

Consultation Paper

Draft Regulatory Technical Standards

On additional liquidity outflows corresponding to collateral needs resulting from the impact of an adverse market scenario on the institution's derivatives transactions, financing transactions and other contracts for liquidity reporting under Article 411(3) of the Draft Capital Requirements Regulation (CRR)



Consultation Paper on Draft Regulatory Technical Standards on additional liquidity outflows corresponding to collateral needs resulting from the impact of an adverse market scenario on the institution's derivatives transactions, financing transactions and other contracts for liquidity reporting under Article 411 (3)

Table of contents

1.	Responding to this Consultation	1
2.	Executive Summary	2
3.	Background and rationale	4
4.	Draft regulatory TS on additional liquidity outflows corresponding to collateral needs resulting from the impact of an adverse market scenario on the institution's derivatives transactions, financing transactions and other contracts for liquidity reporting under Article 411(3) of the Draft Capital Requirements Regulation (CRR)	7
5.	Accompanying documents	33
5.1	Draft Cost- Benefit Analysis / Impact Assessment	33
5.2	Overview of questions for Consultation	38

1. Responding to this Consultation

The EBA invites comments on all proposals put forward in this paper and in particular on the specific questions summarised in 5.2.

Comments are most helpful if they:

- respond to the question stated;
- indicate the specific point to which a comment relates;
- contain a clear rationale;
- provide evidence to support the views expressed/ rationale proposed; and
- describe any alternative regulatory choices the EBA should consider.

Please send your comments to the EBA by email to EBA-CP-2013-19@eba.europa.eu by 14.08.2013, indicating the reference 'EBA/CP/2013/19' on the subject field. Please note that comments submitted after the deadline, or sent to another e-mail address will not be processed.

Publication of responses

All contributions received will be published following the close of the consultation, unless you request otherwise. Please indicate clearly and prominently in your submission any part you do not wish to be publicly disclosed. A standard confidentiality statement in an e-mail message will not be treated as a request for non-disclosure. A confidential response may be requested from us in accordance with the EBA's rules on public access to documents. We may consult you if we receive such a request. Any decision we make not to disclose the response is reviewable by the EBA's Board of Appeal and the European Ombudsman.

Data protection

Information on data protection can be found at www.eba.europa.eu under the heading 'Legal Notice'.

2. Executive Summary

The CRR/CRD IV texts¹ (the so-called Capital Requirements Regulation - henceforth 'CRR'- and the so-called Capital Requirements Directive – henceforth 'CRD') set out prudential requirements for liquidity.

In a number of Articles the CRR contains specific mandates for the EBA to develop draft Regulatory or Implementing Technical Standards (henceforth 'RTS' and 'ITS') related to liquidity and liquidity reporting requirements. These standards will be part of the single rulebook enhancing regulatory harmonisation in Europe.

The EBA has developed these RTS proposals on the basis of the legislative texts for the CRR agreed by the European Parliament and the Council in April 2013² and in accordance with the mandate contained in Article 411(3) of the draft CRR, which foresees a submission of the draft RTS by 31 March 2014. These texts will be subject to legal-linguistic review before being formally adopted and the final text published in the Official Journal of the European Union.

Main features of the RTS

The draft RTS as put forward by the EBA for this consultation are a direct result of Article 411(3) of the CRR, which mandates EBA to address additional collateral outflows resulting from the impact of an adverse market scenario on institutions' derivatives transactions, financing transactions and other contracts if material. In specific, the draft RTS focuses on the capture of adverse changes in market valuation of derivatives and similar transactions and contracts that contractually require collateral in such case.

This consultation paper presents four methods to determine these additional collateral outflows namely a standard method, a simplified method, an internal model based method and an historical look back approach.

The standard method is the main method in this RTS and requires an institution to re-value its derivative portfolio according to a pre-defined set of shocks in market variables, and to subsequently determine the net additional collateral outflows whilst treating potential inflows in a prudent manner. This implies that an inflow can only be taken into account in cases where collateral received can be fully re-used. Additionally, the recognition of inflows is determined in such a way that the effects of diversification are only recognised if it takes place within one single risk factor whereas diversification among risk factors is not recognised.

The simplified method, on the other hand, is designed for institutions with very small derivative portfolios where requiring implementation of the other approaches could create considerable costs.

¹ Linked to adopted CRR to be inserted

² The CRD/CRR text as agreed by the Council can be found at
[http://register.consilium.europa.eu/pdf/en/13/st07/st07746.en13.pdf /](http://register.consilium.europa.eu/pdf/en/13/st07/st07746.en13.pdf/)
<http://register.consilium.europa.eu/pdf/en/13/st07/st07747.en13.pdf>

This method would require a highly simplified estimation of collateral outflows whereby the notional amounts of transactions and contracts are multiplied by specified outflow factors.

The internal model-based method is built on the simulation of adverse market scenario conditions and would take into account contractual specificities. However, to reflect the fact that most institutions do not have internal systems capable of combining the simulation of market shocks with collateral characteristics of individual contracts, the EBA proposes to restrict the use of this method to institutions that already have an approved Expected Positive Exposures method for counterparty credit risk.

Another method, which the EBA has not incorporated in the RTS at this stage, but seeks industry feedback on as part of this consultation, is the historical look back approach as outlined by the Basel Committee on Banking Supervision (“BCBS”) in January 2013. During the consultative phase the EBA will consider how the method can be implemented, in particular regarding the calculation of historical net collateral outflows. It is possible that the historical look back approach may be implemented as a back stop for some of the other methods. Input from the industry on these aspects would be welcome.

3. Background and rationale

The proposed Capital Requirements Regulation (CRR) sets out requirements concerning liquidity and mandates the EBA to prepare draft regulatory technical standards (RTS) in this area. These standards will be part of the single rulebook enhancing regulatory harmonisation in Europe.

The EBA has developed the RTS proposals on the basis of the legislative texts for the CRR agreed by the European Parliament and the Council in April 2013³. These texts will be subject to legal-linguistic review before being formally adopted and the final text published in the Official Journal of the European Union.

The EBA will review the RTS proposals to ensure that they take account of any changes made in the final text of the CRR, as well as to take account of any changes arising out of the consultation process.

The nature of RTS under EU law

The present draft RTS are produced in accordance with Article 10 of EBA regulation⁴. According to Article 10(4) of EBA regulation, RTS shall be adopted by means of a regulation or decision.

According to EU law, EU regulations are binding in their entirety and directly applicable in all Member States. This means that, on the date of their entry into force, they become part of the national law of the Member States and that their implementation into national law is not only unnecessary but also prohibited by EU law, except in so far as this is expressly required by them.

Shaping these rules in the form of a Regulation would ensure a level-playing field by preventing diverging national requirements and would ease the cross-border provision of services; currently, an institution that wishes to take up operations in another Member State has to apply different sets of rules.

Background and regulatory approach followed in the draft RTS

In January 2013, the Basel Committee on Banking Supervision (BCBS) published its revised rules text of the liquidity coverage ratio (LCR). The objective of the LCR is to promote the short-term resilience of the liquidity risk profile of banks. It does this by ensuring that banks have an adequate stock of unencumbered high-quality liquid assets (HQLA) that can be converted easily and immediately in private markets into cash to meet their liquidity needs for a 30 calendar day liquidity stress scenario. It is intended that the LCR will improve the banking sector's ability to absorb shocks arising from financial and economic stress, whatever the source, thus reducing the risk of spillover from the financial sector to the real economy. The CRR provisions related to liquidity coverage requirements translate these BCBS proposals into EU law.

The draft RTS as put forward by the EBA for this consultation are a direct result of Article 411(3) of the CRR, which mandates EBA to address additional collateral outflows resulting from the impact of an

³ The CRR text as agreed by the Council can be found at <http://register.consilium.europa.eu/pdf/en/13/st07/st07747.en13.pdf>

⁴ Regulation (EU) N° 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending Decision N° 716/2009/EC and repealing Commission Decision 2009/78/EC.

adverse market scenario on institutions' derivatives transactions, financing transactions and other contracts if material. In specific, this draft RTS focuses on the capture of adverse changes in market valuation of derivatives and similar transactions and contracts that contractually require collateral in such case. The EBA is mandated to submit the draft RTS by 31 March 2014.

This consultation paper presents four methods to determine additional collateral outflows namely a standard method, a simplified method, an internal model based method and an historical look back approach.

The standard method requires an institution to re-value its derivative portfolio according to a pre-defined set of shocks in market variables, and to subsequently determine the additional collateral outflows in accordance with all existing contractual and statutory restrictions. This implies that an inflow can only be taken into account in cases where collateral is received that can be fully re-used. Additionally, the recognition of inflows is determined in such a way that the effects of diversification are only recognised if diversification takes place within a risk factor, whereas diversification among risk factors is not recognised.

