

EBA/CP/2017/23

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Consultation Paper

Draft Implementing Technical Standards amending Commission Implementing Regulation (EU) 2016/2070 with regard to benchmarking of internal models



Contents

1.	Responding to this consultation	3
2.	Executive Summary	4
3.	Background and rationale	6
	Draft Implementing Technical Standards amending Commission Implementing Regulation J) 2016/2070 on benchmarking of internal models	12
5.	Accompanying documents	15
6.	Draft cost-benefit analysis / impact assessment	16



1. Responding to this consultation

The European Banking Authority ('EBA') invites comments on all proposals put forward in this paper.

Comments are most helpful if they:

- indicate the specific point/section 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.

Submission of responses

To submit your comments, click on the 'send your comments' button on the consultation page by 31 January 2018. Please note that comments submitted after this deadline, or submitted via other means may not be processed.

Publication of responses

Please clearly indicate in the consultation form if you wish your comments to be disclosed or to be treated as confidential. 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

The protection of individuals with regard to the processing of personal data by the EBA is based on Regulation (EC) N° 45/2001 of the European Parliament and of the Council of 18 December 2000 as implemented by the EBA in its implementing rules adopted by its Management Board. Further information on data protection can be found under the Legal Notice section of the EBA website.



2. Executive Summary

Article 78 of Directive 2013/36/EU (CRD IV) requires competent authorities to conduct an annual assessment of the quality of internal approaches used for the calculation of own funds requirements. To assist competent authorities in this assessment, the EBA calculates and distributes benchmark values against which individual institutions' risk parameters can be compared. These benchmark values are based on data submitted by institutions as laid out in EU Regulation 2016/2070 which specifies the benchmarking portfolios, templates and definitions to be used as part of the annual benchmarking exercises.

For the 2019 benchmarking exercise, changes to the market and credit risk portfolios as well as minor changes to the reporting templates and instructions are necessary to keep the portfolios up to date and the reported data relevant for the abovementioned assessment.

Market risk

The current set of market portfolios are based on the Basel Committee on Banking Supervision portfolios and have featured in the benchmarking exercises (hereafter BM) for the years 2016 and 2017 (they will also be applicable in 2018). Experiences during the 2016 and 2017 exercises have shown that the participating institutions' expectation of a smooth implementation has only partly been fulfilled. One reason for this might be that Basel SIGTB portfolios, which do not only consist of plain vanilla instruments, were designed for internationally active institutions. Especially medium sized institutions (who represent the majority of the participating institutions in the EBA BM) had significant problems in both valuing and modelling certain portfolios with their internal market risk models which might have led to miscalculations of both the IMVs and risk measures. Additionally, even some full-use institutions provided feedback that they experienced difficulties in valuing and modelling certain instruments. The portfolios for the 2018 benchmarking exercise were adapted to solve some of these issues by deleting some and simplifying other portfolios.

Moreover, repeated use of the same hypothetical portfolios across a number of years might allow institutions to engage in "window dressing", using past calculations to get closer to the potential benchmarks. This hazardous behaviour is nearly impossible when new portfolios are benchmarked.

Lastly, the introduction of new and different portfolios will be important in view of the setup of the benchmarking exercise in the context of the Fundamental Review of Trading Book (FRTB) framework.

Therefore, EBA proposes a new set of market risk benchmarking portfolios that take on board suggestions and feedback from institutions during interviews held as part of past Market Risk benchmarking exercises.



Credit risk

The benchmarking exercises carried out in 2016 and 2017 highlighted some potential for improving the definition of the benchmarking portfolios and the reporting instructions. Clear and unambiguous definitions and instructions are necessary to foster a unique and coherent interpretation and implementation of the reporting requirements across institutions and, in turn, lead to better data quality and more accurate benchmark values. The main changes related to credit risk are the following:

- Separation of on-balance sheet and off-balance sheet exposures;
- Replacement of RWA* and RWA** with confidence intervals;
- Separation of specialised lending exposures and other credit risk exposures;
- Making consistent use of the economic sector classification for portfolios covering exposures to sovereigns and institutions;
- Refinement of the split by collateral type.

