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Joint Trade Associations' response to CEBS CP12 *Stress Testing under the Supervisory Review Process*

Introduction

We are pleased to respond to CEBS's Consultation paper¹ on stress testing and welcome its strong underlying message that stress testing is an important tool that should be used by firms with different degrees of intensity, depending on the nature, scale and complexity of their activities.

We welcome too the way in which the CP was developed, in conjunction with the CEBS Consultative Panel, which was able to make important changes, with input from industry experts as paper was finalised, in particular by removing elements of the draft guidelines which were unduly prescriptive.

In this response we have assumed that the guidelines contained in CP12 relate only to the use of stress tests in the general ICAAP process, not in the rather more specific context of the CRD's requirements to examine the robustness of advanced rating models to rating migration under Pillar 1.

We are approaching these guidelines in our response, as will our members once they are finalised, as guidance to regulators, not as a way of introducing new requirements on firms. We view the CRD and national implementation as encapsulating the totality of the obligations imposed on the industry.

Regulators should focus on group-wide stress tests

As is to be expected our members vary in the degree of complexity that they apply to their use of stress testing, but all recognise it as a forward looking business tool, which can aid capital and funding planning, inform senior management on changing risk profiles and facilitate the development of strategy and tactics as well as being a regulatory requirement. Stress tests are undertaken at various levels within the group and may focus on particular geographical sectors, business segments or risk types. The tests themselves are also likely to be tailored according to their audience and as such will vary in the time horizon covered and degree of severity applied.

Our members believe that for the regulatory audience, who are also the principal addressees of CP12, group wide, top down stress tests will have the most relevance as they present the firm's view of its likely capital requirements in order to ensure ongoing regulatory compliance with the CRD. We do not expect regulators to routinely review

¹ <http://www.c-eps.org/pdfs/CP12.pdf>

stress tests that are applied at a business unit or geographic sector level, as only by taking a holistic approach will an appropriate aggregate view of future capital requirements be formed.

Stress testing is not a panacea

Stress testing it is not a cure-all. It is an important tool in the risk manager's armoury in assessing the adequacy of the firm's capital. But some risks will not lend themselves to stress testing. Regulators should not therefore expect to see stress testing being applied to all the risks that a firm is exposed to, even if they are material, where capital is not an appropriate risk mitigant.

Neither do we think it is the case that the results of a stress test should automatically be translated into a need for more capital. It is up to senior management to assess the results of a stress test and determine what impact, if any, they should have on the firms capital planning.

Stress testing continues to evolve

Stress testing is more advanced in the field of market risk than in either credit or operational risk and particularly in these last two risk categories there are many uncertainties around the quantitative outputs of stress testing models. These may arise because they are based on historical patterns of activity, the interrelationships between parameters of which may no longer be as strong, or because simplifying assumptions have been made to explain complex connections. Furthermore feedback loops, based on the reaction of market participants to developments may be difficult to describe, and there may also be a shortage of relevant data. It is important to recognise that judgment plays an important role in all aspects of credit/operational risk stress tests, whereas for market risk tests, which are more numerical and statistically based judgment, can be somewhat less relevant.

It is also important to appreciate that the Basel Accord makes specific provisions for recognizing and accommodating variations in the level of sophistication applied to individual categories of risk. Banks which are using internal models for market and credit risk can opt for simpler approaches for operational risk. The point to note is that developmental and sophistication variances do exist across risk types within individual institutions and this needs to be factored into the requirements for stress testing.

So stress testing is as much an art as a science and its use within our member firms varies in its sophistication and continues to evolve. Thus it will be important for regulators to have an ongoing dialogue with the industry in the coming years so we can arrive at a common understanding of the different approaches to and applications of stress testing. We look forward to this.

CEBS Questions

(1) Do you agree with the proposed guidelines?

We have commented below on the draft guidelines.

(2) Do you have further technical comments on the proposal?

No.

ST1. *The Guidelines on stress testing will be applied to all institutions taking into account their size, sophistication and diversification.*

We support the proportionate application of regulatory standards by regulators. Such an approach recognises that different sizes of firm will have different requirements of their stress testing processes and the costs of mandating less complex firms to perform multi-factoral scenario tests are likely to outweigh the benefits.

