

Annex I: Calculation of the Gross Grant Equivalent (GGE) for aid in the form of financial instruments

According to Article 3(5) of both the General de minimis Regulation and the SGEI de minimis Regulation, the aid amount must be transparent. This means that all forms of aid should be registered as a fixed amount (GGE or gross grant equivalent). If the aid element does not correspond to a fixed amount to be disbursed (for example, a grant), the aid amount should be converted to its GGE. The purpose of this Annex is to provide guidance and examples on the calculation of the GGE for aid in the form of loans and guarantees.

1. Loans

The *de minimis* Regulations do not contain an explicit definition of ‘loan’. A loan is commonly understood as an agreement between a lender and a borrower which obliges the lender to make available to the borrower an agreed sum of money for an agreed period of time and under which the borrower is obliged to repay that amount plus interest within the agreed time. Loans can be considered as State aid when they are granted at a reduced interest rate for certain beneficiaries and when that reduced rate is financed through State resources.

However, given the fact that the simplified approach under Article 4(3)(b) of the *de minimis* regulation requires that a loan be secured by collateral for at least 50%, or that the GGE has to be calculated on the basis of the Reference Rate Communication, this assumes that the loan has some direct recourse to a level of collateralization, thus implying that the loans referred to in an GGE calculation for transparent *de-minimis* aid are senior in the credit hierarchy ¹.

There are two different scenarios which can be envisaged for what concerns the calculation of the GGE for loans granted with a reduced interest rate.

1.1 Application of Article 4(3)(b) of the General de minimis Regulation

Article 4(3)(b) of the *de minimis* regulation sets the conditions that lead to a GGE equal to the maximum amount of *de minimis* aid (EUR 300 000), without calculating the GGE on the basis of the reference rate applicable at the time of the grant. These conditions are as follows:

- *the loan is secured by collateral covering at least 50 % of the loan and*
- *the loan amounts to either **EUR 1 500 000 over 5 years** or **EUR 750 000 over 10 years**;*

If the above conditions are respected, then automatically:

$$GGE = \text{Full de minimis ceiling (EUR 300 000)}$$

Article 4(3)(b) also prescribes that:

¹ As an exception, the Commission would accept an individual notification of an approach calculating the GGE for subordinated loans under the Reference Rate Communication, which could then be used under Article 4(3)(c) of the *de minimis* Regulation.

- if a loan is for less than those amounts or is granted for a period of less than 5 or 10 years respectively, the gross grant equivalent of that loan shall be calculated as a corresponding proportion of the relevant ceiling laid down in Article 3(2) of this Regulation;

The corresponding calculation formula is:

$$GGE=0.04(A\times t)$$

where

- A is the total amount of the loan
- t its duration
- proportional factor 0.04 = 300,000 / 7,500,000 (where 7,500,000 is the multiplication of the maximum loan amounts over the respective maximum durations, i.e., either 1 500 000 * 5 or 750 000 * 10).

Note that for the calculation of the gross grant equivalent under Article 4(3)(b), the interest rate is not relevant.

Example 1: Proportional GGE calculation of bullet loan

Scenario: A loan of EUR 1 000 000 and a maturity of 1 year is secured by collateral covering 80%.

Calculation:

1. Formula used:

$$GGE=0.04(A\times t)$$

2. Application:

- Proportional factor: 0.04
- Loan amount: EUR 1 000 000
- Maturity: 1 year

3. Calculation:

$$GGE = 0.04 * \text{EUR } 1\,000\,000 * 1 = \text{EUR } 40\,000.$$

Conclusion:

The GGE amount of EUR 40 000 can be reported in the eAidRegister or the national central register.

In addition, there have been interpretative questions regarding the application of the simplified methodology to amortizing loans. Provided the loan amortisation schedule is fixed in advance (and binding on the borrower), a calculation can be performed by splitting the amortizing loan into several loans of different maturities.

Example 2: GGE calculation of amortising loans

Scenario: A loan of EUR 1 000 000 with a maturity of 5 year, without grace period and with repayments of EUR 200 000 per year can be split into 5 loans of EUR 200 000, with maturities of 5,4,3,2 and 1 year respectively.

Calculation:

1. Loan details:
 - Total loan amount: EUR 1 000 000
 - Number of instalments: 5 with no grace period
 - Amount per instalment: EUR 200 000

2. Instalment breakdown:
 - **L1:** Instalment is due after 1 year
 - **L2:** Instalment is due after 2 years
 - **L3:** Instalment is due after 3 years
 - **L4:** Instalment is due after 4 years
 - **L5:** Instalment is due after 5 years

3. GGE calculation for each instalment:

Loan instalment	A	t	$GGE=0.04*A*t$	GGE total
L1	200 000	1	8 000	120 000
L2	200 000	2	16 000	
L3	200 000	3	24 000	
L4	200 000	4	32 000	
L5	200 000	5	40 000	

Conclusion: The GGE of the amortising loan is thus EUR 120 000.

Example 3: GGE calculation of amortising loans with grace period

Scenario: A loan of EUR 1 000 000 with a maturity of 10 year with a 2 years grace period: the project receives an initial disbursement of EUR 1 000 000 and does not start to repay until year 3. After that, the loan amortisation schedule foresees an annual repayment of EUR 125 000 per year until maturity at the end of year 10.

Calculation:

1. Loan details:
 - Total Loan Amount: EUR 1 000 000
 - Grace Period: 2 years
 - Repayment Starts: Year 3
 - Annual Repayment: EUR 125 000
 - Total Repayment Period: 8 years (from year 3 to year 10)

2. GGE Calculation for Each Loan Instalment:

The equivalent loan schedule represents 8 bullet loans of a notional of 125 000 EUR with maturities between 3 and 10 years:

Loan instalment	A	t	$GGE=0.04*A*t$	GGE total
L1	125 000	3	15 000	260 000

L2	125 000	4	20 000
L3	125 000	5	25 000
L4	125 000	6	30 000
L5	125 000	7	35 000
L6	125 000	8	40 000
L7	125 000	9	45 000
L8	125 000	10	50 000

Conclusion: The GGE of the amortising loan with grace period is thus EUR 260 000.

1.2 Discounted value based on reference rates under Article 4(3)(c) of the General de minimis Regulation

The gross grant equivalent can be calculated on the basis of the reference rate applicable at the time of the grant (Article 4(3)(c) of the General de minimis Regulation).

