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Report

On the impact on the volatility of own funds of the revised IAS 19 and the deduction of defined pension assets from own funds under Article 519 of the Capital Requirements Regulation (CRR)

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1. Executive summary

Reasons for publication

Article 519 of Regulation (EU) No 575/2013 (Capital Requirements Regulation – CRR) gives the EBA a mandate to prepare a report on whether the revised IAS 19 *Employee Benefits* in conjunction with the deduction of net pension assets as set out in Article 36(1)(e) and changes in net pension liabilities lead to undue volatility of institutions' own funds. The report must be submitted to the Commission by 30 June 2014 and, taking the EBA report into account, the Commission must, by 31 December 2014, prepare a report to the European Parliament and the Council on this issue, together with a legislative proposal if appropriate, to introduce a treatment that adjusts defined net benefit pension fund assets or liabilities for the calculation of own funds.

On 17 February 2014, the EBA published a discussion paper with a preliminary assessment of the possible impact of the introduced changes. The input received has assisted the EBA in drafting the final report to be submitted to the Commission by 30 June 2014.

Contents

- This report aims to provide an assessment of the impact of the revised IAS 19 *Employee Benefits* in conjunction with the prudential requirements for the treatment of defined benefit pension funds on the volatility of own funds.
- The first part of the assessment identifies the accounting and regulatory changes that are relevant to the EBA's mandate as described in Article 519 of the CRR and analyses whether these changes might affect own funds.
- The next part of the report includes a quantitative assessment of the impact of these changes on the volatility of own funds during a specific time period assuming full application of CRD IV/CRR and the revised IAS 19 requirements. Qualitative and quantitative information for a sample of EU institutions and Member States highlights the main effects of the prudential and accounting changes, their magnitude and what types of institutions are mainly affected.
- The last part of the assessment outlines additional considerations about the variables that could have a direct impact on the level of defined benefit pension funds and that could possibly also have a direct impact on the volatility of own funds in the future.

EBA views

The EBA's views set out below are based on its assessment and analysis:

- The impact on own funds of the application of the new requirements (i.e. initial application) depends mainly on the previous national prudential treatment of defined benefit pension funds, the previous accounting method applied (i.e. use of the 'corridor approach'), the level of unrecognised actuarial gains and losses and the level of the net defined benefit pension fund assets and liabilities compared to the capital position of the institution.
- **Subsequent to the initial application of the revised IAS 19 (elimination of the 'corridor approach') and the new prudential requirements, there may only be limited volatility of own funds under the new requirements for most institutions assessed.** The main drivers of the volatility that could be introduced by these changes are the level of the yearly change in the unrecognised actuarial gains or losses (for institutions that applied the 'corridor approach') and the level of the yearly change in the defined benefit pension fund assets (for institutions that will be required to deduct a defined benefit pension fund asset from own funds in accordance with the CRR and that did not previously deduct these assets under national prudential rules) compared to the capital position of the institution.
- For institutions that applied immediate recognition of actuarial gains and losses in own funds, the application of the revised IAS 19 itself should not result in additional volatility of own funds. For institutions that applied the 'corridor approach', the recognition of actuarial gains and losses could affect the level of the defined benefit pension funds and therefore the volatility of own funds.
- In addition, when a net defined benefit pension asset is reported on the balance sheet, no volatility of own funds results from the change in the value of the net defined benefit pension fund asset if this change is related to an equal amount of gains or losses recognised on own funds (such as actuarial gains and losses). This is due to the offsetting effect between the impact on own funds of the recognition of gains and losses (such as actuarial gains and losses) and the equal and opposite effect of the change in the level of defined benefit pension assets deducted from own funds under CRR requirements. There will also be no volatility of own funds where there is a change in the level of a net defined benefit pension liability with no corresponding gains or losses being recognised in own funds (such as an additional employer's contribution to the fund) if this net defined benefit liability is funded up to 100% of its amount (above that percentage, a net defined benefit pension fund asset would be recognised on the balance sheet and would need to be deducted from own funds under CRR rules).
- Nevertheless, the volatility of own funds also depends on whether the defined benefit pension fund is in deficit or surplus. In the case of a net defined benefit pension liability, the recognition of gains and losses in own funds will not be offset as in the cases explained above, and may therefore result in volatility in own funds. In the case of a net defined benefit pension asset, the change in its value will not always be offset by an equal amount of gains

and losses being recognised in own funds (such as when there are additional employer's contribution to the fund), and the deduction of the net defined pension fund asset from own funds could therefore result in volatility in own funds. However, under the CRR, if certain criteria are met, the amount of the net defined benefit pension assets to be deducted from own funds may be reduced.

- Overall, the assessment in this report indicated that, in most cases, limited volatility of own funds could be caused by the changes in the accounting and prudential requirements. For some institutions and in some countries, the impact on the volatility of own funds could be higher. However, under the CRR, competent authorities may apply transitional measures to mitigate the impact of the accounting and prudential changes during the transitional period.
- The related variables that could have a direct impact on the volatility of own funds in the future could be both internal and external to an institution. Internally, the structure of a pension plan, the target funding level of the defined benefit pension obligation and its size in relation to the capital position of the institution would be the main drivers of the impact on own funds. Externally, the macroeconomic environment and other factors that can lead to changes in the actuarial assumptions could affect the level of the estimated defined benefit pension funds and therefore the volatility of own funds. This would also depend on the size of the pension plan compared to the capital position of the institution. The drivers of these factors are not related to the new prudential and accounting rules in the scope of the report, but they could trigger a change in the net defined benefit pension obligations.

Summary of the views received during the Consultation

Respondents commented that the discussion paper presented a comprehensive and reasonable analysis of the possible impact of the prudential and accounting changes introduced, but they also highlighted some areas that could be clarified or developed further. Changes have been incorporated into the report as a result of the responses received during the public consultation.

A more detailed summary of the responses received during the consultation and the EBA response to the stakeholders' comments can be found in the annex to this document.

2. Background and rationale

1. The mandate given to EBA is described in Regulation (EU) No 575/2013 (Capital Requirements Regulation – CRR), where in accordance with Article 519, the EBA must, by 30 June 2014, prepare a report on whether the revised IAS 19 in conjunction with the deduction of net pension assets as specified in Article 36(1)(e) and changes in the net pension liabilities lead to undue volatility of institutions' own funds.
2. Taking the EBA report into account, the Commission must, by 31 December 2014, prepare a report to the European Parliament and the Council on the issue referred to in the first paragraph, together with a legislative proposal if appropriate, to introduce a treatment that adjusts defined net benefit pension fund assets or liabilities for the calculation of own funds.
3. The International Accounting Standards Board (IASB) issued a revised version of IAS 19 *Employee Benefits* (revised IAS 19) in June 2011, which was adopted in the EU by Regulation (EU) No 475/2012 on 5 June 2012. The amendments, which must be applied from 1 January 2013, introduce significant changes to the recognition, presentation and disclosures of defined benefit plans.
4. Under Directive 2006/48/EC and Directive 2006/49/EC (the previous CRD), there is no requirement for institutions to deduct defined benefit pension fund assets from own funds or to filter actuarial gains or losses from defined benefit obligations. Under Article 36(1)(e) of the CRR, a new prudential requirement is established for an institution to deduct from Common Equity Tier 1 (CET1) items defined as benefit pension fund assets, as these appear on the balance sheet of the institution. Nevertheless, under certain circumstances, the CRR also permits a reduced amount of the net defined benefit pension fund assets to be deducted from CET1 as described in Article 41.
5. The CRR text establishes transitional provisions for a phased-out recognition, for prudential purposes, of the impact of the application of the previous and the revised IAS 19 (Articles 473 and 481) and for the phase-in of the deduction of defined benefit pension fund assets from own funds (Articles 469(1)(a)–(b), 472(7) and 478).

3. Report

3.1 Introduction – Scope

3.1.1 Volatility

6. Volatility of own funds is understood as the fluctuation in the level of own funds from one period to another. Within the context of the revised version of IAS 19 *Employee Benefits* and the CRR requirement for the deduction of defined benefit pension fund assets from own funds, the changes in the accounting measurement and the prudential treatment of defined benefit pension funds may affect the volatility of own funds.
7. The mandate refers to the impact of the revised accounting rules in conjunction with the prudential rules that could lead to undue volatility. With this objective in mind, the draft report provides a quantitative and qualitative assessment of volatility. In addition to identifying the existence of volatility, it therefore also considers the underlying reasons for its existence resulting from the accounting and prudential changes.

3.1.2 Prudential rules

8. Article 519 of the CRR refers to the revised IAS 19 in conjunction with the deduction of net pension assets as set out in Article 36(1)(e) and changes in the net pension liabilities. Although the revised IAS 19 covers all types of employee benefits and not only pension funds, the CRR text refers only to pension assets in Article 36(1)(e). The second part of the EBA's mandate states that, based on this report, the Commission will prepare a report to the European Parliament and the Council together with a legislative proposal, if appropriate, to introduce a treatment that adjusts defined net benefit pension fund assets or liabilities for the calculation of own funds. In addition, Article 4(109) of the CRR defines 'defined benefit pension fund assets' as the assets of a defined pension fund or plan, as applicable, calculated after they have been reduced by the amount of obligations under the same fund or plan. Therefore, only net defined benefit pension funds or plans fall within the scope of this report; no other post-employment schemes, such as post-employment medical care, post-employment life insurance and defined contribution plans, covered by the revised IAS 19 are included here.
 9. Article 41 of the CRR allows the amount of defined benefit pension fund assets to be deducted from CET1 under Article 36(1)(e) of the CRR to be reduced by the following:
 - (a) the amount of any associated deferred tax liability that could be extinguished if the assets became impaired or were derecognised under the applicable accounting framework; and
 - (b) the amount of assets in the defined benefit pension fund that the institution has an unrestricted ability to use provided the institution has received the prior permission of the competent authority.
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10. Technical guidance on the application of Article 41(b) of the CRR is also provided in Article 12 of the draft regulatory technical standards (RTS) on own funds (Part 1) (EBA/RTS/2013/01), clarifying the criteria according to which competent authorities must permit institutions to reduce the level of assets in the defined benefit pension fund.
11. Whether it is possible to apply the exemption under Article 41 of the CRR is not considered in the analysis, since it is not possible at this stage to have a clear indication of the circumstances in which institutions could be exempted in each jurisdiction. Nevertheless, this is a conservative approach to performing the analysis, and this factor could subsequently be considered on a country-by-country basis, for countries where the introduction of the prudential requirement to deduct defined benefit pension assets from CET1 could have a significant impact, and when information from national competent authorities becomes available.
12. A similar treatment is set out in Basel III (paragraphs 76 and 77), where for each defined benefit pension fund that corresponds to an asset on the balance sheet, an institution is required to deduct this asset from the calculation of CET1. In accordance with paragraph 77, this treatment also addresses the concern that assets arising from pension funds may not be capable of being withdrawn and used for the protection of depositors and other creditors of a bank. The concern is that their only value stems from a reduction in future payments into the fund. Assets in the fund to which the institution has unrestricted access can, with supervisory approval, offset the deduction. The treatment allows institutions to reduce the deduction of the asset in CET1 if they can address these concerns and show that the assets can be withdrawn from the fund easily and promptly.
13. Based on the current concepts outlined in the draft RTS on own funds (Part 3) as per Articles 36(2), 73(7) and 84(4) of the CRR (EBA/RTS/2013/09), this report does not cover the deduction of indirect holdings from CET1 (under Article 36(1)(f), (h) and (i) of the CRR) when there is exposure to an intermediate entity and the latter has an exposure to CET1 instruments issued by a financial sector entity. Defined benefit pension funds are considered to fall within the definition of intermediate entities if they hold capital instruments of financial sector entities and the institution is supporting the investment risk, and the defined benefit pension fund is not independent from its sponsoring institution. However, these provisions fall outside the scope of this report.

