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Overview of the EBA 2011 banking EU-wide stress test

Introduction

1. The European Banking Authority (EBA) was established on 1 January 2011 with a broad remit that includes safeguarding the stability of the EU financial system. The EBA is required, in cooperation with the European Systemic Risk Board (ESRB), to initiate and coordinate Union-wide stress tests to assess the resilience of financial institutions to adverse market developments[1]. Building on experience of two previous EU-wide stress tests undertaken by the EBA's predecessor, the Committee of European Banking Supervisors (CEBS), the EBA is conducting a stress test on a wide sample of banks in the first half of 2011. This exercise is being undertaken in coordination with national supervisory authorities, the ESRB, the European Central Bank (ECB) and the European Commission. This stress test should be understood as part of the framework of the European System of Financial Supervision (ESFS) and will be carried out in parallel with stress tests of insurers undertaken by the European Insurance and Occupational Pensions Authority (EIOPA).

2. This document introduces the 2011 EU-wide stress test and provides the reader with an overview of the general features of the exercise. This document is supported by the Methodological note, which provides detailed instructions to participating banks. This note also references annexes to the Methodological note, which contains information on the scenarios, and market risk parameters.

Timeline of the exercise

3. The exercise will be carried out between March and June with preliminary results submitted to national supervisory authorities at a time to be arranged on a country-by-country basis. After a series of national checks all results will be submitted centrally to the EBA. These results will undergo an extensive quality control and peer review process that will involve further interaction with national supervisory authorities and relevant banks as appropriate. The final set of results will be reviewed by the EBA's Board of Supervisors in early June before final publication some time in June 2011.

[1] Articles 21,22 and 32 of the Regulation (EU) No 1093/2010 the European Parliament and the Council of 24 November 2010

Objective of the 2011 stress test

4. The stress test is one of a range of supervisory tools used for assessing the resilience of individual institutions as well as the overall resilience of the system. The exercise is conducted on a bank-by-bank basis, on the highest level of consolidation of the banking group. The objective of the stress test is to assess the resilience of the EU banking system, and the specific solvency of individual institutions, to hypothetical stress events under certain restrictive conditions imposed by supervisors. This is a micro-prudential stress test focused primarily on assessing banks in a bottom-up manner in a way which is conservative and consistent across the EU. In the design and conduct of the 2011 exercise, the EBA took into account areas where improvements compared to the 2010 exercise were deemed necessary as a result of a "lessons learnt" analysis conducted by the EBA and all the involved authorities in the aftermath of the 2010 exercise.

Sample of banks subject to the exercise

5. The 2011 EU-wide stress test exercise is carried out on a broadly similar group of banks as the 2010 exercise covering over 65% of the EU banking system total assets, and at least 50% of the national banking sectors in each EU Member State, as expressed in terms of total consolidated assets as of end of 2010.

Risk factors and scope of consolidation

6. The focus of the 2011 exercise, as in 2010, is primarily on assessing credit and market risks in hypothetical adverse economic conditions. Trading and banking book assets (including off-balance sheet exposures) are subject to stress at the highest level of consolidation of the banking group (or banking arm of a financial conglomerate). That is to say that the relevant scope of consolidation for the projection of the balance sheet (BS), profit and loss account (P&L) and regulatory aggregates (RWA and own funds) is the perimeter of the banking group as defined by the CRD[2,3]. The elimination of insurance activities[4] is to be done both from the balance sheet and revenues and costs side of the P&L.

7. There will also be a specific focus on the exposure to sovereign risk and the stress will incorporate a sovereign shock which is applied to the trading book.

8. Liquidity risk is not specifically assessed as part of this stress testing exercise. As publicly announced by the EBA in January 2011, the liquidity profile of relevant institutions is being assessed by a specific thematic review which is for supervisory purposes. Nevertheless the 2011 EU-wide stress test does assess the evolution of the cost of funding connected to the specific financial structure of the banks in question, and in particular to assesses the impact of increases in interest rates on assets and liabilities including the impact of the sovereign stress on funding costs of the institutions participating in the exercise.

[2] Directives 2006/48/EC and 2006/49/EC as amended by Directive 2009/111/EC.
[3] Bank employees' defined-benefit pension funds shall be taken into account.
[4] Material insurance holdings should be deducted for the calculation of the capital in accordance with the CRD rules.

