore	South Africa	South Korea	Thailand	Taiwan
1	0	0	0	7	9	1	4
2	0	0	0	9	12	0	4
3	0	0	0	10	12	0	4
4	0	0	0	10	14	0	4
5	0	1	0	10	15	0	4
6	0	5	0	11	15	0	4
7	0	7	0	13	16	0	4
8	0	11	0	15	16	0	4
9	0	17	0	15	16	0	4
10	0	17	0	17	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	7	20	44	115	228	534	1205
2	7	20	44	115	228	534	969
3	8	22	45	109	224	530	790
4	9	24	47	111	223	529	654
5	10	27	52	114	223	529	550
6	11	29	56	119	223	529	529
7	13	31	58	121	223	529	529
8	13	32	57	120	223	529	529
9	13	33	57	120	223	529	529
10	13	34	58	120	223	529	529
11	14	35	58	120	223	529	529
12	14	36	58	120	223	529	529
13	15	37	58	120	223	529	529
14	15	37	58	120	223	529	529
15	15	37	58	120	223	529	529
16	15	37	58	120	223	529	529
17	15	37	58	120	223	529	529
18	15	37	58	120	223	529	529
19	15	37	58	120	223	529	529
20	15	37	58	120	223	529	529
21	15	37	58	120	223	529	529
22	17	37	58	120	223	529	529
23	17	37	58	120	223	529	529
24	18	37	58	120	223	529	529
25	18	37	58	120	223	529	529
26	19	37	58	120	223	529	529
27	19	37	58	120	223	529	529
28	21	37	58	120	223	529	529
29	21	37	58	120	223	529	529
30	22	37	58	120	223	529	529

2.2 Czech koruna

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	14	27	51	123	235	542	1235
2	16	29	53	125	237	544	999
3	18	32	55	119	234	540	816
4	19	34	57	121	233	539	676
5	20	36	62	124	232	539	568
6	20	38	65	128	232	538	538
7	21	39	66	129	231	537	537
8	20	39	65	128	230	537	537
9	20	40	64	127	230	536	536
10	20	40	64	126	229	536	536
11	20	41	64	126	229	535	535
12	20	41	63	125	228	535	535
13	19	41	63	125	228	534	534
14	19	41	62	124	227	534	534
15	19	41	62	124	227	533	533
16	18	40	61	123	226	533	533
17	18	40	61	123	226	533	533
18	18	40	61	123	226	532	532
19	18	40	61	123	226	533	533
20	18	40	62	123	226	533	533
21	19	41	62	124	227	533	533
22	19	41	62	124	227	533	533
23	19	41	62	124	227	534	534
24	19	41	62	124	227	534	534
25	19	41	62	124	227	534	534
26	19	41	62	124	227	534	534
27	21	41	62	124	227	534	534
28	21	41	62	124	227	533	533
29	22	41	62	124	227	533	533
30	22	41	62	124	227	533	533

2.3 Danish krone

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	43	115	227	534	1205
2	6	20	43	115	227	534	969
3	7	22	45	109	224	530	790
4	9	24	47	111	223	529	654
5	10	27	52	114	223	529	550
6	11	29	56	119	223	529	529
7	12	31	57	121	223	529	529
8	12	32	57	120	223	529	529
9	13	33	57	120	223	529	529
10	13	34	58	120	223	529	529
11	14	35	58	120	223	529	529
12	14	36	58	120	223	529	529
13	14	36	58	120	223	529	529
14	15	37	58	120	223	529	529
15	15	37	58	120	223	529	529
16	15	37	58	120	223	529	529
17	15	37	58	120	223	529	529
18	15	37	58	120	223	529	529
19	15	37	58	120	223	529	529
20	15	37	58	120	223	529	529
21	15	37	58	120	223	529	529
22	17	37	58	120	223	529	529
23	17	37	58	120	223	529	529
24	18	37	58	120	223	529	529
25	18	37	58	120	223	529	529
26	19	37	58	120	223	529	529
27	19	37	58	120	223	529	529
28	21	37	58	120	223	529	529
29	21	37	58	120	223	529	529
30	22	37	58	120	223	529	529

2.4 Forint

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	78	91	115	186	299	605	1234
2	74	88	111	183	295	602	996
3	78	93	115	179	295	601	814
4	78	93	116	180	292	598	675
5	77	94	119	181	290	596	596
6	76	94	121	184	288	594	594
7	76	95	121	185	286	593	593
8	75	94	120	183	285	592	592
9	74	94	119	181	284	591	591
10	71	92	116	178	281	587	587
11	69	91	114	175	278	585	585
12	69	90	112	174	277	584	584
13	68	90	112	174	277	583	583
14	68	90	111	173	276	583	583
15	68	90	111	173	276	582	582
16	67	89	110	172	275	582	582
17	67	89	110	172	275	581	581
18	66	88	110	171	274	581	581
19	66	88	109	171	274	580	580
20	65	87	108	170	273	580	580
21	64	86	108	170	273	579	579
22	64	86	107	169	272	578	578
23	63	85	106	168	271	577	577
24	62	84	105	167	270	576	576
25	61	83	104	166	269	575	575
26	60	82	103	165	268	574	574
27	59	81	102	164	267	573	573
28	58	80	101	163	266	572	572
29	57	79	100	162	265	571	571
30	56	78	99	161	264	570	570

2.5 Krona

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	10	24	47	119	231	538	1214
2	12	25	49	120	233	539	977
3	14	29	51	115	231	537	797
4	16	31	55	118	230	536	660
5	18	34	60	121	230	537	555
6	19	36	63	126	230	537	537
7	19	38	65	128	230	536	536
8	19	39	64	127	229	536	536
9	19	39	64	126	229	536	536
10	19	40	64	125	229	535	535
11	19	41	64	125	228	535	535
12	20	41	64	125	228	535	535
13	20	42	63	125	228	535	535
14	20	42	63	125	228	535	535
15	20	42	63	125	228	535	535
16	20	42	63	125	228	534	534
17	20	42	63	125	228	535	535
18	20	42	63	125	228	535	535
19	20	42	64	126	229	535	535
20	21	43	64	126	229	535	535
21	21	43	65	126	229	536	536
22	21	43	65	127	230	536	536
23	22	44	65	127	230	536	536
24	22	44	65	127	230	536	536
25	22	44	65	127	230	536	536
26	22	44	65	127	230	536	536
27	22	44	65	127	230	536	536
28	21	44	65	127	230	536	536
29	22	43	65	127	230	536	536
30	22	43	65	126	229	536	536

2.6 Kuna

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	48	61	85	156	269	575	1213
2	52	65	89	160	273	579	976
3	57	71	94	158	273	579	796
4	60	76	99	162	274	581	659
5	62	79	105	166	275	582	582
6	64	81	108	171	275	582	582
7	64	83	109	173	275	581	581
8	63	83	108	171	274	580	580
9	62	83	107	169	273	579	579
10	62	82	106	168	271	578	578
11	61	82	105	167	270	576	576
12	60	82	104	166	269	575	575
13	59	81	103	164	267	574	574
14	58	80	101	163	266	573	573
15	57	79	100	162	265	572	572
16	56	78	99	161	264	571	571
17	55	77	99	161	264	570	570
18	55	77	98	160	263	569	569
19	54	76	98	159	262	569	569
20	54	76	97	159	262	568	568
21	53	75	96	158	261	568	568
22	52	74	96	158	261	567	567
23	52	74	95	157	260	566	566
24	51	73	94	156	259	565	565
25	50	72	93	155	258	565	565
26	49	71	93	154	257	564	564
27	48	70	92	154	257	563	563
28	48	70	91	153	256	562	562
29	47	69	90	152	255	561	561
30	46	68	89	151	254	561	561

2.7 Lev

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	19	43	114	227	533	1204
2	6	19	43	114	227	533	968
3	7	21	44	108	223	529	789
4	8	24	47	110	222	529	653
5	9	26	52	113	222	528	549
6	10	28	55	118	222	528	528
7	12	30	57	121	222	528	528
8	12	31	57	119	222	528	528
9	12	32	57	119	222	528	528
10	12	33	57	119	222	528	528
11	13	34	57	119	222	528	528
12	13	35	57	119	222	528	528
13	14	36	57	119	222	528	528
14	14	36	57	119	222	528	528
15	14	36	57	119	222	528	528
16	14	36	57	119	222	528	528
17	14	36	57	119	222	528	528
18	14	36	57	119	222	528	528
19	14	36	57	119	222	528	528
20	15	36	57	119	222	528	528
21	15	36	57	119	222	528	528
22	17	36	57	119	222	528	528
23	17	36	57	119	222	528	528
24	18	36	57	119	222	529	529
25	18	36	57	119	222	529	529
26	19	36	57	119	222	529	529
27	19	36	57	119	222	529	529
28	21	36	57	119	222	529	529
29	21	36	57	119	222	529	529
30	22	36	57	119	222	529	529

2.8 *Pound sterling*

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	8	24	54	146	245	552	1217
2	8	24	54	146	245	552	981
3	9	26	54	132	242	548	801
4	10	29	56	123	240	546	663
5	12	30	57	112	239	545	558
6	14	34	60	106	238	544	544
7	16	37	61	99	237	543	543
8	17	38	60	92	236	542	542
9	20	45	63	87	235	541	541
10	19	44	61	84	234	540	540
11	18	43	60	84	233	539	539
12	18	43	60	86	232	539	539
13	18	43	61	86	232	538	538
14	18	43	61	86	231	537	537
15	18	43	61	86	230	536	536
16	18	44	61	86	229	535	535
17	18	44	61	86	228	534	534
18	18	44	61	86	227	534	534
19	18	44	61	86	227	534	534
20	18	44	61	86	228	534	534
21	18	44	61	86	228	534	534
22	18	44	61	86	227	534	534
23	18	44	61	86	227	533	533
24	18	44	61	86	226	533	533
25	18	44	61	86	226	532	532
26	19	44	61	86	225	532	532
27	19	44	61	86	225	531	531
28	21	44	61	86	224	531	531
29	21	44	61	86	224	530	530
30	22	44	61	86	223	530	530