3.1.3 Accounting rules

14. The revised IAS 19 *Employee Benefits* applies from 1 January 2013. It introduces a series of significant changes in the recognition, presentation and disclosures of defined benefit funds, including the immediate recognition of actuarial gains and losses¹ in other comprehensive

¹ Actuarial gains and losses are changes in the present value of the defined benefit obligation resulting from: (a) differences between the previous actuarial assumptions and what has actually occurred; and (b) changes in actuarial assumptions. Actuarial assumptions are made by actuaries in many cases and they depend on key assumptions about

income, instead of deferring their recognition in profit and loss ('corridor approach'²), and the immediate recognition of unvested past service costs³ in the period they occur, instead of deferring their recognition to subsequent periods.

15. This report analyses the IAS 19 amendments that are relevant to defined benefit plans and that could have a material impact on the volatility of own funds. In line with the scope of the mandate with regard to the deduction of net defined benefit pension assets from own funds, only defined benefit pension funds are included in the scope of the report; all other post-employment schemes (such as post-employment life insurance and post-employment medical care) are excluded.

3.1.4 Transitional rules

16. Besides the primary requirement in the CRR for the deduction of defined benefit pension fund assets (as described above), Articles 469(1)(a) and 478 establish a transitional period for the deduction of defined benefit pension fund assets from own funds, and competent authorities must determine the applicable percentages, which must fall within the ranges described in Article 478 of the CRR. At the end of the transitional period (31 December 2017), all the defined pension fund assets must be deducted from CET1. In addition, Articles 469(1)(b) and 472(7) set out how residual defined pensions assets that have not been deducted from own funds are to be treated.

17. The introduction of the amendments to IAS 19 is addressed in the CRR under Articles 473 and 481, through the application of transitional provisions for the period between 1 January 2014 and 31 December 2018 provided that the competent authorities have given their permission.

18. The report addresses the existence and magnitude of defined benefit pension funds under the revised accounting rules, assuming full application of the CRR requirements without the application of transitional requirements by national competent authorities, and whether the related prudential treatment could lead to volatility of own funds. The possible exemptions (as described in Article 41 of the CRR) and transitional measures (as described in Articles 469(1)(a)–(b), 472(7), 473, 478 and 481 of the CRR) will depend on the decision made

employee turnover, early retirement, mortality, increases in salaries/benefits/medical costs, benefits payment options and discount rates.

² 'Corridor' was defined under the previous version of IAS 19 as being the greater of: 10% of the present value of the defined benefit obligation — before deducting plan assets — and 10% of the fair value of any plan assets, as calculated at the previous reporting date. This excess amount was divided by the expected average remaining working lives of the employees participating in that plan and recognised in subsequent periods. The 'corridor' approach allowed actuarial gains and losses to be deferred to subsequent years, limiting their effect on own funds. Under the revised IAS 19, this approach is not permitted and immediate recognition of actuarial gains or losses is instead required.

³ According to the revised IAS 19, past service costs represent the change in the present value of the defined benefit obligation for employee service in prior periods, resulting from a plan amendment (the introduction or withdrawal of, or changes to, a defined benefit plan) or a curtailment (a significant reduction by the entity in the number of employees covered by a plan).

by Member States on whether and how to apply any of these measures. These decisions may have an effect on the volatility of own funds during the transitional period.

The ultimate scope of the report is to assess undue volatility of own funds as a result of the relevant prudential and accounting changes to the treatment of defined benefit pension funds. Additionally, only those amendments to IAS 19 that relate to defined benefit pension funds fall within the scope of the report.

3.2 Objective and methodology

19. The first part of the analysis (3.3) includes a qualitative assessment of the relevant changes in the prudential and accounting requirements that may affect own funds.
20. The second part of the analysis (3.4) includes a quantitative assessment of the impact of these changes on own funds when the changes are initially applied and of the volatility of own funds subsequent to the initial application during 2010–2012. Qualitative and quantitative information is obtained for major EU institutions and Member States, including the current national prudential treatment of pension assets and liabilities in the calculation of own funds, which highlights the impact of the prudential and accounting changes on the volatility of own funds, their magnitude and the types of institutions mainly affected.
21. The final part of the analysis (0) includes an assessment of the possible impact on the volatility of own funds of future changes in the assumptions used to perform the analysis for this report, as well as of additional related factors that could give rise to volatility of own funds.

3.3 First part of the analysis: changes that could impact the volatility of own funds

3.3.1 CRR – Prudential rules

22. Article 36(1)(e) of the CRR requires institutions to deduct defined benefit pension assets from CET1. The prudential requirement for defined benefit pension fund assets to be deducted from own funds is explained in paragraph 76 of the Basel III framework to address the concern that these assets may not be capable of being withdrawn and used for the protection of depositors and other creditors of a bank. The concern is that their only value stems from a reduction in future payments into the fund. Therefore, the deduction of these assets from own funds improves the quality of own funds recognised by institutions and limits the possibility of recognition in eligible capital instruments that cannot absorb losses when necessary.
23. Furthermore, under the CRR requirements, institutions are permitted to apply the transitional provisions in calculating their own funds during a transitional period to reduce the impact of the introduction of the revised IAS 19 on their own funds, provided that the national competent authorities have given their permission (Articles 473 and 481 of the CRR).
24. Similarly, with regard to the requirement for defined benefit pension assets to be deducted from CET1, Member States could apply exemptions (Article 41 of the CRR) and transitional requirements (Articles 469(1)(a)–(b), 472(7), 478 and 481 of the CRR) that could limit the impact of the changes introduced.
25. The application of the above-mentioned transitional requirements for the application of the revised IAS 19 and of the requirement for deduction of pension fund assets from CET1 is only allowed for a specific time period (between 1 January 2014 and 31 December 2017/2018, as described in the aforementioned articles); after this period, all Member States will be required to apply the changes in full.
26. In this report, the impact on own funds is considered assuming full application of the related prudential requirements and the requirements of the revised IAS 19 by all Member States during the initial and subsequent periods.
27. Under certain circumstances, there will be no volatility of own funds in the cases of net defined benefit pension fund assets. This is true when an increase (or decrease) in the amount of net defined benefit pension fund assets that must be deducted from own funds is offset by an equal amount of gain or loss recognised in own funds (such as actuarial gains or losses, return on plan assets, change in the effect of asset ceiling, service cost or net interest on the net defined benefit pension fund as explained in paragraph 120 of the revised IAS 19). Therefore, in these circumstances, the impact on own funds of any change in the level of net defined benefit pension fund assets will be cancelled out. Other items that could have an effect on the measurement of the defined benefit asset/liability, but without an offsetting effect on own funds, include additional employer contributions to the defined benefit fund,

when assets are transferred to the pension fund and the defined benefit obligation is financed above 100% of its amount. In these cases, volatility of own funds might exist because a net pension fund asset will be recognised in the balance sheet (meaning that the defined benefit pension obligation is financed above 100%) and the only impact on own funds will be the change in the deduction of the net defined benefit pension fund assets in accordance with the CRR (without a corresponding gain or loss recognised in own funds)⁴.

28. The quantitative analysis includes the effect on the volatility of own funds of the change in the level of the net defined pension fund asset when there is no corresponding gain or loss recognised under accounting rules (such as when there is an additional employer's contribution to the fund). However, considering the diversity of practices and requirements across institutions and Member States on the levels of financing of defined benefit obligations and since detailed information is not available, this effect has not been separately identified. This impact is considered as a possible source of volatility in this report's qualitative assessment. Under Article 41(b) of the CRR, such contributions might not need to be deducted from own funds if certain criteria are met⁵, in which case the impact on the volatility of on own funds could be reduced.

29. Additionally, the impact of the changes on own funds depends on the current prudential practices of Member States and on the accounting policy choices of institutions in these Member States (see Accompanying documents – Qualitative information received from Member States). For example, in Member States where institutions were required to deduct defined benefit pension assets from own funds, these institutions will not be impacted by the introduction of the prudential requirement to deduct the related assets from own funds. Also, an entity that had defined benefit pension liabilities both under the previous and the revised IAS 19, with significant unrecognised actuarial gains, may have a higher CET1 ratio under the new requirements. For entities in jurisdictions where there was previously no national prudential requirement to deduct net defined benefit assets from own funds, which also applied the 'corridor approach' under the previous IAS 19, the impact on own funds of the application of the new requirements may be significant.

The CRR requirement that falls within the scope of the report is mainly the deduction of net defined benefit assets from CET1 and when the CRR will be fully applied. This prudential requirement is analysed further to assess whether it could affect the volatility of own funds. There will be no volatility of own funds when an institution reports a net defined benefit pension fund asset in the balance sheet (before and after the recognition of the actuarial losses

⁴ There could also be a positive impact on CET1 ratio, offsetting to some extent the impact of the asset deduction, which is the lower amount of RWA after transferring these assets to the pension fund (subject to the risk weight of the asset being transferred).

⁵ In addition to Article 41(b), the criteria for the possible exemption are further described in Article 12 of the draft regulatory technical standards (RTS) on own funds (Part 1) (EBA/RTS/2013/01).

or gains) and there is an equal gain or loss from the change in the level of the net defined benefit pension fund asset that is recognised in own funds because of the opposite effects of the deduction of net defined benefit pension assets and the recognition of gains and losses in own funds. However, if the institution reports a net defined benefit pension fund asset without a corresponding gain or loss, the deduction of the net defined benefit pension fund asset could result in volatility in own funds.

3.3.2 Amendments to IAS 19 *Employee Benefits*

30. In June 2011, the IASB published the revised IAS 19 *Employee Benefits* for defined benefit funds. The revised standard must be applied for annual periods beginning on or after 1 January 2013, with earlier application permitted. This standard was adopted in the EU by Regulation (EU) No 475/2012 on 5 June 2012.

31. The revised standard introduces a series of changes in the recognition, presentation and disclosures of defined benefit funds. In the following paragraphs, the changes to the revised IAS 19 are described in more detail based on the revised IAS 19 *Employee Benefits*, together with the CEBS comment letter on the exposure draft of the revised IAS 19⁶.

- Immediate recognition of actuarial gains or losses in other comprehensive income and full recognition of deficit or surplus⁷ in the balance sheet

32. As described in the revised IAS 19, actuarial gains and losses are changes in the present value of the defined benefit obligation resulting from: (a) experience adjustments (the effects of differences between the previous actuarial assumptions and what has actually occurred); and (b) the effects of changes in actuarial assumptions. Under the previous IAS 19, an entity could choose to recognise actuarial gains or losses in profit or loss or other comprehensive income (OCI) or defer and partially recognise actuarial gains or losses in profit and loss (the 'corridor approach'). The 'corridor approach' allowed only a specified portion of the net cumulative actuarial gains and losses that exceed the 'corridor' to be immediately recognised in profit and loss. Recognition of the unrecognised actuarial gains or losses would be deferred to profit and loss in subsequent periods corresponding to the average expected remaining working lives of the employees participating in the plan. As a result, a defined benefit pension asset could be recorded in the balance sheet even when the plan was in deficit.