Implementation

Given the type of changes introduced by these draft ITS to the benchmarking portfolios as well as the reporting instructions and templates, the relevant Annexes are replaced in whole with those set out in these draft ITS in order to create a consolidated version of the updated draft ITS package.

These revised benchmarking portfolios and reporting requirements are expected to be applicable for the submission of initial market valuation data in Q3 2018 and of other market and credit risk data in 2019 (i.e. with reference date 31 December 2018).



3. Background and rationale

Article 78 of Directive 2013/36/EU (CRD IV) requires competent authorities to conduct an annual assessment of the quality of internal approaches used for the calculation of own funds requirements. The same Article requires the EBA to produce a report to assist competent authorities in this assessment. The EBA's report is based on data submitted by institutions in accordance with EU Regulation 2016/2070, which specifies the benchmarking portfolios, templates, definitions and IT solutions that should be used as part of the annual benchmarking exercises by institutions using internal approaches for market and credit risk.

As part of these annual benchmarking exercises, the EBA collects feedback from institutions as regards the clarity of the benchmarking portfolios and reporting instructions as well as from competent authorities as regards the relevance of the portfolios and accuracy of benchmark values. Feedback from institutions is mainly gathered via interviews with selected institutions and direct contact between institutions and competent authorities, while feedback from competent authorities is shared with the EBA via a dedicated expert group dealing with the benchmarking of internal models.

Some of the feedback received suggested changes to Regulation 2016/2070 which are deemed necessary to provide clearer instructions of reporting requirements, better data validation and more relevant portfolios for which benchmark values can be calculated. The changes are described separately for market risk and credit risk in the following sections.



3.1 Market risk changes

The market risk (MR) benchmarking exercise is a market risk weighted assets (MRWA) variability assessment performed across institutions that have been granted permission to calculate their own funds requirements using internal models for one or more of the following market risk categories:

- general risk of equity instruments;
- specific risk of equity instruments;
- general risk of debt instruments;
- specific risk of debt instruments;
- foreign exchange risk;
- · commodities risk; and
- correlation trading.

According to Article 362 CRR, the general risk component of debt instruments should refer to the level of interest rates. Similarly, the general risk component of equity instruments refers to the change in value of broad equity-market movements.

Institutions only granted approval for general risk of equity or debt instruments (in accordance with Article 363 CRR) may use a broader definition of general risk (for example, by including elements of credit spread risk (e.g. sector related credit spread) in the interest rate general risk). A separate permission is required for each risk category. Many institutions do not have permission for internal models for all risk categories. The number of contributions for each hypothetical portfolio in this exercise thus varies across the sample.

institutions granted permission to use the internal model for calculating market risk own funds requirements for only one or a selection of the aforementioned risk categories, according to Article 363 (1) ("partial use"), exclude certain risks or positions from the scope of the internal model approval. In this case, the OFR for the risk categories outside the scope of the internal model are calculated according to the standardised approach.

Besides this, as set out in Article 369 (1)(c) CRR, institutions should conduct validation exercises on hypothetical portfolios in order to test that the model is able to account for particular structural features. These portfolios should not be limited to the portfolios defined in BM; however the EBA BM is a useful starting point for institutions to meet this legislative requirement.

The MR measures, requested from institutions' Internal Models / Modelling Units, are VaR ("Value at Risk"), sVaR ("stressed Value at Risk"), IRC ("Incremental Risk Charge") and APR ("All Price Risk") figures for specific financial instruments and aggregated portfolios. Moreover, a preliminary assessment of IMV ("Initial Market Valuation") for each instrument detects the pricing ability of the participating institutions.



The new proposal set out in these ITS takes into account a change in the dates for the submissions agreed at TFSB level in order to facilitate a more efficient process¹; more detailed information about sVaR models, and, more importantly, a substantial change in the benchmarking portfolios that allows more values for supervisory purposes.