2.9 Romanian leu

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	85	98	122	193	306	612	1251
2	83	96	120	191	304	610	1009
3	83	97	120	184	299	605	825
4	82	98	121	184	296	603	684
5	81	98	123	185	294	600	600
6	80	98	125	188	292	598	598
7	79	98	124	188	289	596	596
8	77	96	122	184	287	594	594
9	75	95	120	182	285	591	591
10	74	95	118	180	283	590	590
11	73	94	117	179	282	588	588
12	72	94	116	177	280	587	587
13	71	93	114	176	279	585	585
14	69	91	113	175	278	584	584
15	68	90	111	173	276	583	583
16	67	89	110	172	275	582	582
17	66	88	109	171	274	581	581
18	65	87	108	170	273	580	580
19	64	86	108	169	272	579	579
20	63	85	107	169	272	578	578
21	63	85	106	168	271	577	577
22	62	84	105	167	270	576	576
23	61	83	104	166	269	575	575
24	60	82	103	165	268	574	574
25	58	80	102	164	267	573	573
26	57	79	101	162	266	572	572
27	56	78	100	161	264	571	571
28	55	77	99	160	263	570	570
29	54	76	98	159	262	569	569
30	53	75	97	158	261	568	568

2.10 Zloty

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	57	70	94	165	278	584	1214
2	56	69	93	164	277	583	980
3	56	71	94	158	273	579	802
4	57	72	95	159	271	577	665
5	57	73	99	161	269	576	576
6	56	74	101	164	268	574	574
7	56	75	101	165	266	573	573
8	55	74	99	162	265	571	571
9	53	73	98	160	263	570	570
10	53	73	97	159	262	569	569
11	52	74	97	158	261	568	568
12	52	74	96	158	261	567	567
13	52	74	95	157	260	566	566
14	51	73	95	156	259	566	566
15	51	73	94	156	259	565	565
16	50	72	93	155	258	564	564
17	49	71	93	154	257	564	564
18	49	71	92	154	257	563	563
19	48	70	92	153	256	563	563
20	48	70	91	153	256	563	563
21	48	70	91	153	256	562	562
22	47	69	91	153	256	562	562
23	47	69	90	152	255	561	561
24	46	68	90	151	254	561	561
25	46	68	89	151	254	560	560
26	45	67	88	150	253	560	560
27	44	66	88	149	252	559	559
28	44	66	87	149	252	558	558
29	43	65	86	148	251	557	557
30	42	64	86	147	250	557	557

2.11 Norwegian krone

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	31	45	68	140	252	559	1226
2	32	45	69	140	253	559	991
3	32	47	69	133	249	555	809
4	33	48	71	135	247	553	671
5	33	50	76	137	246	552	564
6	34	51	78	141	245	552	552
7	34	53	79	143	244	551	551
8	33	53	78	141	244	550	550
9	33	53	77	140	243	549	549
10	33	53	77	139	242	549	549
11	33	54	77	139	242	548	548
12	32	54	76	138	241	547	547
13	32	54	75	137	240	547	547
14	31	53	75	136	239	546	546
15	31	53	74	136	239	545	545
16	30	52	73	135	238	545	545
17	30	52	73	135	238	544	544
18	29	51	73	134	237	544	544
19	29	51	72	134	237	544	544
20	29	51	73	134	237	544	544
21	29	51	73	134	237	544	544
22	29	51	73	134	237	544	544
23	29	51	72	134	237	544	544
24	29	51	72	134	237	543	543
25	29	51	72	134	237	543	543
26	28	50	72	133	236	543	543
27	28	50	71	133	236	543	543
28	28	50	71	133	236	542	542
29	27	49	71	133	236	542	542
30	27	49	70	132	235	542	542

2.12 *Swiss franc*

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	0	3	25	96	209	515	1201
2	1	5	26	97	210	516	966
3	2	5	27	91	206	513	788
4	2	7	30	93	205	512	652
5	4	9	35	97	205	512	548
6	4	12	38	101	205	512	512
7	5	14	40	104	205	512	512
8	6	14	40	103	205	512	512
9	7	15	40	102	205	512	512
10	8	16	40	102	205	512	512
11	8	18	41	103	206	513	513
12	9	18	40	102	205	511	511
13	10	19	41	103	206	512	512
14	10	19	41	103	206	512	512
15	12	18	40	101	204	511	511
16	12	17	39	100	203	510	510
17	13	17	39	100	203	510	510
18	14	17	39	101	204	510	510
19	14	18	39	101	204	510	510
20	15	18	40	101	204	511	511
21	15	20	40	102	205	511	511
22	17	20	40	102	205	511	511
23	17	21	40	102	205	511	511
24	18	21	40	101	204	511	511
25	18	22	39	101	204	511	511
26	19	23	39	101	204	511	511
27	19	24	41	101	204	511	511
28	21	24	42	101	204	510	510
29	21	25	43	101	204	510	510
30	22	26	44	101	204	510	510

2.13 Australian dollar

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	46	59	83	154	267	573	1216
2	46	59	83	154	267	573	980
3	46	61	84	148	263	569	800
4	47	62	86	149	261	567	664
5	47	64	90	151	260	566	566
6	47	65	92	155	259	566	566
7	48	67	93	157	258	565	565
8	47	66	92	155	257	564	564
9	46	66	91	153	256	563	563
10	46	67	90	152	256	562	562
11	46	67	90	152	255	561	561
12	45	67	89	151	254	560	560
13	45	67	88	150	253	560	560
14	45	67	88	150	253	559	559
15	44	66	87	149	252	559	559
16	43	65	86	148	251	558	558
17	43	65	86	148	251	557	557
18	42	64	85	147	250	557	557
19	42	64	85	147	250	556	556
20	41	63	85	147	250	556	556
21	41	63	85	146	249	556	556
22	41	63	84	146	249	555	555
23	40	62	84	145	248	555	555
24	40	62	83	145	248	554	554
25	39	61	82	144	247	554	554
26	38	60	82	143	246	553	553
27	38	60	81	143	246	552	552
28	37	59	80	142	245	551	551
29	36	58	79	141	244	551	551
30	36	58	79	141	244	550	550

2.14 Baht

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	17	31	54	126	239	545	1223
2	21	35	58	130	242	549	985
3	25	40	62	126	242	548	804
4	29	44	67	131	243	549	666
5	31	48	74	135	244	551	561
6	31	48	75	138	242	549	549
7	35	54	80	144	246	552	552
8	34	53	79	142	244	551	551
9	35	55	80	142	245	552	552
10	37	58	81	143	246	553	553
11	38	60	83	144	247	554	554
12	39	61	83	145	248	554	554
13	40	62	84	145	248	555	555
14	41	63	84	146	249	555	555
15	41	63	84	146	249	555	555
16	40	62	84	145	248	555	555
17	40	62	84	145	248	555	555
18	40	62	83	145	248	554	554
19	39	61	83	145	248	554	554
20	39	61	83	145	248	554	554
21	39	61	83	144	247	554	554
22	39	61	82	144	247	554	554
23	39	61	82	144	247	553	553
24	38	60	82	144	247	553	553
25	38	60	81	143	246	552	552
26	37	59	81	143	246	552	552
27	37	59	80	142	245	551	551
28	36	58	80	142	245	551	551
29	36	58	79	141	244	550	550
30	35	57	79	140	243	550	550

2.15 *Canadian dollar*

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	17	30	54	125	238	544	1225
2	18	32	55	127	239	546	988
3	20	35	57	121	237	543	807
4	22	37	61	124	236	542	669
5	23	40	66	127	236	542	563
6	24	42	69	132	236	542	542
7	26	44	71	134	236	542	542
8	25	45	70	133	236	542	542
9	26	46	70	133	236	542	542
10	26	47	71	133	236	542	542
11	27	48	71	133	236	543	543
12	28	49	71	133	236	543	543
13	28	50	71	133	236	543	543
14	28	50	71	133	236	543	543
15	28	50	72	133	236	543	543
16	28	50	71	133	236	543	543
17	28	50	71	133	236	543	543
18	28	50	71	133	236	543	543
19	28	50	71	133	236	542	542
20	28	50	71	133	236	543	543
21	28	50	71	133	236	543	543
22	28	50	71	133	236	542	542
23	27	49	71	132	235	542	542
24	27	49	70	132	235	541	541
25	26	48	70	131	234	541	541
26	26	48	69	131	234	540	540
27	25	47	69	131	234	540	540
28	25	47	68	130	233	540	540
29	25	47	68	130	233	539	539
30	24	46	68	129	232	539	539

2.16 *Chilean peso*

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	49	63	86	158	270	577	1237
2	52	66	89	161	273	580	1006
3	56	71	94	158	273	579	826
4	59	74	98	161	273	579	687
5	61	78	103	165	274	580	580
6	63	80	107	170	274	581	581
7	64	83	109	173	274	581	581
8	64	83	109	171	274	580	580
9	64	84	108	171	274	580	580
10	64	85	109	171	274	580	580
11	65	86	109	171	274	580	580
12	64	86	108	170	273	580	580
13	64	86	108	169	272	579	579
14	64	85	107	169	272	578	578
15	63	85	106	168	271	577	577
16	62	84	105	167	270	577	577
17	61	83	105	166	269	576	576
18	61	83	104	166	269	575	575
19	60	82	103	165	268	575	575
20	59	81	103	165	268	574	574
21	59	81	102	164	267	573	573
22	58	80	101	163	266	573	573
23	57	79	100	162	265	572	572
24	56	78	99	161	264	571	571
25	55	77	99	160	263	570	570
26	54	76	98	159	262	569	569
27	53	75	97	159	262	568	568
28	53	75	96	158	261	567	567
29	52	74	95	157	260	566	566
30	51	73	94	156	259	565	565

2.17 Colombian peso

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	81	94	118	189	302	608	1269
2	86	99	123	194	307	613	1034
3	88	102	125	189	304	610	851
4	89	104	127	191	303	609	709
5	92	109	134	196	305	611	611
6	94	112	139	202	306	612	612
7	96	115	141	205	306	613	613
8	97	117	142	205	307	614	614
9	98	118	143	205	308	615	615
10	99	120	143	205	309	615	615
11	99	121	143	205	308	615	615
12	99	121	143	204	307	614	614
13	98	120	141	203	306	613	613
14	97	119	140	202	305	611	611
15	96	117	139	201	304	610	610
16	94	116	137	199	302	609	609
17	93	115	136	198	301	607	607
18	91	113	135	197	300	606	606
19	90	112	133	195	298	605	605
20	89	111	132	194	297	603	603
21	87	109	131	193	296	602	602
22	86	108	129	191	294	601	601
23	84	106	128	189	292	599	599
24	83	105	126	188	291	597	597
25	81	103	124	186	289	596	596
26	79	101	123	185	288	594	594
27	78	100	121	183	286	592	592
28	76	98	120	181	284	591	591
29	75	97	118	180	283	589	589
30	73	95	116	178	281	588	588