33. Under the revised IAS 19, these options are not available. Instead, immediate recognition of actuarial gains or losses is required in other comprehensive income (and not allowed in profit or loss) and recycling to profit and loss is not permitted (recycling was also not permitted under the previous IAS 19 when actuarial gains and losses were directly recognised in OCI). The full defined benefit surplus or deficit is recognised in the balance sheet and subsequently measured under the revised IAS 19. As described in the Basis for Conclusions of the revised standard (paragraph BC90), the recognition of actuarial gains and losses in other comprehensive income acknowledges the fact that the predictive value of the actuarial gains

⁶ CEBS Comment Letter on IASB ED/2010/3 Defined Benefit Plans – Proposed Amendments to IAS 19 on 6 September 2010.

⁷ In accordance with paragraph 8 of the revised IAS 19, the net defined benefit liability (asset) is the deficit or surplus, adjusted for any effect of limiting a net defined benefit asset to the asset ceiling. The deficit or surplus is (a) the present value of the defined benefit obligation less (b) the fair value of plan assets (if any). The present value of a defined benefit obligation is the present value, without deducting any plan assets, of expected future payments required to settle the obligation resulting from employee service in the current and prior periods. The asset ceiling is the present value of any economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.

or losses differs from the predictive value of the other pension costs (employee and financing costs).

34. Additionally, upon initial application of the revised IAS 19 (1 January 2013), any accumulated unrecognised actuarial gains or losses under the 'corridor approach' need to be recognised in the retained earnings of the earliest comparable period presented in the financial statements of an entity.

Impact on own funds: upon initial application, the requirement for the recognition of cumulative unrecognised actuarial gains or losses may affect the defined benefit pension assets/liabilities and on own funds for entities that applied the 'corridor approach' and had cumulative unrecognised actuarial gains or losses. The impact depends on the characteristics of the defined benefit pension fund (i.e. the level of benefits and the qualifying conditions for employees for receiving benefits) and, therefore, on the level of the accumulated unrecognised actuarial gains or losses. The elimination of the option to recognise in profit or loss all changes in the net defined benefit pension asset or liability will impact only the presentation of the performance of the defined benefit plan (from profit and loss to other comprehensive income, but still within total comprehensive income). For subsequent periods, immediate recognition of all changes in defined benefit pension funds for each reporting period could result in fluctuations in own funds (depending on the magnitude of actuarial gains or losses), because the effect of the changes will be fully recognised in the current period earnings (through other comprehensive income) without any deferral option.

- Immediate recognition of all past service costs

35. Under the revised IAS 19, past service costs represent the change in the present value of the defined benefit obligation for employee service in prior periods, resulting from a plan amendment (the introduction or withdrawal of, or changes to, a defined benefit plan) or a curtailment (a significant reduction by the entity in the number of employees covered by a plan).

36. Under the previous IAS 19 requirements, after a plan was amended, vested past service costs were recognised in profit and loss immediately, while unvested past service costs (conditional on future employment) were recognised over the average vesting period on a straight-line basis. The revised IAS 19 does not permit deferred recognition of unvested cost and instead requires immediate and full recognition of past service cost in profit and loss.

Impact on own funds: the initial application of the requirement to recognise cumulative unrecognised unvested past service costs may affect the net defined benefit pension assets/liabilities and on own funds. As above, the impact of initial application requirements depends on the characteristics of the defined benefit plan and therefore on the level of the accumulated unrecognised past service costs. Subsequent to its initial application, the immediate recognition of all past service costs in each reporting period could result in fluctuations in own funds, depending on their magnitude.

- Remeasurement in interim periods

37. Under the previous IAS 19 and IAS 34, an entity was not required to remeasure its net defined benefit liability (asset) for interim reporting purposes, but it was required to exercise judgement in determining whether it needed to remeasure the net defined benefit liability (asset) at the end of the reporting period. The amendments to IAS 19 require an entity to recognise remeasurements in the period in which they arise, but as in the previous IAS 19, a remeasurement is not always necessary. In paragraph BC60 of the Basis for Conclusions, the IASB noted that remeasurements were now more likely to have a material effect on the amount recognised in the financial statements than would have been the case before those amendments if an entity elected to defer recognition of actuarial gains and losses. It follows that entities that previously deferred recognition of some gains and losses are now more likely to judge that remeasurement is required for interim reporting.

Impact on own funds: it may be possible for measurements of net defined benefit liability (asset) to be updated more frequently, which could affect own fund volatility. However, this is a qualitative consideration in the assessment of the impact of the changes to IAS 19 and it could be attributed to the merits of more up-to-date financial information being reported in financial statements after the application of the revised IAS 19.

38. Other changes introduced by the revised IAS 19 relate to the clarification and presentation of requirements for defined benefit funds, and their impact cannot be assessed in isolation. There could be an impact in the future in conjunction with the changes to IAS 19 that are considered relevant for the purposes of this report (i.e. immediate recognition of actuarial gains or losses and past service costs), but in the absence of detailed information to perform a relevant assessment, these changes have not been analysed further. These amendments are described below:

- **Defined benefit cost–service cost:** the revised IAS 19 excludes from the service cost any changes in the defined benefit obligation that result from changes in demographic assumptions. Instead, these costs are included in the remeasurements component as part of actuarial gains and losses. The change is akin to a reclassification between profit and loss and other comprehensive income. There is no expected impact on own funds from this change.
- **Defined benefit cost–net interest cost:** the net defined asset or liability is multiplied by the same discount rate used to measure the defined benefit obligation, so as to reflect the time value, while any difference between the discount rate applied and the actual return of the assets is recognised in other comprehensive income. Previous requirements included two separate calculations: for interest income (the expected return on the plan’s assets) and interest expense (defined benefit liability over the period multiplied by the applicable discount rate). The amendments will lead to a split of the presentation of actual return on assets between profit and loss and other comprehensive income. This change is not expected to have any impact on own funds.

- Administration costs: the revised IAS 19 requires administrative costs to be deducted from the actual return on plan assets in other comprehensive income when the administration services are provided and only when those costs are related to the management of plan assets. All other administrative costs should be recognised in profit or loss in the period in which they occur. Before the amendments, IAS 19 required administrative costs to be deducted from the expected return on assets to the extent not included in actuarial assumptions (IAS 19 BC125). This change is not expected to have any impact on own funds.
- Distinction between past service cost and curtailments: IAS 19 distinguished between past service costs and curtailments. Past service cost is a change in the present value of defined benefit obligation for employee service in previous periods, resulting in the current period from the introduction of changes to post-employment benefits or other long-term benefits. A curtailment occurs when an entity is demonstrably committed to making a significant reduction in the number of employees covered by a plan, or amends the terms of a defined benefit plan so that a significant element of future service by current employees will no longer qualify for benefits or will qualify only for reduced benefits. The distinction between past service cost and curtailments was necessary because curtailment was recognised immediately in profit and loss, while past service costs were recognised over the average vesting period. The revised IAS 19 does not permit the recognition of past service costs to be deferred. The change is not expected to have any impact on own funds.
- Timing of recognition of past service cost: under the revised IAS 19, an entity needs to recognise past service costs when a plan amendment takes place or when any related restructuring costs or termination benefits are recognised, whichever is earlier. In the previous IAS 19, past service cost would be recognised when an entity introduced a defined benefit plan that attributed benefits to past service or changed the benefits payable for past service under an existing defined benefit plan, to the extent that the benefits were vested. These amendments provide clarity in the requirements of the standard for recognising past service costs and consistency in the treatment of related transactions. The expected impact of these changes would be earlier recognition of past service costs on own funds than under the previous IAS 19. As there will be no deferred recognition of past service costs (as explained in the previous paragraph), the earlier recognition of past service costs is not expected to have any impact on own funds, other than the timing of the recognition of these costs.
- Modified definitions of: defined contribution plans, short-term employee benefits, termination benefits and settlement, mortality assumption (clarification), multi-employer plans (clarification). These changes provide more clarity on the requirements of the previous IAS 19 and eliminate potential inconsistencies within the revised standard. The changes in the clarifications related to pension plans are expected to improve consistency of application, but in the absence of reliable information about the additional possible impact of these changes, the impact on own funds is considered to be insignificant.

- Actuarial assumptions-risk sharing within defined benefit obligations: the revised IAS 19 requires employees' non-discretionary contributions to be attributed to periods of service when determining the defined benefit obligation, the defined benefit cost and the measurement of any reimbursement rights. The previous IAS 19 required contributions by employees to be recognised as a decrease of current service costs and recognised on a cash basis. Additionally, the revised IAS 19 introduces a requirement to reflect in the measurement of defined benefit obligations any ceiling to the legal or contractual liability of the employer, when such limit exists, and also a requirement to reflect in the measurement of the defined benefit obligation any conditional indexation, whether the indexation or changes in benefits are set out in formal terms or derive from constructive obligations. The aim of the aforementioned changes is to reflect more appropriately the risk-sharing features of defined benefit funds and to reduce the ultimate cost of the benefit to the entity, based on the risk-sharing features of the plan. Entities' obligations to provide benefits to employees could decrease, but this would be entity-specific, as it will depend on the type of an entity's funds (i.e. whether there is a limit to the obligation, whether there is an indexation or whether there are employees' non-discretionary contributions). There is no information available to estimate the quantitative impact of these changes, but from a qualitative point of view, we understand that these changes will not introduce volatility of own funds, since they provide more explicit requirements for the calculation of the obligations and possibly limiting their amount to some extent.
- Introduction of more detailed disclosure requirements in financial statements to increase transparency and understanding in accounting for employee benefits. The changes will have no impact on own funds.

39. The CEBS (the predecessor of the EBA) supported in a letter to the IASB in 2010 the distinction in the recognition of the elements of a defined benefit pension fund's performance between profit and loss and OCI, and the requirements for immediate recognition of actuarial gains and losses and past service costs in the period in which they occur. The CEBS supported the proposals that would improve transparency, understandability and comparability of information in the financial statements. Nevertheless, the main concern raised by CEBS about the revised IAS 19 proposals related to the possible volatility of institutions' own funds upon initial application from the immediate recognition of actuarial gains and losses in own funds for those institutions that applied the 'corridor approach' under the previous IAS 19. Therefore, the CEBS suggested considering transitional provisions for the adoption of the revised IAS 19 by the IASB. These concerns seem to be more relevant to the one-off impact on own funds of the revised IAS 19, but there was no reference to on-going volatility as a result of the application of these requirements. These concerns have been addressed in the CRR, where in certain circumstances (as explained above in Section 3.1.4 Transitional rules), institutions could be allowed to apply transitional measures during phase-in of the revised IAS 19, and the transitional measures for the deduction of net pension fund assets from own funds.

