



Speech by Andrea Enria, Chairperson of  
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# What we have learnt from EU-wide stress tests

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Check Against Delivery  
Seul le texte prononcé fait foi  
Es gilt das gesprochene Wort

## Introductory remarks

The publication of the results of the EU-wide stress test just a few weeks ago has concluded the fourth cycle of the exercise. We provided a comparable assessment of the resilience of the EU banking sector and contributed to strengthening market discipline across the Single market.

The stress test exercise was originally introduced in the EU as a crisis management tool in 2011. It has gradually turned into a regular and flexible tool for Competent Authorities to identify banks' weaknesses to adverse shocks and residual areas of uncertainty that might need mitigating actions. Through the publication of consistent and granular data on a bank-by-bank level, the exercise aims at reinforcing transparency of the EU banking sector, one of the key areas the EBA has always put a lot of emphasis on.

Throughout the last years, EU supervisors, coordinated by the EBA, have worked together on all the main areas of the exercise to make the stress test as informative as possible, while trying to

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streamline its framework. This was achieved by stabilising and making more comprehensive the common methodology, strengthening the quality assurance of the results, designing a more granular and consistent common scenario, implementing a synchronised and coordinated communication of the results among Competent Authorities, and providing user friendly and handy tools to navigate and explore the results.

Since 2016, the publication of the results does not mark the end of the assessment but rather its starting point. Once the results are finalised, Competent Authorities have to incorporate the outcome of the exercise in the supervisory review and evaluation process (SREP) and judge the credibility of the actions that banks would put in place for mitigating the effect of the shocks. Furthermore, during this process, supervisors should also complement their vulnerability assessment by considering additional country or bank-specific risks and, eventually, make a decision on Pillar 2 guidance.

The overall feedback received following this year publication was positive, particularly thanks to the granular data we disclosed and a clear summary of the main results. There is no better moment than after a positive outcome to take stock of what we have learnt, what worked well and what did not. Indeed, while the EU-wide stress test has proved to be a flexible and adaptable tool although there are certainly areas where improvements are needed and aspects that may require a more fundamental rethinking.

This is what I am planning to discuss with you today.

## Key features of the EU-wide stress test

The EU-wide stress test has evolved over time, following market developments, the progress of regulatory reforms, and changes in the architecture of EU financial supervision.

When we started in 2011, the timing, purpose and methodology of the EU-wide stress test were dictated by urgent policy objectives and, thus, very much driven by the need to address uncertainty on banks' exposures and capital levels. Pending the reforms of the Basel Committee on Banking Supervision, our methodology introduced, for the purpose of the stress test, a conservative definition of capital, a key metric for the credibility of the exercise. We also decided to provide full

transparency of the bank-by-bank outcomes but also to enrich disclosure with the publication of exposures, main drivers of the impact as well as the composition of capital.

In 2014, our stress test was instrumental to the set-up of the Single Supervisory Mechanism and a component of the comprehensive assessment run before moving supervisory responsibilities from the national level to the European Central Bank. This was our last exercise with an explicit objective of quantifying capital shortfalls and recapitalising banks accordingly. In 2016, indeed, thanks to the progress in the repair of the EU banking sector, we shifted the focus back to the identification of potential vulnerabilities, rather than on immediate capital problems. Without a pass/fail capital hurdle rate, the stress test became a component of the wider supervisory assessment under the SREP.

Many aspects of the stress test however stayed unchanged. First, we opted and confirmed a preference for a bottom-up – or company-run – stress test, where banks are allowed to use their internal models but are subject to a set of methodological constraints. We kept the “static balance sheet” assumption, implying that banks’ balance sheets are frozen at the reference date and no managerial actions are considered for mitigating the impact of the adverse scenario. We also decided to have solvency stress test, where liquidity shocks can affect the cost of funding but not the volumes.