2.18 Hong Kong dollar

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	11	24	48	119	232	538	1218
2	14	27	51	122	235	541	980
3	17	32	54	118	234	540	801
4	20	36	59	122	234	541	664
5	23	39	65	126	235	542	559
6	24	42	69	132	236	542	542
7	25	44	71	134	236	542	542
8	26	45	70	133	236	542	542
9	26	46	70	133	236	542	542
10	26	47	71	133	236	542	542
11	27	48	71	133	236	542	542
12	27	49	71	132	235	542	542
13	27	48	70	132	235	541	541
14	26	48	69	131	234	541	541
15	25	47	69	131	234	540	540
16	25	47	68	130	233	539	539
17	24	46	68	129	232	539	539
18	24	46	67	129	232	539	539
19	24	46	67	129	232	538	538
20	24	46	67	129	232	539	539
21	24	46	68	129	232	539	539
22	24	46	68	129	232	539	539
23	24	46	67	129	232	539	539
24	24	46	67	129	232	539	539
25	24	46	67	129	232	538	538
26	24	46	67	129	232	538	538
27	23	46	67	129	232	538	538
28	23	45	67	128	231	538	538
29	23	45	66	128	231	538	538
30	23	45	66	128	231	537	537

2.19 Indian rupee

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	95	108	132	203	316	622	1288
2	96	109	133	204	317	623	1044
3	97	112	134	198	314	620	856
4	99	114	137	201	313	619	712
5	100	116	142	204	312	619	619
6	100	118	145	208	312	618	618
7	101	120	146	210	312	618	618
8	101	120	146	209	311	618	618
9	100	120	145	207	311	617	617
10	99	120	144	206	309	616	616
11	98	120	143	204	307	614	614
12	97	119	141	203	306	612	612
13	96	117	139	201	304	610	610
14	94	116	137	199	302	609	609
15	92	114	136	197	300	607	607
16	90	112	134	195	298	605	605
17	89	111	132	194	297	603	603
18	87	109	131	192	295	602	602
19	86	108	129	191	294	600	600
20	85	107	128	190	293	599	599
21	84	106	127	189	292	598	598
22	83	105	126	188	291	597	597
23	81	103	125	187	290	596	596
24	80	102	124	185	288	595	595
25	79	101	122	184	287	594	594
26	78	100	121	183	286	592	592
27	77	99	120	182	285	591	591
28	75	97	119	181	284	590	590
29	74	96	118	179	282	589	589
30	73	95	117	178	281	588	588

2.20 Mexican peso

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	321	335	358	430	542	849	1319
2	84	98	121	193	305	612	1068
3	88	102	125	189	304	610	873
4	91	107	130	193	305	612	724
5	94	110	136	198	306	613	613
6	95	113	140	203	307	613	613
7	97	116	142	206	307	614	614
8	98	117	143	206	308	615	615
9	98	118	143	205	308	615	615
10	99	119	143	205	308	615	615
11	99	120	143	205	308	615	615
12	100	121	144	205	308	615	615
13	100	122	144	206	309	615	615
14	101	123	144	206	309	616	616
15	102	124	145	207	310	616	616
16	103	125	146	208	311	617	617
17	104	126	147	209	312	618	618
18	105	127	148	210	313	619	619
19	106	128	149	211	314	620	620
20	106	128	149	211	314	621	621
21	106	128	150	211	314	621	621
22	106	128	149	211	314	620	620
23	105	127	149	210	313	620	620
24	104	126	148	209	312	619	619
25	103	125	147	208	311	618	618
26	102	124	145	207	310	617	617
27	101	123	144	206	309	615	615
28	99	121	143	204	307	614	614
29	98	120	141	203	306	612	612
30	96	118	140	202	305	611	611

2.21 *New Taiwan dollar*

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	0	12	36	107	220	526	1216
2	1	12	36	107	220	526	978
3	2	14	37	101	216	522	797
4	2	15	39	102	214	520	660
5	4	17	43	104	213	520	554
6	4	18	45	108	212	519	519
7	5	20	46	110	212	518	518
8	6	20	45	108	211	517	517
9	7	20	44	107	210	516	516
10	8	21	44	106	209	516	516
11	8	22	44	106	209	516	516
12	9	22	44	106	209	516	516
13	10	23	44	106	209	516	516
14	10	23	45	107	210	516	516
15	12	24	45	107	210	516	516
16	12	24	45	107	210	516	516
17	13	24	46	107	210	517	517
18	14	25	46	108	211	517	517
19	14	25	47	109	212	518	518
20	15	26	48	109	212	519	519
21	16	27	48	110	213	520	520
22	17	28	49	111	214	520	520
23	17	28	50	111	214	521	521
24	18	29	50	112	215	521	521
25	18	29	50	112	215	522	522
26	19	30	51	113	216	522	522
27	19	30	51	113	216	522	522
28	21	30	51	113	216	523	523
29	21	30	52	113	216	523	523
30	22	31	52	114	217	523	523

2.22 *New Zealand dollar*

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	51	65	88	160	273	579	1224
2	52	66	89	161	273	580	987
3	53	68	90	154	270	576	807
4	54	69	93	156	268	574	669
5	54	71	97	158	267	574	574
6	55	73	100	163	267	573	573
7	55	74	100	164	265	572	572
8	55	74	100	162	265	571	571
9	54	74	99	161	264	571	571
10	53	74	98	160	263	570	570
11	53	74	97	159	262	568	568
12	52	73	95	157	260	567	567
13	51	72	94	156	259	565	565
14	49	71	93	154	257	564	564
15	48	70	91	153	256	563	563
16	47	69	90	152	255	561	561
17	46	68	89	151	254	560	560
18	45	67	88	150	253	559	559
19	44	66	87	149	252	558	558
20	43	65	87	148	251	558	558
21	43	65	86	148	251	557	557
22	42	64	85	147	250	557	557
23	41	63	85	147	250	556	556
24	41	63	84	146	249	555	555
25	40	62	83	145	248	555	555
26	39	61	83	145	248	554	554
27	39	61	82	144	247	553	553
28	38	60	81	143	246	553	553
29	37	59	81	143	246	552	552
30	37	59	80	142	245	551	551

2.23 Rand

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	115	128	152	223	336	642	1289
2	116	130	153	225	337	644	1043
3	119	133	156	220	335	642	857
4	121	137	160	223	335	642	713
5	123	140	165	227	336	642	642
6	124	142	169	232	336	642	642
7	125	144	170	234	336	642	642
8	125	144	170	233	335	642	642
9	125	145	169	232	335	641	641
10	125	145	169	231	334	641	641
11	124	145	168	230	333	640	640
12	123	145	167	229	332	638	638
13	122	144	165	227	330	636	636
14	120	142	163	225	328	635	635
15	118	140	161	223	326	633	633
16	116	138	159	221	324	630	630
17	114	136	157	219	322	628	628
18	112	134	155	217	320	626	626
19	110	132	153	215	318	624	624
20	108	130	151	213	316	623	623
21	106	128	150	212	315	621	621
22	105	127	148	210	313	619	619
23	103	125	146	208	311	617	617
24	101	123	144	206	309	615	615
25	99	121	142	204	307	614	614
26	97	119	140	202	305	612	612
27	95	117	139	201	304	610	610
28	94	116	137	199	302	608	608
29	92	114	135	197	300	607	607
30	90	112	134	195	298	605	605

2.24 *Real*

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	166	179	203	274	387	693	1336
2	176	189	213	284	397	703	1086
3	182	196	219	283	398	705	889
4	185	200	223	287	399	705	739
5	186	203	229	290	399	706	706
6	187	204	231	294	398	705	705
7	187	205	232	296	397	704	704
8	185	205	230	293	396	702	702
9	184	205	229	291	395	701	701
10	184	205	228	290	393	700	700
11	183	204	227	289	392	698	698
12	181	202	224	286	389	696	696
13	178	200	222	284	387	693	693
14	176	197	219	281	384	690	690
15	172	194	216	278	381	687	687
16	169	191	213	275	378	684	684
17	166	188	210	272	375	681	681
18	163	185	207	269	372	678	678
19	160	182	204	266	369	675	675
20	158	180	201	263	366	672	672
21	155	177	198	260	363	669	669
22	152	174	195	257	360	666	666
23	148	170	192	254	357	663	663
24	145	167	189	251	354	660	660
25	142	164	186	247	351	657	657
26	139	161	183	245	348	654	654
27	136	159	180	242	345	651	651
28	134	156	177	239	342	648	648
29	131	153	174	236	339	645	645
30	128	150	172	233	336	643	643

2.25 Renminbi-yuan

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	32	45	69	140	253	559	1259
2	33	46	70	141	254	560	1014
3	34	48	71	135	250	557	827
4	35	50	74	137	249	555	685
5	36	53	78	140	249	555	576
6	36	54	81	144	248	554	554
7	37	55	82	146	247	554	554
8	36	55	81	143	246	552	552
9	35	55	80	142	245	552	552
10	35	56	79	141	244	551	551
11	35	56	79	141	244	550	550
12	35	56	78	140	243	550	550
13	34	56	78	140	243	549	549
14	34	56	77	139	242	549	549
15	34	56	77	139	242	548	548
16	34	56	77	139	242	548	548
17	34	56	77	139	242	548	548
18	34	56	77	139	242	548	548
19	34	56	77	139	242	548	548
20	34	56	77	139	242	548	548
21	34	56	77	139	242	548	548
22	34	56	77	139	242	548	548
23	34	56	77	139	242	548	548
24	33	55	77	138	241	548	548
25	33	55	76	138	241	548	548
26	33	55	76	138	241	547	547
27	32	54	76	137	240	547	547
28	32	54	75	137	240	547	547
29	32	54	75	137	240	546	546
30	31	53	75	136	239	546	546

2.26 Ringgit

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	29	42	66	137	250	556	1246
2	30	44	67	139	252	558	1005
3	33	48	70	134	250	556	821
4	35	51	74	138	250	556	681
5	38	54	80	142	250	557	574
6	39	57	83	146	250	557	557
7	41	59	86	149	251	557	557
8	41	60	86	148	251	557	557
9	41	61	86	148	251	558	558
10	42	63	86	148	252	558	558
11	43	64	87	149	252	558	558
12	43	65	87	149	252	558	558
13	44	66	87	149	252	558	558
14	44	66	87	149	252	558	558
15	44	66	87	149	252	558	558
16	43	65	87	148	251	558	558
17	43	65	87	149	252	558	558
18	43	65	87	149	252	558	558
19	43	65	87	149	252	558	558
20	44	66	87	149	252	558	558
21	44	66	87	149	252	559	559
22	44	66	87	149	252	558	558
23	44	66	87	149	252	558	558
24	43	65	87	148	251	558	558
25	43	65	86	148	251	557	557
26	42	64	86	147	250	557	557
27	42	64	85	147	250	556	556
28	41	63	84	146	249	556	556
29	41	63	84	146	249	555	555
30	40	62	83	145	248	555	555