The Communication from the Commission on the revision of the method for setting the reference and discount rates² (the Reference Rates Communication) sets out the methodology to calculate reference rates which must be applied as a proxy for the market interest rate for senior loans and to calculate discount rates which can be used to measure the GGE of aid. The GGE is an aggregated amount reflecting the difference in the total amount of interests between market interest rates or their proxy as defined in the Reference Rates Communication and the total amount of interests actually paid.

$$GGE = \sum_{t=0}^n \frac{M * AI_t - R * AI_t}{(1 + d)^t}$$

where:

- *M*: Hypothetical interests to be paid taking into account the interest rate as defined in the Reference Rate Communication (market proxy), or the market rate.
- *R*: actual interests to be paid based on the (reduced) interest rate charged for the loan
- *AI_t*: Outstanding capital amount on the loan at time *t*
- *d*: rate of discount as provided by the Reference Rate Communication, which is the published applicable base rate plus 100 basis points.
- \sum : from the date of granting the loan (*t*=0) until the maturity of the loan (*t*=*n*) in years (or year fractions)

Example 1: GGE calculation of a bullet loan

Scenario: A bullet 5-year loan with a nominal amount of EUR 500 000, which is highly collateralised and has a single B rating, and which has a contractual interest rate of 3.5%.

² OJ C 14,19.01.2008,p. 6 available at http://ec.europa.eu/competition/state_aid/legislation/reference.html

“B” rating highly collateralised means a loan margin of 2.20%. If the base rate at the date of granting was 4.11%, it implies that the hypothetical market interest rate is 6.31%. The discount rate is the base rate plus 100 bp (5.11%).

Calculations:

AI_t : Outstanding capital	M : Hypothetical interests	R : actual interests	$M-R$: Aid_t in %	$(M-R)^*$ AI_t : Aid_t in EUR	d : rate of discount	t	$\frac{1}{(1+d)^t}$	NPV : $\frac{Aid_t \text{ in EUR}}{(1+d)^t}$
500 000	6.31%	3.50%	2.81%	14 050	5.11%	1	0.951	13 367
500 000	6.31%	3.50%	2.81%	14 050	5.11%	2	0.905	12 717
500 000	6.31%	3.50%	2.81%	14 050	5.11%	3	0.861	12 099
500 000	6.31%	3.50%	2.81%	14 050	5.11%	4	0.819	11 511
500 000	6.31%	3.50%	2.81%	14 050	5.11%	5	0.779	10 951
GGE								60 645

Conclusion: The GGE of this bullet loan is thus EUR 62 645.

Example 2: GGE calculation of a linearly amortising loan

Scenario: Let us assume a 10-year loan of EUR 550 000. The loan is paid in linear instalments starting in year $t=1$. Let us assume a market-conform rate of 1.55% (the applicable base rate plus the loan margin given its rating and collateral) and an effective loan rate of 0.55%. In this example the aid element is $1.55\% - 0.55\% = 1\%$. Let us assume that the discount rate (as defined in the Reference Rate Communication) for the Member State at stake is 2.55% ($1.55\% + 1\%$) (d).

Calculations:

AI_t : Outstanding capital	M : Hypothetical interests	R : actual interests	$M-R$: Aid_t in %	$(M-R)^*$ AI_t : Aid_t in EUR	d : rate of discount	t	$\frac{1}{(1+d)^t}$	NPV : $\frac{Aid_t \text{ in EUR}}{(1+d)^t}$
500 000	1.55%	0.55%	1%	5 000	2.55%	1	0,9751	4.876
450 000	1.55%	0.55%	1%	4 500	2.55%	2	0,9509	4.279
400 000	1.55%	0.55%	1%	4 000	2.55%	3	0,9272	3.709
350 000	1.55%	0.55%	1%	3 500	2.55%	4	0,9042	3.165
300 000	1.55%	0.55%	1%	3 000	2.55%	5	0,8817	2.645
250 000	1.55%	0.55%	1%	2 500	2.55%	6	0,8598	2.149
200 000	1.55%	0.55%	1%	2 000	2.55%	7	0,8384	1.677
150 000	1.55%	0.55%	1%	1 500	2.55%	8	0,8176	1.226
100 000	1.55%	0.55%	1%	1 000	2.55%	9	0,7972	797
50 000	1.55%	0.55%	1%	500	2.55%	10	0,7774	389
GGE								EUR 24 912

Conclusion: The GGE for this example amounts therefore to EUR 24 912 and must therefore be reported as such in the eAidRegister or the national central register.

FAQ on “GGE for loans”

Insolvency condition: Article 4(3)(a)

The condition in Article 4(3)(a) that the beneficiary is neither subject to collective insolvency proceedings nor fulfils the criteria under its domestic law for being placed in collective insolvency proceedings at the request of its creditors is cumulative with the other provisions of Article 4(3)(b) or (c).

Article 4(3)(b): Maximum limits and multiple loans

Article 4(3)(b) sets combinations of duration and amounts that lead to maximum amount of de minimis aid, and which cannot be surpassed per loan using the simplified approach described in 4(3)(b). It is not possible to modulate loan conditions that surpass the maximum amounts, even if a mechanical application of the proportional GGE calculation would stay within the EUR 300 000 limit.

For example, a 10 year loan of EUR 250 000 equals to a GGE of EUR 100 000. It is not possible to provide a loan of EUR 250 000 with a 20-year maturity (even though a mechanical application of the GGE calculation would suggest that the GGE is equal to 200 000, so below the 300 000 ceiling) using the simplified approach, in that case it would be necessary to follow the article 4(3)(c) to calculate the GGE and it would be needed to compare the GGE with the ceiling.

However, using the simplified approach, it is possible to receive multiple loans, as long as each loan amount is equal to or lower than EUR 1 500 000 (and a maturity of less than 5 years) or EUR 750 000 (and a maturity of less than 10 years) and the sum of the GGEs of the individual loans is within the limit of EUR 300 000.

Example

A single loan of EUR 1 500 000 and a maturity of 1 year is equal to a GGE of 60 000. A company can thus obtain five of such 1-year loans for an aggregate loan amount of EUR 7 500 000 within a period of three years.

Prolongation of a loan (such a method can only be used in application of Article 4(3)(b)).