The simplified method is designed for institutions with very small derivative portfolios where requiring implementation of the other approaches could create considerable costs. This method would require a highly simplified estimation of collateral outflows whereby the notional amounts of transactions and contracts are multiplied by appropriate outflow factors.

The internal model-based / Unexpected Negative Exposures (UNE) method has the potential to provide a more accurate estimation of collateral outflows as it would allow a diversity of adverse market scenario conditions to be captured. This method can be opted for if an institution has an approved Expected Positive Exposure ("EPE") model for the calculation of own funds requirements for counterparty credit risk. Using the EPE model as a base for estimating the additional collateral outflows requires a certain set of model adjustments. Foremost, it would require institutions to change their focus from market shocks that, on the whole, are positive to the positions of the institution to combinations of market shocks that are negative for the institution. Also, it would require institutions to rerun their EPE model on a somewhat different population, i.e. derivatives, other transactions and contracts within scope of Article 411(3) CRR. Further modifications to these existing models shall be necessary, given their difference in purpose. As under the standard method, inflows can only be taken into account where collateral received can be fully re-used.

Another method, which the EBA does not incorporate in its draft RTS at this stage, but seeks industry feedback on as part of this consultation, is the historical look back approach as outlined by the BCBS in January 2013. In accordance with Recital 75(f) of the draft CRR the EBA is willing to consider proposing such an approach and will therefore further evaluate this approach over the course of the consultation period and on the basis of comments received. Under this method banks would have to identify the largest absolute net 30-day collateral flow realised during the preceding 24 months. The absolute net collateral flow is based on both realised outflows and inflows, where it seems straightforward to only count those inflows that can be fully used to cover outflows. Possible vulnerabilities associated with the historical look back method include its backward looking nature, which could lead to procyclicality.

This consultation paper contains a list of questions that focus on the appropriateness of the different methods as currently described.

-
4. Draft regulatory TS on additional liquidity outflows corresponding to collateral needs resulting from the impact of an adverse market scenario on the institution's derivatives transactions, financing transactions and other contracts for liquidity reporting under Article 411(3) of the Draft Capital Requirements Regulation (CRR)

In between the text of the draft RTS that follows, further explanations on specific aspects of the proposed text are occasionally provided, which either offer examples or provide the rationale behind a provision, or set out specific questions for the consultation process. Where this is the case, this explanatory text appears in a framed text box.

Contents

Section 1 - Standard method	12
Section 2- Simplified method	18
Section 3- Internal-model based / Unexpected Negative Exposure (UNE) method	25
Annex I: Scenarios under the standard method	30
Annex II: Outflow factors under the simplified method	32



EUROPEAN COMMISSION

Brussels, **XXX**
[...](2012) **XXX** draft

COMMISSION DELEGATED REGULATION (EU) No .../..

of **XXX**

[...]

supplementing Regulation No xx/XXXX [CRR] of the European Parliament and of the Council with regard to regulatory technical standards for additional liquidity outflows corresponding to collateral needs resulting from the impact of an adverse market scenario on an institution's derivatives transactions, financing transactions and other contracts for liquidity reporting under Article 411(3)

COMMISSION DELEGATED REGULATION (EU) No .../..

of **XXX**

[...]

supplementing Regulation No xx/XXXX [CRR] of the European Parliament and of the Council with regard to regulatory technical standards for additional liquidity outflows corresponding to collateral needs resulting from the impact of an adverse market scenario on an institution's derivatives transactions, financing transactions and other contracts for liquidity reporting under Article 411(3)

THE EUROPEAN COMMISSION,

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

Having regard to Regulation (..) No xx/xxxx [CRR] of the European Parliament and of the Council of dd/mm/yyyy on [title of the CRR]...⁵, and in particular Article 411(3) fourth subparagraph thereof,

Whereas:

- (1) This Regulation should apply to transactions and contracts defined in Annex II of Regulation xx/xx [CRR], as well as credit derivatives, options written, and any combination thereof, given that they can be subject to additional collateral outflows that result from an adverse market scenario other than changes in the value of collateral posted. For the same reason these rules should also apply to Secured Financing Transactions (SFTs). Other contracts should comprise any other transactions and contracts which, while not falling under one of the above categories, may nevertheless require institutions to post additional collateral in case of changing generic market variables (such as interest rate, foreign exchange rate or equity price).
- (2) It is appropriate to develop different approaches for determining additional collateral outflows that would result from the impact of an adverse market scenario on an institution's derivatives positions, financing transactions and other contracts if material. While an internal model-based approach would allow a diversity of adverse market scenario conditions to be captured, less complex methods which allow for

⁵ OJ.....

proportionality and situations of institutions with small derivatives portfolios to be addressed are also deemed appropriate.

- (3) Given that expected collateral outflows in the form of partial or final settlements should be addressed under Article 410(6), these flows are not covered by the provisions of this Regulation.
- (4) As Article 411(1) relates to collateral outflows due to value changes in collateral posted, such issues should not be covered by the provisions of this Regulation.
- (5) This Regulation is based on the draft regulatory technical standards submitted by the European Supervisory Authority (European Banking Authority) to the Commission.
- (6) The European Banking Authority has conducted open public consultations on the draft regulatory technical standards on which this Regulation is based, analysed the potential related costs and benefits and requested the opinion of the Banking Stakeholder Group established in accordance with Article 37 of Regulation (EU) No 1093/2010].

HAS ADOPTED THIS REGULATION:

Article 1- Methods for determining the additional outflows

1. Institutions shall calculate their additional outflows corresponding to collateral needs resulting from the impact of an adverse market scenario ('additional outflows') on their derivatives transactions, financing transactions and other contracts if material, according to Article 411(3) of Regulation xx/xxx [CRR], by applying the method described in Section 1.

As alternatives to the method described in Section 1 institutions may calculate their additional outflows in one of the following ways:

- (a) according to the method described in Section 2, where the conditions of Article 3 are met;
 - (b) according to the method described in Section 3, where the conditions of Article 5 are met.
2. In the course of the calculation of the additional outflows according to paragraph 1:
- (a) institutions shall not include outflows or inflows in the form of partial or final settlements;

(b) institutions shall not include outflows or inflows that result from value changes in collateral posted;

(c) institutions shall not combine methods for calculating their additional outflows for all their relevant transactions and contracts;

(d) institutions shall not revert from the use of the method described in Section 1 to the use of the method described in Section 2, or from the use of the method described in Section 3 to the use of the methods described in Section 1 or 2.

Explanatory comments for consultation

Paragraph 1 reiterates the mandate of Article 411(3) CRR that other contracts should be included into scope “if material”. The EBA understands this provision mostly to be related to the need for proportionality, which is accounted for by means of the Simplified Method of section 2 of this Regulation.

Q1 Is there any specific category of contracts subject to this Regulation that could only lead to immaterial additional outflows? If so, could you explain why and clearly specify the type of contract?

Paragraph 2 reflects the understanding of the EBA that “collateral needs” in 411(3) CRR refers to collateral flows that occur in close response to value changes in a transaction or contract. It therewith does not include flows that represent the settlement of a transaction or contract, such as for example at the end of the maturity of a transaction or contract.

Q2 Does the specification in paragraph 2 give sufficient clarity on which flows are included and excluded for the purposes of this RTS? If not, please provide an alternative specification.

Paragraph 2b reflects the understanding of the EBA that the draft CRR limits the scope of this RTS to collateral outflows due to value changes of transactions and contracts themselves and does not include outflows due to value changes in collateral posted. For this reason the methods in this RTS are not designed to also capture outflows due to this latter reason. This means that for some transactions and contracts this RTS does not seem to be relevant, for example in case of an ordinary repo of a government bond, where a collateral call would only be triggered if the value of the bond decreases. This is an effect that is not taken into account by this RTS as it is already covered by Article 411(1) CRR. Such an ordinary repo is therefore excluded from scope. The SFTs subject to additional collateral outflows within the meaning of article 411(3) CRR, are therefore likely to only be a small subset of all SFTs. An example would be a repo contract in which a change in the present value of cash flows on the security (e.g. the government bond) that are to be received within the maturity of the repo contract would have to be compensated by additional collateral flows.

Q3 Would your institution face additional collateral outflows from securities financing transactions for other reason than a decline in value of the collateral? If yes please provide us with a detailed description on the type of contract, the reason for the outflow and the approximate volume.

Paragraph 2c which clarifies that partial use of a method is not allowed, and paragraph 2d, which restricts a reversion to a less advanced method, are both included to reduce incentives for any cherry picking behaviour.

Q4 Are paragraphs 2c and 2d sufficient for reducing incentives for cherry picking behaviour? Are there other specifications that could help this purpose?

