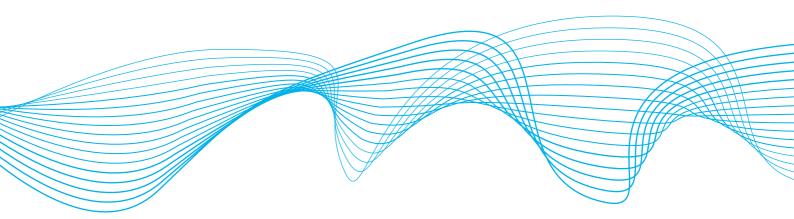
ASC Insight

No 1 / August 2020

Reforming bank stress testing in the EU: reflections in light of the EBA's discussion paper on the issue

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Abstract

Supervisory sector-wide stress testing of banks is one of the major innovations adopted by prudential authorities in recent years. The evolution of stress tests from a risk management tool for individual financial institutions to a key element of current systemic financial sector surveillance is evident from their fundamental role in the global financial crisis and the European sovereign debt crisis. Stress tests informed authorities about banks' capital needs and helped them to reassure investors and the public of the capacity of the banking sector to continue functioning throughout the crises. More recently, microprudential supervisors have converted the capital deficits detected in the regular stress test in a key piece of information for the calibration of the non-binding capital requirements known as Pillar 2 guidance (P2G). In January 2020 the European Banking Authority (EBA) published a discussion paper containing proposals for reforms to its EU-wide stress test framework and opened a consultation period ending 30 June 2020. This ASC Insights publication is a response to the invitation for comments issued by the EBA in the discussion paper.

In addition to several methodological innovations, including the consideration of multiple adverse scenarios or the relaxation of the static balance sheet assumption, the main proposals in the discussion paper refer to (i) restating the purpose of the EBA stress test as a primarily microprudential exercise, and (ii) replacing the current design in which banks and (microprudential) supervisors share ownership of the results (as the two parties iterate before arriving at the supervisory-validated results) with a two-leg design. In the supervisory leg, supervisors would have greater discretion to introduce bank-specific adjustments and would publish a more limited range of results than under the current design, with the main objective being the estimation of the capital deficits necessary for calibrating their P2G requirements. In the bank leg, individual banks would have greater flexibility in the use of their own methods and data to produce results that would cover a similar range of granular information as under the current framework, but they would be subject to less intense quality assurance by their supervisors.

This ASC Insight expresses serious concerns about these two main proposals. First, the EU-wide stress tests are a big endeavour for banks and supervisors. Redefining their objective as primarily microprudential would unnecessarily narrow down their scope, condition their future development, and potentially induce some duplication of information gathering costs in order to satisfy macroprudential authorities' needs that might no longer be met properly. Second, the two proposed legs could give rise to more abundant but less reliable and comparable – that is, less useful – information. This could occur if the supervisory leg turned out to be more opaque and were to disseminate less granular results than the current framework, while the greater flexibility and reduced quality assurance in the bank leg would decrease the comparability of the results across banks and increase the margin for misrepresentation. Alternatives to the two-leg design that are more compatible with the dual microprudential and macroprudential use of the information gathered via the stress tests are discussed in the Afterword.



ASC Insight No 1 / August 2020 Abstract

1 Introduction

Supervisory sector-wide stress tests are one of the major innovations adopted by prudential authorities in recent years. These tests are run on a population of supervised entities with the purpose of assessing their resilience to one or more common adverse scenarios. Supervisory sector-wide stress tests were first used by the International Monetary Fund and the World Bank at the end of the 1990s as part of their Financial Sector Assessment Program (see Baudino et al., 2018). They gained global visibility during the global financial crisis when US authorities used them to ascertain the capital shortages of large US banks and reassure the public of the authorities' intention and capacity to ensure that these banks would remain afloat – potentially after a required recapitalisation – even under the worst circumstances. Before that, stress tests were an internal risk management tool used by individual bank entities, or business units within them, to determine their capacity to withstand specific scenarios that could pose a threat to their individual profitability, solvency or survival.

