# DECISIONS

## DECISION (EU) 2022/2128 OF THE EUROPEAN CENTRAL BANK

**of 27 October 2022**

**amending Decision (EU) 2019/1311 on a third series of targeted longer-term refinancing operations (ECB/2019/21)** ***(ECB/2022/37)***

THE GOVERNING COUNCIL OF THE EUROPEAN CENTRAL BANK,

Having regard to the Treaty on the Functioning of the European Union, and in particular the first indent of Article 127(2) thereof,

Having regard to the Statute of the European System of Central Banks and of the European Central Bank, and in particular the first indent of Article 3.1, Article 12.1, the second indent of Article 18.1 and the second indent of Article 34.1 thereof,

Having regard to Guideline (EU) 2015/510 of the European Central Bank of 19 December 2014 on the implementation of the Eurosystem monetary policy framework (General Documentation Guideline) (ECB/2014/60) ([1]).

Whereas:

(1) Pursuant to Article 1(4) of Guideline (EU) 2015/510 (ECB/2014/60), the Governing Council may, at any time, change the tools, instruments, requirements, criteria and procedures for the implementation of Eurosystem monetary policy operations.

(2) On 22 July 2019, in pursuing its objective to maintain price stability by preserving favourable bank lending conditions and thereby supporting the accommodative stance of monetary policy in Member States whose currency is the euro, the Governing Council adopted Decision (EU) 2019/1311 of the European Central Bank (ECB/2019/21) ([2]). This Decision provides for a third series of targeted longer-term refinancing operations (TLTROs-III) to be conducted over the period September 2019 to March 2021.

(3) Since the adoption of Decision (EU) 2019/1311 (ECB/2019/21), the parameters and conditions of the TLTROs-III have been recalibrated on several occasions, as considered necessary and appropriate in light of the risks to price stability, the monetary policy transmission mechanism and the economic outlook in the euro area existing at the time. These adjustments took place in a disinflationary environment, requiring a highly accommodative monetary policy stance to ensure price stability over the medium term. In particular, on 12 September 2019, in order to preserve favourable bank lending conditions, ensure the smooth transmission of monetary policy in Member States whose currency is the euro and to support the accommodative stance of monetary policy, the Governing Council decided to change certain parameters of TLTROs-III, including to increase the maturity of all operations from two to three years and provide for a reduction in applicable interest rates. On 12 March 2020, in order to support bank lending to those most affected by the spread of the coronavirus disease (COVID-19), in particular small and medium-sized enterprises, the Governing Council decided to change certain parameters of TLTROs-III, including to increase the borrowing allowance. Moreover, on 30 April 2020, in order to further support the provision of credit to households and firms in the face of the prevalent economic disruptions and heightened uncertainty, the Governing Council decided to provide for an additional temporary reduction in interest rates applied to all TLTROs-III under certain conditions ([3]). On 10 December 2020, the Governing Council decided to further recalibrate the

([1]) OJ L 91, 2.4.2015, p. 3.

([2]) Decision (EU) 2019/1311 of the European Central Bank of 22 July 2019 on a third series of targeted longer-term refinancing operations (ECB/2019/21) (OJ L 204, 2.8.2019, p. 100).

([3]) Decision (EU) 2020/407 of the European Central Bank of 16 March 2020 amending Decision (EU) 2019/1311 on a third series of targeted longer-term refinancing operations (ECB/2020/13) (OJ L 80, 17.3.2020, p. 23) and Decision (EU) 2020/614 of the European Central Bank of 30 April 2020 amending Decision (EU) 2019/1311 on a third series of targeted longer-term refinancing operations (ECB/2020/25) (OJ L 141, 5.5.2020, p. 28) implement these changes.

conditions of TLTROs-III aiming to contribute to preserving favourable financing conditions over the pandemic period, thereby supporting the flow of credit to all sectors of the economy, underpinning economic activity and safeguarding medium-term price stability. In particular, it decided to extend the period over which considerably more favourable terms apply to June 2022, conduct three additional operations between June and December 2021, and raise the total amount that participants are entitled to borrow in TLTROs-III. At that time, the Governing Council indicated that it continued to stand ready to adjust all of its instruments, as appropriate, to ensure that inflation moves towards its aim in a sustained manner, in line with its commitment to symmetry ([4]).

(4) TLTROs-III, as adjusted when warranted, have therefore played a key role in maintaining price stability, in particular throughout the acute phase of the pandemic period, by preserving favourable financing conditions in a disinflationary environment and supporting the accommodative stance of monetary policy necessary to address severe downside risks to the economy and to price stability. During that period, the European Central Bank (ECB) granted exceptionally favourable financing conditions to participating credit institutions through TLTROs-III, with a view to sustaining lending to the real economy at a time of intense stress.

(5) The rapid and unexpected rise in inflation to levels that are unprecedented since the introduction of the euro, mainly due to unexpectedly high energy costs and supply deficiencies and the substantial upward revision in the outlook for medium-term inflation since the end of 2021, calls for a fundamental reassessment of the appropriate monetary policy stance. Energy and commodity prices have sharply increased after the Russian invasion of Ukraine and the ensuing trade disruptions have exacerbated supply bottlenecks, heightened uncertainty and intensified inflation pressures across sectors. This drastic change in circumstances could not have been foreseen either when TLTROs-III were established or when their conditions were recalibrated and was due, to an important extent, to external shocks. This unexpected and unprecedented change in circumstances, exacerbated by the economic fallout of the Russian invasion of Ukraine, requires adjustments in the monetary policy stance and a recalibration of all monetary policy instruments, including TLTROs-III. In particular, the Governing Council has embarked on an accelerated and frontloaded path of monetary policy normalisation in order to ensure that inflation stabilises at the 2 % target over the medium term in line with the ECB's price stability mandate. Since December 2021, the Governing Council has decided to discontinue net asset purchases under the Asset Purchase Programme and the Pandemic Emergency Purchase Programme and, subsequently, to increase the key ECB policy rates by an aggregate 200 basis points to date.

(6) While the increase in key policy rates has so far been smoothly transmitted to households and firms in the euro area, the current circumstances require further accelerating the transmission of rate policy to financing conditions more broadly. The existing pricing terms of TLTROs-III imply that before and after the two special interest rate periods ranging from 24 June 2020 until 23 June 2022, the applicable interest rate is linked to the deposit facility rate or the rate on the main refinancing operations over the entire life of the respective operation. This is slowing down the normalisation of bank lending conditions and is hindering the ability of the ECB to deliver on its price stability mandate. In fact, as policy rates are raised, the rate of TLTROs-III adjusts only very gradually. The current TLTROs-III conditions therefore offer very few incentives to participating credit institutions to repay their outstanding TLTROs-III amounts early. The current TLTROs-III conditions also contribute to maintaining a larger Eurosystem balance sheet which in turn works against the intended monetary policy normalisation. This is because the size of a central bank's balance sheet is a key signal of the degree of accommodation that monetary policy provides to the economy and directly influences the cost of liquidity in the market. An adjustment in the terms and conditions of TLTROs-III removing the deterrent for participants' early repayment of their outstanding TLTROs-III amounts would therefore also favour reducing the Eurosystem balance sheet, bringing it more in line with the current monetary policy stance. Hence, the adjustment in the terms and conditions of TLTROs-III pursues the objective of maintaining price stability by accelerating the normalisation of financing conditions and reducing the Eurosystem balance sheet.