Scenarios

9. The stress test uses a set of baseline (Annex 1) and adverse (Annex 2) macro-economic scenarios developed by the EU Commission and the ESRB/ECB respectively, in conjunction with the EBA and national supervisors. The scenarios cover the period of 2011 - 2012.

10. For the purposes of the trading book stress test, a set of stressed market parameters will be directly applied on the trading book positions (Annex 4). Although in designing the market risk parameters the objective is to keep them broadly consistent with the macro-economic scenarios, full consistency is not always possible due to the differing nature of the risks and the need to ensure the trading book stress is robust and captures the volatile nature of market risk. Some market risk parameters have been adjusted to be more directional.

Time horizon and reference date

11. The exercise will be carried out on the basis of the consolidated year-end 2010 figures (both for banking and trading book) and the scenarios will be applied over a period of two years – 2011 and 2012. The time horizon of two years is consistent with the approach used in the 2009 and 2010 exercises and most current stress testing practices of institutions and national supervisory authorities, as well as in line with the principles set forward in the CEBS/EBA Guidelines for stress testing[5].

Future regulatory changes in the 2011 EU wide ST exercise

12. The general principle applied in the conduct of this exercise is that future regulatory changes will only be captured if they actually come into force during the period of the assessment (2011 and 2012) and then only to reflect the reality of meeting regulatory solvency requirements at that time. Therefore, all the new rules that will enter into force in 2011-2012 will be appropriately taken into consideration.

13. Regulatory changes in the CRD (i.e. CRD III[6] for market risk requirements; ending period for the application of the transitional provisions in CRD regarding past-due and collateral) agreed before the end of December 2010 and entering into force in the time horizon of the exercise will be taken into account.

14. To understand the potential impact from the application of regulatory transitional floors (transition from Basel I to Basel II), the EBA intends to collect information from banks on their capital ratios with and without the effects of such transitional floors until December 2012.

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[5] See: http://www.eba.europa.eu/documents/Publications/Standards---Guidelines/2010/Stress-testing-guidelines/ST_Guidelines.aspx

[6] Directive 2010/78/EC.

Static balance sheet, zero growth assumption and constant business mix

15. For robustness and consistency the EBA stress test will be conducted on the assumption of a static balance sheet. This strongly supports the conservative approach of the EBA exercise. The zero growth assumption applies on a solo, sub-consolidated and consolidated basis for both the baseline as well as the adverse scenario. Assets and liabilities that mature within the time horizon should be replaced with the same financial instruments in terms of type, risk and maturity[7]. Defaulted assets will not be replaced, effectively meaning that the balance sheet would reduce due to impairments.

16. Furthermore, it is assumed in the exercise that institutions maintain the same business mix and model (geographical and product strategies and operations) throughout the time horizon. With respect to the P&L, revenue and cost assumptions, these should be in line with the constraints of zero growth and a stable business mix.

17. No workout of defaulted assets is assumed in the exercise, therefore the entire portfolio will stay constant, although the proportion of defaulted assets in the total portfolio will increase at the expense of the proportion of non-defaulted assets.

18. The EBA understands that many banks feel this assumption is overly onerous and makes the stress test very severe. However, to ensure the robustness of this exercise, and consistency across the entire sample of banks, it is vital that this assumption is respected. For the avoidance of doubt the EBA and national authorities are aware that this means that management actions cannot be included as mitigants in the stress test exercise.

19. Any regulatory imposed decisions (e.g. restructuring plans agreed with the EU Commission) or other legally binding agreements signed before 30 April 2011 and taking place within the time horizon of the exercise (2011-2012) will be incorporated in the assessment. Banks will be requested to provide: (a) specific evidence on the impacts of such restructuring plans on the forecast evolution with the balance sheet, profit and loss, RWA and capital; (b) a description of the arrangements (de-leveraging/restructuring/asset protection etc.), (c) information on business line(s) affected, (d) legal nature of the arrangements (legally binding element of the agreement / contract (EU State Aid/ published Board agreement etc.), (e) external actors involved (national Governments/EU Commission/IMF), and (f) information on the timelines, including the starting date of the legally binding agreement, timeline for action (i.e. dates when transaction will be completed in 2011-2012). Banks should calculate the impact of the stress with and without the effects of such restructuring plans.

Banking book

IRB Portfolios

20. Banks are expected to estimate the effect of the key macro-economic variables of the scenarios – including GDP, unemployment, interest rates and

[7] It should be noted that the treatment for the trading book assets is slightly different (see separate section).

property prices – on their balance sheet using statistical methodologies and simulation techniques that estimate the link between macro-economic variables, asset prices, and banking variables (default rates, losses).