We note that CEBS envisages more sophisticated scenario tests being employed by large and complex institutions. The scenarios themselves can be relatively homogeneous and straightforward – an oil price spike, gold price collapse, currency devaluation, property crash, country invasion, political instability – but the degree of analysis and results will vary dramatically depending on the size & sophistication of firm. We agree that larger and more complex firms should in general employ more sophisticated techniques but do not think that these scenarios should axiomatically be globally consistent.

Our members will spend more resource on ensuring stress testing processes are appropriate for those portfolios which, in their view, present the greatest degree of risk. It is important to recognise that the stress testing processes employed by a firm across its portfolios will not all be equally sophisticated and uniform. Some less developed parts of the world may have less access to data, for instance.

Techniques, as well as the scenarios employed by large internationally active institutions, may differ from region to region, not least because of different regulators' approaches to stress testing. The responsibility to assess possible dissonances between scenarios employed and how to manage them should remain with senior management as they build a group-wide stress test - there should be no regulatory requirement to apply a homogenous scenario to each and every business unit. We are pleased to note that ST1 does not envisage this.

ST2. *In line with one of the principles listed in the CEBS Guidelines on the Supervisory Review Process (ICAAP 7) institutions should identify their material risks. In general, institutions should conduct stress tests on all the risks they have identified as material.*

We recommend changing the last sentence of ST2 to '*should consider conducting stress tests on all....*'

This proposed change recognises that stress testing is not necessarily an appropriate response to all the risks a firm faces, even if they are material. For instance reputational risk, whilst material, could be managed by having appropriate systems and controls in place to, for instance, ensure new product approval processes are robust. Similarly where a capital model is stress-based, for instance in the calculation of operational risk, further stress testing is not necessary.

In deciding the scope of stress testing our member firms will first list all material risks (as part of the ICAAP process rather than as a separate exercise under ST2) and

identify for which risks capital may be an appropriate mitigant. These particular risks will be stressed to calibrate any capital adequacy impact, but other risks may be examined to identify if there are further improvements in the control environment that could be a better alternative to incremental capital. Our firm view is that capital is not the only answer to potential deficiencies identified under the Pillar 2 process and regulators should not expect firms to respond to each material stress identified by testing by allocating further capital.

Paragraph 23 is we feel a little too prescriptive - not every firm will follow these procedures exactly. We therefore favour the deletion of the last sentences of each of the indented, bulleted sub paragraphs.

ST3. *Based upon the identification of material risks, institutions should derive material risk factors that should be subject to stress testing.*

We agree that the number of risk factors to be stressed should depend on the complexity of the portfolio but observe that more complex portfolios do not automatically require a significantly higher number of risk factors than a less complex one to ensure that a robust stress test is performed.

As paragraph 26 points out past history can be a useful indicator of future performance but also it enables our members learn from past experience. This is why it is important to make allowances for the impact of pre-emptive management action in the design of stress tests and we are pleased that CEBS has recognised this.

Paragraph 27 seems to infer that individual sensitivities can be examined and stressed individually. Whilst this maybe possible in the market risk arena where data is more readily available we do not think that this is always possible when taking a holistic approach as sensitivities are invariably inter-related.

We note that the word 'justify' has crept in to the last sentence. We suggest this be replaced with the word 'explain' to emphasise that the stress testing process is entirely owned by the firm and that there is no need for a regulator to 'approve' it.

ST4. *Depending on their situation, institutions should consider historical and/or hypothetical scenarios.*

At least some of the stress testing scenarios devised by senior management will be designed to push the firm beyond normal operational capacity to near breaking point in order to observe the results. Such circumstances are unlikely to be grounded in past history but more in 'blue-sky' thinking based on emerging threats and opportunities. The main role of historical scenarios in such cases will be to provide broad base-case volatility and correlation estimates as it is difficult to 'strip down' historic experiences into different factors.