([4]) Decision (EU) 2021/124 of the European Central Bank of 29 January 2021 amending Decision (EU) 2019/1311 on a third series of targeted longer-term refinancing operations (ECB/2021/3) (OJ L 38, 3.2.2021, p. 93) implements these changes.

(7) On 27 October 2022, the Governing Council decided to adopt additional monetary policy measures aiming to ensure the timely return of inflation to the ECB's 2 % medium-term target. The Governing Council considers the full range of measures adopted on 27 October 2022 necessary and proportionate to implement the monetary policy stance appropriate to restore price stability over the medium term. As part of this package, the Governing Council decided that the interest rate to be applied to each respective outstanding TLTRO-III should be calculated as follows: starting from 23 November 2022 and until the maturity date or early repayment date of each respective outstanding TLTRO-III, the interest rate should be indexed to the average applicable key ECB interest rates over this period, as opposed to the life of each respective TLTRO-III, in order to contribute to the overall monetary policy normalisation process.

(8) It is considered that linking the TLTROs-III interest rate to the average deposit facility rate or the average rate on the main refinancing operations for the remaining maturity of the respective TLTRO-III is suitable to induce an acceleration in the normalisation of financing conditions and reduce the Eurosystem balance sheet, to achieve the objective of maintaining price stability. This measure is expected to increase banks' funding costs, therefore contributing to timely restoring price stability in the current inflationary environment. In addition, the increase in bank funding costs resulting from the recalibration of TLTROs-III conditions is expected to have a non-negligible effect on lending rates. The impact of the changes in the TLTROs-III conditions on bank lending rates is ultimately expected to have a significant downward impact on inflation over the medium term. Further, the changes in TLTROs-III conditions are also expected to remove deterrents for early repayment of outstanding TLTROs-III borrowing by participating lending institutions, thereby reducing the Eurosystem balance sheet and contributing to the overall monetary policy normalisation.

(9) Linking the TLTROs-III interest rate to the average deposit facility rate or the average rate on the main refinancing operations for the remaining maturity of the respective TLTRO-III operation does not go beyond what is necessary. There are no less intrusive and at the same time equally efficient monetary policy measures to achieve the objective of both inducing a normalisation of financing conditions and reduce the Eurosystem balance sheet. Further, the desired progress towards tighter monetary and financing conditions that an adjusted pricing of TLTRO-III would engineer could not be achieved more efficiently by means of rate hikes.

(10) Any potential adverse impact that the proposed changes may have on participating credit institutions is mitigated by preserving the currently applicable favourable pricing until 22 November 2022, by the introduction of additional early repayment dates on which these institutions could repay their outstanding TLTROs-III amounts, by providing them with sufficient time to reconsider their funding mix before the changes enter into force and by continuing to offer an interest rate on TLTRO-IIIs which, even after the change, is favourable compared to market-based funding options. The existing interest rate calculation should therefore be maintained for the period from the settlement date of each respective TLTRO-III until 22 November 2022. Furthermore, three additional voluntary early repayment dates should be introduced in order to provide TLTRO-III participants with additional opportunities to terminate or reduce the amount of a respective TLTRO-III before maturity.

(11) Given the importance of the objective of maintaining price stability, changing the TLTROs-III pricing as soon as possible and without transitional measures is essential to achieve the intended objectives of inducing an accelerated normalisation of financing conditions and reduce the Eurosystem balance sheet. The adoption of transitional measures would render the changes less efficient to induce banks to normalise lending conditions and would maintain strong deterrents to early voluntary repayments, as well as risk blurring the policy signal conveyed by the measure. This Decision should therefore enter into force as a matter of urgency.

(12) Therefore, Decision (EU) 2019/1311 (ECB/2019/21) should be amended accordingly,

HAS ADOPTED THIS DECISION:

*Article 1*

**Amendments**

Decision (EU) 2019/1311 (ECB/2019/21) is amended as follows:

(1) Article 1 is amended as follows:

(a) point (23) is deleted;

(b) the following points are added:

‘(29) “pre-SIRP interest rate period” means the period from the settlement date of the respective TLTRO-III until 23 June 2020, that is, the interest rate period immediately preceding the special interest rate period (SIRP);

(30) “post-ASIRP interest rate period” means the period from 24 June 2022 until the earlier of 22 November 2022 or the early repayment date of the respective TLTRO-III, as applicable, that is, the interest rate period immediately following the additional special interest rate period (ASIRP);

(31) “main interest rate period” means the period from the settlement date of the respective TLTRO-III until the earlier of 22 November 2022 or the early repayment date of the respective TLTRO-III, as applicable, that is the period including the pre-SIRP interest rate period, the special interest rate period, the additional special interest rate period and the post-ASIRP interest rate period;

(32) “last interest rate period” means the period from 23 November 2022 until the earlier of the maturity date of the respective TLTRO-III or the early repayment date of the respective TLTRO-III, as applicable.’;

(2) Article 5 is replaced by the following:

‘*Article 5*

**Interest**

1. The interest rate applicable to amounts borrowed under each of the first seven TLTROs-III by participants whose eligible net lending during the special reference period equals or exceeds their benchmark net lending and whose eligible net lending during the additional special reference period is lower than their benchmark net lending shall be calculated as follows, subject to the conditions set out in Article 6(3a):

(a) during the special interest rate period, the interest rate shall be the average interest rate on the deposit facility over that period minus 50 basis points. The resulting interest rate shall not, in any case, be higher than minus 100 basis points;

(b) during the additional special interest rate period, the interest rate shall be the lower of the following rates:

(i) the average interest rate on the main refinancing operations over that period minus 50 basis points;

(ii) the average interest rate on the deposit facility over the main interest rate period of the respective TLTRO-III;

(c) during the pre-SIRP and post-ASIRP interest rate periods of the respective TLTRO-III, the interest rate shall be the average interest rate on the deposit facility over the main interest rate period of the respective TLTRO-III;

(d) during the last interest rate period of the respective TLTRO-III, the interest rate shall be the average interest rate on the deposit facility over that period.