Today, sector-wide stress tests are a tool regularly used by bank supervisors in many jurisdictions to evaluate the joint solvency of their supervised banks under a set of common, hypothetical adverse circumstances. They also provide key information for macroprudential authorities to assess whether the banking sector as a whole would be able to continue functioning, i.e. providing credit and liquidity to the economy, during bad times. Building on the experience in the banking sector, supervisors of insurance companies and pension funds, the asset management sector, and central clearing platforms, among others, now also use sector-wide stress tests as a resilience assessment tool.

The way in which microprudential and macroprudential supervisors exploit or react to the results of stress tests transforms these exercises into more than just a cross-sectional description of resilience to common adverse scenarios. Microprudential supervisors commonly use the results as an explicit or implicit basis for entity-specific regulatory requirements. For example, in the European Union (EU), bank stress tests are a key input to the determination of the non-binding capital requirements known as Pillar 2 guidance (P2G) within the Basel III framework.¹ By the same logic, if stress tests were to include a systematic assessment of liquidity risk, which they do not do currently, they could also serve as a basis for supervisory guidance regarding liquidity buffers and the stability of entities' funding.

Under a macroprudential perspective, the focus shifts from the resilience of each individual bank or entity to that of the banking sector or the financial system as a whole, or the parts of potential systemic importance. Therefore, from a macroprudential perspective, stress test results are undoubtedly more useful when properly aggregated and after additional elaborations covering issues such as individual risk-mitigating reactions, cross-entity effects allowing for interactions between stressed banks, market effects, and the induced second-round effects. Used in this way, stress tests can help determine how damaged the aggregate supply of bank credit could be under



P2G is a non-binding add-on to the minimum regulatory requirements. Should a bank be unable to follow the P2G, it will be expected to establish a plan (potentially involving capital raising measures and measures related to the distribution of earnings and bonuses) that will enable the bank to follow the guidance within a given horizon.

an adverse shock, for example, and what remedies would be most effective in reducing the damage.

Compared with other elements of the supervisory system, such as checking entities' compliance with static capital or liquidity requirements, stress tests are a supervisory tool that is less rigidly bound by rules, more forward-looking, and easier to adapt to cover newly perceived risks (such as Brexit, climate change or the recent coronavirus (COVID-19) pandemic). These features partly explain the popularity of stress tests among supervisors. Interestingly, the supervisory use of stress tests (including as an input for a form of dynamic capital requirements for banks), however frequent and central it has become, is not subject to common standards at a global level (they are not part of Basel III, for example). This makes it more difficult to ensure a level playing field and makes the management of banking groups that operate in multiple jurisdictions more complex.²

The use of stress tests by financial supervisors is constantly evolving. Existing sector-wide stress tests normally rely on methodological simplifications, such as a static balance sheet assumption, for example. Improvements in data availability, in the reliability of the modelling necessary to project the implications of shocks on financial entities and in the capabilities of supervisors to build or supervise more complex models could make it possible to gradually move away from such simplifications. As a long-term goal, macroprudential authorities hope to be able to test the whole financial system at once and obtain a full account of the reactions of individual entities in different sectors to shocks, the inter-entity effects of such reactions, the impact on market prices and the macroeconomy, and the resulting feedback effects from the macroeconomy on the stressed entities.³

However, this goal will not be reached soon, or at least it is far from being reachable using a widelyaccepted off-the-shelf methodology. Exploratory attempts to have system-wide stress tests are very welcome, but these stress tests would have to rely on many shortcuts and heroic assumptions. Therefore, one can foresee a long period in which increasingly coordinated but still partialequilibrium sectoral stress tests (that explore common scenarios over common horizons, for example) will coexist alongside, and perhaps form the basis for, exploratory attempts to model the interactions and feedback effects needed to achieve proper system-wide tests.