Section 1 - Standard method

Article 2-

Determination of additional collateral outflows according to the standard method

1. Where institutions determine their additional collateral outflows according to the standard method, they shall apply the following steps in sequence:
 - (a) Institutions shall re-value each transaction and contract against each of the scenarios and risk factors provided in Annex I.
 - (b) Institutions shall select, for each risk factor in Annex I the scenario that leads to the lowest aggregate value of all transactions and contracts. Within the risk factor 'interest rate', this selection shall be made for each currency. For risk factors and currencies where neither of the two scenarios leads to an aggregate decrease in value of all transactions and contracts, no scenario shall be selected.
 - (c) Institutions shall again carry out a re-valuation of each transaction and contract under the assumption that the scenarios selected under point (b) occur simultaneously on the reporting date.
 - (d) For transactions and contracts outside of a margining set, institutions shall determine the gross amount of additional outflows by adding together all value decreases resulting from the re-valuation of point (c).
 - (e) For transactions and contracts inside of a margining set, institutions shall apply the following process:
 - (i) firstly, they shall aggregate all value decreases resulting from the re-valuation of point (c) and relating to transactions and contracts subject to each such margining set;
 - (ii) secondly, from the amount resulting from point e(i) they shall subtract the sum of all value increases resulting from the re-valuation of point (c) for transactions and contracts subject to the same margining set;
 - (iii) thirdly, they shall aggregate all positive amounts resulting from point e(ii) for each of the margining sets.
 - (iv) finally, they shall determine the gross amount of additional outflows by adding together all the amounts resulting from point e(iii).
 - (f) Institutions shall determine, for each margining set where the outcome of point e(ii) is a negative amount, how much of these negative amounts are considered to be a usable inflow.
-

(g) For each transaction and contract outside of a margining set, where there is a value increase resulting from the revaluation of point (c), institutions shall determine how much of these amounts are considered to be a usable inflow.

(h) Institutions shall aggregate the amounts resulting from points (d) and (e)-(iv) and subtract from this the amounts resulting from points (f) and (g) to obtain the total amount of additional outflows.

2. For the purposes of points (d), (e), (f), (g) of paragraph 1, institutions shall treat a set of transactions and contracts with a single counterparty or with a single central counterparty as defined in Regulation (EU) 648/2012 of the European Parliament and of the Council of 4 July 2012, as a margining set if all transactions and contracts in the set comply with the following:

(a) All transactions and contracts are marked-to-market daily and any aggregate change in value leads to immediate collateral outflows or inflows that fully cover such change in value.

(b) The collateral outflows or inflows take place on a net basis.

(c) If collateral is received on any of the transactions or contracts within the set it can be fully and immediately used to cover outflows on any other transaction or contract within this set.

3. For the purposes of points (f) and (g) of paragraph 1, an inflow shall only be considered usable where all of the following conditions are met:

(i) the inflow of collateral is unilaterally and immediately available to cover outflows to any other counterparty;

(ii) the inflow of collateral is a liquid asset as reported in accordance with Article 404(1)(a) to (c) of Regulation xx/xxx [CRR, unless excluded according to Article 404(2) or Article 404 (3) of Regulation xx/xxx [CRR].

Explanatory text for consultation purposes

The EBA has developed the standard method for institutions that have at least small but material derivative portfolios and therefore can be expected to have the ability to revalue their transactions and contracts. The standard method essentially is a basic stress test and therewith provides a relatively risk sensitive approach to institutions with limited complexity. Notably, the shocks have been predefined, which avoids the need to assess the probability of any of the shocks, which would require institutions to possess advanced modelling techniques and sufficient stress data. As many institutions do not have these capabilities, the EBA therefore proposes to leave the assessment of this probability to the institutions that opt for the advanced model method of section 3 of this RTS.

In paragraph 1, the steps in points a and b, by which the institution determines whether either an upward or downward shock has the highest impact for the specific institutions, enhance the risk sensitivity of the standard method. The EBA however acknowledges that this selection process, which selects the direction per risk factor, does not necessarily always lead to a set of shocks that together produce the highest impact. For example the possibility isn't yet taken into account that inflows received by some of the counterparties may not be fully useable (this is only done in the final calculation of points f and g). The existence of multi-variable derivatives is another reason why the process of points a and b would not necessarily select a combination of shocks producing the highest impact (again notice that by means of point c the final calculation does of course take into account non-linear effects of multi-variable derivatives). However in the interest of keeping complexity at bay the EBA proposes not to account for these effects in the selection process of points a and b. Doing so would for example require institutions to gauge the impact of the direction of each risk factor dependent on all the possible combined settings of the other risk factors. This would be too burdensome and over-complicate the matter.

Point b of paragraph 1 excludes risk factors and currencies for which both the upward as well as the downward shock leads to an aggregate increase in value of all transactions and contracts. The EBA herewith ensures that the outflow estimation according to the Standard Method is also resilient in case of adverse market situations which only affect a subset of risk factors. It would be difficult for a method of limited complexity such as the Standard Method, to lift this restriction and still be assured of adequate conservatism. Note in this respect that the Standard Method is not a method by which the probability of the occurrence of shocks can be accurately measured.

The conditions in paragraph 3 reflect the view of the EBA that institutions should be able to demonstrate that inflows are, amongst others, fully available to fund outflows. To guard against situations where an institution would overbearingly pledge extremely high liquid assets and receive assets of lesser liquidity, the EBA proposes to only recognise estimated inflows if they are extremely high liquid assets. At the same time the EBA welcomes information on collateral practices and is willing, if material, to also consider recognising inflows of lesser liquidity to the extent that they can cover outflows. The materiality of these inflows and outflows for businesses should become apparent over the course of the consultation period.

For inflows that take place within a margining set the EBA sees it as unnecessary to require, amongst others, usability outside of the margining set, to the degree that inflows can fully and immediately fund outflows of transactions and contracts that belong to the same margining set. Given the purpose of estimating additional outflows, which is different from counterparty credit risk, the EBA sees it as unnecessary to expand the role of margining sets in the standard method. Notably, the existence or non-existence of an agreement between two counterparties to mark-to-margin certain positions does not affect the underlying sensitivity of derivative positions to market shocks. For the same reason the EBA has refrained from including the definition of master netting agreements in this RTS.

The EBA also considered whether to incorporate effects of margining triggers. For example it could be the case that a part of initial margins already posted could be used without triggering a new round of variation margins. However, given that this would complicate the calculation considerably, the EBA proposes not to take this effect into account.

Further note that the shocks in annex I have been roughly aligned with the shocks in the EBA 2011 stress test. Nonetheless, the intention of the EBA is to elicit wide feedback on the calibration, and is ready to review the outflow factors on the basis of well-substantiated analysis.

Such analysis should preferably address the characteristics of the scenarios, the scenario selection process and estimations of the impact of the method on the LCR of institutions. Especially useful would be information on which risk factors within the Standard Method have a bigger or lesser impact.

The EBA may consider whether the narrowest of the currency pegs of the ERM II could warrant a lower foreign exchange rate shock in the Standard Method. A possibility is to limit the shock to the largest foreign exchange rate movement before exchange rate intervention becomes compulsory. Incorporating currency arrangements however is new within the prudential framework and may therefore benefit from consultation.

Q5 Are there any aspects of the standard method that you would describe differently? If so, how would you describe these? Are there methodological concerns? If so, what are these and how should they be addressed? Are the scenarios described in annex I appropriately calibrated? If not, how would you suggest improving calibration?

Q6 What transactions and contracts are you aware of that are sensitive to changes in multiple risk factors? How material are they to your institutions stock of assets of extremely high and high liquidity and credit quality as calculated in accordance with Part Six of CRR? Does the standard method capture these adequately? If not, what alternatives would you consider necessary to ensure they are appropriately incorporated?

Q7 How do you view the restriction in paragraph 3 that only additional inflows of assets of extremely high liquidity and credit quality can be recognised outside of margining sets? To what extent do assets of typically lesser liquidity constitute part of collateral flows for your institution? What assets are they? Do these assets typically comprise outflows, inflows or both? How material is it for the LCR of your institution?

Q8 What are the expected implementation costs of the standard method and what is the time you would need for implementation? If possible, please compare it to the implementation costs of the other methods.

Q9 What impact in terms of liquidity coverage requirements do you foresee of the application of the standard method on your institution?

Q10 How would you view an insertion of a special foreign exchange rate shock for currency pairs between the Euro and a currency participating in the ERM II? If positively, what shock factor would be appropriate, taking into account compulsory intervention rates?

The points in paragraph 1 of article 2 correspond to sequential steps that have to be undertaken by institutions in order to obtain the outcome of the standard method. These steps are illustrated by the example below.

Step in point a

The hypothetical bank (henceforth bank x) in this example has only one type of contract in scope that is sensitive to movements in equity prices. This contract is a written call option that refers to an equity listed on an OECD market. This call option has a strike price of €220 whereas the price of the equity at the date of reporting is €200. The 20% upward shock would

lead to an equity price of €240 with the consequence that bank x loses €20 per call option. Assuming bank x has written 500,000 of exactly this option, the upward equity shock would lead to a negative revaluation of €10 mln. Therefore bank x assigns this amount to the upward scenario for the risk factor 'Equity'. If bank x would also have had another type of contract that is sensitive to movements in equity, then the effects of the upward scenario on these contracts would have to be added to or subtracted from the -€10 mln.

