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EBA Report

Recovery planning

Comparative report on the approach taken on recovery plan scenarios

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Executive summary

With the implementation of the Bank Recovery and Resolution Directive (BRRD) in January 2015, recovery planning has become a crucial aspect of European banking groups' planning and risk management. As part of its ongoing efforts to assist supervisors and banks in effectively taking forward recovery planning, the EBA has conducted a second thematic comparative analysis on recovery plans across the EU, after the peer-group study on core business lines and critical functions, which was published in March 2015. This time, the focus of the analysis has been on recovery plans' scenario sections, since this area is crucial in order to assess the effectiveness of a recovery plan.

The ultimate objective of including scenarios in a recovery plan is not to predict which particular sequence of events could prompt financial distress. Rather, it should enable one to assess whether:

- a. the recovery options identified by the institution are robust enough to cope with a wide range of severe shocks;
- b. recovery indicators and trigger levels are appropriate and timely for these options to be executed.

This benchmarking exercise is aimed at supporting national competent authorities', as well as institutions', work by providing an overview of developments in recovery plans' scenario sections as well as identifying best practices and key elements that need improvement.

Overall, the analysis conducted shows that there is diversity among the recovery plans analysed – with some institutions already in line with the requirements of the BRRD and EBA regulatory products (technical standards and guidelines on recovery planning), while others remain at a less advanced stage.

In particular, some areas for improvement, applying to the broader sample, have emerged during the analysis. First, while scenarios should be as institution-specific as possible, their relevance to the institution was not always clear – something that might prevent a meaningful test of individual recovery options. Second, the description of the scenario (both in qualitative and quantitative terms), together with the impacts (both in absolute terms and with respect to the relevant recovery indicators), were not always sufficiently explained, making it hard to understand the severity of the scenarios – a key requisite set out in the BRRD. Third, the depiction of events, as well as the impacts, was often observed to be point-in-time and static, rather than in the form of a sequence of events, which appears to hamper a complete assessment of the overall recovery capacity provided by the options. Finally, the implied link between a plan's scenarios and its indicators and options was sometimes vague, which prevented a thorough assessment of the adequacy of the framework of indicators and the overall recovery capacity.

Introduction

Following the implementation of Directive 2014/59/EU (Bank Recovery and Resolution Directive – BRRD) in January 2015, and in accordance with the EBA’s role in contributing to effective recovery and resolution planning (Article 25 EU Regulation 1093/2010), the EBA aims to provide insights into the development of recovery planning in the European banking sector, inter alia, through peer-group analysis, thereby promoting better and more consistent practices.

In line with this mandate, the EBA compared the recovery plans of 19 European cross-border banking groups with parent institutions located across 10 EU countries, focusing on how institutions have approached and developed their recovery plan scenarios.

Article 5(6) of the BRRD requires institutions to consider a range of scenarios of severe macroeconomic and financial stress relevant to an institution’s specific conditions when developing their recovery plans, including system-wide events and stress that is specific to individual legal entities and groups. To this extent, under its mandate pursuant to Article 5(7), the EBA published guidelines on the range of scenarios to be used in recovery plans (EBA/GL/2014/06) in July 2014, and has specified further the aim of the scenarios in EBA/RTS/2014/11 on the content of recovery plans under Article 5(10) of the BRRD.

This benchmarking report is not a grading assessment, but rather aims to understand how institutions approached the requirements envisaged in Article 5(6) of the BRRD in their recovery plans, and aims to compare the application of the EBA Guidelines on the range of scenarios to be applied in recovery planning. It also considers the credibility and effectiveness of the recovery plans’ scenario testing across a sample of European banking groups.

This report is the second thematic analysis performed by the EBA on recovery planning. It follows the peer-group study on core business lines and critical functions, which was published in March 2015,¹ and aims to support supervisors in conducting their assessment to identify the crucial elements that should be taken into account in recovery plans’ scenario testing. Moreover, the resolution authorities would also benefit from well-structured recovery plans (not only with respect to scenario testing), as the information provided therein is very useful in developing resolution plans. In particular, better recovery plans would support resolution authorities in understanding the recovery strategy of the institution and the effectiveness of its recovery options.

¹ EBA Report on Recovery Planning – a comparative report on the approach to determining the critical functions and core business lines in recovery plans.

1. Approach

1. The choice and size of the sample of recovery plans included in this comparative analysis was driven by the availability of plans and their respective submission dates. The dates of the plans assessed vary from May 2014 to end-August 2015. This also implies some degree of heterogeneity in terms of compliance with the BRRD and the related EBA technical standards, as some plans had been developed before the actual entry into force of the BRRD. However, the BRRD was published in the Official Journal in June 2014, and relevant EBA Technical Standards had already been published in draft form for consultation during the course of 2013,² thus providing for a draft common approach. This exercise has nevertheless been conducted in acknowledgment that, for some of the sample's recovery plans, meeting the full BRRD requirements was still a work in progress.
2. Overall, while recovery plans still remain at very different stages of development, an effort has been made to strike the right balance between choosing a sample size that enables the conducting of a reasonable comparative analysis, while at the same time ensuring that only those recovery plans which were developed when the majority of the EU rules for recovery planning had already been published for some time are included in the analysis.
3. As a consequence, plans finalised by the end of 2014 use either end-2013 or June 2014 as the base year for their scenario sections, while plans finalised in 2015 usually employ end-2014 figures.
4. The sample consists of 19 banks with parent institutions located in 10 different EU countries, representing roughly €12.4 trillion in assets (equivalent to around one third of the total EU banking sector assets). Both the size of the institutions, as well as the countries, are heterogeneous, and therefore the risk of specific size or country bias is limited.
5. The starting point of the analysis was Article 6(5)(f) of the Regulatory Technical Standards (RTS) on the content of recovery plans, which sets out the two main goals of scenario testing:
 - a. test effectiveness of recovery options; and
 - b. test adequacy of recovery indicators.

² Consultation Paper on Draft Regulatory Technical Standards on the content of recovery plans (EBA/CP/2013/01) published on 11 March 2013; Consultation Paper on Draft Regulatory Technical Standards on the range of scenarios to be used in recovery plans (EBA/CP/2013/09); and Consultation Paper on Draft Regulatory Technical Standards on the assessment of recovery plans (EBA/CP/2013/08) published on 20 May 2013.

6. The report investigated whether the recovery scenarios met a number of features, which, in turn, can be seen as prerequisite to fulfil the two objectives of scenario testing: a) relevance and adequacy; b) severity; and c) the existence of an appropriate timeline of events. In order to investigate this, the analysis was conducted through testing the available plans against a series of predefined general questions in the following three main areas:
 - scenario analysis;
 - impact of scenarios; and
 - testing of recovery options.
7. The first section provides insights on the approaches applied by institutions for selecting and describing scenarios of severe financial distress. In particular, the report analyses the number and types of scenarios employed, as well as whether there has been a proper identification of the timeline of events within scenarios. Moreover, this section includes a more detailed investigation of the links between scenarios implemented in recovery planning and the ones applied within regular stress testing or reverse stress testing practices.
8. The second section of this report focuses on the quantitative impact of the events included in the scenarios; that is, the impact on the financial position of an institution and its chosen recovery indicators. The latter is a key aspect of scenario testing, as it allows for verification of whether recovery indicators are relevant and whether they are calibrated at the appropriate levels. Moreover, this section aims to understand whether scenarios are severe enough; that is, if, in the absence of recovery options, the negative events would lead an institution to default or near-default.
9. The third section of this report concentrates on the way scenarios are used by institutions for assessing the feasibility and credibility of their recovery options. In particular, it analyses the number of options tested in the scenarios, the prioritisation of options, and assesses the inclusion of potential impediments to the implementation of recovery measures.