ST5. *Stress testing should be based on exceptional but plausible events.*

We agree with this statement and believe it is the role of senior management to make its own assessment of the events that are exceptional but plausible, which should then be subject to robust challenge by the regulator as part of the SREP. The supervisor should not seek to benchmark what is exceptional by providing prescriptive indications of probability/frequency of occurrence.

We are unsure about the meaning of the first bullet point. We see risk appetite and internal capital as similar reflections of the same concept and dependent on each other in a circular relationship. Risk appetite attempts to express the firm's view about the acceptable level of

earnings volatility it is prepared to face, which will inevitably feed through into its capital position. We do not think a firm undertakes separate stress tests for internal capital and risk appetite.

We therefore suggest the deletion or at least the clarification of this first bullet point (although think this would be difficult).

We are also somewhat confused about the third bullet point of paragraph 30, which requires us to 'consider at least one economic cycle'. We view general Pillar 2 stress testing – which we believe is the type being discussed in CP12 – as requiring us to pick identify particular stresses that might happen during an economic cycle, but not requiring us to run the impact of the stress forward for the whole period of the economic cycle.

Firms hold capital buffers in relation to their current capital (not their current capital requirement) in order to give themselves tactical and strategic flexibility, Capital buffers are not aligned to the most severe scenarios a firm can envisage and this inference should be removed by deleting the part of bullet four which references them.

ST6. *Stress testing should in principle be applied at the same level as the ICAAP.*

Our members' preference is that ICAAP will be prepared at the group level, with appropriate input from significant business units, using centralised risk management processes, which are not necessarily specific to a particular jurisdiction. Centrally developed stress testing parameters will be applied to business units, or clusters of similar business units. Expert judgment will then be employed at a group level to calibrate the results of the 'distributed' stress tests and incorporate them into the overall ICAAP, in order to recognise that not all of the 'bad' scenarios will impact an internationally active firm at the same time.

For firms with international operations, host state supervisors should exercise flexibility regarding the level at which stress testing takes place. In many cases, this may include placing reliance on group level stress tests. Where specific stress tests are carried out for host state entities, it should be acceptable practice to carry out stress tests either for the host state consolidated group (if such a group exists) or for material legal entities on a standalone basis. The choice of the approach taken should reflect the way risks are managed by the firm.

ST7. *The frequency of stress testing should be determined in accordance with the nature of the risks to which the institution is exposed and the types of tests performed.*

We support the assertion that the frequency of stress testing should be decided by a firm's senior management on the basis of the nature of the risks to which it is exposed. We welcome the recognition that, for instance, Monte Carlo simulation based stress tests employing multiple factors consume significant amounts of computational resource and cannot be run without appropriate forward planning.

ST8. *Institutions should determine the time horizon of stress testing in accordance with the maturity and liquidity of the positions stressed.*

We support CEBS's proposal that the time horizon over which stress testing should be carried out with reference to the characteristics of the underlying portfolio.

ST9. *Under specific circumstances, supervisors may require institutions to perform ad hoc stress tests at a specific point in time.*

We accept that regulator will always retain the right to request ad hoc stress tests in response to deterioration in the external environment. As we note above however, multi factorial stress

tests cannot be performed at the push of a button and we expect regulators to take this into account to ensure that such ad hoc requests are reasonable.

ST10. *Institutions should use accurate, complete, appropriate and representative data when performing stress tests and the IT resources should be commensurate with the complexity of the techniques and the coverage of stress tests performed by institutions.*

Our impression from reading paragraph 38 is that CEBS believes that stress testing techniques are based on sophisticated IT platforms, organisation and data warehousing facilities; this may not be the case for any but our largest members. Stress testing is typically undertaken using desk top based technology rather than the mainframe resource on which risk and capital management systems rely. Whilst our members aspire to employ more sophisticated technology in due course to assist in their stress testing, regulators should not expect to always encounter this in the immediate future.

As stress tests are often hypothetical and require the use of expert judgment in their application complete and fully representative data sets are not always available. This does not however prevent the use of this type of stress test.

From time to time firms will need to be able to run adhoc stress tests in response to respond perhaps to rapidly changing market conditions. In this situation, even for the most sophisticated institutions this is likely to require adhoc solutions outside of strategic IT frameworks. This standard's requirement that full accurate and complete data be used should not prevent this type of analysis.