Risk factor	Currency (if applicable)	Revaluation (in mln)	
		Scenario upward	Scenario downward
Equity		-10	0

Bank x also has a cross-currency interest rate swap, the price of which depends on the interest rate in currency a (assume that this is the reporting currency), the interest rate of currency b (assume that this is the fourth currency) and the exchange rate between the reporting currency and the fourth currency. In this step each transaction and contract need to be separately tested against all relevant scenarios. This means that bank x shall revalue this swap according to the upward and downward scenarios for the interest rate risk factor in the reporting currency, the interest rate risk factor in the fourth currency, as well as for the foreign exchange rate risk factor. In total, the bank shall therefore separately perform six revaluations, the effect each of which are to be recorded such as in the following table. As can be seen, bank x is particularly vulnerable to the situation in which the interest rate in the reporting currency decreases, that of the fourth currency increases, and the foreign exchange rate of the reporting currency depreciates against all other currencies (a pattern fitting a swap in which the bank receives floating in the reporting currency and pays floating in the fourth currency).

Risk factor	Currency (if applicable)	Revaluation (in mln)	
		Scenario upward	Scenario downward
Interest rate	Reporting currency	+2	-2
Interest rate	Fourth currency	-2	+2
Foreign exchange rate		+4	-4

Assume that after repeating the above procedure for all transactions and contracts bank x would end up with the following aggregate revaluations per scenario.

Risk factor	Currency (if applicable)	Revaluation (in mln)	
		Scenario upward	Scenario downward
Interest rate	Reporting currency	+200	-150
Interest rate	Second currency	-20	-70
Interest rate	Third currency	+11	+12
Interest rate	Fourth currency	-5	+15
Credit risk		-150	+100
Foreign exchange rate		+175	-125
Equity		-10	0
Commodities		-20	+10
Other		-3	+5

Step in point b

The selection of the scenarios that lead to the most negative revaluations is now straightforward and corresponds to the blue shaded cells in the table below. Notice that for the third currency of the interest rate risk factor neither the upward or downward scenario is selected as both only lead to positive revaluations.

Risk factor	Currency (if applicable)	Revaluation (in mln)	
		Scenario upward	Scenario downward
Interest rate	Reporting currency	+200	-150
Interest rate	Second currency	-20	-70
Interest rate	Third currency	+11	+12
Interest rate	Fourth currency	-5	+15
Credit risk		-150	+100
Foreign exchange rate		+175	-125
Equity		-10	0
Commodities		-20	+10
Other		-3	+5

In the further steps, bank x uses the upward scenarios for: the interest rate in the fourth currency, the credit risk, equity, commodities, and other risk factors. Bank x uses the downward scenarios for: the interest rate reporting currency, interest rate second currency and foreign exchange rate risk factors.

Step in point c

Instead of point a, which requires a revaluation for isolated scenarios, point c requires bank x to revalue each transaction and contract according to the assumption that all of the above selected scenarios happen at once. For most transactions and contracts the outcome would not differ between both computations. However in case that a contract depends on multiple risk factors, the outcomes can be significantly different. For example the impact of the combined scenario is likely to be much more severe on the just mentioned cross currency swap: the fact that an exchange rate of the reporting currency depreciates means that the impact of the increased interest rate payment in the fourth currency is exacerbated. So instead of a negative revaluation of €8 mln (2+2+4), the negative revaluations would now be for example €10.

Assume that the total of revaluations would not be €533 mln as is the aggregate of the impacts of the individual scenarios (150+70+5+150+125+10+20+3) but amounts to €550 mln due to the multi risk factor vulnerabilities as illustrated above. Further assume that the €550 mln of negative revaluations is the difference between €1550 mln of gross negative revaluations and €1000 mln of gross positive revaluations.

Step in point d

Bank x needs to aggregate the gross negative revaluations that happen outside of margining sets. Assume that from the total of €1550 mln of gross negative revaluations, €200 mln would have happened to transactions and contracts which are located outside of any margining set.

Step in points e(i) and e(ii)

Bank x needs to calculate for each margining set the net value increase or decrease. For example margining set y with counterparty z which contains five transactions and contracts, three of which have an aggregated value decrease of €7 mln and two of which have an aggregated value increase of €4 mln, would have to be seen as resulting into a net value decrease of €3 mln.

Step in points e(iii) and e(iv)

Bank x needs to aggregate all value decreases that result from the previous step. Assume that this is €550 mln.

Step in point f

Bank x needs to aggregate all positive outcomes that result from the step in point e. Assuming that this adds up to €50 mln, bank x needs to check how much of this amount can actually be used to offset outflows. If €20 mln of this amount does not meet all of the criteria of point h, then only €30 mln of this amount will be considered as a useable inflow.

Step in point g

Assume that the gross positive valuations of transactions and contracts located outside of any margining set is €150 mln in total. As specified in point g bank x needs to check how much of this amount can actually be used to offset outflows. If €40 mln of this amount does not meet all of the criteria of point h, then only €110 of this amount will be considered as useable inflow.

Step in point i

Bank x aggregates the outcome of point d and e(iv) (ie. €750 mln) and subtracts from this amount the useable inflows of points f and g (ie. €110 mln + €30 mln), which results in total estimated additional outflows of €610 mln.

Notice that the final estimation of the outflow is €60 mln higher than the total of negative revaluations as determined under point c, which reflects the fact that not all inflows are fully usable to fund outflow needs that take place outside of the same margining set.

Section 2- Simplified method

Article 3- Conditions of application of the simplified method

1. As an alternative to the standard method, institutions may use the simplified method where their overall additional outflow according to the simplified method does not exceed 5 % of liquid assets reported in accordance with Articles 404(1)(a) to (d) of Regulation xx/xx [CRR], unless excluded by paragraph 2 of that article and only if the conditions of paragraph 3 of that article are met on any day.
-

2. Institutions that fail to meet the condition of paragraph 1 for five consecutive days, or 10 non-consecutive days over a 3 month period, shall notify the competent authority and multiply the additional outflows determined in accordance with the simplified method by a factor of 2, pending adoption of the standard method.

Article 4-

Determination of additional collateral outflows according to the simplified method

1. For transactions and contracts that are sensitive to interest rate movements, institutions shall determine:

(a) the total notional of transactions and contracts that lose market value in case of a downward parallel interest rate shift;

(b) the total notional of transactions and contracts that lose market value in case of an upward parallel interest rate shift.

2. Institutions shall select the larger of the two total notionals of paragraph 1 and split up this total notional according to the maturity buckets provided in Annex II for interest rate risk related transactions and contracts.

3. For transactions and contracts that involve foreign exchange rates or gold, institutions shall determine:

(a) the total notional of transactions and contracts that lose market value where both of the following conditions are met:

- (i) a depreciation of the exchange rate of the reporting currency;
- (ii) a decrease in the price of gold.

(b) the notional of transactions and contracts that lose market value where both of the following conditions are met:

- (i) an appreciation of the exchange rate of the reporting currency
- (ii) an increase in the price of gold.

4. For transactions and contracts that involve equities, institutions shall determine:

(a) the total notional of transactions and contracts that lose market value where there is a price decrease of all equities;

(b) the notional of transactions and contracts that lose market value where there is a price increase of all equities.

-
5. For transactions and contracts that involve equity indices, institutions shall determine:
 - (a) the total notional of transactions and contracts that lose market value where there is a price decrease of all equity indices;
 - (b) the notional of transactions and contracts that lose market value where there is a price increase of all equity indices.
 6. For transactions and contracts that involve precious metals other than gold, institutions shall determine:
 - (a) the total notional of transactions and contracts that lose market value where there is a price decrease of all precious metals except gold;
 - (b) the notional of transactions and contracts that lose market value where there is a price increase of all precious metals except gold.
 7. For transactions and contracts that involve commodities other than precious metals, institutions shall determine:
 - (a) the total notional of transactions and contracts that lose market value where there is a price decrease of all commodities other than precious metals;
 - (b) the notional of transactions and contracts that lose market value where there is a price increase of all commodities other than precious metals.
 8. For credit risk related transactions and contracts, institutions shall determine for each of the outflow factors in table 3 of Annex II the total notional amount of transactions and contracts that are sensitive to movements in the relevant outflow factor.
 9. In order to determine the estimated outflow for transactions and contracts where the value is sensitive to interest rate movements, institutions shall multiply the total notional split up according to paragraph 2 with the outflow percentages of table 1 of Annex II.
 10. Institutions shall:
 - (a) firstly select the larger of the two notionals as determined by each of the paragraphs 3 to 7.
 - (b) secondly, multiply them with the appropriate outflow factors of table 2 of Annex II.
 11. Institutions shall multiply the notionals as determined in paragraph 8 with the appropriate outflow factors of table 3 of Annex II.
 12. Institutions shall aggregate the result of all multiplications in paragraphs 9 to 11 to obtain the aggregate amount of additional collateral outflows for all transactions and contracts.
-

Explanatory text for consultation purposes

The EBA has developed the simplified method for institutions that have small derivative portfolios with limited complexity. The simplified method is intended to provide an uncomplicated approximation of additional outflows for institutions which typically do not have the necessary capabilities to revalue their transactions and contracts. With due regard to the relative size of the underlying portfolios, the accuracy of estimations, while conservative, is perceived prudent. The EBA in this manner provides for a simplified approach to determine additional collateral outflows that is proportionate to the nature, scale and complexity of the institution's underlying derivative portfolios.