21. The impact of the macro-economic scenarios should be translated into income, expense, loss (disaggregated into point in time (PIT) estimates for probabilities of default (PD) and loss given default (LGD)) and capital requirements (disaggregated into regulatory PD and downturn LGD[8]) forecasts. These forecasts will differ according to the bank's business model, asset mix, loan portfolio and internal models.

Impairments

22. For P&L purposes, impairments should be computed both for defaulted and non-defaulted assets. The main inputs for calculating impairments are point in time (PIT) PD and LGD during the stress horizon applied to exposures at default (EAD) gross of funded credit risk mitigants.

RWA

23. The RWA forecasts for 2011 and 2012 should reflect the estimated yearly defaulted/impairment flows and the application of the new regulatory parameters after stress (new regulatory PDs, downturn LGDs). For simplicity and consistency reasons EAD (except for the decrease due to defaulted asset flows) are considered constant over the time horizon of the exercise.

24. The estimation of the credit capital requirements evolution at the end of 2011 and 2012 shall reflect changes in regulatory PDs and downturn LGDs. Exposures will migrate to higher risk rating asset classes. The RWA on the (Advanced) Internal Ratings Based (A)IRB portfolio are in any case subject to a minimum floor equal to the RWA on the (A)IRB portfolio at December 2010. The only exemption to this minimum floor would be in relation to pre-agreed and legally binding restructuring plans (see paragraph 19).

25. The conduct of the exercise will be supported by a set of benchmark parameters computed by the ECB on a country and sector basis (not institution specific). These benchmarks are intended as a reference point; larger and complex institutions will be expected to use their own internal models and risk parameters.

26. For simplicity and consistency the impairments on the new defaulted assets shall be equal to the best estimate of LGD. This indicates that there should be no excess or shortfall with respect to new defaulted assets. The difference between the downturn LGD and the best estimate of LGD, when the former is bigger than the latter, it should be computed as RWA. The excess/shortfall on old defaulted assets shall be changed according to the expected evolution of the impairments in the time horizon of the exercise.

[8] Should the institution apply Foundation IRB, it could use regulatory LGD for the same purposes.

Standardised approach portfolios

27. The RWA for the Standardised Approach (SA) portfolios should be calculated based on the scenarios assuming rating migration as appropriate. However, the RWA on the SA portfolio are in any case subject to a minimum floor equal to the RWA for SA portfolio at December 2010[9]. The only exemption from this minimum would be the legally binding and pre-agreed restructuring plans (see paragraph 19). Furthermore, no roll out of (A)IRB models can be assumed over the time horizon.

28. Institutions are required to estimate the amounts of impairment and amount of defaulted assets at the end of each period, for each scenario.

Credit risk mitigation

29. The credit risk mitigation (CRM) unfunded effect (counterparty substitution) will be taken into account for the estimation of the PD (PIT). The CRM funded instruments are not considered in the estimation of the default flows but are taken into account for the identification of the appropriate LGD to be used for the estimation of impairments and RWA calculations.

Treatment of securitisation exposures

30. All securitisation exposures (traditional and synthetic, re-securitisations as well as liquidity lines on securitisation transactions) for which there are CRD requirements (e.g. significant risk transfer) are included in the scope of the exercise. For capital requirement purposes, a specific approach is applied to the securitisation exposures. Institutions are required to estimate the amounts of impairment at the end of each period, for each scenario.

Treatment of fair value portfolios

31. The fair value of equity assets allocated to both the "available for sale" (AFS) and those "designated at fair value through profit and loss" portfolios are expected to change according to relevant shocks as applied to the trading book assets. In particular, those positions will be subjected to the application of the same haircuts as those in the trading book. All other assets will be treated as "hold to maturity" (HTM) assets.

Hedging positions

32. Hedging positions are expected to be rolled-over, i.e. no change in the hedging strategy of the banks is allowed. An estimation of the increased cost for the roll-over of the hedging positions shall be reflected in the P&L. Banks are invited on a best efforts basis to estimate the cost of roll-over hedging positions at higher costs (i.e. increase in credit default swap (CDS) premium) in a stressed market.

[9] The assumption is applicable to the Standardised Banks and to the Standardised portfolios of the IRB Banks.