2. Recovery scenarios: Analysis

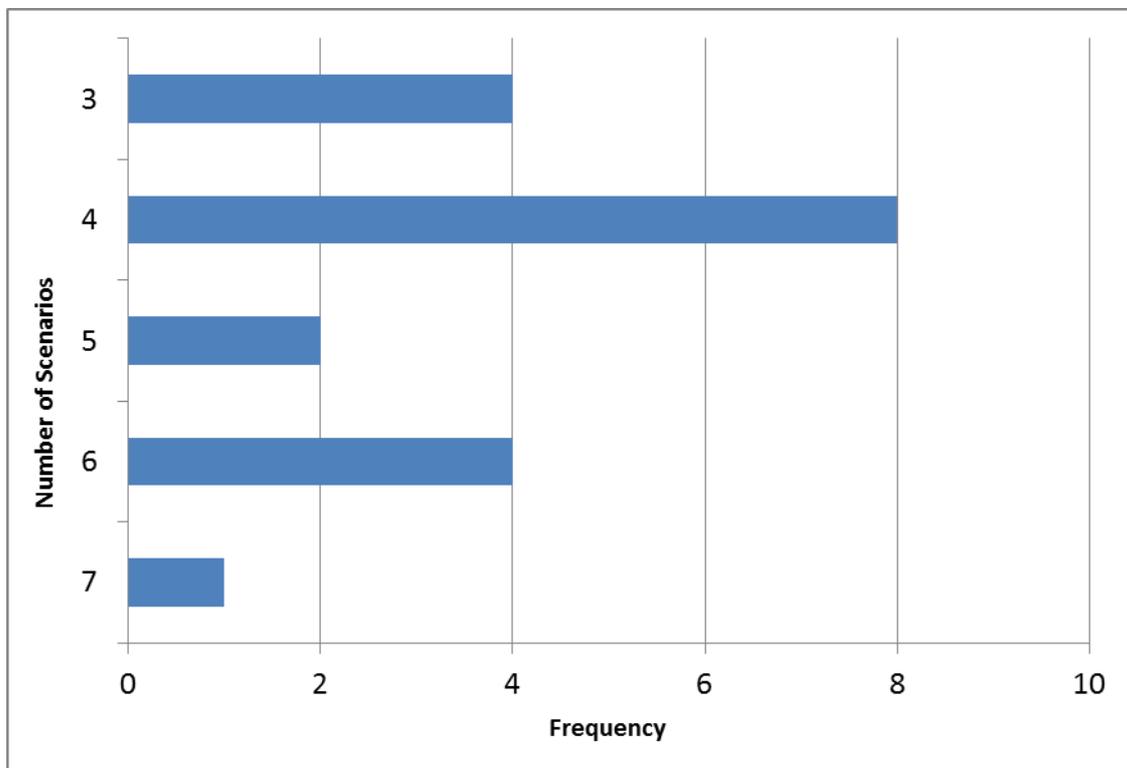
10. The description of the scenarios within recovery plans plays a key role, since it helps to determine whether they are relevant for the institution and are severe enough to allow a proper test of the credibility and feasibility of the recovery options. This implies that the assumptions underlying the scenario should be described comprehensively in both a qualitative and quantitative way. It is important that enough quantitative information on the scenario is provided, since this will help to test the adequacy of the recovery indicators as well as the severity of the scenario itself.
11. At least half of the plans in the sample provide a good understanding of the underlying assumptions and why they have been selected to test options and indicators. For the plans that were at a less advanced stage of development, the main issues identified were the following:
- In many cases, the description of the scenario was provided only at qualitative levels, with no or little detail on the underlying quantitative assumptions. In turn, this made it quite difficult to grasp the severity of the scenario;
 - The relevance of the scenario was not always clear, as references to core business lines and critical functions were missing;
 - While it was often acknowledged that recovery scenarios are somehow linked to other stress test procedures, it was sometimes difficult to understand whether scenarios used for regulatory or internal purposes were also employed for recovery planning purposes. Moreover, very little use of the reverse stress testing concept had been identified;
 - Finally, quite often the scenarios were described as ‘static’ pictures, without an appropriate timeline that could allow the putting into context of the breach of any recovery indicators, the consequent actions to be taken (i.e. the governance of the plan), and the proper implementation of recovery options.

2.1 Number of scenarios

12. The EBA Guidelines on the type of scenarios to be used in recovery plans say that there should be at least three scenarios covering a range of instances: a system-wide event, an idiosyncratic event, and a combination of the two, with the number of scenarios being increased for institutions of systemic importance. The range of scenarios should include both slow- and fast-moving events.

- All the plans included in the sample featured at least three scenarios. A minority (four) of them followed a ‘matrix’ approach, combining the three types of scenario (systemic, idiosyncratic, and combined) with the two speeds of events, thus yielding six scenarios. Only in one case did the recovery plan include three types of scenario and explicitly identify both fast-moving and slow-moving events within each scenario. While the majority of plans analysed three to five scenarios, some room for improvement remains with regard to the following: in some cases, scenarios were defined incorrectly; that is, they were not matched to the relevant categories of systemic, idiosyncratic and combined stress. Rather, sometimes they were identified according to their ultimate effect (i.e. a capital/solvency vs liquidity scenario).
- Sometimes there has been a misunderstanding about the scope of the idiosyncratic scenario, which should refer to a situation having serious negative consequences for a single institution. However, in some cases these scenarios were designed to include events that affect a particular sector/market, which is not important only for the institution itself but for the national economy as well, thus making the scenario something in between a systemic and an idiosyncratic one.