In contrast to the standard method, the simplified method provides an approach in which institutions do not have to perform a revaluation of the transactions and contracts. Instead, it only requires a multiplication of the predefined outflow factors of Annex II with the notional amounts of transactions and contracts. Additionally, by the process set out in paragraph 2 institutions have to identify the transactions and contracts, in terms of notional amounts, that are most vulnerable to a downward or upward shift in the market risk factors.

By only selecting the larger of the notionals, as in paragraphs 9 and 10, the effects of negatively correlated positions are roughly taken into account. For credit related transactions and contracts the EBA considers it less likely that a negative correlation under market wide stress would dominate idiosyncratic effects. For credit related transactions and contracts therefore all notionals need to be multiplied with the outflow factors.

Given that the purpose of this RTS is to estimate additional collateral outflows, which is different to calculating own funds requirements for counterparty credit risk, the EBA sees it as unnecessary to assign a role to margining sets or netting sets. Notably, the existence or non-existence of a netting agreement between two counterparties does not affect the actual sensitivity of derivative positions to market shocks.

The outflow factors in Annex II have been calibrated conservatively to provide a strong incentive to institutions to apply for the standard method. Another reason for a conservative calibration is the fact that the Simplified Method is largely risk-insensitive and therefore vulnerable where derivatives have strong non-linearities or if the portfolio of derivatives is very concentrated. The impact of the outflow factors is softened by the rough incorporation of diversification as mentioned above. The intention of the EBA is to elicit wide feedback on the calibration and it is ready to review the outflow factors on the basis of well-substantiated analysis. Such analysis should preferably include a comparison with the standard method and estimations of the impact of the method on the LCR of institutions. Information on the relative impact of outflow factors within the Simplified Method would be especially useful.

The EBA may consider whether the narrowest of the currency pegs of the ERM II could potentially warrant a lower foreign exchange rate outflow factor in the Simplified Method. Incorporating currency arrangements however is new within the prudential framework and may therefore benefit from consultation.

Q11 Are there any aspects of the simplified method that you would describe differently? If so, what are these and how would you describe them? Are there methodological concerns? If so, please provide details of these concerns and how in your view they could be addressed? Are the outflows factors described in annex II appropriately calibrated? If not, please describe how they should they be calibrated, justifying your proposal?

Q12 What are the expected implementation costs of the simplified method and what is the time you would need for implementation? If possible, please compare it to the implementation costs of the other methods.

Q13 What impact in terms of your institutions liquidity coverage requirement do you foresee for the application of the simplified method? How would this compare to the 5% threshold that is specified in paragraph 1 article 3?

Q14 Would a special treatment of the narrowest of the currency pegs of the ERM II be appropriate? If so, what shock factor would be appropriate?

The paragraphs in Article 4 correspond to sequential steps that have to be undertaken by institutions in order to obtain the outcome of the simplified method. These steps are illustrated by the example below.

Steps in paragraphs 1 and 2

A hypothetical bank (henceforth bank q) determines the notional of the transactions and contracts that are sensitive to interest rate movements, which is €49 mln, and how much of this notional loses value in case of a downward parallel interest rate shift and how much of this notional loses value in case of an upward parallel interest rate shift. In case of bank q this is €15 mln and €34 mln respectively.

	Decreases in value if shift is downward	Decreases in value if shift is upward
	Notional (in mln)	Notional (in ml
Instruments where a parallel interest rate shift affects the value	15	34

Bank q selects the highest total notional as determined in article 4(1), which is €34 mln, and splits up this amount according to the maturity buckets in table I of annex II for interest rate risk related transactions and contracts. The total notional of transactions and contracts with a residual maturity lower than one year is €10 mln, with a residual maturity between one year and two years €8 mln, with a residual maturity between two years and three years €12 mln, with a residual maturity between three years and four years €4 mln.

	Notional (in mln)
Instruments where an upward parallel interest rate shift decreases the value	
of which the residual maturity is:	
one year or less	10
between one and two years	8
between two and three years	12
between three and four years	4

Steps in paragraphs 3 to 7

Bank q determines the notionals of the transactions and contracts in which the underlying variables mentioned in table 2 of annex II are involved, and determines what parts of the notionals correspond to transactions and contracts that decrease in value in case of a downward adjustment in the value of the underlying variable and what parts of the notionals correspond to transactions and contracts that decrease in value in case of an upward adjustment in the value of the underlying variable. These notionals are given in the table below. In anticipation of paragraph 11 bank q selects per outflow factor the higher notional (these are highlighted in blue).

	Decreases in value if shift is downward	Decreases in value if shift is upward
	Notional (in mln)	Notional (in ml)
Relevant instruments that involve foreign exchange rates and gold	3	6
Relevant instruments that involve equities	1	5
Relevant instruments that involve equity indices	1	2
Relevant instruments that involve precious metals other than gold	4	3
Relevant instruments that involve commodities other than precious metals	1	2

Steps in paragraph 8

Bank q determines the notionals of the transactions and contracts in which the underlying variables mentioned in table 3 of annex II are involved.

	Notional (in mln)
Sold credit derivatives with a single issuer	
of which the issuer credit rating is AA- or better	5
of which the issuer credit rating is between BBB and A+	2
of which the issuer credit rating is unrated, or BB+ or lower	0
Sold credit derivatives with multiple issuers	
of which the worst issuer credit rating is AA- or better	0
of which the worst issuer credit rating is between BBB and A+	0
of which the worst issuer credit rating is unrated, or BB+ or	0
Sold credit derivatives on a credit index	
of which the worst issuer credit rating is AA- or better	0
of which the worst issuer credit rating is between BBB and A+	0
of which the worst issuer credit rating is unrated, or BB+ or	0
Bought credit derivatives	
of which the worst issuer credit rating is AA- or better	2
of which the worst issuer credit rating is between BBB and A+	0
of which the worst issuer credit rating is unrated, or BB+ or	0

Steps in paragraphs 9 to 12

The calculation of the outflow estimate according to the simplified method is now straightforward. A multiplication is required between the outflow factors of Annex II and the corresponding notionals as determined in the previous steps. As can be seen in the table below, the total estimate of additional outflows for bank q is €6.02 mln.

	Notional (in mln)	Outflow factor	Outflow (in mln)
Instruments where an upward parallel interest rate shift decreases the value			
of which the residual maturity is:			
one year or less	10	1.50%	0.15
between one and two years	8	2.50%	0.2
between two and three years	12	3.50%	0.42
between three and four years	4	4.50%	0.18
Relevant instruments that involve foreign exchange rates and gold	6	15%	0.9
Relevant instruments that involve equities	5	30%	1.5
Relevant instruments that involve equity indices	2	20%	0.4
Relevant instruments that involve precious metals other than gold	4	30%	1.2
Relevant instruments that involve commodities other than precious metals	2	30%	0.6
Sold credit derivatives with a single issuer			
of which the issuer credit rating is AA- or better	5	5%	0.25
of which the issuer credit rating is between BBB and A+	2	10%	0.2
of which the issuer credit rating is unrated, or BB+ or lower	0	30%	0
Sold credit derivatives with multiple issuers			
of which the worst issuer credit rating is AA- or better	0	5%	0
of which the worst issuer credit rating is between BBB and A+	0	10%	0
of which the worst issuer credit rating is unrated, or BB+ or	0	30%	0
Sold credit derivatives on a credit index			
of which the worst issuer credit rating is AA- or better	0	2.5%	0
of which the worst issuer credit rating is between BBB and A+	0	10%	0
of which the worst issuer credit rating is unrated, or BB+ or	0	20%	0
Bought credit derivatives			
of which the worst issuer credit rating is AA- or better	2	1%	0.02
of which the worst issuer credit rating is between BBB and A+	0	3%	0
of which the worst issuer credit rating is unrated, or BB+ or	0	6%	0
			6.02

Section 3- Internal-model based / Unexpected Negative Exposure (UNE) method

Article 5- Conditions of application of the internal-model based / UNE method

1. Where all of the following conditions are met, institutions may apply the internal model-based approach for the estimation of additional outflows:
 - (a) they avail of a permission by their competent authorities to use advanced approaches for the calculation of own funds requirements for counterparty credit risk;
 - (b) these approaches have been properly adjusted according to the requirements described in Article 6;
 - (c) these approaches have been validated for the transactions and contracts or risk factors covered by this Regulation.
2. Where institutions apply the internal-based model approach, they shall apply the advanced approaches to all relevant transactions and contracts covered by this Regulation, regardless of the transactions and contracts these approaches cover under their original scope.
3. Institutions that fail to meet the conditions of paragraphs 1 and 2 shall notify the competent authority and adopt the standard method.