This new set of market risk benchmarking portfolios has the following three-layer structure:

- The first layer consists of a set of financial instruments for which IMV ("Initial Market Valuation") shall be computed.
- The second layer consists of individual portfolios defined by combining different instruments, for the purpose of assessing the effect of grouping instruments as well as the effect of partial or full hedging.
- The third layer consists of the definition of the aggregated portfolios, for the purpose of assessing the diversification effects and the implied capital requirements.

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¹The rationale was to give institutions more time to check the IMVs before submitting the risk measures. In addition to that institutions are asked to report MR data earlier to allow for more in-depth analysis.



3.2 Credit risk changes

Separate on and off-balance sheet exposures

The current approach, determined by Q&A 2017_3216, is that in those cases where the CRR does not define a conversion factor (in particular: for on-balance exposures), the CCF used to calculate the weighted average CCF (e.g. column 100 of Annex III C 103) shall be assumed to be 100%.

Therefore, the reported CCF value (column 100 of Annex III C 103) depends mainly on the share of on/off-balance exposures, which obscures the view on the output of the internal models estimating the conversion factors (in AIRB).

Example:

- Bank A On-balance exposure: 80 units; off-balance exposure: 20 units. Conversion factor: 50%. It follows that the reported CCF value (column 100) is (80*100% + 20*50%)/100 = 90%.
- Bank B. On-balance exposure: 90 units; off-balance exposure: 10 units. Conversion factor: 0%. It follows that the reported CCF value (column 100) is (90*100% + 10*0%)/100 = 90%.

While Bank A appears to apply appropriate conversion factor estimation, Bank B is clearly suspicious and should be flagged. This, however, will not be the case in the benchmarking exercise, since Bank A and Bank B both report the same value in Column 100.

→ Proposal: Explicitly separate on and off-balance sheet exposures so that they can be analysed separately (see new column 180 "Balance sheet recognition" created for this purpose in C.102 and C.103, Annex I and Annex II). For off-balance exposures, a weighted CCF should be reported, and these values can be benchmarked since they reflect the outcomes of internal models (in AIRB).

Replace RWA* and RWA** by confidence intervals (C 103.00)

Currently, the interpretation of values reported as RWA* (and RWA**) is raising some issues.

One particular problem is the floor (i.e., $PD^* = max (PD, p^*)$) by which $PD^* = PD$ in most cases. Another problem is that p^* is an (overly) aggressive value as compared to the default rate.

→ Proposal: Replace RWA* by two quantities forming a confidence interval: [RWA-, RWA+]. In this proposal, RWA- is defined in analogy with RWA* with two differences: (i) The PD floor is removed, so that PD* is truly determined by the observed default rate; (ii) The confidence q = 97.5% is lowered to q = 90%. RWA- will then form the lower bound of the confidence interval, since RWA-describes the portfolio RWAs with a PD that is very aggressive w.r.t. the default rate. Analogously, a quantity RWA+ should be defined, the upper bound of the confidence interval, describing RWAs based on a PD that is very conservative w.r.t. the default rate. The formula for RWA+ would be essentially the same as the one for RWA- (RWA*), where, however, p* is the largest value such that the inequality with the inequality sign changed from ≥ to ≤ is satisfied.



Rationale: The proposal would allow a direct comparison on where the actual RWA of the institution's portfolio lie in relation to the confidence interval [RWA-, RWA+] and would thus immediately show the degree of conservatism applied by the institution.

Specialised Lending (C 102.00)

Currently, portfolio definitions do not require specialized lending exposures to be separated from other exposures to corporates, unless banks are using the "Specialised Lending Slotting Criteria" approach to determine RWA. Analyzing various types of exposure together does not appear a natural choice due to the totally different character of these exposures and the, typically, rather different PDs and LGDs. It is reasonable to expect that a large part of PD/LGD/RWA variability among banks is caused by the different shares of "Corporate – Other" vs. "Corporate – Specialized Lending" in the portfolios and not by differences in internal models.

→ Proposal: Specialised lending exposures shall no longer be mixed with other credit risk exposures – portfolios will be defined with a new dimension 'Type of exposure' which defines whether or not specialised lending exposures are to be included. Specific portfolios covering all specialised lending exposures will be defined in table 102 of Annex 1. No other portfolios will include specialised lending exposures.