Figure 1. The number of scenarios included – Frequency of events



2.2 Description

13. The EBA Guidelines on the range of scenarios to be included in recovery plans do not provide specific guidance on the type of description that should support each scenario. However, according to Article 5(6) of the BRRD, the range of scenarios should be of ‘severe macroeconomic or financial stress relevant to the institution’s conditions’. Thus, the description should have a sufficient level of detail in order to determine whether the scenario is relevant for the institution and how severe it is.
14. In the majority of the plans analysed, the scenario was well described both through a set of quantitative assumptions and a qualitative narrative. While the level of detail within the qualitative description may vary, this was often accompanied by a series of quantitative assumptions on the main drivers for the scenarios (macroeconomic and market variables in the case of systemic scenarios, and ad hoc indicators in the case of idiosyncratic scenarios). In particular, there were a few cases where the narrative was extremely detailed; the events were described as part of a real ‘story’/logical sequence, and the assumptions underlying the main drivers (e.g. net income, RWA, capital) were laid down very clearly. Sometimes, waterfall charts for net profit, CET1, RWAs and non-performing loans impact were also employed to provide a more efficient visual reading.
15. In other plans, on the other hand, events underlying the scenarios were described in very general terms, without quantitative details about the basic assumptions (e.g. the scenario originates from an x% drop in GDP and/or a fall of z% in certain asset prices). In such cases, the level of detail was often very low, ranging from one/two sentences to three/four bullet points, while the chain of events underlying the scenario was absent, thus making a full understanding of the scenario in terms of relevance and severity more difficult.
16. In general, macroeconomic-based/systemic scenarios were more likely to be characterised by a detailed set of assumptions in quantitative terms, while this was less frequent for idiosyncratic, firm-specific scenarios.
17. While the presence of a timeline of events is not a requirement of the scenarios per se, it can be seen as a ‘derived’ key requirement when using the scenarios to assess the efficacy of the recovery options. According to the RTS on the content of recovery plans, ‘the assessment shall identify which recovery options could be appropriate in a specific scenario [...], and the timeframe required for their implementation’. Therefore, in order to fulfil this objective, it is important that scenarios also allow one to understand how the events unfold. A lack of an appropriate timeline might make it difficult to understand at which point in time certain actions will be developed (with implications for their credibility and feasibility), and to understand how the governance actually works in terms of breach of indicators and the relative procedures to be activated (see also Section 4, ‘Testing recovery options’).

18. To this extent, the analysis showed that just a few plans provided a detailed timeline of details of events during, say, year 1, year 2 and year 3. In fact, most plans provided a ‘static’ description of the scenario, without adding details of the specific time an event occurs or when the impact on liquidity or capital is happening. This makes it quite difficult to assess the interactions between the scenarios and the procedures underlying the governance arrangements, as well as the time when options are implemented.

2.3 Relevance

19. According to the EBA Guidelines, ‘the scenario should be based on events that are most relevant to the institution, taking into account its business and funding model, its activities and structure, its size or interconnectedness’. To this extent, the analysis of the scenario complements the strategic analysis of core business lines and critical functions: in order to be relevant for an institution, a scenario should significantly affect its core business lines or its critical functions.

20. In roughly two thirds of the plans analysed, the scenarios were bank-specific, since they affected geographies or sectors that were particularly important for these institutions. In a smaller number of plans, the scenarios did not seem to be relevant for the bank in the sense described above, as they featured a generic description, with little explanation of why the series of events was relevant to the institution. In some cases, it could be derived that there was some link between the scenario and the institution, since the scenario hit some of the regions where the institution was most active. However, only in one case was it clear that a scenario was not relevant, as it was affecting an area where the exposure of the bank was extremely limited.

21. Nonetheless, it was more difficult to detect a definite impact on the core business lines or critical functions as identified and described in the Art. 6 of RTS on Contents of Recovery Plans (‘Strategic analysis’). Indeed, except in two cases where the links were clearly laid out, the description of the scenario in most of the plans barely mentioned any explicit impact on core business lines or critical functions. However, it should be noted that, in some cases, it could be implicitly derived (i.e. when the scenario originated in one of the core countries or affected a key funding source), but in most other cases it could not, as the impact (qualitative and quantitative) was reported at a centralised level, without providing details on the figures among different business lines/critical functions.

2.4 Number of events

22. The EBA Guidelines on the range of scenarios suggest that the scenarios should be based on a series of events according to their nature. In particular, systemic scenarios should include the following events:

- a. the failure of significant counterparties affecting financial stability;
- b. a decrease in liquidity available in the interbank lending market;
- c. increased country risk and generalised capital outflow from a significant country of operation of the institution or group;
- d. adverse movements in the price of assets in one or several markets;
- e. a macroeconomic downturn.

23. On the other hand, idiosyncratic scenarios should include the following:

- a. the failure of significant counterparties;
- b. damage to the institution's or group's reputation;
- c. a severe outflow of liquidity;
- d. adverse movements in the prices of assets to which the institution or group is predominantly exposed;
- e. severe credit losses; and
- f. a severe operational risk loss.

24. Figure 2 and Figure 3 below represent the frequency of occurrence of specific events both in system-wide and idiosyncratic scenarios.

Figure 2. System-wide scenarios – Frequency of events

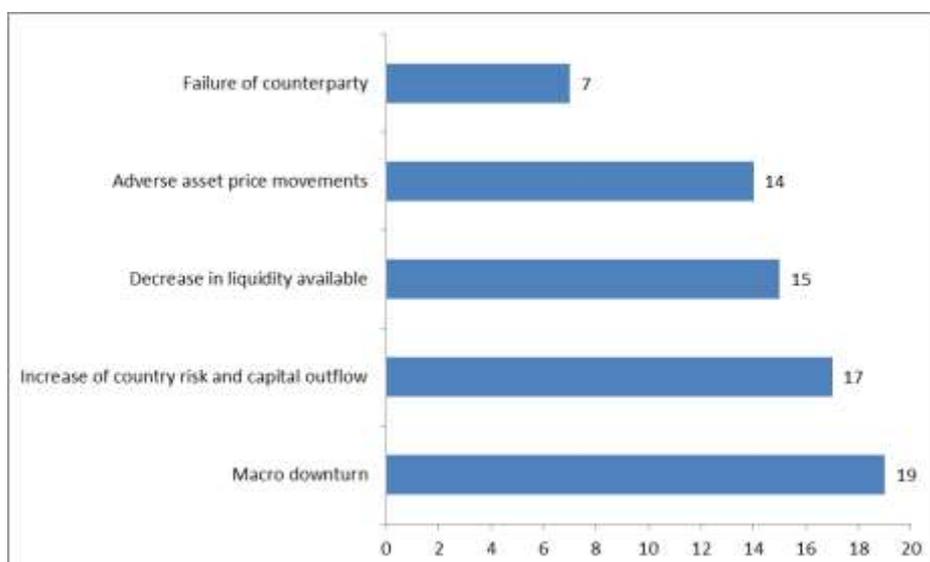
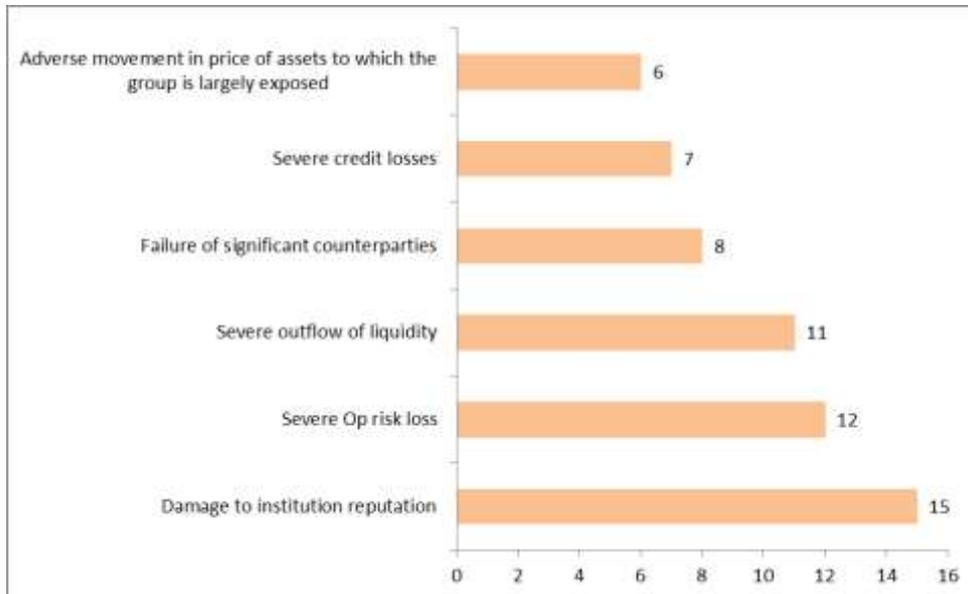