In 2018 the stress test exercise inherited all these key aspects as well as the overall methodological framework, with a major update due to the revision of the accounting standards in Europe. More specifically, the main novelty of the 2018 exercise has been the incorporation of IFRS 9, which required banks to adopt a forward-looking approach in setting provisions for credit losses compared to the previous “incurred loss” model. Also, other potential sources of risk that have emerged over the years were incorporated in the methodology. In particular, an additional shock linked to model and parameters uncertainty affecting Level 2 and Level 3 instruments<sup>1</sup> has been included as part of the market risk methodology.

A consistent feature of our stress test has been disclosure, which we confirmed in 2018 with the publication of more than 17,200 data points per bank. The investment we made in providing

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<sup>1</sup> Level 2 and 3 instruments are those financial assets and liabilities for which quoted prices in active markets are not available. This follows IFRS 13, which establishes a fair value hierarchy that categorises in three levels the inputs to valuation techniques used to measure fair value. Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. Level 3 inputs are unobservable inputs for the asset or liability (IFRS 13.72-90).

this information in a user friendly-format highlights the importance for us of market discipline as a complement to supervisory judgment. In a few week time, we will also publish our Risk Assessment Report complemented with a very comprehensive Transparency exercise, for a larger sample of institutions.

## Interpreting the main results of the 2018 EU-wide stress test

As in the past, the adverse scenario covers three years, from 2018 to 2020, and reflects the assessment of the main risks in the EU financial sector. The adverse scenario is more severe – possibly the most severe – compared to previous exercises, with a deviation of the EU GDP from its baseline level of 8.3%, an average stock prices fall by 26%, along with the decline of residential and commercial property prices. The drawback of an EU-consistent scenario is that the impact on the specific countries can be quite diverse. This requires some caution in interpreting the results and care in reading the impacts in conjunction with the severity of the scenario in each jurisdiction.

Overall, the EU-wide stress test covered a sample of 48 banks – 33 from euro area countries – representing about 70% of EU banks total assets, in line with previous exercises. At the starting point, the EU aggregate CET1 capital ratio was 14.5% on a transitional and 14.2% on a fully loaded basis. The negative impact of IFRS 9 first implementation on banks' aggregate CET1 ratio was 10 basis points (bps) on transitional basis and 20 bps on fully loaded basis. When compared to the starting point of previous exercises, the aggregate CET1 transitional ratio at the end of 2017 stood well above the 2016 (13.1%) and 2014 (11.1%) stress tests, as a result of the continuous and significant strengthening of capital positions by the major EU banks since 2011.

At the end of the 2020 adverse scenario, the aggregate CET1 reduction on a transitional basis amounts to 410 bps (395 bps on a fully loaded basis). The capital depletion varies significantly across banks, ranging from a minimum decrease of 30 bps to a maximum decrease of 770 bps on a fully loaded basis.

With regards to the main drivers on an aggregate level, cumulative credit risk losses are the main contributor to the stress test impact, detracting 425 bps from CET1 capital ratio. Total market risk losses lead to an aggregate impact on CET1 of 110 bps while operational risk losses absorb 100 bps of capital. Although net interest income (NII) and net fees and commissions income (NFCI)

remain positive, the cumulative decrease of these two sources of income as of end-2020 leads to a lower capital formation of 150 bps and 80 bps respectively, compared to the hypothetical contribution of unstressed starting point values.

With respect to previous exercises, the 2018 capital depletion on a transitional basis (410 bps) is higher than the reduction of CET1 ratio in both 2016 (380 bps) and 2014 (300 bps<sup>2</sup>) exercise. This might be explained by the higher severity of the scenario and the implementation of IFRS 9. Low profitability is also an important driver: many banks showing a relatively poor performance in the stress test are those with low profit generation.

Nevertheless, it is not straightforward to draw a conclusion on an aggregate level given the diversity of the drivers for each specific bank. In this regard, although the aggregate results show a strong resilience of the EU banking sector under adverse conditions, it is crucial to look also at bank results having in mind their individual balance sheet structure, business models or portfolio diversification.