2. The interest rate applicable to amounts borrowed under each of the first seven TLTROs-III by participants whose eligible net lending during the special reference period and during the additional special reference period is lower than their benchmark net lending but whose eligible net lending during the second reference period exceeds their benchmark net lending shall be calculated as follows:

(a) during the special interest rate period, the interest rate shall be the lower of the following rates:

(i) the average interest rate on the main refinancing operations over that period minus 50 basis points;

(ii) the interest rate calculated depending on the deviation from the benchmark outstanding amount, as set out in point (c);

(b) during the additional special interest rate period, the interest rate shall be the lower of the following rates:

(i) the average interest rate on the main refinancing operations over that period minus 50 basis points;

(ii) the interest rate calculated depending on the deviation from the benchmark outstanding amount, as set out in point (c);

(c) during the pre-SIRP and post-ASIRP interest rate periods of the respective TLTRO-III, the interest rate shall be lower than the average interest rate on the main refinancing operations over the main interest rate period of the respective TLTRO-III, and may be as low as the average interest rate on the deposit facility over the main interest rate period of the respective TLTRO-III, depending on the deviation from the benchmark outstanding amount;

(d) during the last interest rate period of the respective TLTRO-III, the interest rate shall be lower than the average interest rate on the main refinancing operations over that period, and may be as low as the average interest rate on the deposit facility over that period, depending on the deviation from the benchmark outstanding amount.

3. The interest rate applicable to amounts borrowed under each of the first seven TLTROs-III by participants whose eligible net lending during the second reference period, the special reference period and the additional special reference period is lower than their benchmark net lending shall be calculated as follows:

(a) during the special interest rate period, the interest rate shall be the average interest rate on the main refinancing operations over that period minus 50 basis points;

(b) during the additional special interest rate period, the interest rate shall be the average interest rate on the main refinancing operations over that period minus 50 basis points;

(c) during the pre-SIRP and post-ASIRP interest rate periods of the respective TLTRO-III, the interest rate shall be the average interest rate on the main refinancing operations over the main interest rate period of the respective TLTRO-III;

(d) during the last interest rate period of the respective TLTRO-III, the interest rate shall be the average interest rate on the main refinancing operations over that period.

3a. The interest rate applicable to amounts borrowed under each of the first seven TLTROs-III by participants whose eligible net lending during the additional special reference period equals or exceeds their benchmark net lending shall be calculated as follows, subject to the conditions set out in Article 6(3b):

(a) during the pre-SIRP interest rate period of the respective TLTRO-III, the interest rate shall be calculated according to paragraph 1(c), paragraph 2(c) or paragraph 3(c), as applicable;

(b) during the special interest rate period, the interest rate shall be calculated according to paragraph 1(a), paragraph 2(a) or paragraph 3(a), as applicable;

(c) during the additional special interest rate period, the interest rate shall be the average interest rate on the deposit facility over that period minus 50 basis points. The resulting interest rate shall not, in any case, be higher than minus 100 basis points;

(d) during the post-ASIRP interest rate period of the respective TLTRO-III, the interest rate shall be the average interest rate on the deposit facility over the main interest rate period of the respective TLTRO-III;

(e) during the last interest rate period of the respective TLTRO-III, the interest rate shall be the average interest rate on the deposit facility over that period.

3b. The interest rate applicable to amounts borrowed under the eighth or subsequent TLTROs-III by participants whose eligible net lending during the additional special reference period equals or exceeds their benchmark net lending shall be calculated as follows, subject to the conditions set out in Article 6(3b):

(a) during the additional special interest rate period, the interest rate shall be the average interest rate on the deposit facility over that period minus 50 basis points. The resulting interest rate shall not, in any case, be higher than minus 100 basis points;

(b) during the post-ASIRP interest rate period of the respective TLTRO-III, the interest rate shall be the average interest rate on the deposit facility over the main interest rate period of the respective TLTRO-III;

(c) during the last interest rate period of the respective TLTRO-III, the interest rate shall be the average interest rate on the deposit facility over that period.

3c. The interest rate applicable to amounts borrowed under the eighth or subsequent TLTROs-III by participants whose eligible net lending during the additional special reference period is lower than their benchmark net lending shall be calculated as follows:

(a) during the additional special interest rate period, the interest rate shall be the average interest rate on the main refinancing operations over that period minus 50 basis points;

(b) during the post-ASIRP interest rate period of the respective TLTRO-III, the interest rate shall be the average interest rate on the main refinancing operations over the main interest rate period of the respective TLTRO-III;

(c) during the last interest rate period of the respective TLTRO-III, the interest rate shall be the average interest rate on the main refinancing operations over that period.

4. Further details on interest rate calculations are laid down in Annex I. The final interest rate and the relevant data pertaining to its calculation shall be communicated to participants in accordance with the indicative calendar for TLTROs-III published on the ECB's website.

5. Interest shall be settled in arrears on the maturity of each TLTRO-III or on early repayment as provided for in Article 5a, as applicable.

6. If, due to the exercise of remedies available to an NCB in accordance with its contractual or regulatory arrangements, a participant is required to repay outstanding amounts in one of the first seven TLTROs-III before the interest data related to the second and the special reference periods are communicated to that participant, the interest rate applicable to the amounts borrowed by that participant under each of the first seven TLTROs-III and subject to mandatory repayments shall be: (a) for the special interest rate period, the average interest rate on the main refinancing operations over that period minus 50 basis points; (b) for the additional special interest rate period, the average interest rate on the main refinancing operations over that period minus 50 basis points; and (c) for the pre-SIRP interest rate period, the average rate on the main refinancing operations over the main interest rate period of the respective TLTRO-III up to the date on which the repayment was required to be made by the NCB. If such repayment is required after the interest data related to the second and the special reference periods have been communicated to the participant but before the interest rate related data of the additional special reference period have been communicated to the participant, the interest rate applicable to the amounts borrowed by that participant under each of the first seven TLTROs-III and subject to mandatory repayments shall be set in accordance with paragraphs 1 to 3. If such repayment is required after the interest related data of the additional special reference period have been communicated to the participant, the interest rate applicable to the required repayment amounts borrowed by that participant under each of the first seven TLTROs-III shall be set in accordance with paragraphs 1 to 3a.

If due to the exercise of remedies available to an NCB in accordance with its contractual or regulatory arrangements, a participant is required to repay outstanding amounts in the eighth or subsequent TLTROs-III before the resulting interest rate for the additional special reference period has been communicated to the participant, the interest rate applicable to the amounts borrowed by that participant under the eighth or subsequent TLTROs-III and subject to mandatory repayment shall be set in accordance with paragraph 3c. If such repayment is required after the interest related data of the additional special reference period have been communicated to the participant, the interest rate applicable to the amounts borrowed by that participant under the eighth or subsequent TLTROs-III and subject to mandatory repayment shall be set in accordance with paragraphs 3b and 3c.