2.27 Russian rouble

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	125	139	162	234	346	653	1331
2	124	138	161	233	345	652	1076
3	125	139	162	226	341	647	879
4	125	141	164	227	339	646	728
5	126	142	168	230	338	645	645
6	125	143	170	233	337	643	643
7	126	144	171	235	336	643	643
8	125	144	170	233	335	642	642
9	124	144	169	231	334	641	641
10	124	145	168	230	334	640	640
11	124	145	168	230	333	639	639
12	123	145	167	229	332	638	638
13	122	144	166	227	330	637	637
14	121	143	164	226	329	636	636
15	119	141	162	224	327	634	634
16	117	139	160	222	325	632	632
17	114	136	158	220	323	629	629
18	112	134	156	217	320	627	627
19	110	132	154	215	318	625	625
20	108	130	151	213	316	623	623
21	106	128	149	211	314	620	620
22	104	126	147	209	312	618	618
23	101	123	145	207	310	616	616
24	99	121	143	204	307	614	614
25	97	119	140	202	305	612	612
26	95	117	138	200	303	610	610
27	93	115	136	198	301	607	607
28	91	113	134	196	299	605	605
29	89	111	132	194	297	603	603
30	87	109	130	192	295	602	602

2.28 Singapore dollar

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	0	13	37	108	221	527	1220
2	1	15	39	110	223	529	983
3	4	18	41	105	220	527	803
4	6	22	45	108	220	527	666
5	8	25	51	112	221	528	560
6	10	28	54	118	222	528	528
7	11	30	57	120	222	528	528
8	11	31	56	119	222	528	528
9	12	32	56	119	222	528	528
10	12	33	56	118	222	528	528
11	12	34	56	118	221	528	528
12	12	34	56	118	221	528	528
13	13	34	56	118	221	527	527
14	12	34	56	118	221	527	527
15	12	34	56	117	220	527	527
16	13	34	55	117	220	526	526
17	13	34	55	117	220	526	526
18	14	34	55	117	220	527	527
19	14	34	55	117	220	527	527
20	15	35	56	118	221	527	527
21	16	35	56	118	221	528	528
22	17	35	57	118	221	528	528
23	17	36	57	119	222	528	528
24	18	36	57	119	222	528	528
25	19	36	57	119	222	528	528
26	19	36	57	119	222	529	529
27	21	36	57	119	222	529	529
28	21	36	57	119	222	529	529
29	22	36	58	119	222	529	529
30	22	36	58	119	222	529	529

2.29 South Korean won

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	36	49	73	144	257	563	1233
2	36	49	73	144	257	563	995
3	36	51	73	137	253	559	812
4	36	52	75	138	251	557	673
5	37	53	79	141	249	556	566
6	39	57	83	146	250	557	557
7	37	55	82	146	247	553	553
8	40	59	85	148	250	557	557
9	39	59	84	146	249	556	556
10	34	55	79	141	244	550	550
11	31	52	75	137	240	546	546
12	28	49	71	133	236	543	543
13	26	48	69	131	234	540	540
14	24	46	67	129	232	538	538
15	22	44	66	128	231	537	537
16	21	43	64	126	229	536	536
17	20	42	63	125	228	535	535
18	19	41	63	125	228	534	534
19	19	41	62	124	227	534	534
20	19	41	62	124	227	534	534
21	19	41	62	124	227	534	534
22	19	41	62	124	227	534	534
23	19	41	62	124	227	534	534
24	19	41	62	124	227	533	533
25	19	41	62	124	227	533	533
26	19	41	62	124	227	533	533
27	21	41	62	124	227	533	533
28	21	40	62	124	227	533	533
29	22	40	62	123	226	533	533
30	22	40	61	123	226	533	533

2.30 Turkish lira

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	204	217	241	312	425	731	1572
2	200	214	237	309	421	728	1270
3	197	211	234	298	413	719	1037
4	193	209	232	295	407	714	858
5	189	206	232	293	402	709	720
6	186	203	230	293	397	704	704
7	182	201	228	291	393	699	699
8	178	198	223	286	389	695	695
9	174	194	219	281	384	691	691
10	170	191	215	277	380	687	687
11	167	188	211	273	376	682	682
12	163	185	207	269	372	678	678
13	160	182	203	265	368	674	674
14	156	178	199	261	364	671	671
15	152	174	196	258	361	667	667
16	149	171	192	254	357	664	664
17	146	168	189	251	354	660	660
18	143	165	186	248	351	657	657
19	140	162	183	245	348	654	654
20	137	159	180	242	345	652	652
21	134	156	177	239	342	649	649
22	131	153	175	237	340	646	646
23	129	151	172	234	337	643	643
24	126	148	169	231	334	641	641
25	123	145	167	228	331	638	638
26	121	143	164	226	329	635	635
27	118	140	162	223	326	633	633
28	116	138	159	221	324	630	630
29	114	136	157	219	322	628	628
30	111	133	155	217	320	626	626

2.31 US dollar

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	9	25	49	103	237	543	1218
2	9	25	49	103	237	543	981
3	10	29	51	99	235	541	801
4	13	33	55	97	235	542	664
5	17	39	60	100	236	543	559
6	19	42	64	96	237	543	543
7	20	45	63	91	237	544	544
8	18	43	63	90	237	544	544
9	19	45	65	94	237	544	544
10	21	48	67	97	237	544	544
11	22	50	69	100	237	544	544
12	24	53	70	101	237	544	544
13	25	54	71	101	237	544	544
14	26	55	71	102	237	544	544
15	26	55	71	102	237	544	544
16	26	55	71	102	237	543	543
17	26	55	71	102	237	544	544
18	26	55	71	102	237	543	543
19	26	55	71	102	237	544	544
20	26	55	71	102	237	544	544
21	26	55	71	102	238	544	544
22	26	55	71	102	238	544	544
23	26	55	71	102	238	544	544
24	26	55	71	102	238	544	544
25	26	55	71	102	237	544	544
26	26	55	71	102	237	544	544
27	26	55	71	102	237	543	543
28	26	55	71	102	237	543	543
29	26	55	71	102	236	543	543
30	26	55	71	102	236	542	542

2.32 Yen

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	0	3	15	86	199	505	1213
2	1	5	14	85	198	504	976
3	2	5	13	77	193	499	795
4	2	6	15	79	191	497	657
5	4	7	19	81	190	496	552
6	4	7	22	85	189	496	496
7	5	9	24	87	189	495	495
8	6	9	23	86	189	495	495
9	7	10	23	86	189	495	495
10	8	11	24	86	189	495	495
11	8	11	24	86	189	495	495
12	9	13	24	86	189	496	496
13	10	13	24	86	189	496	496
14	10	14	25	86	189	496	496
15	12	14	26	87	190	496	496
16	12	16	27	87	190	496	496
17	13	16	29	87	190	497	497
18	14	17	30	88	191	497	497
19	14	18	31	88	191	498	498
20	15	18	32	89	192	498	498
21	15	20	34	89	192	499	499
22	17	20	35	90	193	499	499
23	17	21	36	90	193	499	499
24	18	21	37	90	193	499	499
25	18	22	38	90	193	500	500
26	19	23	39	90	193	500	500
27	19	24	41	90	193	499	499
28	21	25	42	90	193	499	499
29	21	25	43	90	193	499	499
30	22	26	44	90	193	499	499

3. Other exposures

3.1 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	2	15	21	43	161	300	3173
2	2	15	21	43	161	344	2355
3	2	15	23	47	156	360	1771
4	2	16	26	51	153	361	1364
5	2	18	29	53	153	353	1078
6	4	20	32	56	153	339	872
7	5	23	34	58	153	323	720
8	6	24	35	61	153	306	604
9	6	25	36	64	153	289	513
10	6	25	38	66	153	271	441
11	7	26	38	67	153	255	383
12	7	26	39	67	153	248	334
13	7	26	39	67	153	248	294
14	7	26	39	67	153	248	260
15	7	26	39	67	153	248	248
16	7	26	41	67	153	248	248
17	7	26	43	67	153	248	248
18	7	26	46	67	153	248	248
19	7	26	48	67	153	248	248
20	7	26	50	67	153	248	248
21	7	26	53	67	153	248	248
22	8	26	55	67	153	248	248
23	8	26	57	67	153	248	248
24	8	26	59	67	153	248	248
25	9	26	62	67	153	248	248
26	9	26	64	68	153	248	248
27	10	26	67	70	153	248	248
28	10	26	69	72	153	248	248
29	10	26	72	74	153	248	248
30	11	26	74	75	153	248	248

3.2 Czech koruna

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	10	22	29	50	169	308	3259
2	12	24	31	52	171	355	2433
3	11	25	33	57	166	372	1834
4	11	26	36	61	163	373	1413
5	12	27	39	63	163	365	1116
6	13	29	40	65	162	350	902
7	13	31	42	66	161	334	743
8	13	31	42	68	161	316	623
9	13	31	43	71	160	297	529
10	13	32	44	72	160	279	454
11	12	32	44	73	159	262	394
12	12	31	44	72	159	253	344
13	11	31	43	72	158	252	302
14	11	30	43	71	158	252	268
15	10	30	42	71	157	251	251
16	10	29	42	70	157	251	251
17	10	29	44	70	157	251	251
18	10	29	47	70	157	251	251
19	10	29	49	70	157	251	251
20	10	29	51	70	157	251	251
21	11	30	54	71	157	252	252
22	11	30	57	71	158	252	252
23	11	30	58	71	158	252	252
24	11	30	61	71	158	252	252
25	11	30	63	71	158	252	252
26	11	30	66	71	158	252	252
27	11	30	68	72	158	252	252
28	11	30	71	74	158	252	252
29	11	30	73	75	157	252	252
30	11	30	76	77	157	252	252