## What we have learnt so far

In the ten years since the crisis, the objectives, approaches and methodology have evolved, but stress testing remains a key tool for supervisors. As for all success stories, there is, however, increasing debate on the benefits and costs of stress test exercises as well as on the relative merits of the different methodological approaches. This discussion takes place in the EU, but it is common to other jurisdictions, even though starting from different perspectives, depending on the historical experience in using stress tests.

In the EU, designing and running a region-wide exercise has been a learning-by-doing process. The main benefit of undertaking stress tests in a coordinated fashion remains to deliver consistent and comparable outcomes across the Single Market. While the EU-wide stress test has served different purposes over time, it maintains the distinctive function as a benchmarking and transparency exercise. Conducted over a large cross-border sample of banks and covering information previously only known at the national level, the EBA established the first comprehensive database of this kind in Europe. Similarly to the US, the results of the EU-wide stress

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<sup>2</sup> Including the AQR adjustment that accounts for 40 bps.

are disclosed on a bank-by-bank basis, but the granularity of information has been traditionally higher. In a more fragmented supervisory community than in the US and with very little bank data available to market participants, the disclosure of figures on a comparative basis represent an unprecedented innovation and is now part of the EBA's brand.

We have put significant efforts in delivering an EU-consistent but country-relevant exercise. Over the years, the EBA has provided Competent Authorities with a common set of tools in order to ensure comparable and consistent outcomes across the EU. The methodology aims to strike a balance between realism, comparability and conservatism, respecting the banks' specificities while ensuring consistency of treatment and results.

Although the EBA exercises have not been exempt from some criticism namely on the severity and credibility of the results<sup>3</sup>, they have led to a significant strengthening of the capital position of European banks, appropriate identification of non-performing loans (NPLs) and ongoing action to reduce them, significant improvement in the market understanding of the EU banking system. It has been more than seven years since the launch of the first EU-wide stress test exercise. European banks have since then increased their ratios of capital of the highest quality by more than 500bps, from about 9% core Tier 1 ratio in December 2010 to more than 14% CET1 capital ratio in 2018. This progress also allowed moving away from the objective of identifying banks "failing" the stress test and requiring immediate capital injections. The stress test is now designed as a tool that can inform supervisors about a range of potential vulnerabilities in banks and provide inputs to the supervisory process.

As I said, over the years, the stress test has evolved but its distinctive features – the focus on solvency, the constrained bottom-up approach, granular disclosure of banks' results – remained stable. Still, the developments in the banking sector and the evolution of the EU financial architecture do affect the performance of stress testing and we should not shy away from assessing potential alternative designs. In the rest of the speech, I will analyse one by one those areas that, in my view, can deserve some rethinking and possibly a gradual change in approach.

#### *a. Governance*

The EU-wide stress test is a complex exercise, with many stakeholders involved. The EBA has the role of initiating and coordinating the exercise, providing a common methodology and assisting

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<sup>3</sup> K. Dowd (2015), Central bank stress tests: Mad, Bad and Dangerous, Cato Journal, V. 35, 3.

Competent Authorities in their assessment of the reliability and robustness of the results submitted by banks. While all authorities are committed to following the EBA's methodology and data requirements, they do have different approaches for the quality assurance process, reflecting their supervisory culture, the role of the EU-wide stress test in their decision-making process, the number of banks they have to assess. This may result in uncoordinated actions, unnecessary data requests, and not fully synchronised processes unless cooperation among the EBA and the Competent Authorities is of the highest standards. In fact, we have made significant efforts for improving coordination and establishing an efficient information flow. Still, banks' perception is that the exercise is very burdensome and that the process is far from being flawless, with misleading instructions, unexpected information requests, deadlines that change over time<sup>4</sup>.