7. If counterparties voluntarily repay early amounts borrowed in one of the first seven TLTROs-III in line with Article 5a before the interest related data of the additional special reference period have been communicated to them, the interest rate for the additional special interest rate period shall be calculated in accordance with paragraphs 1(b), 2(b) and 3(b).';

(3) in Article 5a, the following paragraph 5 is added:

'5. In addition to the options of early repayment provided for in paragraph 1, participants shall also have the option of terminating or reducing the amount of the TLTROs-III concerned before maturity at any of the following additional early repayment dates:

(a) 23 November 2022;

(b) 25 January 2023;

(c) 22 February 2023.

For the purposes of point (a) of the first subparagraph and by derogation from paragraphs 3 and 4 as regards the timelines for notification of intended early repayment and its binding effect, where a participant terminates or reduces the amount of the TLTROs-III concerned on 23 November 2022, it shall notify the relevant NCB at least one week in advance of the additional early repayment date that it intends to repay on this additional early repayment date under the early repayment procedure. The notification shall become binding on the participant concerned one week before this early repayment date.';

(4) in Article 7, paragraph 1, points (f) and (g) are replaced by the following:

'(f) if a participant fails to make the data relating to the third report or the results of the auditor's evaluation of the data relating to the third report available to the relevant NCB by the relevant deadline specified in the indicative calendar for TLTROs-III published on the ECB's website, the following rules shall apply:

(i) if either the data relating to the third report or the results of the auditor's evaluation of those data are received by the relevant NCB within the period of 14 calendar days starting on the day after the expiry of the relevant deadline, the participant shall incur for each day until receipt a penalty equal to the total outstanding amount borrowed by the participant under TLTROs-III divided by 1 000 000 (or if that amount is less than EUR 1 000, a penalty of EUR 1 000 for each day until receipt). The penalties incurred per day shall be accumulated and charged to the participant by the relevant NCB after receipt of all data relating to the third report or of the auditor's evaluation of those data. The interest rate related data relating to the second reference period shall be communicated by the relevant NCB to the participant on 1 July 2022;

(ii) if either the data relating to the third report or the results of the auditor's evaluation of those data are not received by the relevant NCB within the period of 14 calendar days specified in point (i), the interest rate calculated pursuant to Article 5(1)(b) or Article 5(2)(b) or Article 5(3)(b) (if the participant has already participated in one of the first seven TLTROs-III) or pursuant to Article 5(3c)(a) (if the participant participated in the eighth or subsequent TLTROs-III), as applicable, shall apply during the additional special interest rate period to the amounts borrowed by that participant under those TLTROs-III. During the post-ASIRP interest rate period, the interest rate shall be calculated pursuant to Article 5(1)(c) or Article 5(2)(c) or Article 5(3)(c) or Article 5(3c)(b), as applicable. During the last interest rate period of the respective TLTRO-III, the interest rate shall be calculated pursuant to Article 5(1)(d) or Article 5(2)(d) or Article 5(3)(d) or Article 5(3c)(c), as applicable. If it is the data relating to the third report that are not received by the relevant NCB within the period of 14 calendar days specified in point (i), the participant shall also incur a penalty of EUR 5 000, which shall be charged to the participant by the relevant NCB after receipt of all data relating to the third report;

(g) if a participant fails to otherwise comply with the obligations set out in Article 6(6) or Article 6(7) or Article 6(8a), the average rate on the main refinancing operations over the main interest rate period of each respective TLTRO-III shall apply to the amounts borrowed by that participant under TLTROs-III, except during the special interest rate period and the additional special interest rate period where the average rate on the main refinancing operations minus 50 basis points over each such period shall apply, and except during the last interest rate period of the respective TLTRO-III where the average rate of the main refinancing operations over the last interest rate period of the respective TLTRO-III shall apply;';

(5) Annex I is amended in accordance with the Annex to this Decision.

*Article 2*

**Entry into force**

This Decision shall enter into force on 8 November 2022.

Done at Frankfurt am Main, 27 October 2022.

*The President of the ECB*
Christine LAGARDE

*ANNEX*

Annex I to Decision (EU) 2019/1311 (ECB/2019/21) is amended as follows:

Section 3 is replaced by the following:

‘3. **Calculation of the interest rate**

A. Let $NL_{Special}$ denote the amount of eligible net lending over the special reference period from 1 March 2020 to 31 March 2021.

$$NL_{Special} = NL_{Mar\ 2020} + \ldots + NL_{Mar\ 2021}$$

B. Let $NL_{ADSpecial}$ denote the amount of eligible net lending over the additional special reference period from 1 October 2020 to 31 December 2021.

$$NL_{ADSpecial} = NL_{Oct\ 2020} + \ldots + NL_{Dec\ 2021}$$

C. Let $NS_{Mar\ 2021}$ denote the amount obtained by summing the eligible net lending over the period from 1 April 2019 to 31 March 2021 and the outstanding amount of eligible loans as at 31 March 2019; this is calculated as:

$$NS_{Mar\ 2021} = OL_{Mar\ 2019} + NL_{Apr\ 2019} + \ldots + NL_{Mar\ 2021}$$

Denote now by $EX$ the percentage deviation of $NS_{Mar\ 2021}$ from the benchmark outstanding amount over the period 1 April 2019 to 31 March 2021, that is,

$$EX = \frac{(NS_{Mar\ 2021} - OAB)}{OAB} \times 100$$

$EX$ will be rounded to 15 decimal positions. Where $OAB$ is equal to zero, $EX$ is deemed to equal 1,15.

E. Let $k_{pre}$ denote the pre-SIRP interest rate period from the settlement date of the respective TLTRO-III until 23 June 2020, $k_{special}$ denote the special interest rate period from 24 June 2020 to 23 June 2021, $k_{adspecial}$ denote the additional special interest rate period from 24 June 2021 to 23 June 2022, $k_{post}$ denote the post-ASIRP interest rate period from 24 June 2022 until the earlier of 22 November 2022 or the early repayment date of the respective TLTRO-III, as applicable, $k_{main}$ denote the main interest rate period from the settlement date of the respective TLTRO-III until the earlier of 22 November 2022 or the early repayment date of the respective TLTRO-III, as applicable, and $k_{last}$ denote the interest rate period from 23 November 2022 until the earlier of the maturity date of the respective TLTRO-III or the early repayment date of the respective TLTRO-III, as applicable.