Figure 3. Idiosyncratic scenarios – Frequency of events



25. The figures show that, within systemic scenarios, the most frequent events are given by (extreme) macroeconomic contractions, which are often associated with higher country risk and capital outflow, while operational and reputational events are the most frequent in idiosyncratic scenarios. Quite notably, in both types of scenario, the failure of one or more counterparties is used with lower frequency. While one reason for that might be the fact that the failure of a single counterparty can hardly bring an institution close to default, it should be kept in mind that the events listed above are not meant to provide a one-to-one match with the scenarios (i.e. only one event for each scenario), but of course one scenario can be characterised by more than one event presented in the list.

2.5 Process/motivation

26. While there is no specific requirement in the BRRD or in the EBA technical standards, the explanation of the motivation and the selection process behind a certain scenario often provides important information for understanding the relevance of the recovery scenarios for the institution and the overall approach employed in scenario testing. To this extent, the analysis conducted shows rather diverse approaches among the plans.

27. Roughly one third of institutions provided a dedicated section where the overall approach to stress testing is discussed in detail and an explanation is provided on how recovery scenarios have been chosen. In particular, a couple of institutions described a framework through which the different channels of impact were assessed, allowing for a discussion of the methodology used to estimate the financial impact on solvency, liquidity, profitability and (possibly) the viability of the business model. In particular, it

was highlighted that the scenarios analysed for recovery planning purposes must have a significant impact on the bank's portfolio and an impact on the recovery triggers.

28. In the majority of cases, the plans showed some explanation for the underlying methodology employed to select the scenarios, although the discussion remained at a relatively high level. On the one side, in most cases, the principles that should guide the selection of the scenario were clearly identified; on the other side, such principles were not always linked to the scenarios implemented in the specific case, or only a reference was made to the severity of the recovery scenarios when compared to historical experience.
29. Only a minority of the institutions did not provide any indication for how scenarios were selected and why, but just made generic references to either the EBA Guidelines on the range of scenarios or to internal process documents (e.g. Liquidity Contingency Plan), so in these cases it is difficult to understand which principles and approaches were followed when choosing the scenarios.

2.6 Relation with stress testing exercises

30. The choice of scenarios used for recovery planning purposes clearly follows different criteria when compared to stress testing procedures within risk management practices, which are now part of the standard set of tools used by supervisors and institutions themselves to test the adequacy of the capital and liquidity position and, in turn, identify weaknesses and vulnerabilities in the institution's risk profile. In turn, recovery plan scenarios aim to test the credibility and feasibility of the recovery options and the indicators framework. The differences in objectives, however, does not prevent some methodological elements of other stress testing procedures (especially internal ones, like the ones employed in ICAAP and ILAAP) from also being used for recovery planning purposes.
31. Most of the other plans provided at least some link with ICAAP scenarios, and only a minority did not make any specific reference. For instance, the baseline ICAAP macroeconomic scenario was sometimes employed as a benchmark scenario with which to compare the results stemming from the application of stress factors, or there was simply a general reference to other stress testing procedures in the section describing the selection of "recovery" scenarios. In other cases, the link with other stress testing exercises was much more structured, and the plans reported that the scenario selection in the context of recovery planning was done consistently with the overall stress testing framework and showed how the recovery planning scenarios were a more severe version of the internal stress testing scenarios developed within the ICAAP framework.

32. According to the EBA Guidelines on the range of scenarios to be used in recovery plans ‘Reverse stress testing should be considered as a starting point for developing scenarios that should be only “near-default”; i.e. they would lead to an institution’s or a group’s business model becoming non-viable unless the recovery actions were successfully implemented’. The analysis showed that the use of reverse stress testing was made explicit as a means to identify the highest loss that could bring the institution to its point of non-viability in roughly one third of the plans and, more generally, to test the severity of the scenarios selected for recovery planning purposes. In another case, it was said that reverse stress testing is indeed part of the tools regularly used by the bank, but it is not included within the recovery plan as such a procedure would belong to a resolution plan rather than to a recovery plan.
33. In all the other cases, the link with reverse stress testing was relatively weak, both from a quantitative (i.e. key factors that would drive the institution towards a certain level of loss) and from a qualitative point of view. Indeed, reverse stress testing can be a powerful tool when designing the appropriate recovery scenarios, as it allows the identification of the point of non-viability for the bank and the possible scenarios that would lead to this point.

3. Recovery scenarios: Impact

34. A clear description of the scenarios’ impact represents a crucial part in forming a credible scenario section. A well-defined description of the type of impact a scenario has (i.e. which indicators are breached and which aspects of a group are affected), and the size of the impact (i.e. to what extent are indicators and financial positions of the group breached), will allow judgement of the sufficiency of the scenario’s severity, the adequacy of the recovery indicators chosen, and the appropriateness and applicability of the recovery options.
35. Findings regarding scenarios’ impact are very mixed across the sample. However, two key patterns emerged:
- A clear link between the scenarios and the sections they are intended to ‘test’, in particular recovery indicators and recovery options, was not always well defined;
 - Further, while a quantitative impact description of the scenarios was provided in most plans, often this was done more in a static way with little detail given on the impact development over time in the majority of plans, and differences remain in terms of the number of impact dimensions covered.