At the same time, market participants have sometimes expectations on the outcome of the exercise that do not take into account its – and more generally the EU – governance. The main problem is, in my view, the misalignment between the tasks of the EBA and the actual powers that have been conferred onto us. “Initiating and coordinating” does not really mean much *per se*. We have always interpreted it as initiating a bottom-up exercise and coordinating the exercise providing participants with common methodology and scenarios. But eventually, the EBA does not have any enforcement powers, cannot directly challenge results, nor override bank outcomes.

Another historical shortcoming of our exercise is the gap between publication of the results and follow-up actions. In the US, the process has always been straightforward: supervisory measures are announced at the very moment – or with a few weeks' delay – the results are published. There is a clear and direct link between stress test outcomes and consequences for banks. Follow-up actions are almost immediate and largely predictable, thus providing valuable information to investors, which is easily incorporated in market prices.

In the EU, this is not the case. During the crisis, when our stress test was used as a recapitalisation exercise, there was no EU fiscal backstops available, leaving Member States responsible for the announcement and implementation of any possible actions for injecting capital into failing banks, and market participants unclear on the credibility of such actions<sup>5</sup>. The stress test is now a supervisory tool, an input into the supervisory review and evaluation process. Still, this gap

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<sup>4</sup> S. Wilkes (2018), Seeing red: EU banks swamped by stress test demands, Risk Magazine.

<sup>5</sup> P. Haben and M. Quagliariello (2015), EU-wide Stress Tests: Rationale and Basics, in M. Quagliariello (ed.), Europe's New Supervisory Toolkit: Data, Benchmarking and Stress Testing for Banks and their Regulators, RiskBooks.

remains. Results are published, but there is no clarity on how they feed into corrective measures, how supervisory judgment is used, if and to what extent there will be any communication on the outcome of this process. This is partly due to our methodology – which provides stress test impacts gross of possible banks’ mitigating actions that are to be assessed separately by the supervisors – but also to the different Pillar 2 practices, particularly with reference to disclosure that is not always supported.

### ***b. Methodological approach***

The EU-wide stress test has always been based on a constrained bottom up approach, a hybrid solution and, to some extent, a contradiction in terms, but with the benefit of encouraging risk management at banks, allowing for relatively tailor-made assessments while ensuring a good degree of comparability and conservatism of the results. Constraints have been widely criticised, particularly by banks, but they served the purpose of *ex-ante* safeguards given the EBA’s limited role in *ex-post* quality assurance of the results. Constraints have also prevented the stress test from becoming a beauty contest where banks – and to some extent supervisors – compete for looking good when results are communicated.

The drawback is that the methodology – and the related data requirements – increased in complexity over time in a frantic attempt to avoid possible gaming of the methodology or limit over-optimism in banks’ estimates. Weaknesses that could be addressed with a robust and very burdensome quality review of the results are instead handled with methodological constraints, less realistic and difficult to calibrate.

In addition, authorities have improved their own top-down models in order to benchmark and challenge banks’ internal models. This evolution moved the balance from a pure company-run exercise to outcomes more and more driven by top-down constraints. There is no doubt that authorities should be able to quality assure bottom-up results and use their own yardsticks to challenge them, but it is unquestionable that this can reduce banks’ incentives to invest in risk management if their figures are eventually overridden by supervisors.

There is also another aspect to consider. Based on historical data, caps and floors to the evolution of key variables worked fairly well when banks’ balance sheets were relatively stable, less so recently. In particular, the static balance sheet assumption is confronted with waves of corporate restructuring, deleveraging and mergers and acquisitions, which make it less satisfactory. The

introduction of “one-off” exemptions – a way for recognising that there are cases when the use of historical data can be misleading – has been only a partial solution to this problem.