An extension of the duration of the loan constitutes new aid, and therefore it should be registered and compliance with the de minimis rules must be checked again. The extension can only be granted if the beneficiary meets the conditions at the moment of the extension being granted. Once a loan has been granted and has “run down” some of its duration, it can be prolonged, provided that the residual legal maturity (*i.e.* the contractually foreseen remaining time until the last reimbursement of the outstanding loan amount at the moment of the prolongation) does not exceed 10 years for loans with an amount of up to EUR 750 000 or 5 years for loans with an amount of more than EUR 750 000 and up to EUR 1 500 000. Each prolongation creates a GGE contribution in function of the loan amount and the duration by which the loan is extended, at the

moment of the extension. This GGE contribution must be counted to the total GGE of *de minimis* provided during a three-year period.

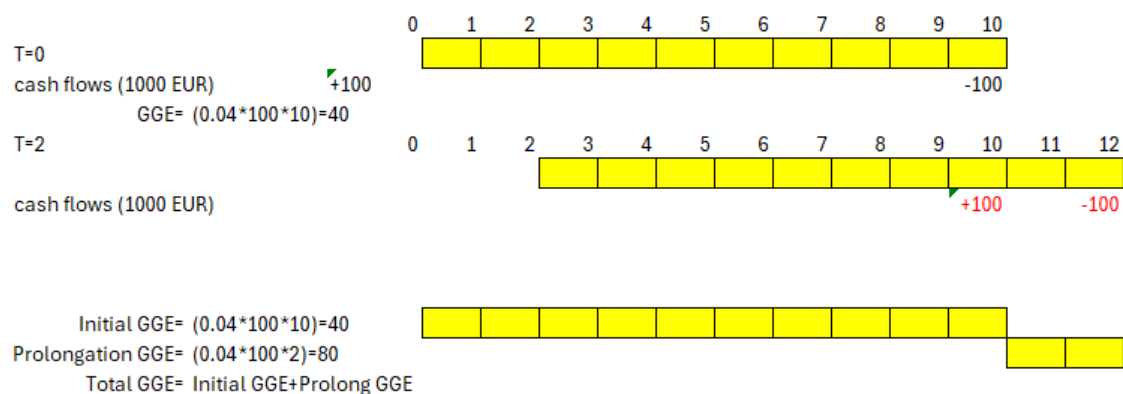
Example 1: Prolongation of a bullet loan

Scenario: A 10-year bullet loan of EUR 100 000 is prolonged. At the end of the second year (as it is a bullet loan, the outstanding amount of the loan is still EUR 100 000), the loan is prolonged for additional 2 years so that the effective duration at the moment of the extension is 10 years.

Calculations:

- The GGE of the original loan is 40 000 ($0.04 * \text{EUR } 100\,000 * 10$). Therefore, an amount of EUR 40 000 has been reported in the eAidRegister or the national central register.

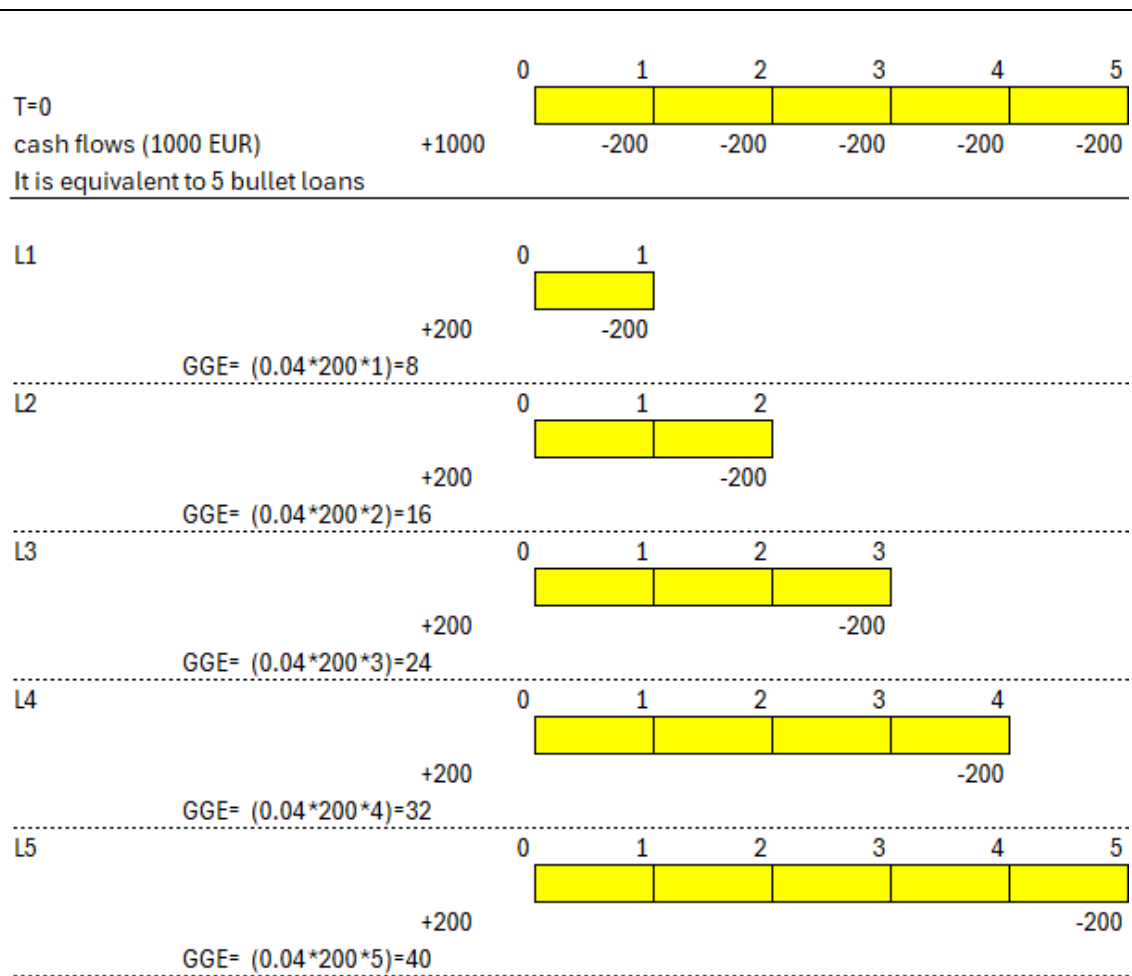
The GGE related to the loan extension part is $0.04 * 100\,000 * 2 = 8\,000$.