Article 6-

Determination of additional outflows according to the internal-model based / UNE method

1. Where institutions determine their additional collateral outflows according to the internal-model based / UNE method, they shall calculate their additional collateral outflows by applying the following steps in sequence:
 - (a) Institutions shall simulate the value of each of their transactions and contracts at the one-month time horizon, by generating multiple scenarios for the variables relevant to the transactions and contracts. The following conditions shall be met by the institutions:
 - (i) For each transaction and contract, all variables affecting the value of the transactions and contracts shall be incorporated in the simulation.
 - (ii) The amount of scenarios generated shall lead to stable outcomes, which means that a reiteration of all calculations shall not lead to a materially different outcome.
 - (b) Institutions shall calculate for each scenario the sum of additional outflows or inflows that occur within the 1 month period for each margining set. The following conditions shall be met by institutions:
-

-
- (i) Adjustments shall be made to reflect any contractual arrangement that can affect additional collateral outflows, such as one-sided collateralization, minimum transfer amounts.
 - (ii) For the purposes of this calculation any single transaction or contract not part of a margining set shall be considered as a margining set of its own.

(c) Institutions shall compute the total net additional outflows for each scenario by summing the additional outflows determined under (b) and subtract from this amount all inflows as determined under (b) that comply with all of the following conditions:

- (i) The inflow of collateral is unilaterally and immediately available to cover outflows to any other counterparty;
- (ii) The inflow of collateral is a liquid asset as reported in accordance with Article 404(1)(a) to (c) of Regulation xx/xxx [CRR, unless excluded according to Article 404(2) or Article 404 (3) of Regulation xx/xxx [CRR].

(d) Institutions shall list the total ‘net additional outflows’ as determined under point (c) for all scenarios, and shall select the scenario that corresponds to the 99% confidence level by resulting to the 1% highest total net additional outflow.

2. For the purposes of paragraph 1, institutions shall treat a set of transactions and contracts with a single counterparty or with a single central counterparty as defined in Regulation (EU) 648/2012 of the European Parliament and of the Council of 4 July 2012, as a ‘margining set’ if all transactions and contracts in the set comply with the following:

- (a) All transactions and contracts are marked-to-market daily and any aggregate change in value leads to immediate collateral outflows or inflows that fully cover such change in value.
- (b) The collateral outflows or inflows take place on a net basis.
- (c) If collateral is received on any of the transactions or contracts within the set it can be fully and immediately used to cover outflows on any other transaction or contract within this set.

Explanatory notes

The EBA has developed the internal-model based method for institutions with material derivative portfolios and significant modelling capabilities. The UNE method can be opted for if an institution has an approved Expected Positive Exposure (“EPE”) model for the calculation of capital requirements for

counterparty credit risk. Using the EPE model as a base for estimating the additional outflows requires a certain set of adjustments.

Note that in contrast to the standard method, it is inherent to the UNE (Unexpected Negative Exposures) approach to take into account the probability of shocks. This is complex and requires institutions to have the simulation capabilities that are inherent to the advanced models for the calculation of counterparty credit risk. Having approved models is also therefore a prerequisite of the UNE approach.

The UNE approach may be further differentiated from the standard method on the basis that it incorporates the effect of margining set specificities, such as, one-sided collateralization, minimum transfer amounts. This also allows for more precision in case of transactions and contracts that are not subject to margining.

The internal model based method is however fully in line with the standard method by virtue of the conditions in article 6(1(c)) concerning collateral inflows. This reflects the EBA's view that institutions should be able to demonstrate that collateral inflows are, amongst other things, fully usable. For inflows that take place within a margining set the EBA sees it as less necessary to require, amongst other things, re-usability, to the degree that sufficient outflows happen so that all inflows in the same margining set are fully diminished. Given the purpose of estimating additional collateral outflows, which is different to calculating own funds requirements for counterparty credit risk, the EBA sees it as unnecessary to expand the role of margining sets in the standard method. Notably, the existence or non-existence of a netting agreement between two counterparties does not affect the actual sensitivity of derivative positions to market shocks.

Next to the UNE approach, the EBA has also considered the use of a VaR method based on an already approved model for the calculation of own funds requirements for market risk. The use of a VaR approach to determine additional collateral outflows has not been progressed further by the EBA. There are a number of factors supporting this decision, including the fact that there is a wide variety of VaR methodologies, and not all of them will be easily applicable to determining additional collateral outflows. Our view is that these models would require significant adjustments, contrary to the use of existing EPE models, in particular to account for margining sets and both banking book and trading book derivatives. This would involve significant changes to the model and investment on behalf of institutions to adapt it for collateral outflow purposes. Furthermore, there are issues relating to the differences in the time horizon of a 1 day VaR versus a 30 day liquidity coverage requirement and the existence of permanent partial use of approved models. Nonetheless the EBA is ready to review the exclusion of VaR based methodologies, if, over the course of the consultation period, it appears that above-mentioned obstacles can be overcome. Notwithstanding this, it should be noted that it is not possible, under EBA's mandate, to introduce an ex-ante approval process as a prerequisite for the use of such models for liquidity purposes. Consequently, competent authorities cannot pre-approve the appropriateness of the significant changes required to adapt the VaR models for liquidity purposes.

The EBA's mandate under Article 411(3) does not envisage the possibility of creating a new model approval process for national supervisory authorities to administer. This implies that the adjustments and conditions that institutions have to take into account, such as in article 6, need to be detailed in an exhaustive manner in the draft RTS.

Q15 Are there any aspects of the advanced method based on EPE that you would describe differently? If, so please provide details? Are there methodological concerns? If so, please provide details of these concerns and how in your view they could be addressed? Are there any additional adjustments or conditions that you see as appropriate especially in view of an absence of an approval process? If so, please provide details? Is the 99% confidence level appropriate? If not, please justify why?

Q16 Please provide details of what adjustments in the implementation of your EPE model to be considered for the estimation of additional collateral outflows?

Q17 What are the expected implementation costs of the EPE based advanced method and what is the time you would need for implementation? If possible, please compare it to the implementation costs of the other methods.

Q18 What impact in terms of liquidity coverage requirement do you foresee of the application of the internal model based method on your institution?

Q19 How would you view the development of a method based on VaR for the purposes of estimating additional collateral outflows? Could you review this in the context of the abovementioned difficulties?

Explanatory notes

The provisions of this Regulation do not foresee any specific consolidated treatment. To the degree that both the standard method as well as the internal model / UNE method allow for recognition of inflows (also intra-group) the EBA would see an aggregation of the estimated additional outflows of the solo entities as appropriate. On the other hand, in the cases that the implementation of the standard method (and the selection of scenarios therein) leads to an estimation that two solo entities would both experience outflows on the same intra-group transaction, the aggregation of the estimated additional outflows may be harsh.

Q20 Do you foresee any difficulties in calculating the consolidated estimates? If so, what are these difficulties and why do they arise? How material are they? What would be an appropriate alternative treatment?

Explanatory notes

Next to the methods outlined in sections 1 to 3, the EBA is also considering the appropriateness of the historical look-back approach over the course of the consultation period. The EBA notes that while this approach is backward looking, and therefore potentially procyclical, it is also possible that it may be

relatively straightforward to implement. If the EBA incorporates this approach in the finalisation of the RTS, then it would replace either the simplified or standard method, or it would act as a back stop for other methods. It would generally follow the calibration as outlined by the BCBS in January 2013. Under this method institutions would have to identify the largest absolute net 30-day additional collateral outflow realised during the preceding 24 months. Inflows and outflows of transactions executed under the same master netting agreement can be treated on a net basis. The absolute net collateral flow is based on both realised outflows and inflows. However, it is yet undetermined whether coherence should be sought with other parts of this Regulation, such as the condition to only recognise inflows if the conditions are met as specified under Articles 2(c) or 6.1.(b) of this Regulation. Similarly, it is undetermined whether to introduce the concept of margining sets as defined in Articles 2.2 or 6.2 of this Regulation instead of master netting agreements.

Q21 How would you like to see the historical look-back approach calibrated? Please provide details together with a justification.

Q22 Should the method be focused on calendar months or utilize a moving 30 days window? Should the method be based upon full calendar years or be moving with a 24 months window?

Q23 Is the method sufficiently resilient against potential future changes in volatility and against potential future changes in the size or characteristics of a bank's derivative portfolio? If not why and how could any such deficiency be addressed?