More fundamentally, the more the methodology stabilises and becomes predictable, and the more banks consider the results biased by the static balance sheet assumption, the more they will deploy their technical capacities to minimise the impact of the exercise, particularly at the start of the exercise and before any quality assurance<sup>6</sup>. In 2018, the impact of the adverse scenario provided by banks in their first submission of the results was on average 100 basis point lower than the post-quality assurance results. This shows the effectiveness of quality assurance but also that banks tend to exploit the weaknesses of the methodology and to challenge and lobby against assumptions they consider unrealistic.

Since the first exercise back in 2009, the US top-down approach to stress testing has been widely praised for its ability to steer a fast adjustment in banks’ balance sheets and provide clear indications to both banks and investors. Exclusive reliance on top-down models is also open to criticisms though. The Federal Reserve’s own models play a key role in setting large banks’ capital requirements and determining their ability to distribute dividends. Company-run stress tests – even if quality assured by the supervisors – are relatively unimportant.

The strong grip exercised by the Fed aims at tackling model risk and potential gaming of the methodology. By relying on supervisory models, it addresses level playing field issues upfront. Nonetheless, there is discontent on this approach, alleged to be opaque, imprecise and to lead to uncertainty among institutions as to what drivers the level of capital they will be asked to hold<sup>7</sup>. In this respect, there is discussion in the US on enhancing disclosure of supervisory models<sup>8</sup>.

So, while in the EU, banks’ models are challenged by supervisors, US banks are seeking for more quality assurance and transparency of supervisory models.

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<sup>6</sup> Niepmann F. and V Stebunovs (2018), Modeling Your Stress Away, Board of Governors of the Federal Reserve System, International Finance Discussion Papers. However, see also F. Covas (2018), What a Recent Fed Paper Gets Wrong on European Stress Tests, Bank Policy Institute.

<sup>7</sup> B. Bernanke (2013), Stress testing banks: what have we learned, speech at the "Maintaining Financial Stability: Holding a Tiger by the Tail" financial markets conference, Georgia. J. Heltman (2017), Fed opens black box on stress tests (but not too far), American Banker.

<sup>8</sup> See, for instance, Federal Register, Vol. 82, No. 240, December 15, 2017, Proposed Rules 59.

### *c. Informative value*

The EU-wide stress test is a large-scale transparency exercise. Back in 2011, it was decisive in providing the markets with the ability to discriminate among different levels of risk for financial institutions, providing detailed information on capital composition, geographical breakdown of exposures as well as sovereign holdings. We filled an information gap and provided comparable data on banks' solvency ratios, front-loading – with some simplifications – the global definition of Common Equity Tier 1 then under discussion at the Basel Committee. While the findings of the stress test have been often regarded and criticised as too benign and missing actual risks, the disclosure of bank data has been consistently commended by market participants<sup>9</sup>.

For supervisors, the EU wide stress test is an important benchmarking exercise and an input into their decisions on capital needs. The ECB-banking supervision uses the EU-wide exercise as the main supervisory stress test and for informing the SREP, applying the EBA methodology to all the significant institutions under their direct supervision. Other EU authorities use it as part of the wider suite of stress tests they carry out for micro- and macroprudential purposes. In both cases, they can rely on an instrument for consistently comparing and contrasting banks and their relative strength and weaknesses.

Given the emphasis on EU consistency and some methodological constraints, the outcome of the stress test cannot be used mechanistically but requires judgment. First, authorities and banks need to discuss the credibility of managerial actions that could mitigate the impact of the shocks. More importantly, authorities should also assess additional risks that are more idiosyncratic in nature and are not captured in the common scenario as well as whether some specific business models deserve a more in depth analysis. There can also be cases – particularly when the timeline of the exercise is extended – when some elements of the adverse scenario become outdated and authorities may need to revise the quantification of the stress test impact based on more recent market developments.