Conclusion: In this example, a GGE of EUR 40 000 has initially been registered. The loan is extended after 2 years. At the moment of the prolongation, a GGE corresponding to the additional two years has to be registered ($\text{EUR } 8\,000 = 0.04 * 100\,000 * 2$).

Example 2: Prolongation of an amortising loans

Scenario: A loan of EUR 1 000 000 with a maturity of 5 years with no grace period is repaid by to the beneficiary in 5 equal instalments of EUR 200 000.



Calculations:

Factor	Instalments EUR	Duration in years	GGE in EUR
0,04	200 000	1	8 000
0,04	200 000	2	16 000
0,04	200 000	3	24 000
0,04	200 000	4	32 000
0,04	200 000	5	40 000
GGE			120 000

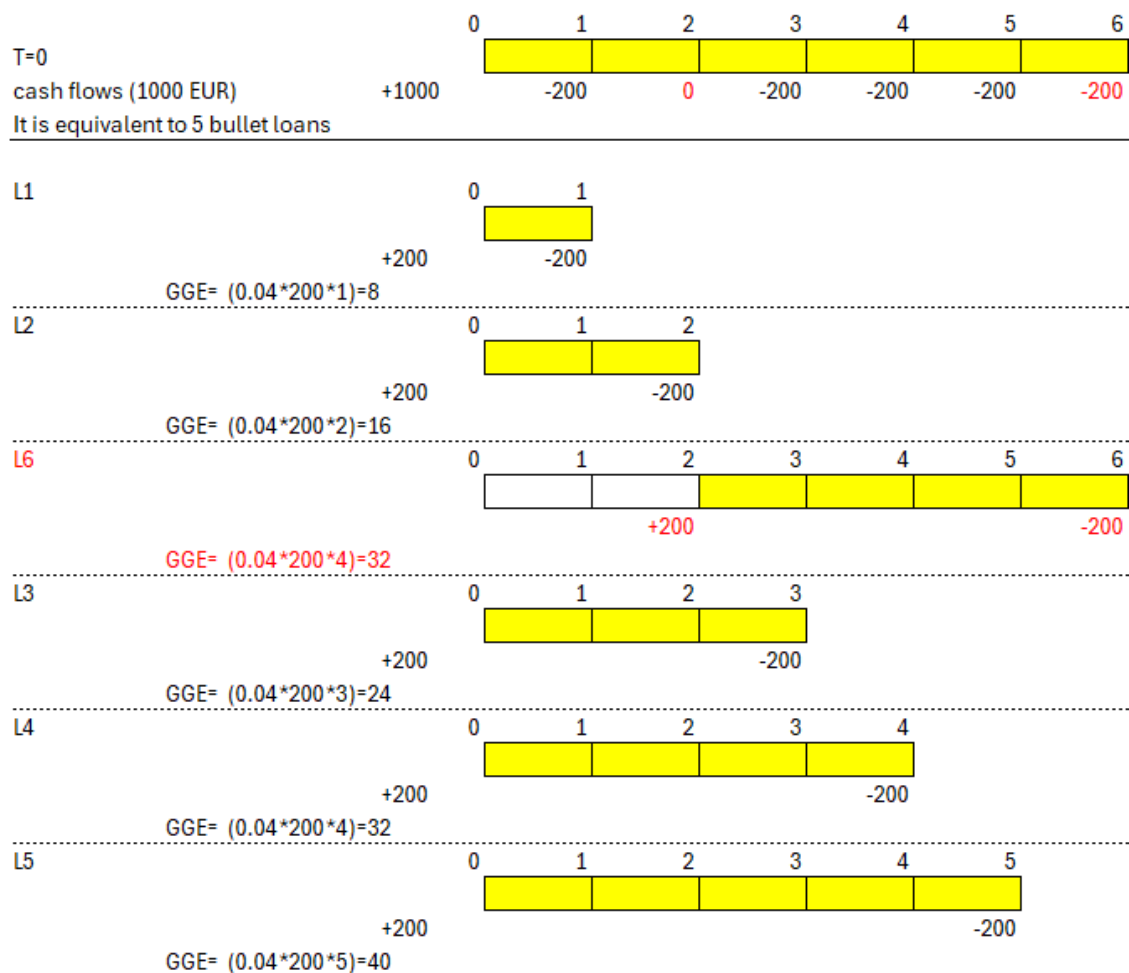
Conclusion: The GGE of the loan is EUR 120 000.

Example 2.1: Prolongation of an amortising loan due to fully unpayment of one instalment.

Scenario: After the 2nd year, the borrower cannot repay the instalment, and an extension is agreed **from 5 to 6 years**.

Calculations:

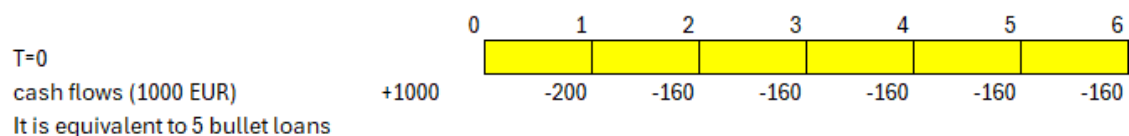
This situation is equivalent to the situation were the company in year 2 receives a new bullet loan, to finance the payment in year 2, with a duration of 4 years. The new expected cash flows is as follows (incorporating the new loan L6):