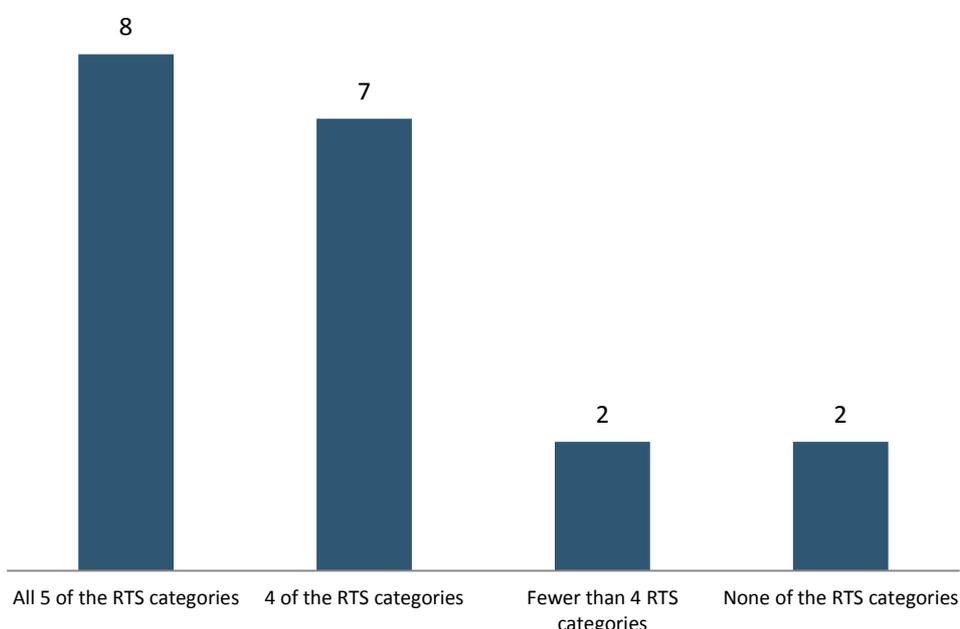
In what follows, these key observations will be further elaborated by providing a more detailed description of the impact of the scenarios and how these have been covered in the sample of plans assessed.

3.1 Impact dimensions

36. The EBA’s RTS on the content of recovery plans³ refer to an assessment of each scenario’s impact on the entities covered by the plan – in particular, on their capital, liquidity, profitability, risk profile and operations. The Guidelines on the range of scenarios⁴ further specify an assessment of events’ impact on at least the above, as well as reputation. Clearly defining the extent of the scenarios’ impact is key to understanding the suitability of options and of the indicator framework, as well as the relevance of the scenarios.

37. The coverage of a scenario’s impact on the group’s indicators and profiles varies across the plans. While almost all of the plans in the sample covered at least capital and liquidity impacts, and consistent coverage was observed for standard matrices such as the CET1 ratio, other categories and indicator groups were often covered by the plans to a much lesser extent.

Figure 4. Impact dimensions covered as specified in the RTS* (by number of plans)



*Impact dimensions specified in the RTS on the content of recovery plans, which are to be assessed for each scenario: capital, liquidity, profitability, risk profile and operations. (Article 5)(f)). For one recovery plan it was not possible to verify this question, so it has therefore been excluded from the analysis for 3.1 and the chart above.

³ [EBA/RTS/2014/11](#), Paragraph 5(f).

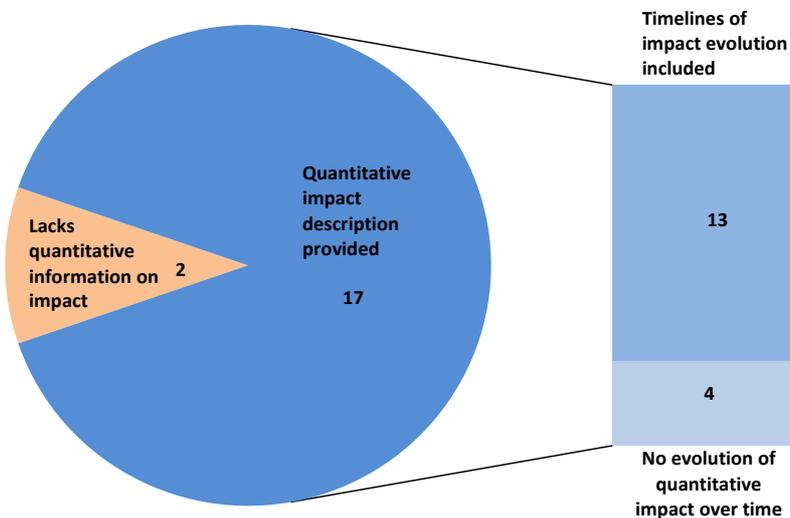
⁴ [EBA/GL/2014/06](#), Paragraph 10.

38. Just under half of the plans included all the five dimensions listed in the RTS. While the vast majority of the other plans cover four impact dimensions, about one fifth of the plans either did not show any explicit impact, or showed it only for capital and liquidity, and sometimes one additional dimension.
39. Operational impact is the dimension that was observed to be missing from the majority of plans in the sample, while reputation was discussed in few of the plans in addition to the above mentioned dimensions.
40. Further, the extent of coverage varied depending on the scenario in some cases; that is, sometimes only the categories that were actually impacted were also described.

3.2 Quantitative impact description of scenarios

41. In order to establish the severity and credibility, as well as the relevance, of the scenarios chosen, it is important to understand the actual quantitative impact of the scenarios on the dimensions described above.
42. The majority of the plans provided details on the quantitative impact of the scenarios, although the extent to which this was done varies widely. All but two of the plans in the sample provided quantitative impact descriptions, but some plans showed the actual quantitative impact only for a selected number of dimensions. So, it may be clearly stated that there is an impact on specific dimensions; however, this impact sometimes cannot be verified for all dimensions.
43. A timeline of quantitative impacts was shown in two thirds of the plans. Again, some of these were only provided for a selected number of indicators (the CET1 ratio evolution being the most frequent choice). Similarly to what was highlighted for the description of main assumptions, more details on the evolution of impacts over time would allow a better understanding of the timeliness and the adequacy of options, for example.

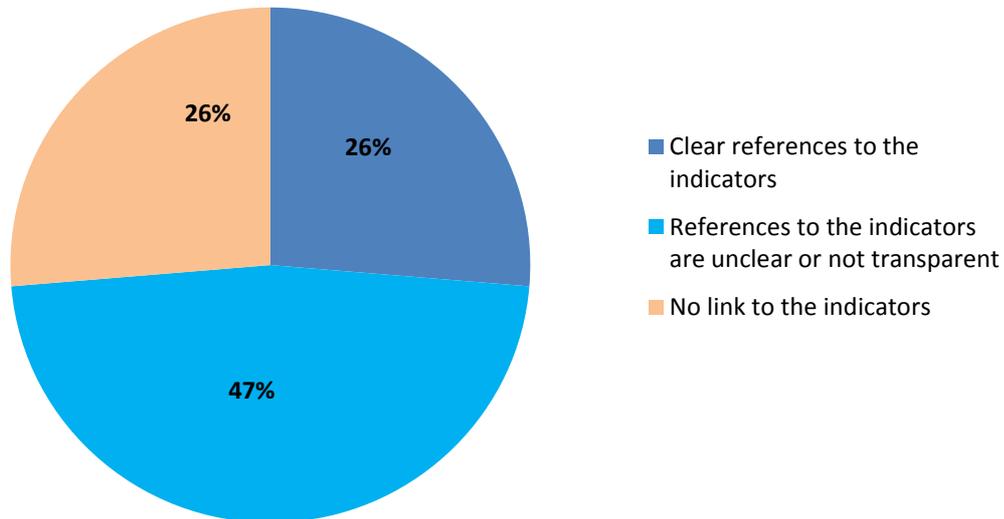
Figure 5. Quantitative impact description of the scenarios (by number of plans)



3.3 Reference to the recovery indicators

44. The reference to indicators as part of the scenario sections has been a key identified weakness. It is crucial to understand the link between a scenario's impact and the specific recovery indicators employed by the group, as only this will allow judgement on the adequacy of the indicators (as envisaged in the RTS on the content of recovery plans), and, again, the adequacy of the scenarios (i.e. whether they are severe enough).
45. Plans varied widely with respect to (i) the establishment of a clear indicator framework in the first place, (ii) reference to indicators in the scenario section, and finally (iii) quantitative reference to the indicators in the scenario section.
46. Only a limited number of plans (a little less than one third of the plans assessed) contained a clear reference to which recovery indicators were breached under the scenarios and how severely (stating actual quantitative levels) the indicators were breached.
47. In some plans, scenario sections were described in complete isolation with no link back to indicators (or options, as will be discussed in Section 4).