This comprehensive assessment can eventually result in the request for additional capital. The sequence of steps makes the supervisory measures as well informed as possible, but undoubtedly creates a lag between the end of the stress test – and the disclosure of the results – and the decision of the supervisory measures, reducing the immediate informative value of the

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<sup>9</sup> G. Petrella and A. Resti (2013), Supervisors as information producers: Do stress tests reduce bank opaqueness?, *Journal of Banking and Finance*, V. 37, 12.

results especially for investors. In fact, the shift from bail-out to bail-in and the “maximum distributable amount” (MDA) – the notion that banks unable to meet the capital requirements and macroprudential buffers are confronted with restrictions to the payments of dividends and coupons on capital instruments – have important implications for market dynamics since the decisions of the supervisory authorities directly affect the payoff of several banks’ stakeholders. However, disclosure of supervisory measures – mainly of Pillar 2 requirements and guidance – is still debated and there is no common EU approach.

The decoupling of stress test results and supervisory actions and the inconsistency between the transparency of the former and the opaqueness of the latter are, in my view, the main shortcoming of the EU approach compared to the US. Regardless of the amount of data we publish, this aspect alone makes the informative value of the results limited and creates uncertainty on future dividend policies.

## Possible ways forward

With the results just published, we will soon start our usual lessons learnt exercise and discussing what to do next. It is thus too early for giving a clear direction of travel. However, also based on past experience, I see two possibilities looking forward. One option is to remain loyal to the current approach, with some refinements and improvements to the methodology but without changing its philosophy. A second option is to think of a more fundamental redesign of our toolkit, enriching the bottom-up exercise with a top-down component.

The first option would confirm the constrained bottom-up approach, but possibly introduce more dynamism and realism in applying the methodological constraints. More dynamism entails – it is self-evident – some form of relaxation of the static-balance sheet assumption. A first and relatively simple step would be to include some modelling of the evolution of assets and liabilities in the adverse scenario, which could be left to banks’ internal models or dictated by the scenario itself as an aggregate figure. The second and more complicated step would be to allow banks to take into account major changes in their corporate structure and, thus, adjust historical caps and floors based on pro-forma data. The last and most innovative step would be to include in the results also the managerial actions that banks would put in place for mitigating the impact of the adverse

shock, possibly with some limitations linked, for instance, to the inclusion of such measures in their recovery plans.

This approach would be perceived, I believe, as more useful for banks' own internal purposes and would incentivise risk management as well as improvements in contingency and recovery planning. The EBA would still provide a common methodology and set data requirements, ensuring that the overall outcome can preserve a good standard of comparability.

Clearly, moving from the simpler to the more complicated notion of dynamic balance sheet would put increasing pressure on Competent Authorities, which would need to frontload parts of the SREP assessment during the stress test quality assurance process. This would allow, however, to publish results both gross and net of mitigating actions, an outcome far more informative for market participants. On the other hand, the exercise would still be based on a single common consistent scenario and EU-wide detailed methodology, leaving limited room to consider idiosyncratic or country-specific sources of vulnerabilities and additional sensitivity analyses.

More importantly, in my view, the governance issues would still represent a serious concern, with the EBA publishing results that are even more dependent on banks' own assumptions and Competent Authorities' quality assurance, but without any real mandate or resources for ensuring the credibility of the stress test outcome. In addition, the resource implications for banks and authorities could be severe, since the exercise would leave a greater degree of freedom but also require additional checks and balances throughout the process.

I wonder, therefore, whether we should not consider – perhaps in the medium-term – a more structural review of the way stress tests are run in the EU that could deliver an exercise more in line with the actual allocation of tasks among EU institutions.

Banks would still run a bottom-up exercise, but – as in the US – based on a common but less detailed methodology and a single common scenario, possibly with additional more idiosyncratic shocks or sensitivity analyses as deemed necessary by their supervisors, with a view to better reflect the specific risk profile and business model of each bank. The results of this – unconstrained – bottom-up exercise would be published by the Competent Authorities and the EBA, under the responsibility of the Competent Authorities and banks themselves. The information to be disclosed could be relatively more limited than today, leaving the publication of granular data on banks'

exposures to the EBA transparency exercises that could become more frequent since based on supervisory reporting.