40. Of the changes outlined above, the immediate recognition of actuarial gains and losses in other comprehensive income and the immediate recognition of past service cost in profit and

loss are considered as the changes introduced in the revised IAS 19 that may, on initial application, affect institutions' own funds. The possible impact of these changes is analysed further to assess whether they might cause own funds volatility.

The amendments to IAS 19 that have been considered relevant to this report and might affect institutions' own funds are the immediate recognition of actuarial gains and losses in the period in which they occur and the immediate recognition of unvested past service costs on initial application. These amendments affect the level of the net defined pension asset or liability recognised in the balance sheet and could therefore influence own fund volatility. These amendments are analysed further to assess the significance of their impact on own funds. Other amendments to IAS 19 have not been considered relevant to this report or are not expected to have any impact on own funds.

3.4 Second part of the analysis: impact assessment

3.4.1 Methodology followed to assess the impact of the changes

41. Under the mandate of Article 519 of the CRR, the identified sources of possible volatility of own funds are subsumed under: (a) the impact of the deduction of net defined benefit assets for prudential purposes⁸ and (b) the application of the accounting requirements under the revised IAS 19.
42. To assess the volatility of own funds, the EBA has collected quantitative public information from a sample of institutions over a three-year period, from 2010 to 2012. The sample chosen was the list of 57 European institutions in 20 EEA countries used by the EBA for the KRI (Key Risk Indicators) analysis⁹. The banks in the sample cover at least 50% of the total assets of each national banking sector¹⁰. Accounting information was sourced from the annual published consolidated financial statements¹¹ of the institutions and prudential information from the SNL¹² database.
43. From the sample of 57 institutions, six institutions were excluded from the analysis, because the necessary financial or prudential data for the three years assessed was not available for five of them and one banking group did not apply the IFRS. Therefore, 51 institutions were included in the analysis. Additionally, two institutions in the sample did not have any defined benefit pension fund, but they were still included in the sample, because this reflects the fact that some EU institutions may not have defined benefit pension funds and, for these institutions, volatility of own funds would therefore not be affected by the changes introduced.
44. The introduction of the accounting and prudential changes would have a one-off effect on own funds when first applied (assuming full application of prudential and accounting requirements), while volatility of own funds is expected to be related to the subsequent application of these changes and not to the initial application of the requirements.
45. The impact of the initial application of these changes on the institutions' own funds also depends on the current prudential treatment of pensions by Member States. As such, qualitative information was collected from Member States (see Accompanying documents – Qualitative information received from Member States) with regard to the prudential

⁸ This source of volatility also includes the impact of the removal of the current national prudential treatment for adjusting own funds for the level of defined benefit pension liabilities with a measure that the national prudential authority believes reflects more appropriately the burden of the pension fund deficit.

⁹ Please refer to Accompanying documents – List of institutions in KRI Sample.

¹⁰ According to the EBA publication of the Risk Assessment of the European Banking System – December 2013 (<http://www.eba.europa.eu/documents/10180/534414/EBA+January+2014+Risk+Assessment+Report.pdf>)

¹¹ The assessment was carried out for each institution, but on an individual basis for each defined benefit pension fund (no netting of different defined benefit pension plans of an institution).

¹² SNL is an online provider of financial and capital adequacy data for entities in sectors relevant to the analysis (banking, insurance and financial services sectors).

treatment before the CRR. This information indicates different prudential treatments being applied by Member States. For example, defined benefit pension assets are already required to be deducted from own funds in some Member States (similar to the new CRR requirement). In other Member States, although the 'corridor approach' was not applied by institutions, a prudential filter was applied for the recognised actuarial gains and/or losses in own funds. These national filters will have to be phased out under Article 481 of the CRR.

46. A quantitative assessment of volatility of own funds is estimated, which shows the impact of the introduced changes on the year-on-year change in the Core Tier 1 (CT1) ratio¹³. More specifically, this measure shows how much more or less the CT1 ratio of these institutions would have changed for the years assessed had the prudential and accounting requirements of the CRR and the revised IAS 19 been applied during these years. An additional measure used to assess volatility on own funds is the year-on-year change in the level of defined benefit pension liability under the revised IAS 19 over the original reported CT1 capital, which shows the change in the relative significance of defined benefit pension liabilities over CT1 in the years assessed.

¹³ Data for CET1 capital is not publicly available for the period assessed. Instead, CT1 ratios are used as a proxy and it is assumed that the results of the analysis would be relevant after the application of CRD IV/CRR. The CT1 capital and ratios used in the analysis reflect the actual banks' capital ratios during the period analysed, and they are therefore appropriate capital measures to use in performing comparisons with the defined benefit obligations that existed at that time. Core Tier 1 ratios were sourced from the SNL database and calculated under the current capital requirements: CT1 capital as a percentage of total risk-adjusted assets and excluding transitional capital adjustments when available. CT1 capital is measured as: equity attributable to parent + minority interest - intangibles - treasury shares – dividends + core eligible preference or hybrids + other CT1 adjustments. Risk-adjusted assets are calculated for 2010 under the Basel II rules, but in 2011 for 23 banks of the sample under the Basel II.5 rules and in 2012 for 24 banks under the Basel II.5 rules.

3.4.2 Findings from the analysis of qualitative and quantitative data

47. The following paragraphs explain in more detail the impact of the deduction of defined benefit pension fund assets from own funds and the initial application of the revised IAS 19 by source of change.

Impact on CT1 ratio (in bps)									
	Deduction of defined benefit pension fund assets			IAS 19 revised			Total impact from all changes		
	2012	2011	2010	2012	2011	2010	2012	2011	2010
Min	-200	-250	-50	-150	-50	-80	-200	-80	-80
Max	60	40	10	10	200	40	10	40	40
Average	0	-10	0	-10	0	0	-20	-10	-10

Stratification of results (number of institutions in the sample)			
Number of institutions with impact on CT1 ratio:			
up to 20 bps	41	33	28
20 to 50 bps	5	10	12
above 50 bps	5	8	11
Total institutions	51	51	51

Deduction of defined benefit pension fund assets from own funds (under revised IAS 19):

48. Under the revised IAS 19, the immediate recognition of actuarial gains and losses against the net defined benefit pension assets/liabilities reported under the previous IAS 19 could have a significant impact on the level of the net defined benefit pension funds when initially applied. Where there are large unrecognised actuarial gains or losses, immediate recognition of these gains or losses could lead to a significant change in the level of the defined benefit pension fund asset or liability reported in the balance sheet under the revised IAS 19. For example, a defined benefit pension fund asset under the previous IAS 19 may be reduced to a defined benefit pension fund liability under the revised IAS 19 due to the recognition of the unrecognised actuarial losses, and vice versa. Therefore, this part of the analysis begins with an assessment of the level of the net defined benefit pension assets under the revised IAS 19

and then continues with the impact on own funds from the prudential requirement to deduct defined benefit pension assets from own funds.

49. As at 31 December 2012, 21 out of 51 institutions recorded a defined benefit pension fund asset¹⁴ on the balance sheet measured in accordance with the previous IAS 19¹⁵. Had the revised IAS 19 been applied on that date (all unrecognised actuarial gains and losses as well as past service costs would be immediately recognised in own funds, reducing the defined benefit pension fund assets where there are actuarial losses or increasing the defined benefit pension fund assets where there are actuarial gains), 16 out of 51 institutions would still report a defined benefit pension fund asset, while no institution reporting a defined benefit pension liability under the previous IAS 19 would report a defined benefit pension asset under the revised IAS 19 due to the immediate recognition of unrecognised actuarial gains. The estimated defined benefit pension fund asset under the revised IAS 19 would range from almost nil to EUR 2.6 billion in one case¹⁶ as at 31 December 2012. These defined benefit pension fund assets are subject to deduction from the own funds under the prudential requirement of the CRR.

50. The decrease in the number of institutions reporting an asset after the revised IAS 19 is applied is attributed to the fact that six¹⁷ institutions, which were all applying deferred recognition of these actuarial losses ('corridor approach'), reported a net defined benefit asset as at 31 December 2012 under the previous IAS 19, but at the same time they had significant unrecognised actuarial losses (larger than the reported net defined pension asset in the balance sheet). Under the revised IAS 19, the reported assets would be offset by the immediately recognised actuarial losses and, since the losses for these institutions are greater than the assets recognised, a net liability would be reported in the balance sheet. Additionally, the own funds requirements of the institutions would decrease due to the lower level of assets subject to capital requirements for credit risk (lower Risk Weighted Assets – 'RWA'), since there would be fewer defined benefit pension assets under the revised IAS 19¹⁸.

51. Additionally, according to the qualitative information provided by Member States¹⁹, defined benefit pension fund assets as reported in the balance sheet are not deducted from own funds in most of the EU Member States, except for seven (BE, IE, FI, MT, NO, SE and UK institutions), while in some countries (IE and UK) there is also partial deduction of deficit (defined benefit

¹⁴ Some banks had more than one pension fund and at least one of the pension funds was a defined benefit asset.

¹⁵ The data as at 31 December 2012 also include banks that adopted the revised IAS 19 (seven banks) earlier

¹⁶ A similar analysis would apply for 2011 (defined benefit pension asset up to EUR 3 billion in two cases) and for 2010 (defined benefit pension asset up to EUR 2.4 billion in one case)

¹⁷ There were five institutions plus one banking group that had two defined benefit pension fund assets under the previous IAS 19, one of which would become a liability under the revised IAS 19 rules, while the other fund would still be reported as an asset in the balance sheet.

¹⁸ In the analysis, this benefit is estimated assuming that these assets received a 100% risk weight, as they are regarded as other assets, in accordance with CRD II/ CRD III.

¹⁹ Please refer to Accompanying documents – Qualitative Information received from Member States for detailed information

liability in the balance sheet) to replace the accounting deficit with a measure that the NSAs believe reflects more appropriately the burden of the pension fund deficit.

52. Taking into consideration the existing national prudential rules that apply for the deduction of defined benefit pension fund assets²⁰ in the Member States in our sample, the estimated impact of the change is a decrease of up to 10 bps on average in the CT1 ratio, while the range of observed impacts on the CT1 ratio in the sample is - 200 bps to + 60 bps in 2012, - 250 bps to + 40 bps in 2011 and - 50 bps to + 10 bps in 2010. However, this is regarded as a one-off impact on own funds from the deduction of the defined benefit pension fund assets. The following paragraphs explain the impact on CT1 in more detail.
53. For most institutions in the sample, the impact will be relatively low. More specifically, for 41 institutions in the sample, the deduction of the net defined benefit pension assets measured under the revised IAS 19 would reduce the CT1 ratio by up to 20 bps (34 of these institutions did not have a defined benefit pension fund asset under the revised IAS 19). All institutions except three (38 institutions) had low levels of net defined benefit pension assets under the previous IAS 19, if any, in each of the years of the period assessed (up to 0.2% of RWA) and low levels, if any, of unrecognised actuarial gains²¹ in each of the years assessed (up to 0.4% of RWA).
54. The CT1 ratio of the three institutions with relatively high defined benefit assets under the previous IAS 19 will not be affected as they had significant unrecognised actuarial losses that would need to be immediately recognised against defined benefit assets. After the application of the revised IAS 19, the recognition of these actuarial losses would eliminate the total net defined benefit pension asset. As a result, these institutions will not experience an impact on own funds from the deduction of net defined assets, since there will be no defined benefit assets recognised in the balance sheet.
55. For five out of the 51 institutions, the deduction of the net defined benefit pension asset under the revised IAS 19 would reduce the CT1 ratio by between 20 and 50 bps. All institutions except one (four institutions) had under the previous IAS 19 net defined benefit pension assets, if any, in each of the years of the period assessed (up to 0.3% of RWA) and low levels of unrecognised actuarial gains in all of the years assessed (up to 0.1% of RWA). One institution had a much higher level of net defined benefit assets recognised under the previous IAS 19 (up to 0.9% of RWA), but this institution also had significant actuarial losses (up to 1.5% of RWA). Therefore, because of the immediate recognition of actuarial losses against the net defined benefit asset, the net defined benefit pension asset will decrease significantly and the impact of the deduction of net pension assets from own funds will be mitigated as a result.