Let $\overline{MRO}_{k_{special}}$ be the average of the main refinancing operation (MRO) rate applicable during the special interest rate period from 24 June 2020 to 23 June 2021 of TLTRO-III $k$, expressed as an annual percentage rate and let $\overline{DF}_{k_{special}}$ be the average of the deposit facility (DF) rate applicable during the special interest rate period from 24 June 2020 to 23 June 2021 of TLTRO-III $k$, expressed as an annual percentage rate, i.e.:

$$\overline{MRO}_{k_{special}} = \frac{1}{n_{k_{special}}} \sum_{t=1}^{n_{k_{special}}} MRO_{k_{special},t}$$

$$\overline{DF}_{k_{special}} = \frac{1}{n_{k_{special}}} \sum_{t=1}^{n_{k_{special}}} DF_{k_{special},t}$$

In the above equations $n_{k_{special}}$ denotes the number of days of the period $k_{special}$ of the TLTRO-III $k$ and, where the MRO is conducted under a fixed-rate full allotment regime, $MRO_{k_{special},t}$ denotes the rate applied to the MRO on the $t$-th day of the period $k_{special}$ of the TLTRO-III $k$, or, where the MRO is conducted under a variable-rate tender procedure, $MRO_{k_{special},t}$ denotes the minimum bid rate applied to the MRO on the $t$-th day of the period $k_{special}$ of the TLTRO-III $k$, and in each case $MRO_{k_{special},t}$ is expressed as an annual percentage rate. In the above equations $DF_{k_{special},t}$ denotes the rate applied to the DF on the $t$-th day of the period $k_{special}$ of the TLTRO-III $k$, and is expressed as an annual percentage rate.

Let $\overline{MRO}_{k_{adspecial}}$ be the average of the MRO rate applicable during the additional special interest rate period from 24 June 2021 to 23 June 2022 of TLTRO-III *k*, expressed as an annual percentage rate and let $\overline{DF}_{k_{adspecial}}$ be the average of the DF rate applicable during the additional special interest rate period from 24 June 2021 to 23 June 2022 of TLTRO-III *k*, expressed as an annual percentage rate, i.e.:

$$\overline{MRO}_{k_{adspecial}} = \frac{1}{n_{k_{adspecial}}} \sum_{t=1}^{n_{k_{adspecial}}} MRO_{k_{adspecial},t}$$

$$\overline{DF}_{k_{adspecial}} = \frac{1}{n_{k_{adspecial}}} \sum_{t=1}^{n_{k_{adspecial}}} DF_{k_{adspecial},t}$$

In the above equations $n_{k_{adspecial}}$ denotes the number of days of the period $k_{adspecial}$ of the TLTRO-III *k* and, where the MRO is conducted under a fixed-rate full allotment regime, $\overline{MRO}_{k_{adspecial}}$ denotes the rate applied to the MRO on the *t*-th day of the period $k_{adspecial}$ of the TLTRO-III *k*, or, where the MRO is conducted under a variable-rate tender procedure, $\overline{MRO}_{k_{adspecial}}$ denotes the minimum bid rate applied to the MRO on the *t*-th day of the period $k_{adspecial}$ of the TLTRO-III *k*, and in each case $\overline{MRO}_{k_{adspecial}}$ is expressed as an annual percentage rate. In the above equations $\overline{DF}_{k_{adspecial}}$ denotes the rate applied to the DF on the *t*-th day of the period $k_{adspecial}$ of the TLTRO-III *k*, and is expressed as an annual percentage rate.

Let $\overline{MRO}_{k_{main}}$ be the average of the MRO rate applicable from the settlement date of the TLTRO-III *k* until the earlier of 22 November 2022 or the early repayment date of the TLTRO-III *k*, as applicable, expressed as an annual percentage rate and let $\overline{DF}_{k_{main}}$ be the average of the DF rate applicable from the settlement date of the TLTRO-III *k* until the earlier of 22 November 2022 or the early repayment date of TLTRO-III *k*, as applicable, expressed as an annual percentage rate, i.e.:

$$\overline{MRO}_{k_{main}} = \frac{1}{n_{k_{main}}} \sum_{t=1}^{n_{k_{main}}} MRO_{k_{main},t}$$

$$\overline{DF}_{k_{main}} = \frac{1}{n_{k_{main}}} \sum_{t=1}^{n_{k_{main}}} DF_{k_{main},t}$$

In the above equations $n_{k_{main}}$ denotes the number of days of the period $k_{main}$ of the TLTRO-III *k* and, where the MRO is conducted under a fixed-rate full allotment regime, $\overline{MRO}_{k_{main}}$ denotes the rate applied to the MRO on the *t*-th day of the period $k_{main}$ of the TLTRO-III *k*, or, where the MRO is conducted under a variable-rate tender procedure, $\overline{MRO}_{k_{main}}$ denotes the minimum bid rate applied to the MRO on the *t*-th day of the period $k_{main}$ of the TLTRO-III *k*, and in each case $\overline{MRO}_{k_{main}}$ is expressed as an annual percentage rate. In the above equations $\overline{DF}_{k_{main}}$ denotes the rate applied to the DF on the *t*-th day of the period $k_{main}$ of the TLTRO-III *k*, and is expressed as an annual percentage rate.

Let $\overline{MRO}_{k_{last}}$ be the average of the MRO rate applicable from 23 November 2022 until the earlier of the maturity date of the TLTRO-III *k* or the early repayment date of the TLTRO-III *k*, as applicable, expressed as an annual percentage rate and let $\overline{DF}_{k_{last}}$ be the average of the DF rate applicable from 23 November 2022 until the earlier of the maturity date of the TLTRO-III *k* or the early repayment date of TLTRO-III *k*, as applicable, expressed as an annual percentage rate, i.e.:

$$\overline{MRO}_{k_{last}} = \frac{1}{n_{k_{last}}} \sum_{t=1}^{n_{k_{last}}} MRO_{k_{last},t}$$

$$\overline{DF}_{k_{last}} = \frac{1}{n_{k_{last}}} \sum_{t=1}^{n_{k_{last}}} DF_{k_{last},t}$$

In the above equations $n_{k_{last}}$ denotes the number of days of the period $k_{last}$ of the TLTRO-III *k* and, where the MRO is conducted under a fixed-rate full allotment regime, $\overline{MRO}_{k_{last}}$ denotes the rate applied to the MRO on the *t*-th day of the period $k_{last}$ of the TLTRO-III *k*, or, where the MRO is conducted under a variable-rate tender procedure, $\overline{MRO}_{k_{last}}$ denotes the minimum bid rate applied to the MRO on the *t*-th day of the period $k_{last}$ of the

TLTRO-III $k$, and in each case $\overline{MRO}_{k_{last}}$ is expressed as an annual percentage rate. In the above equations $\overline{DF}_{k_{last}}$ denotes the rate applied to the DF on the $t$-th day of the period $k_{last}$ of the TLTRO-III $k$, and is expressed as an annual percentage rate.