² In fact, the largely ad hoc nature of supervisory stress tests (that is, the fact that supervisors can essentially modify their methodology and scenario design in each round) is in itself a source of risk for the supervised entities, whose capacity to pass successive rounds of stress tests may largely depend on the details of their design. However, this is not necessarily a bad thing: supervised entities are supposed to be managed in a way that enables them to withstand a much wider range of adverse scenarios than the one or two scenarios chosen for a particular round of stress tests. Therefore, maintaining some uncertainty as to which scenario or scenarios the authorities will focus on in a given round prevents a form of regulatory arbitrage whereby banks would be resilient to the specific scenario(s) included in the stress test but not to many other potential scenarios.

³ See European Systemic Risk Board (2016) for a defence of system-wide stress tests in the context of an assessment of the financial stability implications of the low interest rate environment.

2 The role of the ESRB in current EU-wide banking sector stress testing

Existing EU regulations assign to the European Systemic Risk Board (ESRB) the responsibility of designing, in cooperation with the EBA, the adverse scenario for the EU-wide banking sector stress tests.⁴ The EBA is otherwise the authority in charge of coordinating the tests from beginning to end, that is, from developing the methodology and establishing the timeline through to coordinating the quality assurance process with the national competent authorities and centralising the publication of the results.

A recent report from the European Court of Auditors (2019) on the EBA stress test included multiple recommendations for the design of the adverse scenario, adding constraints and desirable principles to an already challenging list.⁵ Principles explicitly or implicitly guiding the design of the adverse scenario include coherence with a provided narrative, a sufficiently ambitious relative and absolute degree of severity, a similar level of severity for the cross section of banks, plausibility checks, coherence with the ESRB risk assessment, and, despite reluctance to recognise it publicly, a proper degree of countercyclicality.

Assessing the relative importance of (and trade-offs between) these principles is challenging but also quite relevant from a policy perspective. Being overly ambitious about the properties of the chosen adverse scenario (worst ever, uniformly severe, coherent with ESRB risk assessment, etc.) does not come without costs. It can lead to an adverse scenario which, in addition to other unfavourable aspects, is very difficult to replicate by outside observers and, as a result, could easily be considered arbitrary, or worse, the product of negotiations between interested parties.⁶



⁴ Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board (OJ L 331, 15.12.2010, p. 1) and Council Regulation (EU) No 1096/2010 of 17 November 2010 conferring specific tasks upon the European Central Bank concerning the functioning of the European Systemic Risk Board (OJ L 331, 15.12.2010, p. 16).

⁵ See ECA Special report 10/19: EU-wide stress tests for banks: unparalleled amount of information on banks provided but greater coordination and focus on risks needed.

⁶ On the other hand, the lack of replicability of the procedures for defining the adverse scenario has the advantage of reducing its predictability. This increases the incentive for entities to be prepared to withstand any type of scenario instead of just the adverse scenario that they expect the authorities to use.

3 The EBA's discussion paper

On 22 January 2020 the EBA published a discussion paper which sets out a proposal for the reform of its EU-wide stress test and launches a consultation with stakeholders about the proposal put forward. The proposed reform of the stress test is presented as one of several possible options and explicitly refers to the possibility of continuing with the current framework if the proposal is found to lack merit.

The discussion paper falls short of initial expectations regarding detailed proposals for the revision of the current methodology. For instance, it does not address the trade-offs implied by the principles that currently guide the design of the adverse scenario and touches somewhat superficially on the possibility of considering more than one adverse scenario. The discussion paper devotes most of its pages and consultation questions to two other issues.⁷ First, it puts forward the view that the EBA stress test should be regarded as a microprudential exercise. Second, it proposes moving from the current so-called single-leg design, under which banks play a key role in producing the published stress test results, to a two-leg design under which a bank leg would deliver results produced by the banks and a supervisory leg would deliver results produced by the supervisors.