Article 7- Final provisions

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

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

Done at Brussels,

*For the Commission
The President*

*[For the Commission
On behalf of the President*

[Position]

Annex I: Scenarios under the standard method

Risk factor interest rate

Scenario upward

- The short term (3-month) interest rate of OECD countries increases with 130 basis points
- The short term (3-month) interest rate of non-OECD countries increases with 230 basis points
- The long term (10-years) interest rate of OECD countries increases with 100 basis points
- The long term (10-years) interest rate of non-OECD countries increases with 150 basis points
- The intermediate interest rates shall be determined by linear approximation, for rates above the 10 year horizon a flat curve is assumed

Scenario downward

- The same as the upward scenario with ‘increases’ replaced by ‘decreases’. The interest rate decreases to 0% at the lowest.

For the risk factor interest rate there is an upward and downward scenario for each currency that the institution is exposed to.

Risk factor credit risk

Scenario upward

For single name transactions and contracts:

- A three notch downgrade of the reference entity

For basket contracts:

- A two notch downgrade for the lowest-rated half of all reference entities

For indices:

- The worst entity in the index has a AA- rating or better: the credit spread of each entity included in the index increases by 30 basis points
 - The worst entity in the index has a rating between A- rating and A+: the credit spread of the each entity included in the index increases by 50 basis points
 - The worst entity in the index has a rating between BBB- and BBB+: the credit spread of the each entity included in the index increases by 75 basis points
 - The worst entity in the index has a rating between B- and BB+: the credit spread of the each entity included in the index increases by 200 basis points
 - The worst entity in the index has a rating of CCC+ or worse: the credit spread of the each entity included in the index increases by 400 basis points
-

Scenario downward

- The same as the upward scenario with 'downgrade' replaced by 'upgrade' and 'increases' replaced by 'decreases'.

Risk factor Foreign exchange rate

Scenario upward

- The reporting currency appreciates vis-à-vis all other currencies. The second most important currency appreciates vis-à-vis all other currencies except the reporting currency. The third most important currency appreciates vis-à-vis all other currencies except the reporting currency and the most important currency.
- The appreciation in the previous bullet shall be:
 - 10% for currency pairs of EUR, USD, GBP, JPY, SFR
 - 15% for currency pairs of EU country currencies with EUR, USD, GBP, JPY or SFR,
 - 20% for all other currency pairs,

Scenario downward

- The same as the upward scenario with 'appreciates' and 'appreciation' replaced by 'depreciates' and 'depreciation'.

Risk factor Equity

Scenario upward

- The value of all equities listed on an OECD country market increases with 20%,
- The value of all equities listed on a non-OECD country market increases with 40%,
- The value of all other equities increases with 60%

Scenario downward

- The same as the upward scenario with 'increases' replaced by 'decreases'.

Risk factor Commodities

Scenario upward

- The market value of all commodities increase with 30%

Scenario downward

- The same as the upward scenario with 'increase' replaced by 'decrease'.

Risk factor Other

Scenario upward

- The market value of all other relevant variables increase with 20%

Scenario downward

- The same as the upward scenario with 'increase' replaced by 'decrease'.
-

Annex II: Outflow factors under the simplified method

Table 1 – Interest rate risk related transactions and contracts	
Residual maturity	Outflow factor
One year or less	1,5 %
Over one year, not exceeding two years	2,5 %
Additional outflow factor for each additional year	1 %

Table 2 – transactions and contracts related to non-interest rate market variables	
Market variable(s) that the instrument is related to	Outflow factor
Foreign exchange rates and gold	15 %
Equit(y)(ies)	30 %
Equity ind(ex)(ices)	20 %
Precious metals other than gold	30 %
Commodities other than precious metals	30 %

Table 3 – Credit risk related transactions and contracts				
External rating of reference asset	Outflow factor for sold/written contracts concerning credit – single issuer	Outflow factor for sold contracts concerning credit – multiple issuers	Outflow factor for sold contracts concerning credit index	Outflow factor for bought contracts concerning credit
AA- or better	5 %	5 %	2,5 %	1 %
BBB- to A+	10 %	10 %	10 %	3 %
Unrated, BB+ or lower	30 %	30 %	20 %	6 %

5. Accompanying documents

5.1 Draft Cost- Benefit Analysis / Impact Assessment

1. This part of the note outlines the Impact Assessment (IA) on the methodology of additional, potential outflows that are part of the Liquidity Coverage Requirements. Those outflows 'correspond to collateral needs that would result from the impact of an adverse market scenario on the institution's derivatives transactions, financing transactions and other contracts, if material'. The development of draft RTS covering the potential collateral outflow treatment stems from the requirement presented in Article 411 (3) of the Regulation (EU) proposal of the European Parliament and of the Council on Prudential Requirements for Credit Institutions and Investment Firms (CRR).
2. The EBA has considered three different methods for calculating the outflows corresponding to collateral needs. A table summarising the expected costs and benefits of each method and an estimation of their impact can be found in the annex I. The EBA is also considering the use of the historical look back approach articulated by BCBS in January 2013.

Procedural issues and consultation process

3. The BCBS has previously published guidelines⁶ detailing the elements that should be incorporated in the estimations of outflows related to contract collateral:

'A bank should incorporate cash flows related to the repricing, exercise or maturity of financial derivatives contracts in its liquidity risk analysis, including the potential for counterparties to demand additional collateral in an event such as a decline in the bank's credit rating or creditworthiness or a decline in the price of the underlying asset.'

4. In the same document, regarding collateral management in the context of liquidity, Principle 9 states that:

'A bank that uses derivatives should take into account the potential for contractually specified additional collateral requirements as a result of changes in market positions or changes in the bank's credit rating or financial position'⁷.

5. Finally, as for stress tests the document advises explicitly that 'a bank needs to consider the appropriateness' of the assumptions about 'additional margin calls and collateral requirements'⁸.

⁶ [Principles for Sound Liquidity Risk Management and Supervision](#), BCBS, September 2008, Parag. 40

⁷ Op. Cit. Parag 93

⁸ Op. Cit. Parag. 103

-
6. In January 2013 the BCBS outlined additional requirements for estimating collateral outflows, including inter alia, liquidity needs (eg collateral calls) related to financing transactions, derivatives and other contracts following a 3 notch downgrade and market valuation changes. In particular concerning the latter requirement an historical look back approach to determining increased liquidity needs related to market valuation changes on derivative or other transactions was proposed.

Problem definition

Issues addressed by the European Commission (EC) regarding liquidity management

7. In its impact assessment of the CRDIV framework, the European Commission noted that the existing liquidity risk management approaches and supervisory regimes inadequately captured risks inherent in the underlying market practices and trends. These shortcomings contributed to the failure of several institutions and strongly undermined the financial health of many others, threatening financial stability and leading to unprecedented levels of central bank liquidity and government support.
8. To address this issue, the Commission proposed two minimum standards for funding liquidity. One of these requirements is the Liquidity Coverage Requirement, which aims to ensure that an institution has enough high quality liquid resources to survive an acute stress scenario lasting for 30 days. This requirement will contribute to realising the general objectives of CRDIV framework, as well as the two following specific objectives:

S.1 Enhancing adequacy of capital and liquidity requirements

S.2 Enhancing bank risk management

Issues addressed by the RTS

9. The Liquidity Coverage Requirement is based on a specified scenario that is similar to circumstances experienced in the global financial crisis that began in 2007. It is therewith calibrated to withstand stressed liquidity outflows that occur during a combination of institution-specific and systemic stress. The issue that this RTS helps to address is how to incorporate this level of stress in the collateral outflows on derivatives (and similar positions) that are assumed in the LCR. In specific, this RTS focuses on the capture of adverse changes in market valuation of derivatives (or similar transactions and contracts) that contractually require collateral in such case. In such a case, the institution will face additional liquidity outflows, as it will have to post additional collateral.
10. The draft RTS provides three different methods varying in sophistication.

Objectives of the RTS

11. All institutions are required to calculate the amount of additional collateral outflows in determining their Liquidity Coverage Requirements. The draft RTS will assist institutions in fulfilling their Liquidity Coverage Requirement with regard to the assessment of the collateral outflows relating to derivative transactions, financing transactions and other contracts if material. The objectives of the draft RTS are:

- a) To specify transactions for which an institution should calculate additional outflows related to the posting of collateral – with respect to their materiality;
- b) To specify adverse market conditions that have to be applied, depending on the method;
- c) To specify different calculation methods according to the amount and complexity of an institution's position in relevant transactions and contracts and commensurate with the overall size and sophistication of the institution.