F. Let the interest rate incentive adjustment, where applicable, be denoted *iri*, measured as a fraction of the average corridor between:

i) the $\overline{MRO}_{k_{main}}$ and the $\overline{DF}_{k_{main}}$ during the main interest rate period of the respective TLTRO-III; or

ii) the $\overline{MRO}_{k_{last}}$ and the $\overline{DF}_{k_{last}}$ during the last interest rate period of the respective TLTRO-III.

G. Let the interest rate to be applied for the life of a TLTRO-III $k$ (final interest rate), expressed as an annual percentage rate, be denoted $r_k$. Let the interest rate to be applied for a period $k_j$, with $j$ = *pre, special, adspecial, post or last*, of a TLTRO-III $k$, expressed as an annual percentage rate, be denoted $r_{k_j}$.

H. The interest rate $r_k$ is defined as:

$$r_k = \frac{n_{k_{pre}}}{n_k} r_{k_{pre}} + \frac{n_{k_{special}}}{n_k} r_{k_{special}} + \frac{n_{k_{adspecial}}}{n_k} r_{k_{adspecial}} + \frac{n_{k_{post}}}{n_k} r_{k_{post}} + \frac{n_{k_{last}}}{n_k} r_{k_{last}}$$

In the above equation $n_{k_{pre}}$ denotes the number of days of the period $k_{pre}$ of the TLTRO-III $k$ $n_{k_{post}}$ denotes the number of days of the period $k_{post}$ of the TLTRO-III $k$.

The interest rate applicable to each TLTRO-III $k$ is calculated as follows:

(1) For amounts borrowed in the first seven operations, that is, if $k = 1,...,7$:

(a) If a participant equals or exceeds its benchmark net lending in the special reference period and in the additional special reference period, the interest rate to be applied to amounts borrowed by that participant under TLTROs-III is:

(i) during the special interest rate period: the average of the DF rate over that period minus 50 basis points, which in any case must not exceed minus 100 basis points, that is:

if $NL_{Special} \geq NLB$, then $r_{k_{special}} = \min(\overline{DF}_{k_{special}} - 0{,}50, -1)$;

(ii) during the additional special interest rate period: the average of the DF rate over that period minus 50 basis points, which in any case must not exceed minus 100 basis points, that is:

if $NL_{ADSpecial} \geq NLB$, then $r_{k_{adspecial}} = \min(\overline{DF}_{k_{adspecial}} - 0{,}50, -1)$;

(iii) during pre-SIRP and post-ASIRP interest rate periods of the respective TLTRO-III: the average of the DF rate during the main interest rate period of the respective TLTRO-III, that is:

if $NL_{Special} \geq NLB$ and $NL_{ADSpecial} \geq NLB$, then $r_{k_{pre}} = r_{k_{post}} = \overline{DF}_{k_{main}}$;

(iv) during the last interest rate period of the respective TLTRO-III: the average of the DF rate over the last interest rate period of the respective TLTRO-III, that is:

if $NL_{Special} \geq NLB$ and $NL_{ADSpecial} \geq NLB$, then $r_{k_{last}} = \overline{DF}_{k_{last}}$ .

(b) If a participant equals or exceeds its benchmark net lending in the special reference period but does not equal or exceed its benchmark net lending in the additional special reference period, the interest rate to be applied to amounts borrowed by that participant under TLTROs-III is:

(i) during the special interest rate period: the average of the DF rate over that period minus 50 basis points, which in any case must not exceed minus 100 basis points, that is:

if $NL_{Special} \geq NLB$,

then $r_{k_{special}} = \min(\overline{DF}_{k_{special}} - 0{,}50 \ , \ -1)$;

(ii) during the additional special interest rate period: the lower of the average of the MRO rate over that period minus 50 basis points and the average of the DF rate over the main interest rate period of the respective TLTRO-III, that is

if $NL_{Special} \geq$ NLB and $NL_{ADSpecial} <$ NLB,

then $r_{k_{adspecial}} = \min(\overline{MRO}_{k_{adspecial}} - 0{,}50\ ,\ \overline{DF}_{k_{main}});$

(iii) during the pre-SIRP and post-ASIRP interest rate periods of the respective TLTRO-III: the average of the DF rate over the main interest rate period of the respective TLTRO-III, that is:

if $NL_{Special} \geq$ NLB and $NL_{ADSpecial} <$ NLB , then $r_{k_{pre}} = r_{k_{post}} = \overline{DF}_{k_{main}};$

(iv) during the last interest rate period of the respective TLTRO-III: the average of the DF rate over the last interest rate period of the respective TLTRO-III, that is:

if $NL_{Special} \geq$ NLB and $NL_{ADSpecial} <$ NLB , then $r_{k_{last}} = \overline{DF}_{k_{last}}.$

(c) If a participant does not equal or exceed its benchmark net lending in the special reference period but equals or exceeds its benchmark net lending in the additional special reference period and exceeds its benchmark outstanding amount of eligible loans during the second reference period by at least 1,15 %, the interest rate to be applied to amounts borrowed by that participant under TLTROs-III is:

(i) during the special interest rate period: the lower of the average of the MRO rate over that period minus 50 basis points and the average of the DF rate over the main interest rate period of the respective TLTRO-III, that is:

if $NL_{Special} <$ NLB and $EX \geq 1{,}15$,

then $iri$ = 100 % and $r_{k_{special}} = \min(\overline{MRO}_{k_{special}} - 0{,}50\ ,\ \overline{DF}_{k_{main}});$

(ii) during the additional special interest rate period: the average of the DF rate over that period minus 50 basis points, which in any case must not exceed minus 100 basis points, that is:

if $NL_{ADSpecial} \geq$ NLB, $NL_{Special} <$ NLB and $EX \geq 1{,}15$,

then $r_{k_{adspecial}} = \min(\overline{DF}_{k_{adspecial}} - 0{,}50\ ,\ -1);$

(iii) during the pre-SIRP and post-ASIRP interest rate periods of the respective TLTRO-III: the average of the DF rate during the main interest rate period of the respective TLTRO-III, that is:

if $NL_{Special} <$ NLB, $NL_{ADSpecial} \geq$ NLB and $EX \geq 1{,}15$,

then $iri$ = 100 % and $r_{k_{pre}} = r_{k_{post}} = \overline{DF}_{k_{main}};$

(iv) during the last interest rate period of the respective TLTRO-III: the average of the DF rate over the last interest rate period of the respective TLTRO-III, that is:

if $NL_{Special} <$ NLB, $NL_{ADSpecial} \geq$ NLB and $EX \geq 1{,}15$, then $iri$ = 100 % and $r_{k_{last}} = \overline{DF}_{k_{last}}.$

(d) If a participant does not equal or exceed its benchmark net lending in the special reference period, does not equal or exceed its benchmark net lending in the additional special reference period, but exceeds its benchmark outstanding amount of eligible loans during the second reference period by at least 1,15 %, the interest rate to be applied to amounts borrowed by that participant under TLTROs-III is:

(i) during the special interest rate period: the lower of the average of the MRO rate over that period minus 50 basis points and the average of the DF rate over the main interest rate period of the respective TLTRO-III, that is:

if $NL_{Special}$ < NLB and $EX \geq 1{,}15$,

then $iri$ = 100 % and $r_{k_{special}} = \min(\overline{MRO}_{k_{special}} - 0{,}50\ ,\ \overline{DF}_{k_{main}})$;

(ii) during the additional special interest rate period: the lower of the average of the MRO rate over that period minus 50 basis points and the average of the DF rate over the main interest rate period of the respective TLTRO-III, that is:

if $NL_{ADSpecial}$ < NLB, $NL_{Special}$ < NLB and $EX \geq 1{,}15$,

then $iri$ = 100 % and $r_{k_{adspecial}} = \min(\overline{MRO}_{k_{adspecial}} - 0{,}50\ ,\ \overline{DF}_{k_{main}})$;

(iii) during the pre-SIRP and post-ASIRP interest rate periods of the respective TLTRO-III: the average of the DF rate over the main interest rate period of the respective TLTRO-III, that is:

if $NL_{Special}$ < NLB, $NL_{ADSpecial}$ < NLB and $EX \geq 1{,}15$,

then $iri$ = 100 % and $r_{k_{pre}} = r_{k_{post}} = \overline{DF}_{k_{main}}$;

(iv) during the last interest rate period of the respective TLTRO-III: the average of the DF rate over the last interest rate period of the respective TLTRO-III, that is:

if $NL_{Special}$ < NLB, $NL_{ADSpecial}$ < NLB and $EX \geq 1{,}15$,

then $iri$ = 100 % and $r_{k_{last}} = \overline{DF}_{k_{last}}$.

(e) If a participant does not equal or exceed its benchmark net lending in the special reference period but equals or exceeds its benchmark net lending in the additional special reference period and exceeds its benchmark outstanding amount of eligible loans during the second reference period by less than 1,15 %, the interest rate to be applied to amounts borrowed by that participant under TLTROs-III is:

(i) during the pre-SIRP interest rate period of the respective TLTRO-III: the interest rate that is graduated linearly depending on the percentage by which the participant exceeds its benchmark outstanding amount, that is,

if $NL_{Special}$ < NLB and $0 < EX < 1{,}15$,

then $iri = \dfrac{EX}{1{,}15}$ and $r_{k_{pre}} = \overline{MRO}_{k_{main}} - (\overline{MRO}_{k_{main}} - \overline{DF}_{k_{main}})\ \times\ iri$;

(ii) during the special interest rate period: the lower of the average of the MRO rate over that period minus 50 basis points and the interest rate calculated according to point (i), that is:

if $NL_{Special}$ < NLB and $0 < EX < 1{,}15$,

then $iri = \dfrac{EX}{1{,}15}$ and $r_{k_{special}} = \min\left(\overline{MRO}_{k_{special}} - 0{,}50\ ,\ \overline{MRO}_{k_{main}} - \left(\ (\overline{MRO}_{k_{main}} - \overline{DF}_{k_{main}})\right)\ \times\ iri\right)$;

(iii) during the additional special interest rate period: the average of the DF rate over that period minus 50 basis points, which in any case must not exceed minus 100 basis points, that is:

if $NL_{ADSpecial} \geq$ NLB, $NL_{Special}$ < NLB and $0 < EX < 1{,}15$ then $r_{k_{adspecial}} = \min(\ \overline{DF}_{k_{adspecial}} - 0{,}50\ ,\ -1)$;

(iv) during the post-ASIRP interest rate period of the respective TLTRO-III: the average of the DF rate over the main interest rate period of the respective TLTRO-III, that is:

if $NL_{Special}$ < NLB, $NL_{ADSpecial} \geq$ NLB and $0 < EX < 1{,}15$,

then $r_{k_{post}} = \overline{DF}_{k_{main}}$;

(v) during the last interest rate period of the respective TLTRO-III: the average of the DF rate over the last interest rate period of the respective TLTRO-III, that is:

if $NL_{Special}$ < NLB, $NL_{ADSpecial}$ ≥ NLB and 0 < $EX$ < 1,15,

then $r_{k_{last}} = \overline{DF}_{k_{last}}$.

(f) If a participant does not equal or exceed its benchmark net lending in the special reference period, does not equal or exceed its benchmark net lending in the additional special reference period but exceeds its benchmark outstanding amount of eligible loans during the second reference period by less than 1,15 %, the interest rate to be applied to amounts borrowed by that participant under TLTROs-III is:

(i) during the special interest rate period: the lower of the average of the MRO rate over that period minus 50 basis points and the interest rate calculated according to point (iii), that is:

if $NL_{Special}$ < NLB and 0 < $EX$ < 1,15,

then $iri = \frac{EX}{1,15}$ and $r_{k_{special}} = \min\left(\overline{MRO}_{k_{special}} - 0,50\ ,\ \overline{MRO}_{k_{main}} - (\ \overline{MRO}_{k_{main}} - \overline{DF}_{k_{main}}\ )\ \times iri\right)$;

(ii) during the additional special interest rate period: the lower of the average of the MRO rate over that period minus 50 basis points and the interest rate calculated according to point (iii), that is:

if $NL_{Special}$ < NLB, $NL_{ADSpecial}$ < NLB and 0 < $EX$ < 1,15,

then $iri = \frac{EX}{1,15}$ and $r_{k_{adspecial}} = \min\left(\overline{MRO}_{k_{adspecial}} - 0,50\ ,\ \overline{MRO}_{k_{main}} - (\ \overline{MRO}_{k_{main}} - \overline{DF}_{k_{main}}\ )\ \times iri\right)$;

(iii) during the pre-SIRP and post-ASIRP interest rate periods of the respective TLTRO-III: the interest rate that is graduated linearly depending on the percentage by which the participant exceeds its benchmark outstanding amount, that is,

if $NL_{Special}$ < NLB, $NL_{ADSpecial}$ < NLB and 0 < $EX$ < 1,15,

then $iri = \frac{EX}{1,15}$ and $r_{k_{pre}} = r_{k_{post}} = \overline{MRO}_{k_{main}} - (\overline{MRO}_{k_{main}} - \overline{DF}_{k_{main}})\ \times iri$;

(iv) during the last interest rate period of the respective TLTRO-III: the interest rate that is graduated linearly depending on the percentage by which the participant exceeds its benchmark outstanding amount, that is,

if $NL_{Special}$ < NLB, $NL_{ADSpecial}$ < NLB and 0 < $EX$ < 1,15,

then $iri = \frac{EX}{1,15}$ and $r_{k_{last}} = \overline{MRO}_{k_{last}} - (\overline{MRO}_{k_{last}} - \overline{DF}_{k_{last}})\ \times iri$.