Under the current single-leg approach, the published stress test results can actually be regarded as the outcome of the interaction between each individual bank and its supervisor. The banks start the process by producing some initial results using the EBA methodology and the common scenarios, but supervisors may challenge the data and methods underlying those projections over multiple rounds of the quality assurance process. This process leads banks to revise their projections and the supervisors to provide new comments until the process converges.

The discussion paper states that, under the single-leg approach (whose quality assurance process is described as very costly), ownership of the published results is unclear. It also claims that clarifying the ownership would be "beneficial for both parties", however, no evidence is provided to support this assertion.

Supervisors may be uncomfortable with the lack of full control over the whole process – which is more than having full ownership of the final results – because of the way they use the results. A key component of such results are the estimates of the capital ratios that each bank should have at the beginning of the stress-testing period in order to remain well capitalised in the adverse scenario. In the EU and other jurisdictions with regular supervisory stress tests, supervisors use the discrepancies between these capital ratios and banks' actual capital ratios to establish, after some adjustments, the P2G.

Gaining full supervisory control of (some of) the stress test results seems the key rationale for the proposed two-legged approach, which will be covered in a later section.



⁷ Indeed, only six of the 31 questions posed to the stakeholders (see pages 33-36 of the discussion paper) deal with methodological issues. These are Questions 7, 13, and 28 to 31.

4 From a mixed goal to a microprudential goal

As mentioned in paragraph 6 of the discussion paper, the EBA stress test results are "a key input for the supervisory review and evaluation process (SREP)", which, in turn, determines the P2G requirements for each bank. Stress test results therefore play an important role in banks' microprudential supervision. However, this does not preclude the possibility that the stress test results also serve as an important macroprudential surveillance tool, as the basis for macroprudential analysis that potentially informs macroprudential policy actions, for example.

Instead, paragraph 23 of the discussion paper posits that "the microprudential purpose of having the stress test results feeding each bank's SREP concomitantly ... conflicts with the macroprudential objective of assessing systemic risks". However, the discussion paper does not provide any reasons for this conflict or explore the arguments that might give rise to this conflict.

One could narrowly interpret the EBA stress-testing exercise as the tool used to achieve a microprudential objective (e.g. ensuring each individual bank's solvency) and see a potential conflict with a simultaneous macroprudential objective (e.g. mitigating banks' aggregate contribution to the credit cycle). However, this interpretation seems to disregard what sector-wide stress test results provide, namely information and indications as to the resilience of banks to common adverse scenarios. Using information in one context or for one purpose (e.g. microprudential supervision) does not preclude using it in another context or for another purpose (e.g. macroprudential surveillance). Confronted with the same stress test results, that is, the information about individual banks' direct exposure to the adverse scenario, each authority can react using its own additional analytical and policy tools.

Specifically, under the practice currently established in the EU, the microprudential supervisors' policy tool is not the stress-testing exercise per se, but its combination with a P2G policy that can – and currently does – incorporate independent adjustments instead of mechanically relying on the stress test results. Similarly, the stress-testing exercise is not a macroprudential policy tool per se. Rather, when combined with other pieces of information and analysis, its results could eventually lead to decisions regarding the countercyclical capital buffer (CCyB) rates or borrower-based measures. More broadly, the results of the supervisory stress tests could also be used as an input to the assessment and definition of the macroprudential policy stance by national macroprudential authorities. Only a mechanical and unsophisticated link between, for example, CCyB rates and the stress test results might make it necessary to use the design of the adverse scenario as a way to influence the degree of countercyclicality implied by the stress-testing exercise.

Even if sector-wide stress tests are accepted to be a source of information and not policy tools in themselves, it could still be argued that the information most relevant for the microprudential supervisors' needs may not be the most relevant for the macroprudential authorities, and vice versa. This could create a conflict regarding the nature of the shocks to be considered in the adverse scenario. For the microprudential supervisor concerned with the solvency of each bank, the most relevant stress test might include a specific shock to a set of borrowers to which the bank



is specialised in lending. For the macroprudential supervisor concerned with the resilience of the banking system, the exposure of the bank to systemic or aggregate shocks would be most relevant.