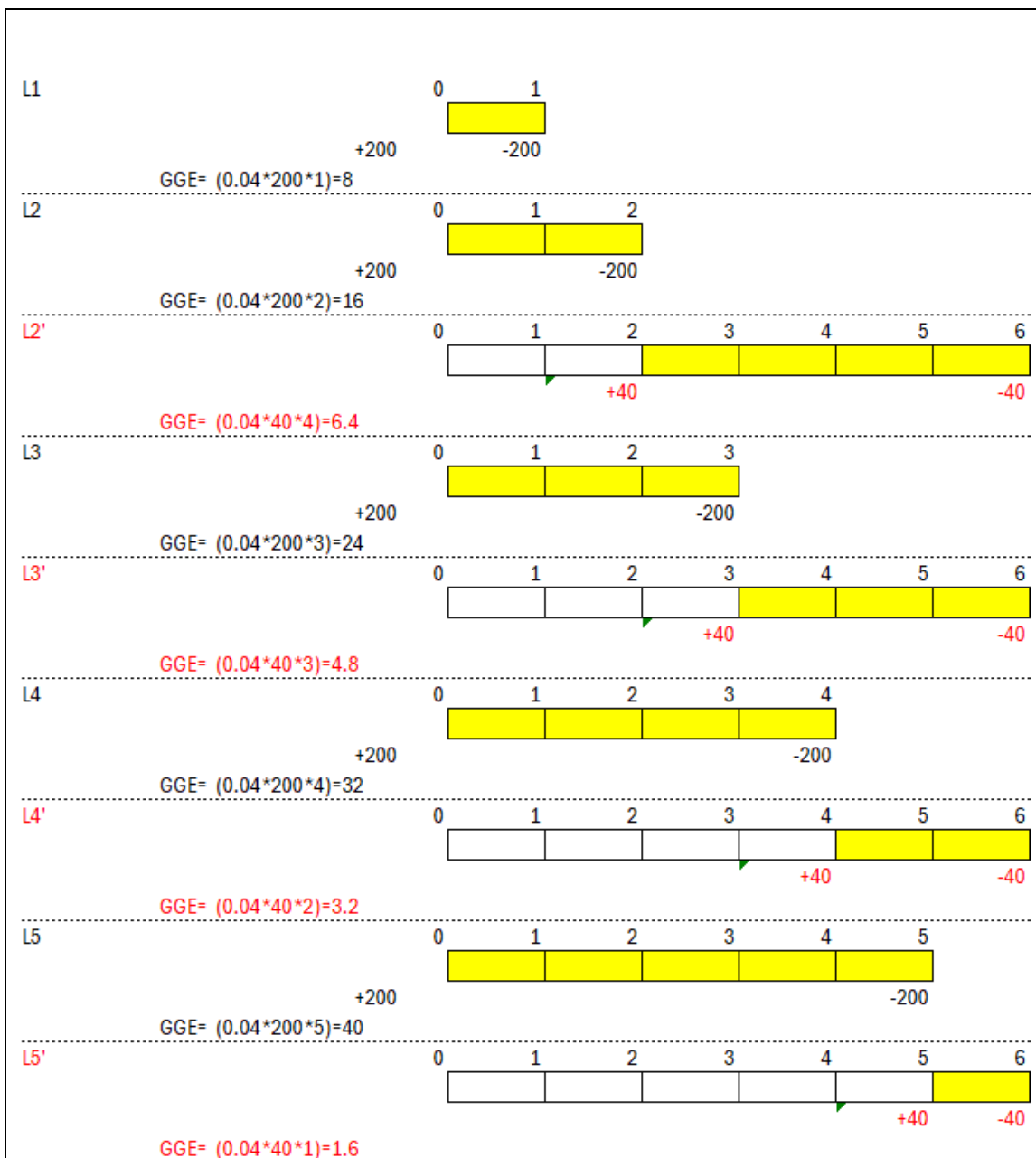
Conclusion: The GGE of the maturity extension is thus equal to the GGE of the new 4-year loan provided in year 2, which is equal to EUR 32 000. Therefore, an amount of EUR 32 000 has to be registered at the moment of the prolongation.

Example 2.2: Prolongation of an amortising loans by readjusting its instalments.

Scenario: By contrast, if at the end of year 2, it is negotiated to reduce the instalments by EUR 40.000 EUR to EUR 160 000 and to increase the duration by one year, then the new situation will be as follows:



Calculations:



That is, it would result in an increase on the GGE of EUR 16 000. .

Conclusion: At the moment the loan is modified, an amount of EUR 16 000 should be registered.

New loan grant exceeding the ceiling

For a new grant of *de minimis* aid given in the form of a loan that has exceeded the *de minimis* ceiling, since Article 3(7) does not allow to use the *de minimis* Regulation for a fraction of the aid measure, either the entire loan has to be reimbursed or the aid element has to be paid back by the beneficiary, which means that in fact the loan is transformed into a market-conform loan.

Please also note that Article 3(7) does not preclude a Member State from using the *de minimis* Regulation for a lower (partial) replacement measure that does not exceed the ceiling.

Reference Rate Communication

Art. 4(3)(c) states that aid comprised in loans shall be considered as transparent *de minimis* aid if the gross grant equivalent has been calculated on the basis of the reference rate applicable at the time of the grant. This implies that the reference rate must be calculated according to the terms and conditions as explained in the Reference Rate Communication³.

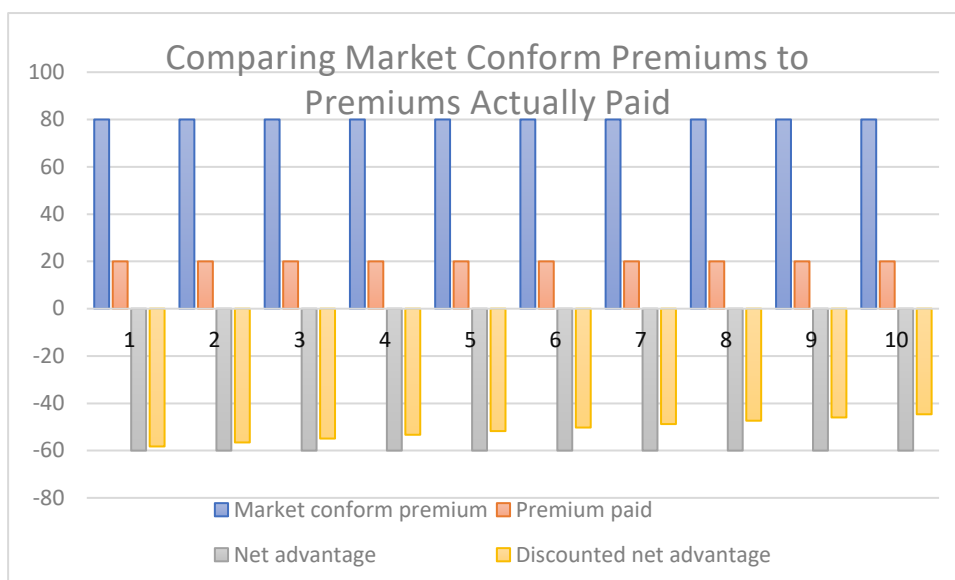
The Reference Rate Communication provides a proxy for market prices of senior loans, based on a categorisation of the loan according to risk rating of the beneficiary and the available collateral. It provides for three collateral categories ('high', 'normal' and 'low'). The level of collateralisation can be measured as the loss given default (LGD). From a risk-adjusted return on capital point of view, the higher the risk (low collateral), the higher the applicable margin to remunerate the risk. This is reflected in the Reference Rate Communication as the applicable margins increase as a project moves from the high collateralization category to the low collateralisation category.