(g) If a participant does not equal or exceed its benchmark net lending in the special reference period, does not exceed its benchmark outstanding amount in the second reference period, but equals or exceeds its benchmark net lending in the additional special reference period, the interest rate to be applied to amounts borrowed by that participant under TLTROs-III is:

(i) during the pre-SIRP interest rate period of the respective TLTRO-III: the average of the MRO rate over the main interest rate period of the respective TLTRO-III, that is:

if $NL_{Special}$ < NLB and $EX$ ≤ 0, then $iri$ = 0 % and $r_{k_{pre}} = \overline{MRO}_{k_{main}}$;

(ii) during the special interest rate period: the average of the MRO rate over that period minus 50 basis points, that is:

if $NL_{Special}$ < NLB and $EX$ ≤ 0, then $r_{k_{special}} = \overline{MRO}_{k_{special}} - 0,50$;

(iii) during the additional special interest rate period: the average of the DF rate over that period minus 50 basis points, which in any case must not exceed minus 100 basis points, that is:

if $NL_{ADSpecial} \geq NLB$, $NL_{Special} < NLB$ and $EX \leq 0$

then $r_{k_{adspecial}} = min(\overline{DF}_{k_{adspecial}} - 0{,}50\ ,\ -1)$;

(iv) during the post-ASIRP interest rate period of the respective TLTRO-III: the average of the DF rate over the main interest rate period of the respective TLTRO-III, that is:

if $NL_{Special} < NLB$, $NL_{ADSpecial} \geq NLB$ and $EX \leq 0$, then $r_{k_{post}} = \overline{DF}_{k_{main}}$;

(v) during the last interest rate period of the respective TLTRO-III: the average of the DF rate over the last interest rate period of the respective TLTRO-III, that is:

if $NL_{Special} < NLB$, $NL_{ADSpecial} \geq NLB$ and $EX \leq 0$, then $r_{k_{last}} = \overline{DF}_{k_{last}}$.

(h) If a participant does not equal or exceed its benchmark net lending in the special reference period, does not equal or exceed its benchmark net lending in the additional special reference period and does not exceed its benchmark outstanding amount in the second reference period, the interest rate to be applied to amounts borrowed by that participant under TLTROs-III is:

(i) during the special interest rate period: the average of the MRO rate over that period minus 50 basis points, that is:

if $NL_{Special} < NLB$ and $EX \leq 0$, then $r_{k_{special}} = \overline{MRO}_{k_{special}} - 0{,}50$;

(ii) during the additional special interest rate period: the average of the MRO rate over that period minus 50 basis points, that is:

if $NL_{Special} < NLB$, $NL_{ADSpecial} < NLB$ and $EX \leq 0$,

then $r_{k_{adspecial}} = \overline{MRO}_{k_{adspecial}} - 0{,}50$;

(iii) during the pre-SIRP and post-ASIRP interest rate periods of the respective TLTRO-III: the average of the MRO rate over the main interest rate period of the respective TLTRO-III, that is:

if $NL_{Special} < NLB$, $NL_{ADSpecial} < NLB$ and $EX \leq 0$,

then $iri = 0\ \%$ and $r_{k_{pre}} = r_{k_{post}} = \overline{MRO}_{k_{main}}$;

(iv) during the last interest rate period of the respective TLTRO-III: the average of the MRO rate over the last interest rate period of the respective TLTRO-III, that is:

if $NL_{Special} < NLB$, $NL_{ADSpecial} < NLB$ and $EX \leq 0$,

then $iri = 0\ \%$ and $r_{k_{last}} = \overline{MRO}_{k_{last}}$.

(2) For amounts borrowed in the eighth or subsequent TLTROs-III, that is, if $k = 8$, 9 or 10:

(a) If a participant equals or exceeds its benchmark net lending in the additional special reference period, the interest rate to be applied to amounts borrowed by that participant under TLTROs-III is:

(i) during the additional special interest rate period: the average of the DF rate over that period minus 50 basis points, which in any case must not exceed minus 100 basis points, that is:

if $NL_{ADSpecial} \geq NLB$, then $r_{k_{adspecial}} = min(\overline{DF}_{k_{adspecial}} - 0{,}50\ ,\ -1)$;

(ii) during the post-ASIRP interest rate period of the respective TLTRO-III: the average of the DF rate over the main interest rate period of the respective TLTRO-III, that is:

if $NL_{ADSpecial} \geq NLB$, then $r_{k_{post}} = \overline{DF}_{k_{main}}$;

(iii) during the last interest rate period of the respective TLTRO-III: the average of the DF rate over the last interest rate period of the respective TLTRO-III, that is:

if $NL_{ADSpecial} \geq$ NLB, then $r_{k_{last}} = \overline{DF}_{k_{last}}$.

(b) If a participant does not equal or exceed its benchmark net lending in the additional special reference period, the interest rate to be applied to amounts borrowed by that participant under TLTROs-III is:

(i) during the additional special interest rate period: the average of the MRO rate over the respective period minus 50 basis points, that is:

if $NL_{ADSpecial} <$ NLB, then $r_{k_{adspecial}} = \overline{MRO}_{k_{adspecial}} - 0{,}50$;

(ii) during the post-ASIRP interest rate period of the respective TLTRO-III: the average of the MRO rate over the main interest rate period of the respective TLTRO-III, that is:

if $NL_{ADSpecial} <$ NLB, then $r_{k_{post}} = \overline{MRO}_{k_{main}}$;

(iii) during the last interest rate period of the respective TLTRO-III: the average of the MRO rate over the last interest rate period of the respective TLTRO-III, that is:

if $NL_{ADSpecial} <$ NLB, then $r_{k_{last}} = \overline{MRO}_{k_{last}}$.

The interest rate incentive adjustment (*iri*) is expressed by rounding to 15 decimal positions.

The interest rates $r_{k_{pre}}$, $r_{k_{special}}$, $r_{k_{adspecial}}$,$r_{k_{post}}$, *and* $r_{k_{last}}$ are expressed as an annual percentage rate rounded to 13 decimal positions.

$\overline{MRO}_{k_{special}}$, $\overline{MRO}_{k_{adspecial}}$, $\overline{MRO}_{k_{main}}$ *and* $\overline{MRO}_{k_{last}}$ are expressed as an annual percentage rate rounded to 13 decimal positions.

$\overline{DF}_{k_{special}}$, $\overline{DF}_{k_{adspecial}}$, $\overline{DF}_{k_{main}}$ *and* $\overline{DF}_{k_{last}}$ are expressed as an annual percentage rate rounded to 13 decimal positions.

The final interest rate $r_k$ is expressed as an annual percentage rate, rounded down to the fourth decimal position.’