When the stress-testing exercise consists of projecting the losses of the whole EU banking sector over one or several common scenarios, the potential conflict between microprudential and macroprudential objectives largely dissolves, as it is not possible to tailor the design of the adverse scenario to the specificities of individual banks.⁸ Although the focus of the microprudential and macroprudential supervisors may differ when monitoring and reacting to the results, they should broadly agree on the information on exposures, projected losses, and implications for profits and capital that they want the exercise to deliver.

Redefining the EBA stress test on EU banks as a purely microprudential exercise creates an unnecessary separation between micro- and macroprudential objectives, putting the huge information-generating potential of the stress-testing exercise to the exclusive service of microprudential supervisors. This unwarranted concession seems to contradict the original purpose of industry-wide stress tests: to prevent a system-wide bank run. This purpose is what led US authorities to use stress tests during the global financial crisis in 2009 and it was also the main motivation behind similar exercises subsequently deployed by other authorities across the globe, including the Committee of European Banking Supervisors, the predecessor of the EBA. Preventing a system-wide bank run is a paramount macroprudential objective.

Indeed, the intention behind this was that the bank panic could be brought to an end by informing the public about the potential capital deficits of the banks in an adverse scenario and by, additionally, providing implicit or explicit assurance that the authorities were prepared to deal with the detected capital deficits in the event that the affected banks were not directly able to do so.⁹

The macroprudential motivation behind system-wide stress-testing exercises is still evident today. In the Federal Reserve Board's press release of 6 February 2020 announcing the hypothetical scenarios for its 2020 stress-testing exercises, the first sentence reads:

The Federal Reserve Board on Thursday released the hypothetical scenarios for the 2020 stress test exercises, which ensure that large banks have adequate capital and processes so that they can continue lending to households and businesses, even during a severe recession.¹⁰

Likewise, the section dedicated to stress testing on the EBA's website still attributes a macroprudential role to its stress-testing exercise, albeit somewhat less explicitly:



⁸ Such tailoring may of course occur in the context of microprudential exercises performed on individual banks or groups of similar banks.

⁹ The exact form of "dealing" with those deficits may vary across time and jurisdictions. In 2009 many countries opted for bail-outs, perhaps the only true option available in times of crisis. In normal times, however, the absence of systemic market pressures may allow the supervisory authorities to react to the stress test results by asking the undercapitalised banks to adopt more conservative capital plans or, in the worst individual cases, by relying on banks' recovery and resolution regimes. Following the global financial crisis, these regimes include innovative bail-in provisions. The application of orderly insolvency procedures should also be an option for non-systemically important banks.

¹⁰ See Federal Reserve Board releases hypothetical scenarios for its 2020 stress test exercises, press release.

The aim of such tests is to assess the resilience of financial institutions to adverse market developments, as well as to contribute to the overall assessment of systemic risk in the EU financial system.¹¹

By contrast, paragraph 28 of the discussion paper contains a drastic restatement of the objectives for the EBA stress test:

The new framework confirms that the EU-wide stress test is primarily a microprudential exercise whose main objectives are the assessment of banks' capital adequacy and the identification of risks. For supervisors, the exercise is a concrete support for the SREP and for the assessment of capital planning. For banks, it should complement their internal capital adequacy assessment process (ICAAP) and contribute to improving their internal risk management practices.

The discussion paper does not provide a clear justification for narrowing down the purpose of the EBA's stress-testing exercise in this manner. The proposed shift seems to imply the appropriation of this information extraction tool by microprudential supervisors, even though the consensus that emerged from the global financial crisis pointed to a clear need for a well-informed macroprudential perspective (which is one of the main reasons to involve the ESRB in the process). This unnecessary refocus on the microprudential perspective could condition the future development of sector-wide stress tests in the EU, and potentially incur additional costs related to the duplication of information-gathering required to satisfy the neglected information needs of the macroprudential authorities.