3.3 Danish krone

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	2	14	21	42	161	300	3172
2	2	14	21	42	161	344	2355
3	1	15	23	47	156	360	1771
4	1	16	26	51	153	361	1364
5	2	18	29	53	153	353	1078
6	4	20	32	56	153	339	872
7	5	23	33	58	153	323	720
8	5	23	35	61	153	306	604
9	6	24	36	64	153	289	513
10	6	25	38	66	153	271	441
11	6	26	38	67	153	255	383
12	6	26	38	67	153	247	334
13	6	26	38	67	153	247	294
14	6	26	38	67	153	247	260
15	6	26	38	67	153	247	247
16	6	26	41	67	153	247	247
17	6	26	43	67	153	247	247
18	6	26	46	67	153	247	247
19	7	26	48	67	153	247	247
20	7	26	50	67	153	247	247
21	7	26	53	67	153	247	247
22	8	26	55	67	153	247	247
23	8	26	57	67	153	247	247
24	8	26	59	67	153	247	247
25	9	26	62	67	153	247	247
26	9	26	64	68	153	248	248
27	10	26	67	70	153	248	248
28	10	26	69	72	153	248	248
29	10	26	72	74	153	248	248
30	11	26	74	75	153	248	248

3.4 Forint

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	73	86	92	114	232	328	3254
2	70	82	89	110	229	354	2426
3	72	85	94	118	226	371	1829
4	70	84	95	120	222	373	1411
5	69	85	96	120	220	365	1117
6	69	85	97	121	219	352	904
7	69	86	97	122	217	335	747
8	68	86	97	123	216	318	627
9	67	86	98	125	215	309	533
10	64	83	96	124	211	306	458
11	62	81	94	122	209	303	398
12	61	80	93	121	208	302	348
13	60	79	92	121	207	301	306
14	60	79	92	120	207	301	301
15	60	79	91	120	206	301	301
16	59	78	91	119	206	300	300
17	59	78	91	119	205	300	300
18	58	77	90	118	205	299	299
19	57	77	89	118	204	298	298
20	57	76	89	117	204	298	298
21	56	75	88	117	203	297	297
22	55	75	87	116	202	296	296
23	55	74	86	115	201	296	296
24	54	73	85	114	200	295	295
25	53	72	84	113	199	294	294
26	52	71	83	112	198	293	293
27	51	70	82	111	197	292	292
28	49	69	81	110	196	290	290
29	48	68	80	109	195	289	289
30	47	67	79	108	194	288	288

3.5 Krona

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	18	25	46	165	302	3198
2	8	20	26	48	167	347	2376
3	8	21	30	54	162	363	1788
4	9	23	33	58	161	364	1377
5	10	25	37	60	161	356	1089
6	11	28	39	63	161	342	881
7	12	30	41	65	160	326	727
8	12	30	41	67	160	309	609
9	12	31	42	70	160	291	518
10	12	31	44	72	159	274	446
11	12	31	44	72	159	258	387
12	12	31	44	72	159	253	339
13	12	31	44	72	159	253	298
14	12	31	44	72	159	253	264
15	12	31	44	72	159	253	253
16	12	31	44	72	159	253	253
17	12	31	44	72	159	253	253
18	12	31	46	72	159	253	253
19	12	32	49	73	159	253	253
20	13	32	51	73	160	254	254
21	13	32	54	73	160	254	254
22	13	33	56	74	160	254	254
23	13	33	58	74	160	254	254
24	14	33	61	74	160	255	255
25	14	33	63	74	160	255	255
26	13	33	66	74	160	255	255
27	13	33	68	74	160	254	254
28	13	33	71	74	160	254	254
29	13	32	73	75	160	254	254
30	13	32	76	77	160	254	254

3.6 Kuna

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	43	56	62	84	202	302	3196
2	47	60	66	88	206	347	2374
3	51	64	72	97	205	363	1786
4	53	67	77	103	205	364	1375
5	55	70	82	105	206	355	1087
6	56	73	84	108	206	342	879
7	57	75	85	110	205	326	726
8	56	74	86	112	204	309	609
9	56	74	86	113	203	297	519
10	55	74	86	114	202	296	446
11	54	73	85	114	200	295	387
12	52	72	84	113	199	293	339
13	51	70	83	111	198	292	298
14	50	69	82	110	197	291	291
15	49	68	81	109	196	290	290
16	48	67	80	108	195	289	289
17	47	67	79	108	194	288	288
18	47	66	79	107	193	288	288
19	46	65	78	106	193	287	287
20	46	65	78	106	192	287	287
21	45	64	77	105	192	286	286
22	44	64	76	105	191	285	285
23	44	63	75	104	190	285	285
24	43	62	75	103	190	284	284
25	42	61	74	102	189	283	283
26	41	60	73	101	188	282	282
27	40	60	72	101	187	281	281
28	39	59	71	100	186	281	281
29	39	58	73	99	185	280	280
30	38	57	76	98	185	279	279

3.7 Lev

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	1	14	20	42	160	300	3170
2	1	14	20	42	160	344	2353
3	1	14	22	47	155	360	1770
4	1	15	25	50	153	361	1363
5	2	17	29	52	153	352	1077
6	3	19	31	55	153	339	871
7	5	22	33	57	153	323	719
8	5	23	34	60	153	306	603
9	5	24	35	63	153	288	513
10	5	24	37	65	153	271	441
11	6	25	38	66	153	255	382
12	6	25	38	66	153	247	334
13	6	25	38	66	153	247	294
14	6	25	38	66	153	247	260
15	6	25	38	66	153	247	247
16	6	25	41	66	153	247	247
17	6	25	43	66	153	247	247
18	6	25	46	66	153	247	247
19	7	25	48	66	153	247	247
20	7	25	50	66	153	247	247
21	7	25	53	66	153	247	247
22	8	25	55	66	153	247	247
23	8	25	57	66	153	247	247
24	8	25	59	66	153	247	247
25	9	25	62	66	153	247	247
26	9	25	64	68	153	247	247
27	10	25	67	70	153	247	247
28	10	25	69	72	153	247	247
29	10	25	72	73	153	247	247
30	11	25	74	75	153	247	247

3.8 *Pound sterling*

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	0	11	22	45	179	303	3208
2	0	11	22	45	179	348	2387
3	1	11	23	50	174	365	1797
4	1	13	26	55	170	366	1385
5	1	16	28	59	169	358	1094
6	2	18	33	60	168	344	885
7	3	21	36	60	167	328	730
8	5	24	37	59	166	311	612
9	8	30	42	58	165	293	520
10	11	34	42	57	164	275	447
11	10	33	41	57	164	258	388
12	9	32	41	57	163	257	339
13	8	31	42	57	162	256	298
14	8	31	42	57	161	256	264
15	8	31	43	57	161	255	255
16	8	31	43	57	159	253	253
17	8	31	44	57	158	253	253
18	8	31	46	57	158	252	252
19	8	31	48	57	158	252	252
20	8	31	51	57	158	252	252
21	8	31	53	59	158	252	252
22	8	31	55	61	158	252	252
23	8	31	58	63	157	252	252
24	9	31	61	65	157	251	251
25	9	31	62	66	156	250	250
26	9	31	65	68	156	250	250
27	10	31	67	70	155	249	249
28	10	31	70	72	155	249	249
29	10	31	72	74	154	248	248
30	11	31	74	76	154	248	248

3.9 Romanian leu

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	80	93	99	121	239	335	3303
2	79	91	97	119	238	358	2460
3	77	90	98	122	231	376	1854
4	75	89	99	124	227	377	1430
5	73	88	100	124	224	369	1131
6	73	89	100	125	222	356	916
7	72	89	100	125	220	339	756
8	70	88	99	125	218	322	635
9	68	87	98	126	216	310	540
10	67	86	98	126	214	308	464
11	66	85	98	126	213	307	403
12	64	83	96	124	211	305	352
13	63	82	95	123	210	304	310
14	61	81	93	122	208	302	302
15	60	79	92	120	207	301	301
16	59	78	91	119	206	300	300
17	58	77	90	118	205	299	299
18	57	76	89	117	204	298	298
19	56	75	88	116	203	297	297
20	55	75	87	116	202	296	296
21	54	74	86	115	201	295	295
22	53	73	85	114	200	294	294
23	52	72	84	113	199	293	293
24	51	71	83	112	198	292	292
25	50	70	82	111	197	291	291
26	49	68	81	110	196	290	290
27	48	67	80	108	195	289	289
28	47	66	79	107	194	288	288
29	46	65	78	106	193	287	287
30	45	64	77	105	192	286	286

3.10 Zloty

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	52	65	71	93	211	308	3200
2	52	64	71	92	211	348	2384
3	50	64	72	96	205	366	1799
4	49	64	74	99	201	368	1389
5	49	64	76	99	200	360	1100
6	49	65	76	101	198	347	890
7	49	66	77	102	197	331	735
8	48	66	77	103	195	313	617
9	46	65	77	104	194	296	525
10	46	65	77	105	193	287	451
11	45	64	77	105	192	286	391
12	44	64	76	105	191	285	342
13	44	63	76	104	191	285	301
14	43	62	75	103	190	284	284
15	43	62	74	103	189	284	284
16	42	61	74	102	188	283	283
17	41	60	73	101	188	282	282
18	41	60	73	101	187	282	282
19	40	59	72	100	187	281	281
20	40	59	72	100	187	281	281
21	40	59	72	100	187	281	281
22	39	59	71	100	186	280	280
23	39	58	71	99	186	280	280
24	38	57	70	98	185	279	279
25	38	57	69	98	184	279	279
26	37	56	69	97	184	278	278
27	36	55	69	96	183	277	277
28	35	55	71	96	182	276	276
29	35	54	73	95	182	276	276
30	34	53	76	94	181	275	275

3.11 Norwegian krone

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	27	39	46	67	186	305	3233
2	28	40	47	68	187	352	2411
3	26	40	48	72	181	369	1818
4	25	40	50	75	177	370	1401
5	26	41	53	76	177	362	1107
6	26	43	54	79	176	348	895
7	27	44	55	80	175	332	739
8	26	44	55	82	174	314	619
9	26	45	56	84	173	296	526
10	26	45	57	85	173	278	452
11	25	44	57	85	172	266	392
12	25	44	56	85	171	266	343
13	24	43	56	84	171	265	301
14	23	42	55	84	170	264	267
15	23	42	55	83	169	264	264
16	22	41	54	82	169	263	263
17	22	41	53	82	168	263	263
18	21	40	53	82	168	262	262
19	21	40	53	81	168	262	262
20	21	40	53	81	168	262	262
21	21	40	54	81	168	262	262
22	21	40	57	81	168	262	262
23	21	40	58	81	168	262	262
24	21	40	61	81	168	262	262
25	20	40	63	81	167	261	261
26	20	39	66	80	167	261	261
27	20	39	68	80	167	261	261
28	20	39	71	80	166	261	261
29	19	39	73	80	166	260	260
30	19	38	76	79	166	260	260