Figure 6. Scenarios' reference to recovery indicators



48. A key observation is that, often, a breach of indicators was confirmed in a qualitative way, but was not explicitly identified. At other times, there was no mention of the indicators at all. In some cases, a very detailed description of the financial impact of the scenarios was given, but no comparison could be made with the actual recovery indicators, either because the indicators chosen in the two sections did not overlap, or because the indicator effects were described in different ways (e.g. nominal vs percentage point change). See also similar observations made below on trigger breaches.

3.4 Trigger breach

49. The identification of the trigger breach is crucial. A recovery scenario's main purpose is to test the effectiveness of recovery options and the adequacy of the recovery indicators.⁵ The RTS on the content of recovery plans state that the range of scenarios of financial stress should be used to assess the impact of each scenario on the entities.⁶ Further, the scenarios should allow for the identification of which recovery options would be appropriate, and the overall recovery capacity of the entity or entities. For the latter, it is crucial to see which recovery indicators are breached and to what extent they are breached, since this allows for assessing the time available for the option execution.

⁵ [EBA/RTS/2014/11](#), Paragraph 5(f).

⁶ [EBA/RTS/2014/11](#), Paragraph 5(f).

50. The trigger breach can be identified for all but one plan in the sample. However, the presentation of the trigger breach varied substantially.
51. One can clearly identify the scenarios to trigger a breach of recovery indicators for just under half of the assessed plans.
52. For the majority of the other plans in the sample, clear affirmation of a trigger breach was either difficult or not possible. The reasons why the identification of a trigger breach is sometimes challenging are numerous. There may be a lack of a clear link between triggers and impacts. Sometimes the impact of the scenarios on capital may be quantified in nominal terms while the trigger levels are depicted as a ratio figure. Therefore, the reader would not be able to directly identify whether the nominal capital impact would imply a breach of capital ratios, for example. Another case observed is where the recovery indicators and financials for which the scenario impact is described did not coincide, so judgement and direct comparison was difficult. Other times, only the overall indicator framework may be mentioned, without discussion of the state of individual indicators. Again, other plans simply stated that there was a breach of indicators, without providing any quantitative proof thereof.
53. Only a very small number of plans did not show any of the recovery triggers breached at all, or at least not in all scenarios.

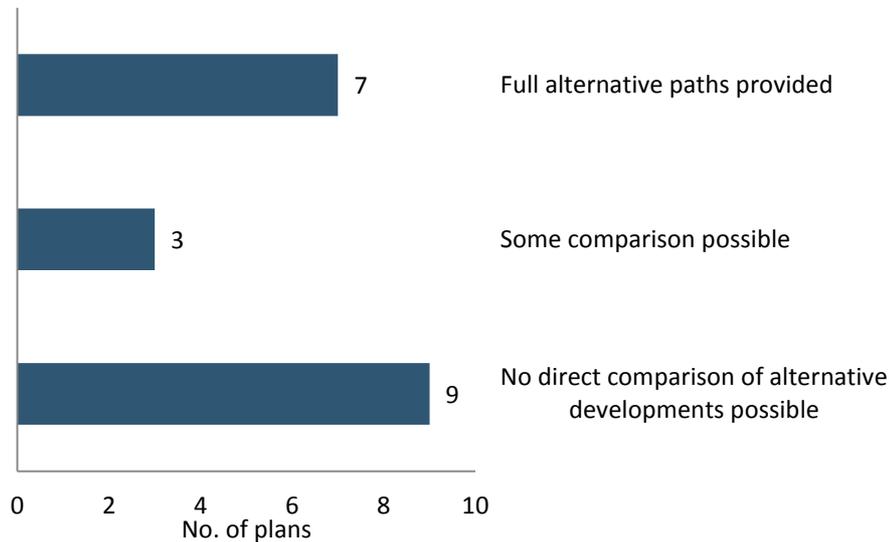
3.5 Dimension triggering the recovery phase

54. The most commonly triggered dimensions are capital and liquidity. In fact, in a lot of plans, scenarios have been titled according to the category in which they trigger a breach (i.e. 'liquidity scenario' or 'solvency scenario') (see also Section 1.1). Over three quarters of the plans see either liquidity or capital levels, or both, breached in their scenarios, with both categories acting as the recovery phase trigger at least once. While, in most cases, a deterioration in asset quality or profitability, for example, of course precedes a weakening of the liquidity or capital position of a bank, the analysis has focused on the latter two for this particular question.
55. For the remainder of the plans, it was sometimes difficult to identify whether it was capital or liquidity that caused the breach. By definition, the absence of clearly defined trigger levels, the lack of a link between recovery indicators and scenario impacts, or in fact the absence of the recovery indicators themselves, as discussed for some plans in the previous sections, does not always allow for a clear understanding of whether it is a deterioration in the capital or liquidity position that kicks off the groups' recovery phases.
56. For some plans, the triggering dimension was difficult to assess, since no timeline had been provided and therefore judgement as to which trigger was breached first was not possible.

3.6 Description of alternative developments (options implementation vs no implementation)

57. Similar to why it is crucial to understand the link between a scenario's impact and the specific recovery indicators in order to allow judgement on the adequacy of indicators, it is absolutely vital to compare the groups' financial development paths in response to a specific scenario, both with and without options execution, in order to identify whether the recovery options chosen and available to a group are effective and enable it to restore financial and economic viability.
58. The picture is, again, very mixed across the sample with respect to the coverage of this aspect.
59. Just under half of the plans included a description of the scenario developments with and without recovery options implemented. Very detailed analysis and description of group figures and key ratios over time allows an immediate perception of the options' effectiveness.
60. Another group of plans included a presentation of alternative developments; however, the detail of the analysis varied. Some plans only mentioned the final overall outcome of all the options combined, with no timelines provided. Only providing the aggregate impact of all options combined prevents an assessment of the credibility of individual options. Some recovery plans also described the alternative developments only for a limited number of indicators.
61. For the remainder of the plans, either no detailed developments were described or the developments were not comparable, since they showed different (granularity in the) timeframes, or indicated developments across a different set of indicators.