Specialized Lending (C 101.00)

The list of Corporate counterparties in C 101 is designed essentially as a list of "Corporate – Other" counterparties, so that, typically, banks should not have specialized Lending exposures to these counterparties.

→ Proposal: Clarify that specialised lending exposures are excluded from the scope of C 101. Add a general instruction in Annex IV and remove "Specialised Lending Slotting Criteria" as an option for the Regulatory Approach (column 140 of Annex I C 101).

Institutions portfolios - Sector of counterparty (C 102.00)

Currently, for Institutions portfolios, the sector of counterparty (column 080 in Annex I C 102) is either "Credit institutions" or "Other financial corporations". In addition, "Not applicable" is used for overall portfolios.

→ Proposal: Add Portfolio-IDs for the missing counterparty sector "General governments" to have a complete breakdown.

Sovereign portfolios - Sector of counterparty (C 102.00)



Currently, for Sovereign portfolios, i.e., for the exposure class "Central Governments and Central Banks", the sector of counterparty (column 080 in Annex I C 102) is "not applicable" while the counterparty (column 130 in Annex 1 of C 102) is defined as either "Public sector entities" or "Counterparties other than public sector entities".

→ Proposal: Make use of the counterparty sectors "Central banks", "General governments" and "Credit institutions" in analogy with the portfolios for Institutions. This could replace the current usage of the concept "Public sector entities" as reconciling the FINREP sector definitions with the definition of 'Public sector entities' does not look reasonable.

Missing portfolios by collateral type (C 102.00)

None of the portfolios of template C 102.00 of Annex I has the collateral types g) 'credit derivatives' or h) 'guarantee'. This leads to discrepancies between the sum of all portfolios with defined collateral type and the total. Some banks suggested changing towards complete breakdowns of portfolios which would allow for validations to be put in place and more automated data sourcing.

→ Proposal: Add portfolios with collateral type 'credit derivatives' and portfolios with collateral type 'guarantee'

Annual update of the counterparties (C 101.00)

EBA will update the list of the counterparties in Annex 1, C101.00, in parallel with the industry feedback for this consultation paper. This update aims to remove counterparties that no longer exist and to improve the representativeness of the counterparty sample.



4. Draft Implementing Technical Standards amending Commission Implementing Regulation (EU) 2016/2070 on benchmarking of internal models

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

of XXX

COMMISSION IMPLEMENTING REGULATION (EU) No .../... amending Implementing Regulation (EU) 2016/2070 laying down implementing technical standards with regard to templates, definitions and IT-solutions to be applied in the Union for the reporting referred to in Article 78(2) of Directive 2013/36/EU of the European Parliament and of the Council

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

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

Having regard to Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC², and in particular the third subparagraph of Article 78(8) thereof,

Whereas:

(1) Commission Implementing Regulation (EU) 2016/2070³ specifies the reporting requirements for institutions to the European Banking Authority ('EBA') and to competent authorities in order for them to carry out their assessments of internal approaches ('benchmarking exercise') in accordance with Article 78 of Directive 2013/36/EU. Given that the benchmarking exercise is of at least annual duration, in

OJ L176, 27.06.2013, p. 338.

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³ Commission Implementing Regulation (EU) 2016/2070 of 14 September 2016 laying down implementing technical standards for templates, definitions and IT-solutions to be used by institutions when reporting to the European Banking Authority and to competent authorities in accordance with Article 78(2) of Directive 2013/36/EU of the European Parliament and of the Council (OJ L 328, 2.12.2016, p.1)



accordance with Article 78(1) of Directive 2013/36/EU, and that the focus of the competent authorities' assessments and of the EBA's reports may change over time, exposures or positions that are included in the benchmarking portfolios, and therefore also reporting requirements, need to change accordingly. Therefore, it is appropriate to amend Annexes I, II, III, IV, V and VI.