3.12 *Swiss franc*

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	0	0	3	24	142	299	3162
2	0	1	6	25	143	343	2348
3	1	1	8	30	138	359	1766
4	1	3	11	34	136	360	1360
5	1	4	14	36	136	352	1075
6	2	4	16	39	136	339	870
7	2	6	19	41	136	323	718
8	2	6	22	43	136	306	603
9	3	7	23	46	136	288	512
10	4	8	26	48	136	271	440
11	4	9	29	50	137	254	382
12	4	10	31	49	135	238	334
13	4	10	34	50	136	231	293
14	4	12	35	50	136	230	259
15	5	12	38	48	135	229	231
16	6	13	41	48	134	228	228
17	6	14	43	50	134	228	228
18	6	15	45	52	134	228	228
19	7	15	47	54	134	229	229
20	7	17	50	56	135	229	229
21	7	17	53	58	135	229	229
22	8	18	54	60	135	229	229
23	8	18	57	61	135	229	229
24	8	20	59	64	135	229	229
25	9	20	62	66	135	229	229
26	9	21	64	68	135	229	229
27	10	23	67	70	137	229	229
28	10	23	68	71	138	229	229
29	10	24	71	73	139	229	229
30	11	25	74	75	141	229	229

3.13 *Australian dollar*

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	41	54	60	82	200	303	3205
2	41	54	60	82	200	348	2384
3	40	54	62	86	195	365	1796
4	40	54	64	89	192	366	1386
5	40	55	67	90	191	359	1096
6	40	57	68	92	190	346	888
7	41	58	69	94	189	330	734
8	40	58	69	95	188	312	616
9	39	58	70	97	187	295	524
10	39	58	70	98	186	280	450
11	38	58	70	99	185	279	391
12	38	57	70	98	184	279	342
13	37	56	69	97	184	278	301
14	36	56	68	97	183	277	277
15	36	55	68	96	183	277	277
16	35	54	67	95	182	276	276
17	35	54	66	95	181	276	276
18	34	53	66	94	181	275	275
19	34	53	65	94	180	275	275
20	33	53	65	94	180	274	274
21	33	52	65	93	180	274	274
22	33	52	65	93	179	274	274
23	32	51	64	92	179	273	273
24	32	51	63	92	178	273	273
25	31	50	63	91	178	272	272
26	30	49	66	90	177	271	271
27	29	49	68	90	176	270	270
28	29	48	71	89	176	270	270
29	28	47	73	88	175	269	269
30	27	47	76	88	174	268	268

3.14 Baht

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	13	25	32	54	172	305	3224
2	17	29	36	57	176	350	2396
3	19	33	41	65	173	367	1804
4	21	36	46	71	173	368	1391
5	24	39	51	74	175	360	1101
6	23	40	51	76	173	347	892
7	28	46	56	81	176	331	736
8	27	45	56	82	175	314	618
9	28	47	59	86	176	296	526
10	30	49	61	89	177	279	452
11	31	50	63	91	178	272	393
12	32	51	64	92	179	273	343
13	32	51	64	92	179	273	302
14	32	52	64	93	179	273	273
15	33	52	64	93	179	274	274
16	32	51	64	92	179	273	273
17	32	51	64	92	179	273	273
18	32	51	63	92	178	273	273
19	31	50	63	92	178	272	272
20	31	51	63	92	178	272	272
21	31	50	63	91	178	272	272
22	31	50	63	91	178	272	272
23	31	50	63	91	177	272	272
24	30	49	62	91	177	271	271
25	30	49	64	90	177	271	271
26	29	49	66	90	176	270	270
27	29	48	69	89	176	270	270
28	28	47	71	89	175	269	269
29	28	47	74	88	175	269	269
30	27	46	76	87	174	268	268

3.15 *Canadian dollar*

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	13	25	31	53	172	305	3231
2	14	26	33	54	173	351	2404
3	14	28	36	60	169	368	1812
4	15	29	39	64	167	370	1398
5	16	31	42	66	167	361	1106
6	17	33	45	69	167	348	895
7	18	36	47	71	166	332	738
8	19	37	48	74	166	314	619
9	19	38	49	77	166	296	527
10	19	38	51	79	167	279	453
11	20	39	52	80	167	261	392
12	20	39	52	80	167	261	343
13	20	39	52	80	167	261	302
14	20	39	52	80	167	261	267
15	20	39	52	80	167	261	261
16	20	39	52	80	167	261	261
17	20	39	52	80	167	261	261
18	20	39	52	80	167	261	261
19	20	39	52	80	167	261	261
20	20	39	52	80	167	261	261
21	20	39	54	80	167	261	261
22	20	39	56	80	166	261	261
23	19	38	58	79	166	260	260
24	19	38	61	79	165	260	260
25	18	37	63	78	165	259	259
26	18	37	66	78	165	259	259
27	17	37	68	78	164	258	258
28	17	36	71	77	164	258	258
29	17	36	73	77	163	258	258
30	16	35	76	77	163	257	257

3.16 *Chilean peso*

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	45	57	64	85	204	308	3264
2	48	60	67	88	207	357	2450
3	50	64	72	96	205	377	1855
4	52	66	76	101	203	379	1435
5	53	69	80	104	204	372	1138
6	55	72	83	108	205	359	923
7	57	74	85	110	205	343	763
8	57	75	86	112	205	326	641
9	57	76	87	115	204	308	546
10	57	76	89	117	204	299	470
11	57	77	89	117	204	298	408
12	57	76	89	117	204	298	356
13	56	75	88	116	203	297	314
14	55	75	87	116	202	296	296
15	55	74	86	115	201	296	296
16	54	73	86	114	201	295	295
17	53	72	85	113	200	294	294
18	53	72	84	113	199	294	294
19	52	71	84	112	199	293	293
20	51	71	83	112	198	292	292
21	51	70	83	111	197	292	292
22	50	69	82	110	197	291	291
23	49	68	81	109	196	290	290
24	48	67	80	108	195	289	289
25	47	66	79	107	194	288	288
26	46	65	78	106	193	287	287
27	45	65	77	106	192	286	286
28	44	64	76	105	191	285	285
29	43	63	76	104	190	284	284
30	43	62	79	103	189	284	284

3.17 Colombian peso

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	76	89	95	117	235	332	3353
2	81	94	100	122	240	367	2523
3	82	95	103	127	236	388	1915
4	81	96	106	131	233	392	1485
5	84	100	111	135	235	385	1179
6	87	103	114	139	236	372	957
7	89	106	117	142	237	356	792
8	90	108	119	145	238	338	665
9	91	110	122	149	239	333	566
10	92	111	124	151	239	333	487
11	92	111	124	152	239	333	423
12	91	110	123	151	238	332	370
13	90	109	122	150	237	331	331
14	89	108	121	149	236	330	330
15	87	107	119	148	234	328	328
16	86	105	118	146	233	327	327
17	85	104	117	145	231	326	326
18	83	103	115	144	230	324	324
19	82	101	114	142	229	323	323
20	81	100	113	141	228	322	322
21	79	99	111	140	226	320	320
22	78	97	110	138	225	319	319
23	76	95	108	136	223	317	317
24	75	94	106	135	221	316	316
25	73	92	105	133	220	314	314
26	71	91	103	132	218	312	312
27	70	89	102	130	216	311	311
28	68	87	100	128	215	309	309
29	67	86	98	127	213	308	308
30	65	84	97	125	212	306	306

3.18 Hong Kong dollar

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	19	25	47	165	303	3209
2	9	22	28	50	168	348	2385
3	11	24	33	57	165	365	1797
4	13	27	37	62	165	366	1386
5	15	30	42	65	166	358	1096
6	17	33	44	69	166	345	887
7	18	36	47	71	166	329	733
8	19	37	48	74	166	312	615
9	19	38	49	77	166	294	523
10	19	38	51	79	166	277	449
11	19	39	51	80	166	261	390
12	19	38	51	79	166	260	340
13	19	38	51	79	165	260	299
14	18	37	50	78	165	259	265
15	17	37	49	78	164	258	258
16	17	36	48	77	163	258	258
17	16	35	48	76	163	257	257
18	16	35	48	76	163	257	257
19	16	35	49	76	163	257	257
20	16	35	51	76	163	257	257
21	16	35	54	76	163	257	257
22	16	35	56	76	163	257	257
23	16	35	58	76	163	257	257
24	16	35	61	76	163	257	257
25	16	35	63	76	163	257	257
26	16	35	66	76	162	257	257
27	15	35	68	76	162	256	256
28	15	34	71	75	162	256	256
29	15	34	73	75	162	256	256
30	15	34	76	77	162	256	256

3.19 *Indian rupee*

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	90	103	109	131	249	346	3408
2	91	104	110	132	250	370	2551
3	91	104	113	137	245	390	1929
4	91	106	116	141	243	393	1492
5	92	107	119	143	243	385	1182
6	93	109	121	145	242	371	957
7	94	112	122	147	242	355	791
8	94	112	123	149	242	336	663
9	94	112	124	151	241	335	564
10	93	112	124	152	240	334	485
11	91	110	123	151	238	332	420
12	89	109	121	150	236	330	367
13	88	107	120	148	234	329	329
14	86	105	118	146	233	327	327
15	84	103	116	144	231	325	325
16	82	101	114	142	229	323	323
17	81	100	112	141	227	322	322
18	79	98	111	139	226	320	320
19	78	97	110	138	225	319	319
20	77	96	109	137	224	318	318
21	76	95	108	136	222	317	317
22	75	94	106	135	221	316	316
23	73	93	105	134	220	314	314
24	72	91	104	132	219	313	313
25	71	90	103	131	218	312	312
26	70	89	102	130	216	311	311
27	68	88	100	129	215	309	309
28	67	87	99	128	214	308	308
29	66	85	98	126	213	307	307
30	65	84	97	125	212	306	306