²⁰ Defined benefit pension funds are recalculated under the revised IAS 19.

²¹ The existence of significant unrecognised gains could have led to the recognition of net defined benefit assets, if gains were greater than the recognised net defined benefit liabilities under the previous IAS 19. However, this is not the case for these institutions, since most of them had a net pension liability and mainly unrecognised actuarial losses.

56. An impact above 50 bps on the CT1 ratio is observed in the remaining five institutions, but in one of these institutions the impact will be an increase in the CT1 ratio. This particular institution will have a positive impact on the CT1 ratio, an increase of up to 60 bps in one year, because this institution was already required under national prudential rules to deduct defined benefit pension assets from own funds, while the institution was using the 'corridor approach' and it had significant unrecognised actuarial losses (up to 0.9% of RWA). Under the revised IAS 19, when these losses are recognised against the defined benefit pension asset, the net defined benefit asset decreases (meaning less net defined benefit asset being deducted from own funds compared to the previous IAS 19 and the CT1 would therefore increase)²².
57. The two institutions with a decrease above 50 bps in the CT1 ratio applied the 'corridor approach' under the previous IAS 19 and they had significant net defined benefit assets (up to 0.8% and 1.1% of RWA). These institutions were not required under national prudential rules to deduct defined benefit pension assets from own funds. However, these institutions also had significant unrecognised actuarial losses, which would have to be offset against the net assets under the revised IAS 19, and will actually decrease the level of assets to be deducted from the CT1 capital to some extent, but the impact of the deduction on CT1 would still be relatively high.
58. For the other two institutions with a decrease of more than 50 bps in the CT1 ratio, the impact is not related to the deduction of defined benefit pension fund assets from CT1, but instead to the full application of the CRR. More specifically, these institutions are required under current national prudential rules to add a portion of defined benefit pension liabilities back to the CT1 capital. In the absence of more detailed information and for the purpose of this analysis, the level of the defined benefit pension liabilities to be recognised in CT1 is reversed in full. Therefore, the net defined benefit pension liabilities are deducted from CT1. The impact of the full application of the CRR on these institutions would be greater than for the other institutions in our sample, given that the level of net defined benefit pension liabilities was relatively high compared to the capital position of these institutions (decrease in the CT1 ratio by up to 110 and 200 bps).
59. In addition, all of these five institutions with a change in the CT1 ratio of over 50 bps had, as at 31 December 2012, total assets of more than EUR 100 billion, with one banking group having more than EUR 500 billion in total assets.
60. Furthermore, based on the qualitative information provided by Member States, some of the Member States will not apply transitional requirements during the transition period. Other Member States have not decided whether transitional requirements will be implemented. However, in the Member States where four out of five institutions (which are estimated to experience a decrease in the CT1 ratio by more than 50 bps) reside, national transitional

²² However, actuarial losses would be recognised in retained earnings upon initial application of the revised IAS 19 on 1 January 2013; thus, there will actually be limited impact on the own funds of this bank.

measures will most likely be applied; the impact on these institutions could therefore be lower during the transitional period.

Currently, most Member States do not require net defined benefit pension fund assets to be deducted from own funds.

The impact of the deduction of net defined benefit pension fund assets from own funds upon initial application will be limited for most institutions in the sample (48 out of 51) due to the low levels of net defined benefit pension fund assets under both the previous and the revised IAS 19 (for two institutions a greater impact is possible as national prudential requirements are already applied to filter net defined benefit plans from own funds, which is not related to the deduction of net defined benefit pension fund assets). The remaining three institutions may experience a greater impact due to the prudential requirements when they are initially applied, as they had significant defined benefit pension fund assets under the revised IAS 19 compared to their capital position.

Impact of the revised IAS 19:

61. The application of the revised accounting rules of IAS 19 will mean immediate recognition of unrecognised actuarial gains or losses and past service costs in the defined benefit pension funds for 27 out of the 51 institutions included in the sample, with charges on own funds of up to EUR 4.5 billion in one banking group (seven institutions with charges on own funds of EUR 1 billion or more).

62. Adjusting the CT1 capital of the institutions in the sample for the immediate full recognition of unrecognised actuarial gains and losses and past service costs²³, the estimated impact on the CT1 ratio (if the revised IAS 19 were applied²⁴) would be a decrease by up to 10 bps on average, while the range of observed impacts on CT1 in the sample is - 150 bps to + 10 bps in 2012, - 50 bps to + 200 bps in 2011 and - 80 bps to + 40 bps in 2010. However, this is regarded as a one-off impact on own funds due to the application of the revised IAS 19, because of the change in the accounting rules.

²³ The application of the prudential treatments currently applied by NSAs on the recognition of actuarial gains and losses (DK, FR, IT, NL, PT and SE) was taken into account in the assessment as follows: for IT and NL, the national measures for the impact of the initial application of the revised IAS 19 were not in force in the period being assessed and were therefore not considered in the assessment. For banks in DK ('corridor approach' is not allowed in the calculation of own funds for prudential purposes), unrecognised actuarial gains and losses as a result of the application of the 'corridor approach' were assumed already recognised in own funds. For banks in FR (only actuarial gains are filtered from own funds), the level of gains was not significant for the banks in the sample and inclusion of the filter in the calculation would therefore not significantly change the results. For banks in PT, the effect of the positive prudential filter was estimated in accordance with the details provided under Accompanying documents – Qualitative information received from Member States of this report. For SE, it was assumed that, in practice, there is no adjustment in own funds for unrecognised actuarial losses under current prudential measures.

²⁴ Also taking into consideration the impact of the revised IAS 19 on the level of defined benefit assets, in both cases where the assets were required to be deducted from own funds under national prudential rules or risk-adjusted with a 100% risk weight.

63. For most institutions in the sample, the impact will, however, be relatively low. More specifically, for 33 institutions in the sample, the changes introduced would change the CT1 ratio by up to 20 bps, since most of these institutions (20 institutions did not have any unrecognised actuarial gains or losses and past service costs) had very low levels of unrecognised actuarial gains or losses and past service costs, if any, in each of the years during the period assessed (actuarial gains and losses and past service costs being up to 0.2% of RWA).
64. For 10 institutions out of the 51, the revised IAS 19 would change the CT1 ratio by between 20 and 50 bps, with unrecognised actuarial gains and losses and past service costs being up to 0.4% of RWA, except for two institutions which had significant unrecognised actuarial losses (up to 1.2% and 0.9% of RWA). However, these institutions also had significant net defined benefit assets recognised under the previous IAS 19 (up to 1.0% and 0.6% of RWA), which were both required to be deducted from own funds under national prudential requirements. The impact on the CT1 capital of the immediate recognition of the actuarial losses against the net defined benefit pension fund asset would therefore actually represent a lower level of net defined benefit assets deducted from own funds and the overall effect on the CT1 capital is a drop of up to 30 bps.
65. An impact of over 50 bps on the CT1 ratio is observed in the remaining eight institutions, all of which applied the 'corridor approach'. For these institutions, the revised IAS 19 would have a relatively higher impact because they had significant unrecognised actuarial losses (up to 1.6% of RWA), which will need to be recognised immediately in own funds. In terms of the size of institutions, seven out of eight institutions had, as at 31 December 2012, total assets of more than EUR 100 billion, with four institutions having more than EUR 500 billion in total assets.
66. According to the qualitative information provided by Member States²⁵, all three accounting methods²⁶ for the recognition of actuarial gains and losses under the previous IAS 19 were used, with larger institutions tending to apply the 'corridor approach' more frequently. Furthermore, according to the information received from Member States on the national prudential treatment, actuarial gains or losses are not filtered from own funds in most of the Member States in accordance with national prudential rules, with the exception of three of them (DK, FR and PT). In these countries filters are applied for the impact on own funds from the recognition of actuarial gains and losses, while in some Member States (IE and UK) there is partial deduction of the deficit. Additionally, two Member States (IT and NL) currently apply national prudential requirements to limit the impact on own funds from the immediate recognition of actuarial gains and losses on initial application of the revised IAS 19.
67. Finally, eight out of the 51 institutions had, as at 31 December 2012, unrecognised past service costs ranging from almost nil to EUR 0.15 billion (two institutions). The immediate recognition

²⁵ For detailed information, please refer to Accompanying documents – Qualitative information received from Member States.

²⁶ Immediate recognition in profit and loss or in other comprehensive income or deferred recognition, under the 'corridor approach'

in own funds of these costs is considered to be a less relevant driver of the volatility of own funds. Nevertheless, the impact has been included in the findings to make the quantitative analysis complete.

Currently, most Member States do not apply prudential filters on actuarial gains and losses from defined benefit pension funds from own funds.

The impact of the initial application of the revised IAS 19 on own funds will be limited for most institutions in the sample (43 out of 51) due to the low levels of unrecognised actuarial gains and losses. The remaining institutions with a possible higher impact (above 50 bps) from the amendments to IAS 19 (8 out of 51) applied the 'corridor approach' under the previous IAS 19 and had significant unrecognised actuarial losses compared to their capital position, which they will need to recognise immediately in own funds.

Overall impact of the changes:

68. Overall, the total estimated impact of the application of all the prudential and accounting changes is a decrease of up to 20 bps on average in the CT1 ratio of the institutions in the sample for the three-year period assessed. The ranges of the impacts on the CT1 ratio were - 200 bps to + 10 bps in 2012, - 80 bps to + 40 bps in 2011 and - 80 bps to + 40 bps in 2010.

69. For 28 institutions in the sample, the changes introduced would change the CT1 ratio by up to 20 bps, while for 12 institutions the changes introduced would reduce the CT1 ratio by between 20 and 50 bps. This is because the institutions experiencing an impact on the CT1 ratio of up to 20 bps had low levels of unrecognised actuarial gains or losses and past service costs in each of the years of the period assessed (actuarial gains and losses and past service costs being up to 0.2% of RWA) and low levels of net defined benefit pension assets under the revised IAS 19 (up to 0.2% of RWA). Most of the institutions with an overall impact on the CT1 ratio of between 20 and 50 bps had higher unrecognised actuarial losses (up to 0.4% of RWA) and low levels of net defined benefit pension fund assets under the previous IAS 19, if any. However, there are two institutions that had larger unrecognised actuarial losses (up to 1.2% and 0.9% of RWA), but also a high level of net defined benefit pension fund assets (up to 1.0% and 0.6% of RWA). These institutions were also already required under national prudential rules to deduct defined benefit pension fund assets from own funds and the net effect of the immediate recognition of actuarial losses in own funds and the reduction of the level of net assets deducted from own funds will therefore result in a decrease of up to 30 bps in the CT1 ratio.