Funding (Wholesale and Retail)

33. Funding needs of the banks are considered stable during the time horizon of the exercise and no change in the composition of the funding structure is permitted in the exercise.

34. A bank's own credit spread should, however, be subject to the same negative evolution as the shock on sovereigns, applied in a linear fashion, envisaged in the macro-economic scenario. Interest rates paid on maturing wholesale funding (short-term and long-term) will increase according to the evolution envisaged in the macroeconomic scenario and the aforementioned increase in a bank's credit spread.

35. Interest rates paid on customer deposits (sight and term deposit) are expected to increase in both scenarios, in particular, under the adverse scenario subject to discussion with the bank's respective national supervisory authority.

Return on assets

36. Interest on loans and receivables should reflect the expected evolution of interest rates in the macro-economic scenarios. Any reduction in performing loans as a result of defaulted assets are assumed to be uniformly distributed, approximated by a linear distribution over the year. Loans due are substituted at exactly the same conditions (e.g. risk, maturity and interest rate terms) as the originals, and spreads may increase to some extent in line with changes in a bank's credit spread. The income generated by the remaining interest bearing assets must be consistent with the amount of assets at December 2010.

Other P&L items

37. Net commission income and administrative costs should be kept constant at the 2010 level during the time horizon of the stress test for both the baseline as well as the adverse scenario, with an exception for effects of legally binding and pre-agreed restructuring plans (see paragraph 21). Similarly dividend income is expected to be based on 2010 levels, albeit adjusted for macro economic developments in the adverse scenario.

38. Net trading income before the shock should be in line with the average profitability of the HFT portfolio in the last five years (2006-2010).

39. In the baseline scenario the estimate dividend/pay-out ratio by banks should be the banks' own estimate subject to challenge by the EBA and national supervisors, taking into consideration the eventual declaration of dividend policies in the annual reports. In the adverse scenario, the pay-out ratio is expected to be in line with the median of the last three years unless there is clear, compelling and publicly available pre-agreed evidence that the bank will alter this behaviour.

Capital

40. Capital is expected to change due to the capitalisation of profit or loss after tax and/or for the gradual decrease of eligibility of Tier 2 instruments over the

last five years until maturity. Other potential changes in the capital amount should be detailed and explained by banks in the "capital" worksheet of the exercise template.

Trading book

41. Banks are required to evaluate at fair value all their exposures allocated to the trading book using different market risk factor shocks under the baseline and adverse scenarios as presented in Annex 4.

42. Gains and losses should be computed from the differences in the fair value of the trading book portfolios before and after the application of all the shocks.

43. The total gains and losses on the trading book positions resulting from the application of stress scenarios should be deducted from the net trading income accrued over the two-year horizon of the exercise (under the baseline and adverse scenarios, respectively).

44. For simplicity and consistency reasons the RWA on market risk (standard and internal models) are considered stable (confirming for each year the amount of RWA at the end of 2010) in the time horizon of the exercise. The only exception being the legally binding and pre-agreed restructuring plans with effect during the time horizon of the exercise. RWAs may also change due to regulatory changes.

45. To capture regulatory changes (i.e. CRD III) banks may use a scaled increase vis-à-vis 2010 in the RWA for market risk. The scaling factor is outlined in the detailed methodological note and has been computed based on the results of the latest Quantitative Impact Study (QIS) exercise in Europe.

Sovereign shock

46. In the baseline scenario all[10] direct and indirect[11] sovereign exposures in the trading book will be subject to a general "interest rate" stress, representing an upward movement in the swap curve. This general interest rate stress will affect non-sovereign exposures the same way as sovereign exposures.

47. In addition, under the adverse scenario, direct EEA sovereign exposures registered in a trading book will be subject to further valuation shock based on specific sovereign rate shocks (see Annex 4). Furthermore, the haircuts are differentiated by the residual maturity of the assets at end December 2010. Non-EEA sovereign exposures (direct and indirect) will be subject to another general interest rate stress representing a more severe upward movement in the swap curve than in the baseline scenario.

48. Banks will also be expected to disclose their exposures to sovereigns broken down by accounting portfolios (AFS, HTM, HFT), maturities and countries.

[10] EEA exposures, non-EEA non-emerging country exposures (e.g. US, Japan) and emerging country exposures (e.g. Brazil, India). Please see detailed methodology note for further details.

[11] Derivatives on sovereign risk even if the counter party is not the sovereign.