We suggest the deletion of the words '...accurate, complete...' from ST10. It is a logical impossibility to make an assessment of these features of the data as applied to historic and hypothetical scenarios.

ST11 – there is no ST11!

ST12. *The management body has the ultimate responsibility for the overall stress testing framework. Where appropriate the management body can delegate certain aspects of this framework to specific risk committees or senior management, keeping the effective oversight.*

Whilst the management body, as with anything a financial institution undertakes, bears the ultimate responsibility for stress testing it will not be intimately involved in the process, as CEBS has recognised.

The focus of the management body should be on group-level scenarios. Oversight of business specific scenarios is likely to rest with business level risk committees to whom senior management will delegate quite a lot of the process around stress testing.

Stress testing is largely a technical process within an institution and there is no need for formal board approval of these technical processes. The role of the board, (probably through its risk sub-committee) will be to review, challenge and approve the scenarios developed by experts to whom senior management will delegate operational responsibility for stress testing. The risk subcommittee will subsequently review the

output and report to the governing body as an aid to their decision making about the strategic direction the group will take.

ST13. *The stress testing process should be an integral part of an institution's risk management framework, with clear reporting lines and communication in an understandable format.*

We have no particular comments to make on ST13.

ST14. *Where deemed appropriate by the institution, it should take remedial measures or actions considering the level of risk exposure as revealed by stress tests and the objectives and risk tolerances defined by the management body.*

We support the recognition in paragraph 43 that senior management's adjustment of risk levels as a result of stress testing will vary according to circumstances and that, implicitly, taking no action can be a valid response.

But institutions may undertake many different stress tests for a variety of reasons, the great majority of which will not come to the attention of senior management. We believe it is only necessary to document decisions resulting from consideration of stress testing results which are actively discussed at management body level.

We note the reference to contingency plans should a specific scenario come to pass. Our members of course develop contingency plans, often informed by their stress testing, but do not develop a contingency plan for each and every scenario tested, only for those which could have a very material impact on the survivability of the firm.

ST15. *Appropriate documentation should be in place to facilitate the adequate implementation of the whole stress testing framework.*

Although the list of factors to be covered by the stress testing documentation in paragraph 47 is reasonable we do not think it should be considered as a tick list by supervisors. An institution must be entirely free to decide how to approach the documentation of its objectives, risk strategies and policies - we do not believe it is CEBS's intention to create such a tick list and it should not be treated as such.

The documentation will be high level and process orientated but is not likely to catalogue the detailed scenarios to be used in stress testing – these will vary over time, based on expert judgment.

ST16. *Institutions should consider periodically whether stress tests are still adequate. In particular, institutions should ensure that assumptions regarding the risk profile and the external environment are still valid over time.*

Again we do not disagree with any of the internal assessment adequacy checking procedures listed in paragraph 48 but would not wish them to be seen as a checklist that all firms should follow – the governance processes surrounding stress testing will vary depending on the nature of a firm's activities, but are likely to be high level rather than very detailed documents, explaining the governance processes and internal committees involved.

For this reason we suggest changing the word 'should' in the second sentence to 'could'.

We think it unlikely that there will be many circumstances in which a review of stress testing processes will take place more than annually; although it may well be that a firm will review its scenarios and parameters more frequently.

ST17. *In line with one of the CEBS's High Level Principles listed in the CEBS Guidelines on the Supervisory Review Process (ICAAP 8) institutions should use stress testing as one (among others) tool to assess the risks in a forward looking manner.*

We have no comments on ST17, which seems to echo ICAAP 8² appropriately.

ST18. *As part of these policies and processes, institutions should conduct stress tests for their positions in financial instruments in the trading book.*

We note that the first bullet of ST18 requires a firm to assess the impact on it of the failure 'of large market participants'. We believe that firms would meet this suggested impact analysis by looking, for instance, at the potential failure of a large counterparty rather than requiring members to consider the impact of the failing counterparty on, for instance counterparty risk in general.