70. For the remaining 11 institutions, the CT1 ratio would change by more than 50 bps. For eight of these institutions this is mainly attributed to the immediate recognition of significant actuarial gains and losses, which will be recognised against own funds, and to a lesser extent to the impact on the deduction of net defined benefit assets from own funds.
71. For one institution, the impact is attributed mainly to the prudential requirement to deduct defined benefit assets from own funds (before the CRR it was not required to deduct these assets under national prudential requirements), while for the two remaining institutions the impact is attributed mainly to the application of the CRR rules instead of the current national prudential requirements (full reversal of the addition of net defined benefit liabilities from CT1, as explained in paragraph 58). This is a one-off impact when the requirements are applied, but it highlights the fact that own funds could be materially impacted by the recognition of accumulated actuarial gains and losses and the deduction of net defined pension plan assets.
72. Furthermore, ten of these institutions had, as at 31 December 2012, total assets of more than EUR 100 billion, with five institutions having more than EUR 500 billion of total assets.

The impact of the amendments to IAS 19 when initially applied and of the prudential requirement will be limited for most institutions in the sample (40 out of 51) due to the low level of unrecognised actuarial gains and losses under the previous IAS 19 and the relatively low level of defined benefit pension assets compared to the capital position of these institutions coupled with the current national prudential requirement in some Member States, which requires defined benefit pension fund assets to be deducted from own funds.

Eight of the institutions with a potentially higher impact from the initial application of the revised IAS 19 applied the 'corridor approach' and had significant unrecognised actuarial losses compared to their capital position, which they will need to recognise immediately, while the impact of the deduction of net defined benefit pension fund assets from own funds is more relevant to one institution.

For the remaining two institutions, national prudential requirements for filtering net defined benefit plans from own funds were applied and the impact of the initial application of these new requirements to remove national prudential filters under Article 481 could be relatively high.

3.4.3 Volatility of own funds (subsequent impact)

Volatility of the CT1 ratio (in bps)					
	Difference in yearly change of CT1 ratios			Number of banks with impact on the CT1 ratio:	
	2011 - 2012	2010 - 2011	2010 - 2012		
Min	-140	-50	-140	up to 20 bps	34
Max	60	60	40	20 to 50 bps	10
Average	-10	0	-10	above 50 bps	7
	Total banks				51

Volatility of defined benefit liabilities/ CT1 capital						
	Defined benefit pension liabilities (revised IAS 19)/ CT1 capital			Yearly change of ratio: defined benefit pension liabilities (revised IAS 19)/ CT1 capital		
	2012	2011	2010	2011 - 2012	2010 - 2011	2010 - 2012
Min	-6%	-10%	0%	-9%	-13%	-22%
Max	31%	41%	53%	10%	3%	9%
Average	4%	3%	4%	1%	-1%	0%
Stratification of results (number of banks in the sample)						
	Number of banks with a ratio of defined benefit liability/CT1:			Number of banks with yearly change of the ratio:		
	up to 5%	25			40	
	5% - 10%	16			7	
	above 10%	10			4	
	Total banks	51			51	

73. The EBA has estimated the volatility of own funds in the period from 2010 to 2012 from the incremental change based on the difference in the year-on-year change in the original CT1 ratio (calculated under current accounting and prudential requirements) and the estimated CT1 ratio (calculated under the new accounting and prudential requirements²⁷). This measure provides an indication of the impact of the revised IAS 19 (adjusting the CT1 capital for

²⁷ i.e. CT1 ratio adjusted for the deduction of defined benefit pension fund assets from own funds and the immediate recognition of unrecognised actuarial gains and losses, as well as past service costs.

unrecognised actuarial gains or losses of prior years 2010–2012) and of the related prudential requirements, while it excludes the change in the CT1 ratio due to other reasons (such as business performance etc.). The CT1 ratio is recalculated to take into account the accounting and prudential changes, and the year-on-year changes in the CT1 ratio are calculated for 2010–2011, 2011–2012 and cumulatively for 2010–2012. The year-on-year changes in the recalculated CT1 ratios are compared against the year-on-year changes in the original CT1 ratio that actually occurred during these years (i.e. deriving from the CT1 ratios reported under current accounting and prudential measures).

74. The results of this comparison show that the estimated difference in the yearly change in the CT1 ratios is on average 10 bps lower than the yearly change in the CT1 ratio that was reported for 2011–2012, while for 2010–2011 the estimated difference in the yearly change in the CT1 ratios is, on average, not higher than the yearly change in the CT1 ratio that was reported for this period. Both increases and decreases in volatility occur based on the existence and the magnitude of unrecognised actuarial gains or losses and on the existence and the magnitude of defined benefit pension assets. The ranges of impact on own funds are - 140 bps to + 60 bps for 2011–2012, - 50 bps to + 60 bps for 2010–2011 and - 140 bps to + 40 bps on a cumulative basis for 2010–2012.

75. For most institutions in the sample, volatility of own funds is relatively low. More specifically, for 34 institutions in the sample, the changes introduced would change the yearly change in the CT1 ratio by up to 20 bps, because these institutions had relatively low levels of actuarial gains or losses and past service costs unrecognised in each of the years of the period assessed (unrecognised actuarial gains and losses and past service costs being up to 0.3% of RWA). For ten institutions, the changes introduced would change the yearly change in the CT1 ratio by between 20 and 50 bps, with unrecognised actuarial gains and losses and past service costs being up to 0.9% of RWA for most institutions²⁸, similarly to the group of institutions with an incremental change in the CT1 ratio of up to 20 bps.

76. An impact above 50 bps on the CT1 ratio is observed in seven institutions. Besides the impact on the two institutions that were allowed to partially exclude defined benefit pension liabilities from the calculation of own funds, as explained in paragraph 58, all the other institutions previously applied the ‘corridor approach’ (these also include institutions that applied the ‘corridor approach’ but adopted the revised IAS 19 earlier). The revised IAS 19 would have a relatively high impact on these institutions because they had significant unrecognised actuarial gains and losses and past service costs (0.5% of RWA on average for the three years). The impact of the deduction of net defined benefit pension assets is lower due to the low level of these assets under the revised IAS 19 rules, up to 0.3% of RWA for the three years, except for one institution, in which net defined benefit pension assets were up to 2.5% of RWA, while this institution also had significant actuarial gains unrecognised (2.0% of RWA). Also, as of

²⁸ Except for one institution, which had unrecognised actuarial gains and losses and past service costs of up to 1.2% of RWA. However, in this institution, volatility of own funds was mitigated as this institution also had significant defined benefit pension fund assets, which would be deducted from own funds. Therefore, there is an offsetting effect within own funds.

31 December 2012, all of these seven institutions had total assets of more than EUR 100 billion, with two institutions having more than EUR 500 billion of total assets.

77. Based on the analysis, the CT1 ratio of one institution would fall below 6% in any of the years of the period assessed due solely to the introduction of these changes (the group breaching 6% threshold due to the introduced changes), but this banking group already had a relatively low CT1 ratio (6.7%) under the previous requirements. Similarly, for two institutions, the CT1 ratio would fall below 8% in any of the years of the period assessed because of the introduction of these changes.

78. Another measure of the volatility of own funds resulting from defined benefit pension funds could be the year-on-year change in a ratio defined as: the level of defined benefit pension liabilities²⁹ (only) under the revised IAS 19 to the original reported CT1 capital³⁰. The results from the comparison of these ratios indicate that for 25 institutions in the sample, the ratio of defined benefit pension liabilities under the revised IAS 19 to the CT1 capital remained up to $\pm 5\%$ of the CT1 capital during the whole period assessed. For 16 institutions, the ratio of net defined pension liabilities to the CT1 capital fluctuated in the range between $\pm 5\%$ and $\pm 10\%$ of the CT1 capital during the period, due to higher actuarial gains and losses compared to the change in the CT1 capital for the same period, while for ten institutions net defined pension liabilities to the CT1 capital fluctuated above $\pm 10\%$ of the CT1 capital during the period.

79. When assessing the year-to-year change in this ratio for 40 institutions in the sample, the ratio of defined benefit pension liabilities under the revised IAS 19 to the CT1 capital changed by up to $\pm 5\%$ of the previous year's respective ratio. For seven institutions, the ratio of net defined pension liabilities to the CT1 capital changed by between $\pm 5\%$ and $\pm 10\%$ of the previous year's respective ratio, while for four institutions net defined pension liabilities to the CT1 capital fluctuated above $\pm 10\%$ of the CT1 capital during the period. For two out of the four institutions showing a fluctuation above $\pm 10\%$ of CT1, the ratio of net defined pension liabilities to the CT1 capital fluctuated in the range of -13% to +3% and -22% to -9% of the CT1 capital during the period, while for the other two institutions the ratio fluctuated just above $\pm 10\%$ of CT1. One of the two institutions³¹ with relatively high fluctuation of defined benefit pension liabilities to the CT1 capital had a low CT1 capital compared to the level of defined benefit pension liabilities (the defined pension liabilities being between 31%–53% of the CT1 capital during the period) and a change in the defined benefit pension liabilities over the period had a relatively high impact on the CT1 capital, given that the CT1 capital was relatively low (compared to the defined benefit liabilities).

²⁹ Defined benefit assets have been excluded from this measure given that an offsetting effect may exist in own funds from the impact of the recognition of actuarial gains/losses and the deduction of net defined pension assets under the CRR.

³⁰ CT1 capital as originally reported without the impact of the revised IAS 19 and the deduction of net benefit pension assets.

³¹ For the other institution, the fluctuation observed in the ratio of defined benefit pension liabilities to CT1 is due to the significant decrease in the CT1 capital between 2010 and 2011 related to macroeconomic conditions in the Member State.

80. However, this measure needs to be carefully assessed because it is impacted by both a change in the net defined benefit pension liability and a change in the CT1 capital. It could be the case that net defined benefit liability remained stable, but the CT1 capital changed significantly from one year to the other and, therefore, the relative significance of the defined benefit pension liability to the CT1 capital changed significantly, but not for reasons that are related to the defined benefit pension fund. Finally, it could be argued that when defined benefit pension liabilities change by a certain percentage and are immaterial compared to the CT1 capital of a bank, the impact on own funds would be less significant compared to the same change in a defined benefit pension liability occurring in an institution with a lower level of CT1 capital. Based on this measure, it can be concluded that there is limited volatility of own funds from the measurement of defined benefit pension liabilities during the period assessed for most institutions. The higher the level of defined benefit pension liabilities and the lower the CT1 capital of an institution, the higher the potential impact on the volatility of own funds from changes in actuarial assumptions.

Summary of results

81. Based on this analysis, it can be concluded that, on average, there is limited volatility of own funds due to the accounting and prudential changes. For some institutions and in some countries the impact on the volatility of own funds could be higher, depending on the size and the performance of the defined pension fund relative to the capital position of the institution.