Technical option proposed

12. The underlying principle for developing these methods was that, for any given portfolio, less complex methods will be less resource intensive to implement, but produce more conservative estimates. However, for institutions undertaking small positions in derivatives and other transactions and contracts as described in CRR 411(3), using the simplest approaches should facilitate the estimation of collateral outflows without having much impact on the estimated amount of outflows in absolute terms. The more complex methods should provide a more precise identification of liquidity needs and smaller estimates of outflows, when this is appropriate. Therefore, institutions should have more incentives for using more advanced (and more precise) methods as the volume of contracts requiring collateral grows. The EBA expects each institution to choose the most adapted method given the volume of relevant transactions and contracts it holds.

13. Three different methods of calculation of the outflows were developed:

Method 1 - Simplified Method

14. The simplified method is the simplest method available. It disregards cash flows and market conditions in the calculation and it only uses notional amounts of relevant transactions and contracts and a table of coefficients. In this respect, the approach is similar to the mark to market method used in the CRR for credit counterparty risk. Therefore, most credit institutions are familiar with it. The difference however is that some diversification is roughly taken into account by only selecting the notionals of the transactions and contracts that lose value in case of a certain shock. On the other hand the coefficients are higher than the mark to market method, partially also to provide incentives to move to the more advanced approaches. The simplicity of the approach does not allow for a detailed identification of negatively correlated positions.

Method 2 - Standard Method

15. This method is more demanding as it requires the institution to perform revaluations for each transactions and contracts according to pre-defined market shocks, and subsequently determine the additional collateral outflows according to real world conditions. Also the institution will have to determine whether either an upward or downward change in a risk factor leads to higher outflows. The shocks for the risk factors have similar dimensions as the shocks used in the EBA stress test exercise of 2011. The fact that inflows can also be taken into account implies that the standard method is more accurate and also more lenient than the simplified method. Another implication is that the effects of diversification are recognised if diversification takes place within a shock of one single risk factor whereas diversification between risk factors is not recognised.

Method 3 - Advanced Method

16. This method is the most resource intensive and precise. The Unexpected Negative Exposure (UNE) method requires banks to use their expected positive exposure (EPE) simulation engine for a different purpose and somewhat different population, i.e. the relevant transactions and contracts within scope. The advantage of the approach is that the UNE method, can, in contrast to the standard method, also facilitates judgments on the probability of a scenario occurring. Therewith it can attach confidence levels to certain levels of additional outflow that may occur. The aim of this RTS is to specify the steps by which realistic estimations for additional outflows can be made. This may ultimately involve the prescription of the confidence level and further specifications regarding the underlying simulation.

Impact of the proposals

17. The costs arising from complying with the LCR (e.g. potential changes to the balance/off-balance structure of the balance sheet, lengthening the maturity of wholesale funding, increasing the holdings of highly liquid assets) are driven by the requirements of the Level 1 text and have already been included in the impact assessment published by the Commission. Nonetheless, for institutions with significant derivative portfolios the calibration of the methods could have a material impact. Many of the questions for consultation are aimed at eliciting strong evidence and substantiated views on the impact of the methods and materiality of additional collateral outflows as a source of liquidity risk.
18. Compliance with the requirements of this RTS will generate direct compliance costs to meet reporting and documentation requirements, for record keeping, hiring new staff and/or professional advisers and changes to the IT infrastructure. These costs will vary between institutions and in particular will be depending on:
- ▶ the scale (volume) of activity in contracts requiring collateral - ranging from no transactions and contracts of such type to the business model relying on such transactions and contracts solely. This may translate into negligible costs for no activity (simplified method) or high costs for huge activity (advanced method);
-

-
- ▶ the complexity of contracts (derivatives) and the complexity of margining agreements – ranging from plain vanilla contracts only to the sophisticated, exotic contracts. The higher the complexity the higher the costs.
 - ▶ the level of institution's to date development in liquidity risk management, IT solutions, data marts and modelling.

19. When developing the requirements proposed in this RTS, The EBA has taken in account the proportionality of its proposals on institutions and other stakeholders. Smaller banks should use the simplest methods, which will require fewer resources to be implemented.

20. The Joint-ESAs RTS on margin requirements for non-centrally-cleared derivatives under Art. 11 of the EMIR may affect the ability of institutions to re-use collateral. The EBA is mindful that this may also affect the impact of this Regulation.

21. This RTS will ensure that Institutions use the same risk sensitive practices to calculate the liquidity additional outflows corresponding to contracts collateral needs under adverse scenario. It will reduce also compliance costs for cross-border institutions as well as a more effective coordination of supervisory efforts from these types of institutions.

<p>Q24: Do you agree with our analysis of the impact of the proposals in this CP? If not, can you provide any evidence or data that would explain why you disagree or might further inform our analysis of the likely impacts of the proposals?</p>
--

5.2 Overview of questions for Consultation

- Q1. Is there any specific category of contracts subject to this Regulation that could only lead to immaterial additional outflows? If so, could you explain why and clearly specify the type of contract?**
- Q2. Does the specification in paragraph 2 give sufficient clarity on which flows are included and excluded for the purposes of this RTS? If not, please provide us with an alternative specification.**
- Q3. Would your institution face additional collateral outflows from securities financing transactions for other reason than a decline in value of the collateral? If yes please provide us with a detailed description on the type of contract, the reason for the outflow and the approximate volume.**
- Q4. Are paragraphs 2c and 2d sufficient for reducing incentives for cherry picking behaviour? Are there other specifications that could help this purpose?**
- Q5. Are there any aspects of the standard method that you would describe differently? If so, how would you describe these? Are there methodological concerns? If so, what are these and how should they be addressed? Are the scenarios described in annex I appropriately calibrated? If not, how would you suggest improving calibration?**
- Q6. What instruments transactions and contracts are you aware of that are sensitive to changes in multiple risk factors? How material are they to your institutions stock of assets of extremely high and high liquidity and credit quality as calculated in accordance with Part Six of CRR? Does the standard method capture these adequately? If not, what alternatives would you consider necessary to ensure they are appropriately incorporated?**
- Q7. How do you view the restriction in paragraph 2, point h(ii) that only additional inflows of extremely high liquidity can be recognised outside of margining sets? To what extent do assets of typically lesser liquidity constitute part of collateral flows for your institution? What assets are they? Do these assets typically comprise outflows, inflows or both? How material is it for the LCR of your institution?**
- Q8. What are the expected implementation costs of the standard method and what is the time you would need for implementation? If possible, please compare it to the implementation costs of the other methods.**
- Q9. What impact in terms of liquidity coverage requirements do you foresee of the application of the standard method on your institution?**
-

-
- Q10. How would you view an insertion of a special foreign exchange rate shock for currency pairs between the Euro and a currency participating in the ERM II? If positively, what shock factor would be appropriate, taking into account compulsory intervention rates?**
- Q11. Are there any aspects of the simplified method that you would describe differently? If so, what are these and how would you describe them? Are there methodological concerns? If so, please provide details of these concerns and how in your view they could be addressed? Are the outflows factors described in annex II appropriately calibrated? If not, please describe how they should be calibrated, justifying your proposal?**
- Q12. What are the expected implementation costs of the simplified method and what is the time you would need for implementation? If possible, please compare it to the implementation costs of the other methods.**
- Q13. What impact in terms of your institutions liquidity coverage requirement do you foresee for the application of the simplified method? How would this compare to the 5% threshold that is specified in paragraph 1 article 3?**
- Q14. Would a special treatment of the narrowest of the currency pegs of the ERM II be appropriate? If so, what shock factor would be appropriate?**
- Q15. Are there any aspects of the advanced method based on EPE that you would describe differently? If so please provide details? Are there methodological concerns? If so, please provide details of these concerns and how in your view they could be addressed? Are there any additional adjustments or conditions that you see as appropriate especially in view of an absence of an approval process? If so, please provide details? Is the 99% confidence level appropriate? If not, please justify why?**
- Q16. Please provide details of what adjustments in the implementation of your EPE model to be considered for the estimation of additional collateral outflows?**
- Q17. What are the expected implementation costs of the EPE based advanced method and what is the time you would need for implementation? If possible, please compare it to the implementation costs of the other methods.**
- Q18. What impact in terms of liquidity coverage requirement do you foresee of the application of the internal model based method on your institution?**
- Q19. How would you view the development of a method based on VaR for the purposes of estimating additional collateral outflows? Could you review this in the context of the abovementioned difficulties?**
-

Q20. Do you foresee any difficulties in calculating the consolidated estimates? If so, what are these difficulties and why do they arise? How material are they? What would be an appropriate alternative treatment?

Q21. How would you like to see the historical look-back approach calibrated? Please provide details together with a justification. Should the method be focused on calendar months or utilize a moving 30 days window? Should the method be based upon full calendar years or be moving with a 24 months window?

Q22. Is the method sufficiently resilient against potential future changes in volatility and against potential future changes in the size or characteristics of a bank's derivative portfolio? If not why and how could any such deficiency be addressed?

Q23. Do you agree with our analysis of the impact of the proposals in this CP? If not, can you provide any evidence or data that would explain why you disagree or might further inform our analysis of the likely impacts of the proposals?