The Reference Rate Communication does not exclude lending without any collateral and classifies these loans in the 'low' collateral category. It is thus correct to use the low collateral category for loans without collateral.

2. Guarantees

A guarantee has the same effect as an interest rate subsidy as it reduces the interest the beneficiary will pay over the maturity of the loan. Typically, guarantees are paid in annual or quarterly premiums until the guarantee matures or the guarantee is called in case of an underlying default. To compute the gross grant equivalent of a guarantee, we simplify the approach by ignoring the possibility that the guarantee will be called, and simply compare the cash flows from the guarantee premiums being paid by the beneficiary to market conform premiums and discount the differences to the date the guarantee is granted.

³ (Communication from the Commission on the revision of the method for setting the reference and discount rates (2008/C 14/02).



2.1 Application of Article 4(6)(b)

Article 4(6)(b) of the *de minimis* regulation sets the conditions that lead to a GGE equal to the maximum amount of *de minimis* aid (EUR 300 000) for a guarantee using a simplified approach. These conditions are as follows:

- *the guarantee does not exceed 80 % of the underlying loan at each moment in time, losses are sustained proportionally and in the same way by the lender and the guarantor, net recoveries generated from the recuperation of the loan from the securities given by the borrower proportionally reduce the losses borne by the lender and the guarantor, and either*
- *the amount guaranteed is **EUR 2 250 000** and the duration of the guarantee is **5 years** or*
- *the amount guaranteed is **EUR 1 125 000** and the duration of the guarantee is **10 years**;*

If the above conditions are respected, then automatically:

$$GGE = \text{Full de minimis ceiling (EUR 300 000)}$$

Article 4(6)(b) also prescribes that:

- *if the amount guaranteed is less than these amounts or the guarantee is for a period of less than 5 or 10 years respectively, the gross grant equivalent of that guarantee shall be calculated as a corresponding proportion of the relevant ceiling laid down in Article 3(2);*

The corresponding calculation formula is:

$$GGE=0.02667(A \times t)$$

Where

- A is the total amount guaranteed

- t its duration (in years or fractions of year)
- proportional factor $0.026667 = \text{EUR } 300\,000 / \text{EUR } 11\,250\,000$ (where EUR 11 250 000 is the multiplication of the maximum guarantee amounts over the respective maximum durations, *i.e.*, either EUR 2 250 000 * 5 or EUR 1 125 000 * 10).

Example 1: guarantee on a bullet loan

Scenario: A loan of EUR 1 000 000 and a maturity of 5 years is secured by collateral covering 80%. The guaranteed amount is EUR 800 000.

Calculation:

4. Formula used:

$$GGE = 0.026667 (A \times t)$$

5. Application:

- Proportional factor: 0.026667
- Guaranteed amount: EUR 800 000
- Maturity: 5 years

6. Calculation:

$$GGE = 0.026667 * \text{EUR } 800\,000 * 5 = \text{EUR } 106\,666.67.$$

Conclusion:

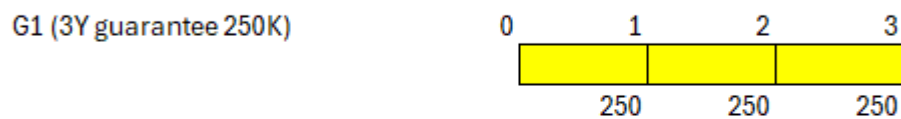
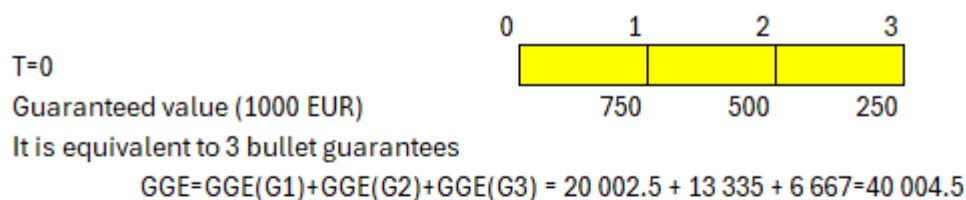
The GGE amount of EUR 106 666.67 can be reported in the eAidRegister or the national central register.

Example 2: guarantee on an amortizing loan

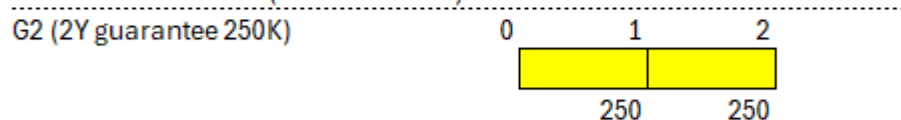
Scenario: To calculate the GGE of a guarantee on an amortizing loan, one can decompose the amortizing loan in simple bullet loans.

A Guarantee is signed in $t=0$ for an amount of 750.000 EUR (guaranteed amount), covering 50% of a EUR 1 500 000 loan with a final maturity within 3 years. The loan is repaid linearly (EUR 250.000 guaranteed amount per year). This is equivalent to three bullet loan guarantees of 250 000 EUR with maturities ranging between 1 year and 3 as described as follows:

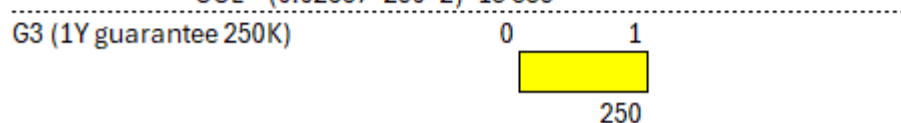
Calculations:



$GGE = (0.02667 * 250 * 3) = 20\,002.5$



$GGE = (0.02667 * 250 * 2) = 13\,335$



$GGE = (0.02667 * 250 * 1) = 6\,667$

Conclusion: The GGE of the guarantee is equal to EUR 40 004.5.