One interpretation of this element of the proposal is that the corresponding microprudential supervisors prefer to have greater control of the tool, reducing the need to coordinate with the macroprudential authorities. This interpretation seems compatible with the clarification introduced in paragraph 30 of the discussion paper:

While the outcome from the EU-wide stress test can be used as an input in the assessment of systemic risks and the second-round effects of a crisis, the macroprudential role of the stress test is not considered one of its main objectives.

What else might explain the emphasis on excluding a macroprudential role from the main objectives of the exercise? What has changed to warrant renouncing or modifying the original role of the system-wide stress test? What is the conflict that calls for tilting this information-gathering tool to the microprudential side and thereby diminishing the importance of the macroprudential side?



¹¹ See EBA webpage on EU-wide stress testing.

5 From a single leg to two legs

After defending the redefinition (and narrowing of the scope) of the EBA stress test as a microprudential exercise, the discussion paper mainly makes the case for the previously mentioned two-leg redesign. This is done by alluding to some general principles (relevance, comparability, transparency and cost-efficiency) against which the merits of the new approach should be judged.¹²

A succinct description of the proposal is provided on the webpage where the EBA launched its public consultation on the proposed approach. One of the paragraphs in the summary of its key features reads as follows:

The proposal envisages two components owned by supervisors and banks respectively: the supervisory leg and the bank leg. The supervisory leg serves as the starting point for supervisory decisions and would be directly linked to the setting of Pillar 2 Guidance (P2G). The bank leg, on the other hand, allows banks to communicate their own assessment of risks in an adverse scenario¹³

Further down, the webpage (as of July 2020) provides additional details on each leg and their objective in terms of disclosure:

The supervisory leg would be based on a common EU methodology, in line with the current constrained bottom-up approach but with the possibility for competent authorities to adjust or replace banks' estimates based on top-down models or other benchmarking tools.

The methodology for the bank leg would be less prescriptive than today and give banks more discretion in calculating their projections. In practice, banks would use the same common methodology as in the supervisory leg, but would be allowed to relax the methodological constraints to the extent they can explain and disclose the rationale and impact of such deviations.

The standards for the disclosure of the results should remain high. For the bank leg, the proposed disclosure is as granular as it is today, including the overall outcome in terms of capital depletion, main risk drivers, and detailed data on exposures. For the supervisory leg, granularity would be more limited in quantity, but very relevant in terms of supervisory decisions.

Our rough interpretation of these aspects of the proposal is the following:

- 1. The supervisory leg will be opaque and will allow the supervisors to set the P2G requirements at their own discretion, without having to agree with the banks or explain much to the public.
- 2. The bank leg will be a beauty contest exercise run by the banks with significantly less quality assurance than under the current system. As a result, banks will continue to publish large amounts of granular information, or even more, as they will have to explain their



¹² The discussion paper includes a sometimes poorly justified assessment of the proposal along these lines in Section 3.1.5, which concludes by inviting stakeholders to provide their own summary assessment in Question 27 of the consultation questionnaire.

¹³ See EBA consults on the future of the EU-wide stress test framework.

methodological innovations. However, such information may be less useful than under the current approach as it will be based on banks' internal, hard-to-compare, and lightly supervised projections.

3. In normal times, the discrepancies between the results of the supervisory leg and the bank leg will create room for interesting discussions among market analysts and commentators. In times of crisis, the discussions and rumours surrounding the origin of the discrepancies could contribute to eroding the confidence of investors in the reliability of the results delivered by either of the legs.

Moreover, the total demand of the proposed two-leg approach on the EBA's resources is likely to exceed that of the current single-leg approach. As the EBA's current resources are manifestly inadequate to ensure consistent implementation of a truly common EU-wide approach, the new proposals are likely to further increase the role of national competent authorities and weaken the common European perspective and metrics in the process. If anything, reforms in this field should promote a more integrated European approach to stress tests, guaranteeing the rigour of the implementation and the comparability of the results across countries.