- (2) To provide institutions and competent authorities with adequate time to implement the amendments set out in this Regulation, it should apply from 1 September 2018.
- (3) This Regulation is based on the draft implementing technical standards submitted by the EBA to the Commission.
- (4) EBA 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 1093/2010⁴.
- (5) Implementing Regulation (EU) 2016/2070 should be amended accordingly,

HAS ADOPTED THIS REGULATION:

Article 1

Implementing Regulation (EU) 2016/2070 is amended as follows:

- (1) Article 3 point 3 lit. b is deleted.
- (2) Article 4 point 2 is replaced by the following text: "An institution shall submit to its competent authority the information referred to in Article 2 by 11 April of each year. The remittance dates of market risk data are set out in Annex V".
- (3) Annex I is replaced by the text set out in Annex I to this Regulation.
- (4) Annex II is replaced by the text set out in Annex II to this Regulation.
- (5) Annex III is replaced by the text set out in Annex III to this Regulation.
- (6) Annex IV is replaced by the text set out in Annex IV to this Regulation.
- (7) Annex V is replaced by the text set out in Annex V to this Regulation.
- (8) Annex VI is replaced by the text set out in Annex VI to this Regulation.

Article 2

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

It shall apply from 1 September 2018.

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⁴ OJ L 331, 15.12.2010, p. 12.



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

Done at Brussels,



5. Accompanying documents

- ➤ Annex 1 (Credit Risk Benchmarking)
- ➤ Annex 2 (Credit Risk Benchmarking)
- ➤ Annex 3 (Credit Risk Benchmarking)
- > Annex 4 (Credit Risk Benchmarking)
- ➤ Annex 5 (Market Risk Benchmarking)
- ➤ Annex 6 (Market Risk Benchmarking)
- ➤ Annex 7 (Market Risk Benchmarking)



6. Draft cost-benefit analysis / impact assessment

6.1 Problem Identification

Article 78 of Directive 2013/36/EU (CRD IV) requires competent authorities to conduct an annual assessment of the quality of internal model approaches, used for the calculation of own funds requirements, and requires the EBA to produce a report to assist them in this assessment. The report of the EBA relies on data submitted by institutions in accordance with EU Regulation 2016/2070, which specifies the benchmarking portfolios, templates, definitions and IT solutions to be used by the institutions as part of the annual benchmarking exercise, when using internal model approaches for market and credit risk.

So far, especially the EBA market risk benchmarking exercise has been relying on the framework of the Basel Committee on Banking Supervision (BCBS) to construct the theoretical portfolios. However, this framework has assisted the EU institutions only to a certain extent, as they mainly address the needs of international (and the most active on trading activities) institutions. Also, these portfolios consist of a mixture of instruments (plain vanilla and exotic derivatives), used by international institutions, something which implies that medium-sized and small institutions may have difficulties in modelling and valuing their portfolios which mainly consist of plain vanilla instruments.

A potential miscalculation arising from the lack of complete guidance could lead to non-consistent application amongst institutions' internal models and potentially to under- or over-valuation of the reported values. The current section assesses the impact of filling in the existing regulatory gap and thus the impact of the ITS.

6.2 Strategic and operational objectives

As mentioned above, the current framework for the conduct of benchmarking exercises does not address the needs of all EU institutions as to the guidance for modelling and valuation of typical portfolios of medium-sized and small institutions. This provides a leeway for free interpretations that could lead to non-consistent application, which contradicts the promotion of the principle of harmonising the supervisory and reporting rules of the EU Regulation. To this end, the strategic objective of the implementation of the current ITS is the harmonisation of the current rules amongst EU institutions. The operational objective to achieve the strategic objective is to create a supervisory and reporting environment to ensure that institutions apply consistent modelling and valuation techniques. The following sections examine the options that could create such an operational environment, as well as the net impact that the implementation of such solutions implies.



6.3 Baseline scenario

For most EU institutions, the current status of reporting the results of modelling and valuations implies increased operational costs and possibly miscalculations which lead to over- or under-valuation of the reported values for the purposes of the benchmarking exercises. Since the extent and magnitude of over- or under-valuations cannot be identified, the impact assessment focuses on the assessment of the net impact on the institutions' operations.