3.20 Mexican peso

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	317	329	336	357	476	572	3494
2	80	92	99	120	239	378	2615
3	82	95	103	128	236	398	1972
4	84	98	108	133	236	399	1520
5	86	101	113	137	237	390	1202
6	88	104	116	140	238	376	972
7	90	107	118	143	238	359	802
8	91	109	120	146	239	340	672
9	91	110	122	149	239	333	572
10	92	111	123	151	239	333	491
11	92	111	124	152	239	333	426
12	92	111	124	152	239	333	372
13	92	112	124	153	239	333	333
14	93	112	125	153	240	334	334
15	94	113	126	154	241	335	335
16	95	114	127	155	241	336	336
17	96	115	128	156	242	337	337
18	97	116	129	157	243	338	338
19	97	117	129	158	244	338	338
20	98	117	130	158	245	339	339
21	98	117	130	158	245	339	339
22	98	117	130	158	245	339	339
23	97	116	129	157	244	338	338
24	96	115	128	156	243	337	337
25	95	114	127	155	242	336	336
26	94	113	126	154	241	335	335
27	93	112	124	153	239	334	334
28	91	110	123	151	238	332	332
29	90	109	122	150	236	331	331
30	88	108	120	149	235	329	329

3.21 *New Taiwan dollar*

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	0	7	13	35	153	303	3205
2	0	7	13	35	153	347	2379
3	1	7	15	39	148	364	1789
4	1	7	17	42	145	364	1378
5	1	8	20	43	144	356	1088
6	2	10	21	46	143	342	880
7	2	12	22	47	142	326	726
8	2	12	23	49	141	308	608
9	3	12	25	51	140	291	517
10	4	12	26	52	140	273	444
11	4	12	29	53	140	256	385
12	4	12	31	53	140	240	337
13	4	12	34	53	140	234	296
14	4	12	37	54	140	234	262
15	6	13	38	54	140	235	235
16	6	13	41	54	140	235	235
17	6	14	44	54	141	235	235
18	6	15	46	55	141	236	236
19	7	15	48	56	142	236	236
20	7	17	51	57	143	237	237
21	7	17	53	59	144	238	238
22	8	18	55	61	144	239	239
23	8	19	58	63	145	239	239
24	9	20	61	65	145	240	240
25	9	21	62	66	146	240	240
26	9	21	65	68	146	240	240
27	10	23	67	70	146	241	241
28	10	23	70	72	147	241	241
29	11	24	72	75	147	241	241
30	11	25	74	77	147	241	241

3.22 *New Zealand dollar*

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	47	59	66	88	206	305	3226
2	48	60	67	88	207	351	2403
3	47	61	69	93	201	368	1811
4	47	61	71	96	198	369	1397
5	47	62	74	97	198	361	1105
6	48	64	76	100	197	348	894
7	48	65	76	101	196	332	738
8	48	66	77	103	196	314	620
9	47	66	78	105	195	297	527
10	46	66	78	106	194	288	453
11	45	65	77	105	192	286	393
12	44	63	76	104	191	285	343
13	43	62	74	103	189	284	302
14	41	60	73	101	188	282	282
15	40	59	72	100	187	281	281
16	38	58	70	99	185	279	279
17	37	57	69	98	184	278	278
18	36	56	68	97	183	277	277
19	36	55	68	96	182	277	277
20	35	54	67	95	182	276	276
21	35	54	67	95	181	276	276
22	34	53	66	94	181	275	275
23	33	53	65	94	180	274	274
24	33	52	65	93	179	274	274
25	32	51	64	92	179	273	273
26	31	51	66	92	178	272	272
27	31	50	69	91	177	272	272
28	30	49	71	90	177	271	271
29	29	49	73	90	176	270	270
30	29	48	76	89	175	270	270

3.23 *Rand*

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	110	123	129	151	269	366	3410
2	112	124	131	152	271	370	2548
3	113	126	134	159	267	390	1931
4	114	128	138	163	266	393	1494
5	115	131	142	166	266	386	1184
6	117	133	145	169	266	373	961
7	118	136	146	171	266	360	795
8	118	136	147	173	266	360	668
9	118	137	148	176	265	360	570
10	118	137	149	177	265	359	491
11	117	136	149	177	264	358	426
12	115	135	147	176	262	356	373
13	114	133	146	174	260	355	355
14	112	131	144	172	259	353	353
15	110	129	142	170	257	351	351
16	108	127	139	168	254	349	349
17	106	125	137	166	252	347	347
18	104	123	135	164	250	345	345
19	102	121	134	162	248	343	343
20	100	119	132	160	247	341	341
21	98	117	130	159	245	339	339
22	96	116	128	157	243	337	337
23	95	114	126	155	241	336	336
24	93	112	125	153	239	334	334
25	91	110	123	151	238	332	332
26	89	108	121	149	236	330	330
27	87	106	119	148	234	328	328
28	86	105	117	146	232	327	327
29	84	103	116	144	231	325	325
30	82	101	114	143	229	323	323

3.24 *Real*

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	161	174	180	202	320	417	3543
2	171	184	190	212	330	426	2660
3	176	189	197	222	330	426	2010
4	178	192	202	227	329	424	1553
5	179	194	206	229	330	424	1230
6	179	196	207	232	329	423	996
7	180	197	208	233	328	422	823
8	179	197	208	234	326	421	690
9	178	196	208	235	325	419	587
10	177	196	208	236	324	418	505
11	175	194	207	235	322	416	438
12	173	192	205	233	320	414	414
13	170	190	202	231	317	411	411
14	167	187	199	228	314	408	408
15	164	184	196	225	311	405	405
16	161	181	193	222	308	402	402
17	158	178	190	219	305	399	399
18	155	175	187	216	302	396	396
19	152	172	184	213	299	393	393
20	149	169	181	210	296	391	391
21	147	166	178	207	293	388	388
22	143	163	175	204	290	384	384
23	140	160	172	201	287	381	381
24	137	157	169	198	284	378	378
25	134	153	166	195	281	375	375
26	131	151	163	192	278	372	372
27	128	148	160	189	275	369	369
28	126	145	157	186	272	367	367
29	123	142	155	183	270	364	364
30	120	139	152	180	267	361	361

3.25 Renminbi-yuan

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	27	40	46	68	186	313	3324
2	28	41	47	69	187	360	2472
3	28	41	50	74	182	377	1861
4	28	42	52	77	180	378	1433
5	28	43	55	79	179	369	1133
6	29	45	57	81	178	355	916
7	30	47	58	83	178	339	756
8	29	47	58	84	177	321	634
9	28	47	59	86	176	302	538
10	28	47	59	87	175	284	463
11	27	47	59	88	174	269	401
12	27	46	59	87	174	268	351
13	26	46	58	87	173	267	308
14	26	45	58	86	173	267	273
15	26	45	58	86	172	267	267
16	25	45	57	86	172	267	267
17	25	45	57	86	172	266	266
18	25	45	57	86	172	267	267
19	26	45	57	86	172	267	267
20	26	45	58	86	172	267	267
21	26	45	58	86	173	267	267
22	26	45	57	86	172	267	267
23	25	45	60	86	172	266	266
24	25	44	62	85	172	266	266
25	25	44	65	85	172	266	266
26	25	44	67	85	171	266	266
27	24	43	70	85	171	265	265
28	24	43	72	84	171	265	265
29	24	43	75	84	170	265	265
30	23	42	77	83	170	264	264

3.26 Ringgit

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	24	37	43	65	183	310	3289
2	26	38	45	67	185	357	2449
3	27	40	49	73	181	375	1847
4	28	42	53	78	180	376	1425
5	30	45	57	80	181	368	1127
6	31	48	59	84	181	355	913
7	34	51	62	86	181	338	754
8	34	52	63	89	182	321	633
9	34	53	65	92	182	303	539
10	35	54	67	94	182	285	463
11	36	55	67	96	182	277	402
12	36	55	68	96	183	277	352
13	36	55	68	96	183	277	310
14	36	55	68	96	182	277	277
15	36	55	67	96	182	277	277
16	35	54	67	95	182	276	276
17	35	55	67	96	182	276	276
18	35	55	67	96	182	276	276
19	35	55	67	96	182	276	276
20	36	55	68	96	183	277	277
21	36	55	68	96	183	277	277
22	36	55	68	96	183	277	277
23	35	55	67	96	182	276	276
24	35	54	67	95	182	276	276
25	35	54	67	95	181	276	276
26	34	53	68	94	181	275	275
27	34	53	70	94	180	275	275
28	33	52	73	93	180	274	274
29	32	52	75	93	179	273	273
30	32	51	78	92	179	273	273

3.27 Russian rouble

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	121	133	140	162	280	376	3527
2	120	132	139	160	279	381	2636
3	119	132	140	164	273	400	1987
4	118	132	142	167	270	401	1530
5	118	133	145	169	269	392	1208
6	118	134	146	170	268	377	977
7	119	136	147	172	267	361	805
8	118	136	147	173	266	360	674
9	117	136	148	175	265	359	573
10	117	136	149	177	264	358	492
11	116	136	148	177	263	358	426
12	115	135	147	176	262	356	372
13	114	133	146	175	261	355	355
14	113	132	145	173	260	354	354
15	111	130	143	171	258	352	352
16	109	128	141	169	256	350	350
17	106	126	138	167	253	347	347
18	104	123	136	164	251	345	345
19	102	121	134	162	249	343	343
20	100	119	132	160	247	341	341
21	98	117	130	158	245	339	339
22	96	115	127	156	242	337	337
23	93	113	125	154	240	334	334
24	91	110	123	151	238	332	332
25	89	108	121	149	236	330	330
26	87	106	119	147	234	328	328
27	85	104	117	145	232	326	326
28	83	102	115	143	230	324	324
29	81	100	113	141	228	322	322
30	79	98	111	139	226	320	320

3.28 Singapore dollar

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	0	8	14	36	154	304	3215
2	0	9	16	38	156	349	2392
3	1	11	20	44	152	367	1803
4	1	13	24	49	151	368	1391
5	1	16	28	51	152	360	1100
6	3	19	30	55	152	346	890
7	4	22	32	57	152	330	735
8	5	23	34	60	152	313	617
9	5	23	35	63	152	295	524
10	5	24	37	65	152	277	450
11	5	24	37	65	152	260	391
12	5	24	37	65	152	246	341
13	5	24	36	65	151	246	300
14	4	24	37	65	151	245	265
15	6	23	39	64	151	245	245
16	6	23	41	64	151	245	245
17	6	23	44	64	151	245	245
18	6	23	46	64	151	245	245
19	7	23	49	64	151	245	245
20	7	24	51	65	151	245	245
21	7	24	54	65	152	246	246
22	8	24	56	65	152	246	246
23	8	25	58	66	152	246	246
24	9	25	61	66	152	247	247
25	9	25	63	68	153	247	247
26	9	25	66	69	153	247	247
27	10	25	68	71	153	247	247
28	10	25	71	73	153	247	247
29	11	25	73	75	153	247	247
30	11	25	76	77	153	247	247