What does the EBA really want to achieve with the two-leg design? One interpretation is that the underlying goal is to give full ownership of the results considered relevant for supervisory purposes (that is, those of a more top-down supervisory leg) to the supervisors themselves. Under this interpretation, the purely bottom-up bank leg would remain as the politically correct way of allowing banks to retain some ownership in the whole exercise. Accordingly, the bank leg would be a diluted version of the current single-leg constrained bottom-up approach, with less quality assurance (and, therefore, less information value in some respects), no supervisory usage, but greater flexibility regarding assumptions that seems to address the frequently received criticism that the current common EBA stress test methodology is too rigid.

Another plausible and not necessarily incompatible interpretation of the proposal is that, while strengthening microprudential supervisors' role in the supervisory leg, it also forces them to link their future P2G requirements to the corresponding stress test results in a more explicit manner than at present. This would address the criticism that current EU supervisory practices regarding P2G allow too much discretion for the supervisors of each bank, are characterised by a great deal of opacity (as banks' P2G requirements are not published, for example), and potentially create a non-level playing field across jurisdictions.

However, the description of the supervisory leg under the proposal outlined in the discussion paper seems to reduce the gain in transparency along the P2G-relevant dimension to, essentially, committing supervisors to publish the results of the supervisory leg. The proposal does not make it clear whether supervised entities and the public will receive sufficient information about the data, models, assumptions, and possibly judgement-based adjustments that will lead to these results. Therefore, this still leaves a lot of discretion and cross-jurisdictional diversity in the setting of banks' P2G requirements.



6 To conclude

Having considered all the elements together, the proposal for the reform of EU-wide stress tests described in the EBA's discussion paper is not a step in the right direction. It is a step forward in terms of comprehensiveness and complexity owing to the inclusion of two legs, with multiple internal methodologies possible in the bank leg. The proposal is, however, a significant step backwards in terms of transparency, reliability and comparability of the results owing to the envisaged ample leeway for supervisors and limited disclosure in the supervisory leg, and the greater flexibility and reduced quality assurance in the bank leg. Moreover, it is a potential source of conflict during crises owing to the existence of two legs that could potentially deliver contradictory results at a time that investors would be most in need of reliable data.

In addition, by focusing on prioritising the microprudential purpose of the stress-testing exercise and defending the two-leg design, the discussion paper misses an opportunity to address in greater detail the key methodological challenges faced in bank stress testing. Addressing those challenges would help to turn stress testing into a more powerful, system-wide tool to assess the resilience of the financial sector to multiple sources of risk. If seen as a source of information (an informationgathering tool) instead of a policy tool, the potential conflicts between microprudential and macroprudential goals in the design of sector-wide stress tests largely dissolve. If anything, the role of stress tests in macroprudential assessments should increase. Moreover, addressing some of the abovementioned challenges would help to improve the macroprudential relevance of the results without diminishing their microprudential value.

If the aim of the reform proposal is to add structure and transparency to the process linking stress test results with microprudential decisions regarding P2G requirements, there are alternatives that can achieve this without redefining the scope of the EBA EU-wide stress-testing exercise as primarily microprudential and without adopting a two-leg approach. The Afterword to this note outlines one such alternative.



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Afterword: An alternative to two parallel legs

The discussion paper describing the proposal for the reform of the EBA stress test considers the status quo as the main alternative to its reform, should the latter lack merit, as our assessment above suggests.

Another alternative would be to refocus the reform on improving the methodological side of the existing one-leg design. This would involve, among other things, reconsidering the static balance sheet assumption, adding flexibility to some of the many constraints listed in Table 2 of the discussion paper and considering the possibility of having several adverse scenarios. Regardless, the EBA needs to be granted significantly larger financial and human resources to be able to cope with the potentially greater complexity of the enhanced methodologies and the quality assurance tasks to be conducted throughout the process. This would ensure that the final results and all the accompanying disclosures provide reliable and comparable information, following a common European template that different supervisors and analysts can use to feed their own assessments.