Figure 7. Alternative development paths (by number of plans)



4. Testing recovery options

62. The two main purposes of including a range of scenarios in recovery plans are to test the effectiveness of recovery options and to test the adequacy of recovery indicators under stress circumstances that are tailored to the characteristics of a particular institution. This section of the report will focus on the first objective and examine how scenarios of severe financial stress are used by banks to assess the credibility of their recovery plans by showing the overall recovery capacity of an institution in a range of severe but plausible scenarios.

63. It is possible to distinguish between three main areas of analysis related to testing recovery options:

- the impact of recovery options;
- the feasibility of recovery options; and
- the overall recovery capacity.

64. The following sub-sections of this report will describe the main observations from the comparative analysis that are related to all of these three interlinked areas.

4.1 Impact of recovery options

4.1.1 Impact description

65. In line with Article 6(5)(f) of the RTS on the content of recovery plans, each scenario should encompass a description of the impact of negative events threatening the viability of the institution, as discussed in the previous section, and the impact of recovery measures implemented in order to remedy this hypothetical situation. In this context, an appropriate and sufficiently detailed description of the impact of recovery options under predetermined conditions is necessary in order to assess the feasibility of recovery options in a particular scenario. The quantitative description should also include an analysis of the levels of recovery indicators before, during and after implementation of the recovery measures by the institution.

66. A comparative analysis showed that, in the majority of the recovery plans, different levels of detail were provided in describing negative events leading to the near-default situation, and in presenting the expected positive impact of the recovery options applied under these stress scenarios. In particular, a description of the expected impact of recovery measures under testing conditions was less detailed than a corresponding description of events leading to a stress situation. This characteristic was visible both in the smaller number of quantitative/qualitative assumptions and in a lower level of precision in estimating the timeline and the extent of the benefits stemming from the implementation of various options.

67. As indicated in Section 3.4 of this report, only a small fraction of the analysed recovery plans contained a clear reference to recovery indicators and presented the effects of applying recovery options to specific indicators in a quantitative manner. Those institutions which included such descriptions often limited their presentation to the impact on one or two recovery indicators (most frequently CET1 or CT1).

4.1.2 Timing of recovery measures implementation

68. Approximately 40% of the analysed plans provided a timeline for the implementation of the recovery options. Some plans included a detailed description of the timespan and the sequence of particular recovery actions, as well as an estimated timeframe for when particular options would become fully effective.

69. In some plans, a description of the recovery options' implementation timeframe was not interconnected with the timeline of events underlying each scenario, and banks often presented the timeline for implementation of the options in separate charts. On the one hand, this approach added some additional information to the scenario description. On the other hand, in some cases it led to losing the link and continuum between a description of the developments of negative events and the estimated benefits from applying the recovery options under these circumstances. In many plans, the description of the implementation timeframe lacked necessary details and included exactly the same

estimations of expected benefits from applying recovery measures to all scenarios, irrespective of the differences in circumstances underlying these scenarios.

4.2 Feasibility of recovery options

4.2.1 Efficiency of recovery options in general and under specific scenarios

70. The recovery plan should describe the recovery options initially without making any reference to specific scenarios of financial stress. However, the plan should also test the recovery options under specific circumstances of severe financial stress in order to tentatively assess which measures could be efficient in particular situations. The comparative analysis revealed that only some recovery plans include the specific assessment of suitability/feasibility of recovery options under particular scenarios.

4.2.2 Assessment of recovery options' feasibility/effectiveness

71. The comparative analysis showed that there are different approaches applied by banks with regard to assessing the feasibility or suitability of their recovery options under each test scenario:

- Some banks only provided an assessment of feasibility/suitability of their recovery options (either for all or for the majority of the options) under each scenario, without selecting and testing any specific options to remedy the situation under each possible scenario;
- Some banks presented the feasibility assessment for all recovery options and specified the options selected for implementation in a list. Nevertheless, in a few cases there was no explanation of why the bank decided to apply only a limited number of recovery options from the feasible ones in a given scenario;
- One institution included a comprehensive feasibility assessment of all recovery measures under each scenario and provided a rationale for selecting or omitting particular recovery measures in the scenario testing.

72. With regard to the presentation of the results of the feasibility assessment, a significant number of the institutions, under each scenario, assessed the feasibility of the full catalogue of recovery options. However, the banks presented the results of their analysis in different ways, for instance by (i) assessing the attractiveness of various options under each scenario in general terms as high/medium/low; or by (ii) separately showing the estimated impact of various recovery measures on the key metrics, such as CT1, RWA, P&L or 30 days/90 days/12 months liquidity.

73. Furthermore, in a few recovery plans it was difficult to determine which recovery options were tested/applied under particular stress scenarios because the terminology used in

the scenarios' descriptions was significantly different from that used in other parts of the recovery plans (in particular, in sections devoted to recovery options).

4.2.3 Options applied in recovery scenarios

74. In a significant number of plans, no particular recovery options were explicitly selected for application in the scenarios in order to test how banking groups would recover from particular crisis scenarios.
75. All banks that performed actual testing of the recovery measures applied a few recovery measures under each of the scenarios, rather than selecting only one option. The number of options applied in a single scenario by different banks varied from 2 to 22 measures. One bank applied certain recovery measures more than once under the same scenario.
76. There were also big divergences among institutions in the way in which they approached testing specific options under tailor-made scenarios. Most of the institutions performed this exercise for a limited number of options enlisted in their selection of all available measures. However, a few banks tested more than 70% of their recovery options. The low proportion of tested recovery options might raise a question on the usefulness of the remaining recovery options that were not included in the testing performed on the range of scenarios, which was supposed to cover all of the most relevant events threatening a failure of the institution. In contrast, one institution in each scenario included estimated results of all the available options under the assumption that all of them were applied in a specific scenario.

4.2.4 Hierarchy of options

77. Article 6(5)(f) of RTS on the content of recovery plans specifies that 'the assessment shall identify which recovery options could be appropriate in a specific scenario, the potential impact of the recovery options, their feasibility, including the potential impediments to their implementation, and the timeframe required for their implementation'. Therefore, in order to assess the overall recovery capacity, it is important to know which option is going to be implemented first in each specific scenario. To this extent, the analysis found that all recovery plans included in the sample, with the exception of one plan, did not include any explicit prioritisation or hierarchy of recovery options. Only one institution provided a clear prioritisation of recovery measures separately for various stages of a hypothetical crisis situation. In one case, the recovery plan specified general rules for prioritising recovery options but it did not establish any specific hierarchy of recovery measures.
78. It appears that, in the majority of the plans, the lack of prioritisation of the recovery options is linked to the fact that there is no description of a timeline for implementing these options. Only two recovery plans included a clear sequence of applying recovery options under scenarios, which could also be interpreted as assigning a priority to the options that are applied at an earlier stage.