2.2 Application of Article 4(6)(c): safe-harbour premiums

Proportional Loss Sharing

If the GGE has been calculated on the basis of safe-harbour premiums according to the Article 4(6)(c) of the *de minimis* Regulation, the general provision of the Guarantee Notice as laid down in section 3.2 also apply. That section of the Guarantee Notice contains, in point d), that “*when the size of the loan or of the financial obligation decreases over time, for instance because the loan starts to be reimbursed, the guaranteed amount has to decrease proportionally, in such a way that at each moment in time the guarantee does not cover more than 80 % of the outstanding loan or financial obligation*”, and “*losses have to be sustained proportionally and in the same way by the lender and the guarantor. In the same manner, net recoveries (i.e. revenues excluding costs for claim handling) generated from the recuperation of the debt from the securities given by the borrower have to reduce proportionally the losses borne by the lender and the guarantor. First-loss guarantees, where losses are first attributed to the guarantor and only then to the lender, will be regarded as possibly involving aid*”.

2.3 Application of Article 4(6)(d):

Aid comprised in guarantees can also be considered transparent if, *i*) before the implementation of the measure, the methodology to calculate the GGE of the guarantee has been approved by the Commission as being in accordance with the Guarantee Notice⁴ or any successor notice and *ii*) that methodology explicitly addresses the type of guarantee and the type of underlying transaction at stake. In these cases, where the Member State has

⁴ Commission Notice on the application of Articles 87 and 88 of the EC Treaty to State aid in the form of guarantees (OJ C 155, 20.6.2008, p. 10)

notified a calculation methodology to the Commission, the specific formula to calculate the GGE will be part of the Commission decision.

FAQ on “GGE for guarantees”

Insolvency condition

The condition in Article 4(6)(a) that the beneficiary is neither subject to collective insolvency proceedings nor fulfils the criteria under its domestic law for being placed in collective insolvency proceedings at the request of its creditors is cumulative with the other provisions of Article 4(6)(b) or (c) or (d).

Call of a guarantee

The realization of a loss event and the call of the guarantee is only a materialization of risk but does not constitute a new granting of aid. Therefore, the call of guarantee should not be reported in the register.

Extension of a guarantee duration

Any extension of the duration of the guarantee constitutes a new granting of aid, and therefore compliance with the *de minimis* rules must be checked again. The extension can only be granted if the beneficiary firm meets the condition of Article 4(6)(a) at the moment of the extension.

There is no necessity for the grantor of aid to recalculate the GGE if there are subsequent changes to the contractual terms that would lead to a lower GGE (such as cancellation or shortening of maturity). Since there is no new advantage granted to the beneficiary, granting authorities do not have to reflect this in the register. However, they may choose to do so at their discretion.

If changes of the contractual terms would lead to a higher GGE (such as a maturity extension), then the corresponding incremental increase of GGE has to be recorded in addition to the original GGE and must be checked against the permissible upper limit as stipulated by the *de minimis* regulation.

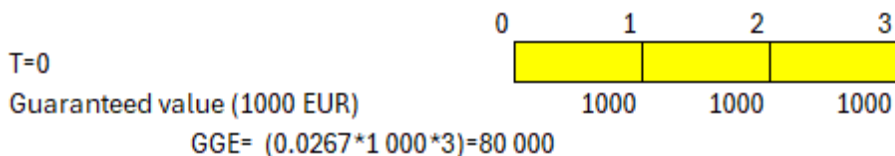
Example 1: Extension of the duration of a guarantee on a bullet loan.

Scenario: A guarantee is signed in $t=0$, for an amount of EUR 1 000 000 and a duration of 3 years.

In year 2, the guarantee is extended for 2 additional years.

Calculations:

GGE of the initial guarantee:



$GGE = 0.02667 * \text{EUR } 1\,000\,000 * 3 = \text{EUR } 80\,000.$

A new GGE associated to the term increase of the guarantee is to be calculated.

Conclusion: At the moment of the extension

- the net GGE value of the new guarantee issued (EUR 53 333) has to be registered, while keeping the existing aid award unchanged (EUR 80 000).



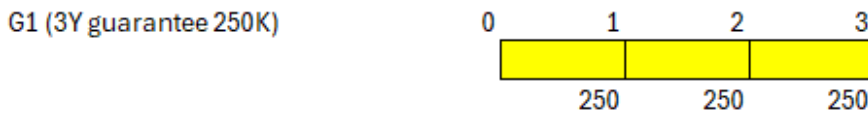
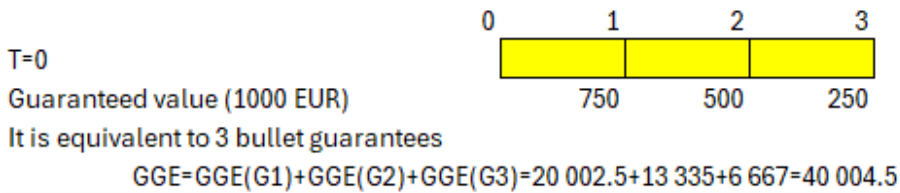
In this example, neither the initial guarantee nor the extended guarantee leads to a maturity beyond 5 years. Both are thus in line with Article 4(6)(b) de minimis. Because the extension constitutes a new granting of aid, compliance with Article 4(6)(a) de minimis must be checked again and the extension can only be granted if the beneficiary meets this condition at the moment of the extension.

Example 2: Amortizing guarantee extension and increase of amount guaranteed

Scenario: A Guarantee is signed in $t=0$ for an amount of 750.000 EUR with a final maturity within 3 years. The loan is repaid linearly (250.000 EUR per year of guaranteed amount). At the end of year 2, when the outstanding amount of the guarantee is 250.000 EUR (only one bullet loan 1 year guarantee is active), the duration of the guarantee is extended by 2 years, and the amount of the guarantee is increased by 500.000 EUR, so that at the time of the extension the guaranteed amount is 750.000 EUR, maturing in a 3 year term.

Calculations:

The GGE to be registered when the guarantee is signed in $t=0$ is 40 005 EUR (see example 2 in section “2.1 Application of Article 4(6)(b)”).



$$GGE = (0.02667 * 250 * 3) = 20\,002.5$$



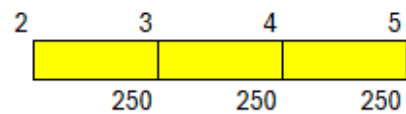
$$GGE = (0.02667 * 250 * 2) = 13\,335$$



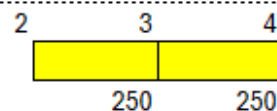
$$GGE = (0.02667 * 250 * 1) = 6\,667$$

The prolongation and increase of the guaranteed amount is equivalent to the issuance of 2 bullet loans with 2 and 3 year maturities guarantees of 250.000 EUR:

New Guarantees issued:



$$GGE = (0.02667 * 250 * 3) = 20\,002.5$$



$$GGE = (0.02667 * 250 * 2) = 13\,335$$

Conclusion: The GGE of the guarantee extension/increase at the end of year 2 is equal to EUR 33 337 (EUR 20 002 + EUR 13 335).