However, purely methodological improvements and a larger investment in quality assurance would not achieve what seems to be an important implicit goal of the proposal contained in the EBA's discussion paper, namely adding structure to the setting of P2G in the EU without making the resulting P2G requirements too dependent on banks' own data and assumptions used throughout the stress-testing exercise. A radical alternative to current practices would be for the microprudential supervisors to directly supersede the results of the bottom-up approach in the EBA's stress-testing exercise with the results reached using their own methods and calculations, i.e. by running a top-down stress test on their supervised entities. This is the approach adopted by the Federal Reserve Board. Under such an alternative, would the EBA stress test, with its bottomup approach and its common methodology and scenarios, still be needed?

The answer is yes and no. If the sole purpose of the EBA stress test results was to inform the supervisors' P2G calculations, one could argue that the existence of a dominant alternative would render the EBA exercise redundant. However, it would still be possible to defend the view that having the EBA's bottom-up results would, among other things, help to provide a backup source of information, a detector of potential inconsistencies in supervisors' methods and calculations, and a potential incentive for the harmonisation of top-down methodologies across jurisdictions.

Furthermore, even under a mostly top-down approach, supervisors might find it useful, and in some cases essential, to take the data or projections provided by the supervised entities as a raw source of information with which to feed their own top-down models. According to this view, the efforts involved in producing the EBA stress test results are not so much directed at obtaining the final figures on the banks' capital deficits in the adverse scenario, as at producing a vast amount of reliable and comparable accompanying information that can be used in further supervisory assessments.

In this case, an alternative to the two-leg approach, which separates bank-originated calculations from supervisor-originated calculations at an early stage, would be a sequential approach in which an enhanced single-leg bottom-up stress-testing exercise run by the EBA is regarded as the primary source of granular, reliable and comparable information for subsequent supervisory



applications. Under this approach, the enhanced EBA exercise would come first and end with the publication of aggregate and individual results for the supervised entities. The corresponding microand/or macroprudential supervisors would come next; they would introduce adjustments and elaborations in line with their own objectives before publishing the adjusted or elaborated results that would determine their regulatory requirements and policies. The timeline of this sequential approach would be as follows:

- 1. Authorities set common benchmark and adverse scenarios along with a common methodology.
- 2. Individual and aggregate bottom-up results are produced and published after adequate quality assurance.
- 3. Competent supervisory authorities introduce adjustments and elaborations relevant to their objectives, publishing their supervision-relevant adjusted and/or elaborated results in due course. For instance:
 - (a) Competent microprudential supervisors add bank-specific considerations relevant to the determination of P2G requirements.
 - (b) Competent macroprudential supervisors add dynamic responses, cross-bank and feedback effects relevant to the determination of the CCyB rate, liquidity requirements or similar macroprudential policies.

We think that this sequential approach would be superior in terms of transparency, simplicity, ease of communication, and accountability to the two-leg approach proposed in the EBA's discussion paper. Additionally, it would not involve an unnecessary redefinition of the EBA stress-testing exercise as primarily microprudential, and would allow both microprudential and macroprudential authorities to leverage the output of the stress test (stages 1 and 2 of the sequential approach), without preventing them from adjusting and elaborating on the data obtained (stage 3).

Finally, to strengthen the common European perspective and minimise the risk of undue weight being given to national considerations, a significant increase in the financial and human resources the EBA can devote to stress-testing exercises will also be required under this alternative approach.



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Imprint and acknowledgements

This ASC Insight has benefited from discussions at the Advisory Scientific Committee (ASC) of the European Systemic Risk Board (ESRB), and detailed feedback from several of its members. While the current contents of this Insight have been endorsed by the ASC, the authors retain the exclusive responsibility for the views expressed in the text and any possible mistakes.

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ISSN	2600-2418 (pdf)
ISBN	978-92-9472-149-5 (pdf)
DOI	10.2849/678029 (pdf)
EU catalogue No	DT-AI-20-001-EN-N (pdf)