79. It is also worth mentioning that scenarios in a few analysed recovery plans envisaged the application of ancillary measures in addition to the recovery options specified in the plan. For instance, some recovery plans contained specific references to the ancillary measures specified in their business, capital and/or liquidity contingency plans, or envisaged using national central banks' liquidity support measures or applying predefined management actions aimed at raising liquidity or mitigating cash outflows in the stress situation. Two banks also reflected the estimated benefits from the successful communication campaigns in their scenarios.

4.2.5 Impediments to recovery options

80. According to Article 5(3)(b) of the RTS on the assessment of recovery plans, the competent authority should evaluate the extent to which a group recovery plan provides solutions for overcoming the obstacles to the implementation of the recovery measures identified in relation to a scenario, or, if the obstacles cannot be overcome, the extent to which alternative recovery measures could achieve the same objectives.

81. In four of the recovery plans included in the sample, there was a link established between scenarios of financial distress and impediments to the implementation of the recovery options. One other bank identified potential impediments to the application of the recovery measures with regard to all scenarios; however, this description was kept at a high level and there were no actions proposed to mitigate these obstacles. Another institution included information of potential impediments in the description of some scenarios and adjusted the expected extent of benefits stemming from implementing recovery options (e.g. selling only a part of securities from the bank's equity portfolio because of fragile capital markets caused by the systemic crisis). One institution took a more comprehensive approach and analysed the potential implementation barriers for all the recovery options selected to be applied in each scenario. This bank also provided an estimated reduction in the effectiveness of the recovery measures (e.g. the ability to dispose of only a part of the shares available for sale due to bad market conditions) that can be applied due to the expected impediments, as well as included a description of additional actions aimed at mitigating the identified obstacles.

4.3 Overall recovery capacity

82. Pursuant to Article 6(5)(f) of the RTS on the content of recovery plans, the assessment of the effectiveness of recovery options shall describe the overall recovery capacity of the entity or entities covered by the recovery plan. Here, the overall recovery capacity shall be understood as the extent to which the recovery options allow that entity or those entities to recover in a range of scenarios of severe macroeconomic and financial stress. In addition, Article 4(b) of the same RTS requires each bank to include a brief description of its overall recovery capacity in the summary of its strategic analysis.

83. One institution strictly followed these requirements in its recovery plan by providing both a comprehensive analysis of its overall recovery capacity on the basis of scenarios and a short summary of this analysis. In the majority of the cases, the recovery plans only included tables presenting an overview of expected benefits from applying all or selected recovery options under each scenario, but they did not provide any additional comments or a narrative explanation. In some plans, these data were accompanied by brief and, in almost all cases (apart from one bank), positive conclusions about their recoverability presented in the summary of the recovery plan. A few institutions did not include any explicit reference to their overall recovery capacity or results of their 'recoverability' self-assessment in their recovery plans. Nevertheless, some of these entities included a description of how they would recover from the stress situation in each of the scenarios, which may be considered an implicit analysis of their recoverability assessment.
84. In order to assess whether recovery options are effective enough to restore a bank's financial position, it is necessary to see their cumulative impact, as well as the level of recovery plan indicators after applying such measures. Most of the institutions showed aggregated benefits of measures applied under each scenario. However, only a few institutions presented the expected level of recovery plan indicators after the application of the recovery options. In general, the proportion of banks that did this was smaller than for those presenting the link between the adverse events included in the scenarios and the level of the recovery indicators.
85. In general, banks used divergent approaches in presenting the quantitative impact of the recovery options under the scenarios. Some institutions included only a cumulative quantitative impact of all measures applied in specific scenarios (most often including a simple arithmetic sum of the benefits from various measures), whereas others presented only individual impact assessments for each of the options without showing the combined effect for every scenario. The remaining institutions presented the expected impact both on an aggregated basis and individually for each recovery option applied. The approaches also varied within some recovery plans, and a different presentation (individual/aggregate/both types of impact) was applied in scenarios affecting capital to those affecting the liquidity position. One institution, while providing the aggregate impact estimation, also took into account the combined effects of implementing several options simultaneously instead of simply summing up the individual results.
86. The testing of recovery plans should help institutions to refine and improve their recovery plans before they are submitted for supervisory assessment. In particular, while properly performing testing of the recovery plan, banks may verify and/or adjust their framework of recovery plan indicators and identify obstacles to the implementation of the recovery options. It is expected that, in the plan submitted to the supervisor, the institution will demonstrate that it has a good recovery capacity and that all elements of the recovery plan are compatible.

5. Conclusions

87. Scenario analysis is a key part of a sound recovery plan, mainly because it allows banks and supervisors to test the feasibility of options and the adequacy of recovery indicators. A wide selection of options is of little use if they cannot be implemented in the relevant stress scenarios; similarly, even if a wide range of indicators is included in the plan, the scenarios do not fulfil their purpose if the recovery phase is triggered too early or too late because the indicators are wrongly calibrated.
88. To this extent, it should be observed that scenario analysis is a powerful tool, as it can yield significant benefits to other parts of the recovery plan; for instance, by improving the menu of recovery options, through the selection and calibration of recovery indicators, and the definition of potential impediments to the application of the recovery measures.
89. This comparative report has shown that:
- a. in a number of recovery plans, the approach chosen for the scenario analysis is already in line with the BRRD requirements and thus is well positioned to yield such benefits; and
 - b. when compared with the first comparative analysis conducted in 2013 covering the different sections of recovery plans, the plans included in the current analysis show a good degree of improvement in terms of their approach to scenarios.
90. On the other hand, a number of plans seem to be at a less advanced stage and the approach chosen makes it difficult to understand whether the options are feasible and the indicators adequate. To this extent, the main areas for improvement can be grouped according to those features that help the scenarios fulfil their goal:
- a. **RELEVANCE:** While many scenarios were relevant for the institution (although to different degrees), in roughly one third of the plans, the scenarios did not seem to be specific, as they featured only a generic description without explaining why that series of events is relevant for the institution. Only a few plans considered the impact on critical functions and on core business lines;
 - b. **SEVERITY:** Roughly half of the plans provided a rather detailed description, with a thorough explanation of hypothesis, assumptions and events, both quantitative and qualitative. Other plans were more vague and provided only a generic description, which made it difficult to see whether the scenarios were severe for the institution;
 - c. **TIMEFRAME:** In some plans, the scenarios were described as ‘static’ pictures without an appropriate timeline of events to allow the putting into context of the breach of

recovery indicators, the actions to be taken, and the proper implementation of recovery options. Moreover, this made it difficult to understand the development of the scenarios in terms of the level of indicators before and after the application of the options;

- d. INDICATORS and OPTIONS: The lack of a clear link between scenarios and indicators in some plans prevented it from being clear whether the latter were calibrated at an adequate level; similarly, the lack of identification of potential impediments to recovery options' implementation might prevent a thorough assessment of the overall recovery capacity.

91. Following the entry into force of the BRRD across EU Member States, it is expected that, over time, those institutions already in line with the BRRD approach to scenarios in recovery planning will consolidate their best practices. On the other hand, those institutions currently showing some shortcomings will further improve, both thanks to best practices evolving in the area of recovery planning, and to recommendations by relevant competent authorities that assess recovery plans.