82. A change in CT1 after implementing the changes, as explained above, compared to the original CT1 ratio, of over 50 bps (in any one of the three years in the period assessed) is observed in seven of the institutions in the sample. More specifically, in five institutions the higher volatility of own funds can be attributed to the application of the 'corridor approach' under the previous IAS 19 and to the significant accumulated unrecognised actuarial gains and losses for these institutions compared to their capital position. Nevertheless, the actual impact on own funds for two institutions is expected to be lower in the medium term, due to the application of CRR transitional measures that are due to be decided and could reduce the impact of the adoption of IAS 19 on own funds.

83. For the two other institutions, the higher volatility of own funds can be attributed to the current national prudential requirements for defined benefit pension liabilities to be partially recognised in own funds. Nevertheless, the actual impact on own funds is expected to be lower in the medium term, due to the application of national transitional measures.

For most institutions in the sample (44 out of 51), additional volatility of own funds under the prudential requirements (deduction of defined benefit assets) and the amendments to IAS 19 (elimination of the 'corridor approach') is relatively low, due to the relatively low levels of unrecognised actuarial gains or losses and past service costs in each of the years in the period assessed compared to the capital position of these institutions.

Excluding the two institutions where national prudential requirements for filtering net defined benefit plans from own funds are applied, the remaining institutions with a possible higher volatility of own funds (5 out of 51) had significant unrecognised actuarial gains and losses compared to their capital position.

The level of defined benefit liabilities compared to the CT1 ratio is not significant for most of the institutions (41 out of 51) during the period assessed and, therefore, there may be limited volatility of own funds in these cases. The level of defined benefit liabilities in relation to the CT1 capital also remained relatively stable for most institutions (47 out of 51) during the period being assessed and volatility of own funds is therefore limited.

Volatility due to the application of the revised IAS 19 (removal of the 'corridor approach') and the deduction of the defined benefit pension fund asset from own funds would be mitigated in cases where the entity has defined benefit assets and there is a corresponding impact on own funds from the change in the level of the defined benefit assets. In these cases, the change in own funds from the recognition of the actuarial gains or losses would be offset by an equal offsetting change of deducting the defined benefit asset from own funds. There will also be no volatility of own funds when there are no corresponding gains or losses recognised in own funds if the defined benefit obligation is funded up to 100% of its amount (above that percentage a net defined benefit pension fund asset would be recognised in the balance sheet and deducted from own funds under the CRR rules and could therefore result in own funds volatility).

In case of a net defined benefit pension liability, the offsetting effect between the impact of the change in the level of the net defined benefit obligation and the impact on own funds from the change in the actuarial gains and losses would not exist.

For institutions that applied immediate recognition of actuarial gains and losses in own funds, the application of the revised IAS 19 itself should not result in additional volatility of own funds. Similarly, the new CRR requirement to deduct defined benefit assets would limit this volatility in the event that an entity has defined benefit assets and there is a corresponding impact on own funds from the change in the level of the net defined benefit assets (due to the recognition of gains and losses in own funds).

The quantitative assessment in this report indicates that in most cases there may be limited volatility of own funds as a result of the changes in the accounting and prudential requirements. This assessment was limited to the period 2010-2012 and the result may have been different if other periods had been considered.

3.5 Third part of the analysis: qualitative assessment of possible sources of volatility

84. The analysis in Section 3.4 indicates that there could be countries where defined benefit pension funds are not common and that these funds are not provided by all institutions. The analysis also indicated that many institutions would see a limited impact, if any, on their own funds from the introduction of these changes mainly because of the historically low actuarial gains and losses compared to their capital position.

85. It should be mentioned that when defined benefit pension fund assets are recognised, any changes in the actuarial gains or losses and other gains and losses recognised in own funds under accounting rules will have an equal and opposite effect on own funds, which cancels out any impact on the volatility of own funds. More specifically, if actuarial losses increase, for example, own funds would decrease, but where an entity was already recognising a defined benefit pension asset, these losses would reduce the net pension asset which has to be deducted from own funds. A similar offsetting effect would occur where there are more actuarial or other types of gains, with a corresponding increase in net defined benefit assets. Volatility of own funds would therefore be limited due to the offsetting effect of the recognition of gains and losses from the change in the value of a defined benefit pension fund asset and the deduction of net pension assets from own funds.

86. However, there will be no offsetting effect where a defined benefit pension liability is recognised in the balance sheet of an institution, as the defined benefit pension fund liabilities are not deducted from own funds. Therefore, normally, volatility of own funds might occur if there is a net defined benefit pension liability. Additionally, there might be volatility where a net defined benefit pension obligation is financed above 100% of its amount and there is an additional contribution by the employer (such as transfer of assets) with no corresponding impact on own funds. In this case, there will be a change in the level of the net defined benefit pension fund (deducted from own funds under the CRR requirements) without an offsetting effect in own funds. However, it could be offset to some extent by the decrease of RWA (subject to the risk weight that was applied to the asset before transfer). This practice is understood to be supplementary to the regular obligations of an employer or mandatory by the national laws of a Member State and since detailed information is not available, this impact is not analysed further. Additionally, under Article 41(b) of the CRR, such contributions might qualify for not being deducted from own funds if certain criteria are met³², in which case the impact on the volatility of on own funds might be reduced.

87. The main factors that would drive the impact on the volatility of institutions' own funds based on the analysis are: the existence of any defined benefit pension funds, the magnitude of the funds compared to the institutions' capital position, the specific characteristics of these funds (for example the level of benefits that pensioners will be entitled to upon retirement or the

³² In addition to Article 41(b) the criteria for the possible exemption are further specified in Article 12 of the draft regulatory technical standards (RTS) on own funds (Part 1) (EBA/RTS/2013/01).

age of retirement), as well as the plan's past and future performance (mainly the actuarial gains and losses, both unrecognised and recognised and the experience adjustments, which are the difference between the previous actuarial assumptions and what has actually occurred).

88. Based on the analysis of information covering the period of 2010–2012, volatility of own funds could be relevant to a limited number of institutions and will depend on whether there are significant changes in actuarial gains and losses and defined benefit pension funds relative to the capital position of the institution. The driver of the recognition of actuarial gains and losses (and a change in net defined benefit plan) could be either a change in the actuarial assumptions used to perform the measurement of the obligation or a difference between the actuarial assumptions used and what has actually occurred (experience adjustment). This could exist if actuarial assumptions change significantly from one period to the other, or if there are significant differences between the assumptions used and what has actually occurred. Nevertheless, an increase in the defined benefit pension liabilities of an institution would mean that, based on the available information as at the reporting date, the institution will need to compensate for the estimated deficit in future periods when the benefits are settled. Where there is a decrease in liability, the opposite would apply and the institution would have to compensate fewer resources to cover the deficit of the fund. Therefore, it could be argued that the impact on the volatility of own funds due to the changes in the actuarial assumptions used (and their respective impact on the defined benefit pension liabilities) reflects the best estimate (paragraph 76 of the revised IAS 19) of the possible exposure of an institution and the economics of the transaction, the future obligation of an institution being to compensate the deficit of the pension plan.

89. The analysis performed in Section 3.4 is based on historical financial information on defined benefit pension funds. The analysis of the KRI sample (together with the qualitative information received from the Member States) is relevant to the systemic trends within the EU banking sector, as the banks in the sample cover 20 EEA countries and at least 50% of the total assets of each national banking sector³³.

90. The revised IAS 19 (paragraph 59) encourages entities to involve a qualified actuary in the measurement of the defined benefit obligation, which would be based on several actuarial assumptions (usually the discount rate, the inflation rate, the number of pensions in payment and deferred pensions, the mortality and the increase in salaries).

91. Additionally, the number of new entrants to these defined benefit pension funds has been reduced in past years in many institutions, since the obligations from these funds have been increasing during the financial crisis (mainly due to their discounting for the time value of money with lower discount rates compared to previous years). This situation is a result of the

³³ According to the EBA publication of the Risk Assessment of the European Banking System – December 2013 (<http://www.eba.europa.eu/documents/10180/534414/EBA+January+2014+Risk+Assessment+Report.pdf>). As explained in paragraph 43, 6 institutions have been excluded from the analysis

current environment of historically low market yields³⁴. More specifically, as also acknowledged by the IASB in the revised IAS 19 (paragraph 84), the discount rate is one of the actuarial assumptions that could have a material effect on the measurement of defined benefit obligations. This could be interpreted as a shrinking of defined benefit commitments and a possible decrease in defined benefit obligations in future periods when discount rates increase. The decrease in the size of these obligations would mean less material impact on own funds from any change in their measurement and therefore limited impact on the volatility of own funds.

92. As described in paragraph 83 of the revised IAS 19, the discount rates to be used by entities in discounting defined benefit obligations are the market rates of high-quality corporate bonds or, in countries where there is no deep market in such bonds, the market yields on government bonds must be used at the end of the reporting period. The revised IAS 19 (paragraph 144) also requires entities to disclose a sensitivity analysis for each significant actuarial assumption used, which shows how the defined benefit obligation would have been affected by changes in the relevant actuarial assumptions that were reasonably possible at the reporting date. We see that EU market yields fell during the last years of the financial crisis, creating a negative effect on future obligations (i.e. increase in the obligations through the increase of actuarial losses) and we could also assume that these yields are indicative of the discount rates used by institutions. On the other hand, the rate of inflation is another significant actuarial assumption used in the calculation of the defined benefit obligations. Over the same period, the EU rate of inflation also fell and assuming that the EU inflation rate is indicative of the inflation rates used in the EU banking sector, a fall in the inflation rate alone is expected to have a positive effect on the future obligations (i.e. decrease in the obligations through the increase in actuarial gains). Therefore, the inputs used for the actuarial assumptions depend how macroeconomic measures are expected to change. The possible impact of changes in macroeconomic factors should also be considered in conjunction with the changes in the returns of the assets of a defined benefit pension fund. The interaction of the variables used to estimate the defined benefit obligation (possible offsetting effect) will be the driver of the level of the defined benefit obligation.

93. Additionally, from the disclosures of several institutions, a change by 25 or 50 bps of a variable used in the actuarial assumptions in isolation (i.e. without adjusting other variables used in the actuarial assumptions or changing any other input of the calculation model) could have a material effect on the defined benefit obligations. Nevertheless, these assumptions are part of a set of assumptions or scenarios worked through by actuaries; what actually happens will depend on the combined effect of the variable factors used in the actuarial assumptions. The sensitivity analysis of actuarial assumptions reflects the reasonably possible changes in the actuarial assumptions at the reporting date and it would therefore be inappropriate to conclude that the larger the change in an actuarial assumption, the larger the impact, because the final impact on the defined benefit obligation also depends on other variables. Therefore,

³⁴ BIS Working Papers No 368 The sustainability of pension schemes

we understand that a possible future increase in discount rates, for example, would not necessarily mean that pension obligations will decrease, since this also depends on other factors such as the change in the inflation rate, salary increases, mortality rates and other factors as explained above.

94. Nevertheless, institutions with relevant defined pension plans should carefully consider the possibility of losses arising from these plans and incorporate these aspects as part of their capital planning to ensure that they hold sufficient capital to withstand the losses that could arise from these plans. In particular, this could happen during a downturn, if the level of the defined benefit liabilities increase and the level of the defined benefit assets decrease. From the analysis in this report, this may only be relevant for a limited number of countries in the EU. In addition, the CRR establishes transitional provisions for the application of the CRR requirements.