6.4 Options considered

When developing the current ITS, the EBA Staff considered the following options:

Option 1: "do-nothing"

This option implies that credit institutions continue reporting data for the benchmarking exercise using the current guidance and hypothetical portfolios as defined for the exercises up to date. The continuation of the current practice assumes that credit institutions and the EBA have an increased operational cost assigned to providing clarifications and ensuring the consistent submission of data. On the one hand, credit institutions would spend much more time in seeking clarifications on the methodology, while, on the other hand, the EBA would have to work bilaterally with each of the competent authorities to clarify the preferred means of modelling and valuation of the reported values.

The 'do nothing' option would theoretically restrict EBA from dedicating resources to developing and drafting additional guidance to the participating banks. Likewise, the EBA will not bear any one-off arising from the development of additional guidance on the benchmark exercises. Similarly, the national competent authorities (NCAs) and the participating credit institutions would not be expected to bear any one-off costs either.

However, to refrain from drafting the present ITS would involve non-negligible on-going operational cost attributed to the allocation of credit institutions', NCAs' and EBA's human capital to the exchange of questions and answer interchangeably. This also implies the high risk of inconsistent application relating to benchmarking exercises and/or incorrect implementation of modelling, which diverges from the EBA's intended implementation.

Option 2: revision of the guidance related to the benchmarking exercises

The main arguments that support the revision of the guidance on the benchmarking exercises are (i) to enhance the harmonisation of the benchmarking exercises across all EU credit institutions, (ii) to reduce the operational cost assigned to the excessive communication amongst credit institutions, NCAs and the EBA.



The current ITS could achieve the first objective by expanding the portfolios suggested by the Basel Committee on Banking Supervision (BCBS), covering the entire spectrum of EU credit institutions. The expansion of the portfolios would be along the lines of credit institutions' needs on the basis of the feedback received by them. Likewise, the vast majority of the EU credit institutions would receive complete guidance on the application of internal models and valuation methods, enhancing the harmonisation across the EU. At the same time, credit institutions would benefit from a streamlined framework that would reduce the cost of on-going cost of the benchmarking exercises across the EU.

6.5 Cost-benefit analysis

The principle of proportionality applies to all aspects of the impact assessment, including methodology, depth of analysis, level of detail and necessity of quantitative analysis. Being consistent with this principle, the EBA Staff follows the principle of proportionality when conducting of the cost-benefit analyses. Given that the implementation of the current ITS would not have a detrimental impact, the following analysis focuses on the qualitative characteristics. In doing so, it provides rough estimations on the net monetary impact that relates to the conduct of benchmarking exercises.

The net impact on capital requirements, implied by the implementation of the current guidelines, cannot be precisely assessed because, substantially, it would depend on further actions agreed by institutions with NCAs in response of the benchmarking exercise results; however, it is expected to be on average close to zero due to the hypothetical market portfolio exercise framework.

Option 1

Costs: a slight increase of the additional operational cost attributed to the bilateral oral or written communication of best practices. This on-going cost is expected to increase over time as a consequence of the increase in the complexity or requirements of the benchmarking exercises. Magnitude of the costs: negligible

Benefits: one-off benefits (reduction of the existing operational costs) of not dedicating human resources to the drafting the present ITS. Magnitude of the benefits: negligible

Net impact (benefits minus costs): close to zero

Option 2

Costs: the one-off cost of dedicating EBA staff to the drafting of the ITS. There is also a source of negligible cost that relates to the need the EBA to explain the new framework to the national competent authorities and, through them, the participating credit institutions. <u>Magnitude of the costs</u>: close to zero

Benefits: the benefits of this option arise from the harmonisation and transparency of the benchmarking exercises and the consistent modelling and valuation of the reported data.



Although these benefits are not directly observable and are spread in time, they are considered not being negligible and cannot be ignored. <u>Magnitude of the benefits</u>: low

Net impact (benefits minus costs): positive (low)

The cost-benefit analysis above designates that option 2 is the preferred option as it produces a positive, albeit low, impact. Thus, the cost-benefit analysis above justifies the production of the present ITS and its subsequent publication for consultation. Moreover, it is consistent with the feedback and requests of the participating credit institutions which sought clarifications on the methodology of conducting benchmarking exercises.