3.29 South Korean won

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	31	44	50	72	190	307	3252
2	31	44	50	72	190	353	2422
3	30	43	52	76	184	370	1825
4	29	43	54	79	181	371	1406
5	29	44	56	80	180	363	1111
6	31	48	59	84	181	349	898
7	30	47	58	82	178	332	741
8	33	51	62	88	181	315	621
9	32	51	63	90	180	297	528
10	27	46	59	87	175	279	453
11	23	42	55	83	170	264	393
12	20	39	52	80	167	261	343
13	18	37	50	78	164	259	302
14	16	35	48	76	163	257	267
15	14	34	46	75	161	255	255
16	13	32	45	73	160	254	254
17	12	31	44	72	159	253	253
18	11	31	47	72	158	252	252
19	11	30	49	71	158	252	252
20	11	30	51	71	158	252	252
21	11	30	54	71	158	252	252
22	11	30	56	71	158	252	252
23	11	30	58	71	158	252	252
24	11	30	61	71	158	252	252
25	11	30	63	71	157	252	252
26	11	30	66	71	157	252	252
27	10	30	68	71	157	251	251
28	10	29	71	73	157	251	251
29	11	29	73	75	157	251	251
30	11	29	76	77	157	251	251

3.30 Turkish lira

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	199	212	218	240	358	454	4215
2	196	208	215	236	355	451	3154
3	190	204	212	236	345	469	2377
4	186	200	210	235	338	470	1827
5	182	197	209	232	333	459	1438
6	178	195	206	231	328	441	1158
7	175	193	203	228	323	419	950
8	171	189	200	226	319	413	793
9	167	186	198	225	315	409	670
10	164	183	195	223	311	405	573
11	160	179	192	220	307	401	495
12	156	175	188	216	302	397	430
13	152	171	184	212	298	393	393
14	148	167	180	208	295	389	389
15	144	164	176	205	291	385	385
16	141	160	173	201	288	382	382
17	138	157	169	198	284	379	379
18	135	154	166	195	281	376	376
19	132	151	163	192	278	373	373
20	129	148	161	189	276	370	370
21	126	145	158	186	273	367	367
22	123	142	155	184	270	364	364
23	120	140	152	181	267	362	362
24	118	137	150	178	265	359	359
25	115	134	147	175	262	356	356
26	113	132	145	173	259	354	354
27	110	129	142	170	257	351	351
28	108	127	140	168	255	349	349
29	105	125	137	166	252	346	346
30	103	122	135	164	250	344	344

3.31 US dollar

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	0	14	26	52	170	303	3209
2	0	14	26	52	170	348	2386
3	1	17	28	56	167	366	1798
4	1	20	32	61	166	367	1387
5	3	23	36	67	167	359	1097
6	5	27	39	68	167	346	888
7	8	31	42	71	168	330	734
8	10	34	46	74	168	312	615
9	12	37	49	76	168	295	523
10	13	39	51	77	168	277	450
11	14	40	52	78	168	262	390
12	15	42	54	79	168	262	341
13	15	43	55	80	168	262	300
14	16	44	55	80	168	262	265
15	16	44	55	80	168	262	262
16	16	44	55	80	168	262	262
17	16	44	55	80	168	262	262
18	16	44	55	80	168	262	262
19	16	44	55	80	168	262	262
20	16	44	55	80	168	262	262
21	16	44	55	80	168	262	262
22	16	44	56	80	168	262	262
23	16	44	58	80	168	262	262
24	16	44	61	80	168	262	262
25	16	44	63	80	168	262	262
26	16	44	66	80	168	262	262
27	16	44	68	80	167	262	262
28	16	44	71	80	167	261	261
29	16	44	73	80	167	261	261
30	16	44	75	80	167	261	261

3.32 Yen

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	0	0	3	14	132	302	3196
2	0	1	6	14	131	346	2372
3	1	1	9	17	124	363	1783
4	1	3	11	20	121	363	1372
5	1	4	14	22	120	354	1084
6	2	4	16	25	120	340	876
7	2	6	19	27	119	324	722
8	2	6	22	30	119	307	606
9	3	7	24	33	119	289	515
10	4	8	26	34	119	272	442
11	4	9	29	37	119	255	383
12	4	10	31	39	120	239	335
13	4	10	34	41	120	223	294
14	4	12	36	43	120	214	260
15	6	12	38	45	120	215	231
16	6	13	41	48	120	215	215
17	6	14	43	50	121	215	215
18	6	15	45	52	122	215	215
19	7	15	48	54	125	216	216
20	7	17	50	56	127	217	217
21	7	17	53	58	128	217	217
22	8	18	55	60	130	217	217
23	8	18	57	62	132	218	218
24	8	20	59	64	133	218	218
25	9	20	62	66	134	218	218
26	9	21	64	68	137	218	218
27	10	23	67	70	138	218	218
28	10	23	69	71	138	218	218
29	10	24	72	73	139	218	218
30	11	25	74	75	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	5
Euro	Belgium	5
Euro	Cyprus	5
Euro	Estonia	5
Euro	Finland	5
Euro	France	5
Euro	Germany	5
Euro	Greece	5
Euro	Ireland	5
Euro	Italy	5
Euro	Latvia	5
Euro	Lithuania	5
Euro	Luxembourg	5
Euro	Malta	5
Euro	Netherlands	5
Euro	Portugal	5
Euro	Slovakia	5
Euro	Slovenia	5
Euro	Spain	5
Czech koruna	Czech Republic	10
Danish krone	Denmark	48
Forint	Hungary	3
Krona	Sweden	11
Kuna	Croatia	0
Lev	Bulgaria	-5
Pound sterling	United Kingdom	7
Romanian leu	Romania	-1
Zloty	Poland	4
Króna	Iceland	-4
Norwegian krone	Norway	31
Swiss franc	Liechtenstein	8
Swiss franc	Switzerland	8
Australian dollar	Australia	9

Canadian dollar	Canada	39
Renminbi-yuan	China	41
Hong Kong dollar	Hong Kong	2
US dollar	United States	22
Yen	Japan	7

COMMISSION IMPLEMENTING REGULATION (EU) 2021/1355**of 12 August 2021****on multiannual national control programmes for pesticides residues to be established by Member States****(Text with EEA relevance)**

THE EUROPEAN COMMISSION,

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

Having regard to Regulation (EU) 2017/625 of the European Parliament and of the Council of 15 March 2017 on official controls and other official activities performed to ensure the application of food and feed law, rules on animal health and welfare, plant health and plant protection products, amending Regulations (EC) No 999/2001, (EC) No 396/2005, (EC) No 1069/2009, (EC) No 1107/2009, (EU) No 1151/2012, (EU) No 652/2014, (EU) 2016/429 and (EU) 2016/2031 of the European Parliament and of the Council, Council Regulations (EC) No 1/2005 and (EC) No 1099/2009 and Council Directives 98/58/EC, 1999/74/EC, 2007/43/EC, 2008/119/EC and 2008/120/EC, and repealing Regulations (EC) No 854/2004 and (EC) No 882/2004 of the European Parliament and of the Council, Council Directives 89/608/EEC, 89/662/EEC, 90/425/EEC, 91/496/EEC, 96/23/EC, 96/93/EC and 97/78/EC and Council Decision 92/438/EEC (Official Controls Regulation) ⁽¹⁾, and in particular Article 19(3)(b) thereof,

Whereas:

- (1) Regulation (EU) 2017/625 lays down rules for official controls and other official activities by the competent authorities of the Member States to verify compliance with Union legislation, *inter alia*, in the area of food safety at all stages of production, processing and distribution. It provides for specific rules on official controls in relation to substances whose use may result in residues of those substances in food and feed.
- (2) Regulation (EU) 2017/625 deletes Article 30 of Regulation (EC) No 396/2005 of the European Parliament and of the Council ⁽²⁾, which however remains applicable until 14 December 2022, unless an earlier date is set by a delegated act. That Article 30 lays down specific requirements for establishing risk based multiannual national control programmes for pesticide residues with the dual purpose of assessing consumer exposure and compliance with legislation.
- (3) Article 110 of Regulation (EU) 2017/625 provides minimum requirements for the content of the multi-annual national control plans. However, these do not take into account the specific practical arrangements needed for the preparation of multiannual national control programmes for pesticide residues.
- (4) It is therefore appropriate to set specific requirements for the preparation of multiannual national control programmes for pesticide residues, which should be a part of the multi-annual national control plans. It is in particular important to ensure that the control regime takes account of the purpose of assessing consumer exposure and compliance with Regulation (EC) No 396/2005.
- (5) As Article 30 of Regulation (EC) No 396/2005 will no longer apply from 15 December 2022, this Regulation should apply from that date.
- (6) The measures provided for in this Regulation are in accordance with the opinion of the Standing Committee on Plants, Animals, Food and Feed,

⁽¹⁾ OJ L 95, 7.4.2017, p. 1.

⁽²⁾ Regulation (EC) No 396/2005 of the European Parliament and of the Council of 23 February 2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC (OJ L 70, 16.3.2005, p. 1).

HAS ADOPTED THIS REGULATION:

Article 1

Multiannual national control programmes for pesticide residues

1. Member States shall establish multiannual national control programmes for pesticide residues, as part of their respective multi-annual national control plan. They shall update their multiannual programme every year.
2. Those programmes shall be risk-based and aimed at assessing consumer exposure and compliance with Regulation (EC) No 396/2005. They shall specify at least the following:
 - (a) the products to be sampled;
 - (b) the number of samples to be taken and analyses to be carried out;
 - (c) the pesticides to be analysed;
 - (d) the criteria applied in drawing up such programmes, including:
 - (i) the pesticide-product combinations to be selected;
 - (ii) the number of samples taken for domestic and non-domestic products respectively;
 - (iii) consumption of the products as a share of the national diet;
 - (iv) the control programme of the Union; and
 - (v) the results of previous multiannual national control programmes.
3. Member States shall participate in the multiannual Union control programme in accordance with Article 29 of Regulation (EC) No 396/2005.

Article 2

Entry into force and application

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 15 December 2022.

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

Done at Brussels, 12 August 2021.

For the Commission
The President
Ursula VON DER LEYEN

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