Financial intermediaries: full pass-on guarantee.

A method to fully pass on the benefit is to quantify, in gross grant equivalent (GGE) terms, the benefit of the guarantee and then to **reduce the interest rates** on the guaranteed **or lower collateral needs** on the guaranteed loan for final beneficiary, so that the aid on the guaranteed loan, in GGE terms, is equal to the aid contained in the guarantee. Article 4(7) of the Regulation is an alternative to such a full pass-on of the advantage. If the conditions of Article 4(7) of the Regulation are met, the financial intermediary does not have to quantify the benefit of the guarantee.

In addition to reduced interest rates and lower collateral requirements, **a longer maturity** could also be a benefit. In such a case, to ensure a full pass-on, the GGE of the longer

maturity has to be calculated by reference to the maximum maturity that the financial intermediary would have granted without the guarantee. However, the safe-harbour of Article 4(7) of the Regulation cannot be applied for this type of benefit.

Capped portfolio calculations

The calculation method for capped portfolio guarantees as laid down in Annex III of Regulation 964/2014 applies to financing under the 2014-2020 programming period. In principle, a full pass-on under a capped portfolio guarantee can be achieved in the way described above. The guarantee cap rate at portfolio level should not be taken into account. However, the GGE of each guarantee on a loan by loan basis should only be calculated using the guarantee coverage, the applied guarantee premium and the market-conform guarantee premium as input parameters. Member States may notify to the Commission, for approval, methodologies that ensure a full pass-on and that factor in a potentially lower effective guarantee coverage due to the guarantee cap at portfolio level. In addition to ensuring a full pass-on of the advantage contained in the guarantee, aid at the level of the financial intermediary should also be excluded by ensuring that the remuneration of the financial intermediary is in line with market benchmarks. This is considered to be the case when the financial intermediary has been chosen through a competitive, transparent and non-discriminatory selection procedure or tender. Where the financial intermediary or its manager are public entities and were not chosen through a selection procedure satisfying the above-mentioned criteria, the intermediary or its manager would be considered as not receiving State aid if (a) their management fee is capped and their overall remuneration reflects normal market conditions, for example when it is linked to performance; and (b) they are managed commercially i.e., take investment decisions in a profit-oriented manner at arm's-length from the State⁵.

The limits laid down in Article 4(7)(b) of the Regulation only apply to guaranteed loans for which a full pass-on has not been achieved. A granting authority can provide guarantees covering amounts exceeding 10 million euros per individual financial intermediary if the financial intermediary achieves a full pass-on on the amounts exceeding EUR 10 million.

Uncapped guarantee calculations

In case, on the other hand, a Member State wishes to participate in the uncapped guarantee instrument of the SME Initiative, there is no need for a notification. In fact, this instrument was designed as compliant with the *de minimis* Regulation, if the delegation agreement between the Commission and the EIB-group and the model funding agreement are respected. Therefore, at the level of the final beneficiary, all the provisions of the *de minimis* regulation would have to be complied with (e.g. issue declarations to *de minimis* aid recipients). EC Decision 660/2014 clearly states that the State Aid benefit shall be considered as an interest rate subsidy within the meaning of Article 4(2) of the *de minimis* Regulation. It also provides a pre-defined GGE formula

⁵ In this regard, please see the Commission – DG Competition Guidance of 26 January 2024 on https://competition-policy.ec.europa.eu/system/files/2024-01/20240126_practical_guidance_for_member_states_the_market_economy_operator_test_for_risk_finance_measures.pdf

to calculate that State Aid benefit. The GGE formula laid down in EC Decision 660/2014 is specific to the SME Initiative and does not include a discounting of future cash flows.

Underlying loan

Guarantees on revolving credits, factoring contracts

Article 4(6)(b) applies to guarantees on loans where the guarantee does not exceed 80% of the underlying loan. The article specifies also maximum guaranteed amounts and corresponding maximum durations. Revolving credits can be considered as loans for the purpose of Article 4(6)(b) of the *de minimis* Regulation, provided that the revolving credit line has, in addition to a predefined maximum amount, a contractually defined maximum duration and that that duration remains within the maximum duration of 4(6)(b) the *de minimis* Regulation and is used to for the calculation of the GGE if the duration is lower than the applicable maximum duration of Article 4(6)(b) of the *de minimis* Regulation. Please note that *de minimis* aid shall be deemed granted at the moment the legal right to receive the aid is conferred on the undertaking irrespective of the date of payment to the undertaking. Thus, the aid amount accrues at the moment at which the undertaking can make use of a State-guaranteed revolving credit facility, even if the undertaking has not yet actually drawn down any credit amounts.

Factoring credits can be considered as loans for the purpose of article 4(6)(b) the *de minimis* Regulation, provided that the undertaking which originates the transactions and benefits from a State guarantee remains ultimately liable to its repayment. This is typically the case only in reverse factoring.

Invoice finance and overdrafts

Invoice finance and overdrafts are lines of credit made available to the borrower. On invoice finance one would be able to draw money upon presentation of the invoice whereas in overdrafts the possibility to draw is only limited by a maximum amount. Both instruments can be qualified as an underlying loan under the *de minimis* Regulation. The condition that the value of the guarantee is limited to 80% of the value of the underlying loan should be understood as not exceeding 80% of the amount actually borrowed from the bank.

Fixed income instruments

Article 4(6) stipulates when aid contained in guarantees can be considered as transparent *de minimis* aid. This is the case if either the conditions of paragraphs (a) + (b) or (c) or (d) of said Article are fulfilled. It follows from the wording of Article 4(6)(b) that it is only applicable for guarantees on loans. Fixed income instruments such as bonds, are not covered by the definition of loans because they are tradable.

Some aid could accrue to the buyer of the bond (if the bond is traded), which is different from the initial beneficiary of the aid (i.e. the company that issues the bond). However, the *de minimis* Regulation does not allow that also the buyer of the bond could receive an advantage (*de minimis* aid is not tradable but only registered with the beneficiary company).

The granting authorities could provide guarantees to bonds and calculate the aid element in accordance with Article 4(6)(d) of the *de minimis* Regulation, i.e. by relying on a guarantee methodology under the Guarantee Notice approved by the Commission.