ST19. *For those institutions using internal models for the calculation of capital requirements for market risks, supervisory requirements for stress testing remain unchanged. Their ongoing fulfillment will be considered under the SREP.*

We are pleased to note that CEBS does not consider it necessary to change the existing supervisory requirements for stress testing for our members using internal models for the calculation of Market risk requirements. These are well understood by our members and embedded in their internal processes. In particular we do not believe there is any reason whatsoever to amend the current 10 day holding period and 99 percentile confidence level as this represents an exceptional but plausible stresses in our view. Firms do however routinely explore the impact of tail events as suggested in the paragraph 56.

ST20. *Institutions under the large exposures provisions using the comprehensive method for calculating the effects of financial collateral, or permitted to use their own estimates of LGDs and conversion factors, should identify conditions which would adversely affect the realisable value of their financial collateral*

We would prefer that ST20 & 21 and the accompanying text to be revised in the light of CEBS's ongoing work concentration risk and large exposures.

Requiring a firm to adjust the value of collateral taken into account on a name-by-name basis will create very significant system costs which, in our view, cannot be justified.

We are uncomfortable with the catch-all phrase 'or any other event which may affect the realisation.....' and would prefer its removal.

² <http://www.c-eps.org/pdfs/GL03.pdf> page 23

ST21. *According to Article 114 (3) of the CRD, where the results of the stress testing indicate a lower realisable value of collateral, the value of collateral taken into account for the purpose of determining an institution's LE limits should be adjusted accordingly.*

The wording of ST21 is driven by the CRD Article 114 requirement – which we do not support as it introduces the possibility of double counting with downturn LGD. We think the wording of paragraph 65 could be read as a regulatory dictat, requiring over collateralisation in all circumstances. We therefore recommend the deletion of ST21 and the accompanying para 65 and their merger with ST20, which would then read:

Institutions under the large exposures provisions using the comprehensive method for calculating the effects of financial collateral, or permitted to use their own estimates of LGDs and conversion factors, should identify conditions which would adversely affect the aggregate realisable value of their financial collateral, which should be adjusted accordingly.

Stress testing for IRB institutions

Line 3 of paragraph 69 implies stress testing is the only tool to be used to meet the Annex VII part 4 test. It should be changed to:

'A tool that could be applied is stress testing.'

We disagree with the assertion in paragraph 70 that the institution's available capital resources should 'fully cover credit risks...' as we think it is in conflict with CEBS's acknowledgment that there will be no automatic add-ons as a result of Pillar 2. What matters is that a firm can explain what it would do if an adverse scenario materialised, to ensure that at this future point capital would be sufficient. For this reason we recommend the deletion of paragraph 78.

Finally we do not think the wording 'significant and sustained' is helpful in this context. It is up to the firm itself to identify and justify the time horizon for its stress testing programme.

ST22. *Institutions should regularly project cash flows under alternative scenarios of various degrees taking into account both market liquidity (external factors) and funding liquidity (internal factors).*

We support the assertion that the responsibility for the design of liquidity stress scenarios is the firm's and believe that the scenarios presented in Annex 1 are helpful pointers as to how these should be developed.

ST23. *When assessing the impact of these scenarios on their cash flows, institutions should rely on a set of reasonable assumptions that should be reviewed regularly.*

We have no particular comments to make on ST23.

ST24. *Institutions should have in place adequate contingency plans in the event of the realisation of a liquidity crisis.*

We believe the great majority of our members already have adequate contingency plans in place in the event of a liquidity crisis.

ST25. *To come up with a complete view of various risk positions, stress testing of other risk types may be usefully considered to design “alternative liquidity scenarios”.*

We recognise the value of stress testing other risk areas in informing alternative liquidity scenarios.

As an aside however we do not think that LGD simulations can really provide meaningful, universally applicable information on the management of defaulted assets as an input to liquidity stress testing. The work out of defaulted exposures is always very context specific and we do not believe wider inferences can be usefully drawn.

ST26. *Supervisors may perform their own stress tests based on available data in their assessment of liquidity risk under SREP.*

We believe that it is reasonable and prudent for supervisors to carry out their own stress tests, in addition to those carried out by our members to examine the impact of a liquidity crisis on specific institutions, or the market more generally.