This stress test would be the basis for Pillar 2 guidance decisions and authorities could align the timeline of this exercise to the SREP and, at once, assess the impact of the stress test and other risks as part of the annual cycle. In this framework, it would be possible to publish the overall SREP decision in a transparent way along with the outcome of the stress test results. I am aware that the publication of Pillar 2 requirements (P2R) and guidance (P2G) is still a controversial matter and there are different views on its merits, but I do not think that the approach of providing only partial information to the markets is tenable in a post MDA and post bail-in world<sup>10</sup>. Actually, I believe this new approach is feasible only if supervisors accept to publish P2R and P2G, otherwise the loss of information would be a step back with respect to where we stand today. Full transparency would allow investors to get all the relevant information at the same time, instead of getting stress test results first and only later (if at all) the outcome of the SREP.

The EBA could contribute to this process carrying out – similar to what the International Monetary Fund (IMF) does – a top down stress test based on the very same common scenario provided to banks and publish aggregate results as well as the dispersion of outcomes, but not bank by bank figures, which would instead serve as benchmark for the quality assurance. A top-down model would be more flexible: it would allow testing both static and dynamic approaches, including a funding shock on volumes rather than only on prices like today, and assessing the impact of alternative shocks. Given the benchmarking role of the top down model, data requirements – while intensive – could be limited to what we receive already for supervisory reporting. This would have the additional benefit that there would not be any additional cost or reporting burden for banks, the estimates could be updated quarterly, if deemed necessary, and the sample of banks could be wider.

In terms of timing, we could publish our aggregate results at the same time as the authorities publish the outcome of the company-run stress test along with the SREP decision. However, this might generate confusion and it could be preferable for the EBA stress test outcome to be published ahead of the bottom-up results. Compared to the approach in the US, the bottom-up stress test

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<sup>10</sup> A. Enria (2016), Ensuring transparency in the European financial system, City lecture at OMFIF, London.

would remain the key input for supervisory actions, while the EBA top-down will mostly serve as a benchmarking microprudential tool and part of our risk analytics.

The main benefits of this approach would be to run bottom-up stress tests that are more tailored-made and, thus, more informative for banks and supervisors as well as to provide market participants, in one-go, with all the information they need on banks' actual capital levels, potential vulnerabilities and corrective measures.

## Conclusion

Stress testing has been an important addition to the toolbox of European supervisors. It has been essential to steer the necessary capital strengthening in response to the crisis. It has played a fundamental role in enhancing the transparency and comparability of information concerning individual banks' risk profile. It is also the area in which the microprudential and the macroprudential perspective have really integrated: in the EU the exercise is built on a very close cooperation between the EBA, Competent Authorities – in particular the ECB-Banking Supervision – the European Systemic Risk Board and the financial stability function of the ECB.

Still, I do not think we have yet achieved a completely satisfactory set up, in the EU as well as in other jurisdictions. Further discussion is required on the balance between bottom-up and top-down approaches, the tension between comparability and relevance, the connected issue of the relevance of methodological constraints, and the best way to deliver relevant information to market participants. These are in my view the most relevant issues on which it is important to open a public discussion. My remarks today are not aimed at indicating solutions, but to launch a debate.

It is very possible, and indeed likely, that we will conclude that radical changes are not warranted. Notwithstanding its shortcomings, the exercise has been effective and provides value added for all parties. If we instead opt for a novel approach, possibly combining a more standardised, top-down EBA-driven exercise with more tailored, flexible and relevant bottom-up stress tests, as I suggested today, we will need, anyway, several years to agree on the way forward and develop reliable supervisory models.



In any case, an open and informed debate will surely contribute to enhance the robustness of the EU framework for stress testing and its legitimacy across all interested stakeholders.

Thank you very much for your attention.