Volatility of own funds could exist when a defined benefit pension fund is in deficit and defined benefit pension liabilities are therefore reported in the balance sheet. The impact on the volatility of own funds could change based on changes in factors that are both internal and external to a bank but that are not directly related to the application of the new prudential and accounting rules under the scope of the report.

Internally, the structure of a pension plan, the target funding level of the defined benefit pension obligation and its size compared to the capital position of a banking group would be the main drivers of any impact on own funds. Externally, the macroeconomic environment and other factors that can lead to changes in the actuarial assumptions could affect the level of the estimated defined benefit pension funds and, therefore, the volatility of own funds. This would also depend on the size of the pension plan compared to the capital position of the institution.

4. Accompanying documents

4.1 Qualitative information received from Member States

The following table includes information about the current prudential treatment of the defined benefit pension funds and the application of the previous and the revised IAS 19.

A. Net defined benefit pension fund asset

Most Member States do not deduct net defined benefit pension fund assets from own funds

A1. Net defined benefit pension fund assets deducted from own funds

Member States that deduct net defined benefit pension fund assets from own funds: BE, FI, IE, MT, NO, SE, UK

IE, UK: accounting deficit replaced by a measure that the NSA believes more appropriately reflects the burden of the pension fund deficit.

A2. If deducted from own funds:

A2.1 Percentage of net defined benefit pension fund assets deducted from own funds

Most Member States deduct 100% of the net defined benefit pension fund assets from own funds

BE, SE: deduction of all or less than all of the net defined benefit pension fund assets depending on the circumstances.

A2.2 Component of own funds from which the net defined benefit pension fund assets are deducted

Most Member States deduct the net defined benefit pension fund assets from the CT1 capital

SE: net defined benefit pension fund assets deducted from the sum of Tier 1 and Tier 2 capital, after applicable deferred taxes.

B. Actuarial gains/losses from net defined pension assets/liabilities

B1. Previous IAS 19:

All three accounting methods were used for the recognition of actuarial gains and losses under previous IAS 19, with larger institutions tending to apply the 'corridor approach' more frequently

BE, EL, NO, NL, PT, SE: credit institutions used mainly the deferred recognition 'corridor approach'

B1.1 Accounting method for the recognition of actuarial gains/losses

AT: defined benefit pensions plans not very common. Larger institutions tended to recognise actuarial gains and losses in OCI
FI: defined benefit pensions plans not very common. Most institutions applying IFRSs have applied the revised IAS 19 earlier, while the earlier method applied was the 'corridor approach'
FR, IE: no single method applied by large institutions

PT: earlier application of the revised IAS 19 in 2011 for the largest institutions that previously applied the 'corridor approach'

Actuarial gains or losses are not filtered from own funds in most Member States in accordance with national prudential rules

DK: the 'corridor approach' is not allowed in the calculation of own funds for prudential purposes, which is based on Danish GAAP
FR: actuarial gains filtered from Tier 1 capital

B1.2 Prudential treatment of actuarial gains or losses

PT: until 2010, the 'corridor approach' was accepted for the calculation of own funds in practice and the deduction from own funds were the actuarial deviations exceeding the corridor. After the revised IAS 19, a positive prudential filter allows the exclusion of accumulated actuarial losses up to a maximum corresponding to the lesser of: (a) accumulated actuarial losses (that were not yet recognised as cost, as if the institution continued to treat gains and losses according to the 'corridor approach' as defined in the previous version of IAS 19); and (b) the amount corresponding to the 'corridor' calculated according to the previous version of IAS 19. This prudential filter will be applied until the possible application of the CRR rules with transitional measures.

SE: if the liabilities for pensions are reported on the balance sheet of at least that which would have been reported had the institution applied calculation models in accordance with the Safeguarding of Pension Commitments Act and the institution had applied the 'corridor approach', net unrecognised actuarial losses are not deducted from own funds.

B2. Revised IAS 19:

Most Member States do not apply any national prudential measure for the initial application of the revised IAS 19.

B2.1 Prudential filter for the initial application of the revised IAS 19

IT, NL: the difference between the net defined benefit liability (asset) under the recognition and measurement criteria of the previous IAS 19 and the net defined benefit liability (asset) under the recognition and measurement criteria of the revised IAS 19 is added to own funds.

Irrelevant due to the lack of any such plans

BG, CZ, LV

4.2 List of institutions in KRI Sample

The following table lists the names of the 57 institutions on the EBA KRI list.

Banking group	Country	Banking group	Country
1 Erste Group Bank AG	AT	31 OTP Bank NYRT	HU
2 Oesterreich Volksbanken	AT	32 Allied Irish Institutions plc	IE
3 Raiffeisen Zentralbank	AT	33 Bank of Ireland	IE
4 KBC Group	BE	34 Gruppo Monte dei Paschi di Siena	IT
5 Dexia	BE	35 Gruppo Banco Popolare	IT
6 Bank of Cyprus	CY	36 Gruppo Bancario Intesa Sanpaolo	IT
7 Marfin Popular Bank	CY	37 Gruppo UniCredit	IT
8 Commerzbank AG	DE	38 Bank of Valletta (BOV)	MT
9 Deutsche Bank AG	DE	39 ABN Amro	NL
10 Bayerische Landesbank	DE	40 ING Bank NV	NL
11 Landesbank Baden-Wuerttemberg	DE	41 Rabobank Group-Rabobank Nederland	NL
12 Norddeutsche Landesbank GZ	DE	42 DnB	NO
13 DZ BANK AG	DE	43 PKO Bank Polski	PL
14 Hypo Real Estate	DE	44 Banco Comercial Portugues	PT
15 WestLB AG	DE	45 Caixa Geral de Depositos	PT
16 Danske Bank A/S	DK	46 Espirito Santo Financial Group (ESFG)	PT
17 Alpha Bank AE	EL	47 Nova Ljubljanska Bank (NLB)	SI
18 EFG Eurobank Ergasias	EL	48 Nordea Bank AB (publ)	SE
19 National Bank of Greece	EL	49 Skandinaviska Enskilda Banken AB	SE
20 Piraeus Bank	EL	50 Svenska Handelsbanken	SE
21 Banco Bilbao Vizcaya Argentaria SA	ES	51 SWEDBANK AB	SE
22 Banco Santander SA	ES	52 Barclays Plc	UK
23 Banco Financiero y de Ahorro	ES	53 HSBC Holdings Plc	UK
24 La Caixa	ES	54 Lloyds Banking Group Plc	UK
25 OP-Pohjola Group	FI	55 Nationwide Building Society	UK
26 BNP Paribas	FR	56 Royal Bank of Scotland Group Plc (The)	UK
27 Crédit Agricole Group-Crédit Agricole	FR	57 Standard Chartered Plc	UK
28 Credit Mutuel	FR		
29 Group BPCE	FR		
30 Société Générale	FR		

Annex – Feedback during the Consultation

Summary of responses

1. On 17 February 2014, the EBA published a discussion paper with a preliminary assessment of the possible impact of the accounting and prudential changes to gather stakeholders' input at an early stage of the process. The input received helped the EBA to draw up the final report which will be submitted to the Commission by 30 June 2014. The consultation period ran for eight weeks until 14 April 2014.
2. Twelve responses were received, of which eleven were published on the EBA website. The EBA has carefully considered all the responses. In many cases, the respondents said that the discussion paper presented a comprehensive and reasonable analysis of the possible impact of the prudential and accounting changes, while they also highlighted some areas needing further clarification or some aspects of the analysis which could be developed further. Changes have been incorporated into the report as a result of the responses received during the public consultation.
3. Some respondents argued that the prudential and accounting changes would introduce pro-cyclical volatility on own funds, because during a downturn, own funds would be reduced reflecting the increase in losses from the valuation of defined benefit pension funds. On the basis of this argument, these respondents suggested that a prudential filter (Pillar I) on actuarial gains and losses should be introduced to reduce short-term volatility (similar to the 'corridor approach' or replacing the accounting measurement of the net defined benefit funds with an actuarial funding valuation). Some respondents also argued that the prudential and accounting changes would give rise to pension risk, which could be addressed through Pillar II requirements. However, other respondents did not favour any kind of prudential filter.
4. Most respondents agreed with the scope of the report, which includes the net defined benefit pension plans but does not consider the application of transitional measures or the exemption under Article 41(b) of the CRR. Some respondents thought that the report did not consider net defined benefit liabilities.
5. Most respondents agreed with how the report was drawn up. Some respondents suggested the following amendments to the quantitative analysis:
 - a longer time horizon instead of the period 2010–2012 (using a longer period spanning over an economic cycle, for example)
 - a larger sample of institutions (rather than the KRI sample used in the analysis)

- more frequent measurements of defined benefit pension funds (besides the annual measurements used in the analysis)
 - a theoretical simulation of the possible impact of changes in market parameters
6. Most respondents agreed that the deduction of defined benefit pension fund assets was the most relevant prudential requirement and that the main changes in IAS 19 were the immediate recognition of actuarial gains and losses and unvested past service costs on initial application of the requirements. Subsequently, the change in actuarial assumptions (demographic and financial) would be the drivers of the impact, if any, from the immediate recognition of actuarial gains and losses. Some respondents commented that the report should make clear that the other changes not considered relevant for this analysis might have an impact in conjunction with the other changes in IAS 19 in the future.
7. Most respondents agreed that the main drivers of the change in the level of net defined benefit pension funds would be items for which a corresponding gain or loss is recognised on own funds, such as actuarial gains and losses. However, some respondents argued that contributions to net defined pension plan without a corresponding impact on own funds were also relevant for the analysis and argued that such contributions should not be deducted from own funds. They also said that the deduction from own funds of such contributions might provide an incentive not to make these additional contributions.
8. Many respondents agreed with the assessment and the interpretation of the qualitative and quantitative data and considered the methodology reasonable. In addition to the comments on the quantitative assessment above, some respondents suggested that the analysis might consider the requirements under the national law of each Member State that might include a mandatory minimum contribution (funding level) to defined benefit pension funds.
9. Some respondents suggested amending the analysis to state that the changes in discount rates could affect the volatility of own funds, as also indicated in a simulation example provided, and that these changes could have a pro-cyclical impact on CET1, as explained above, if discount rates were to fall during a downturn, thereby adversely affecting deficits and thus the level of own funds.

EBA responses to comments

10. The EBA has carefully considered the feedback received during the public consultation. The report has been clarified and developed further in some particular areas to take into account the input received from stakeholders.
11. Regarding the argument on the possible pro-cyclical impact of the prudential and accounting changes, during periods of downturn own funds may indeed be adversely impacted as a result of the increase in actuarial losses and therefore in defined benefit pension fund deficits. However, the EBA believes that the full recognition of these losses on own funds is a prudent

approach because it immediately reflects the adverse impact on own funds rather than deferring recognition to future periods (if a regulatory ‘corridor’ is applied). Additionally, the estimation of the defined benefit pension fund obligations under the revised IAS 19 should reflect the best estimate of the underlying economics for these exposures.

12. The EBA acknowledges that there are inherent limitations in performing this estimate, because of the long-term maturity of these obligations and the high level of uncertainty over the amount and the timing of the settlement of these obligations. However, the application of a prudential filter under which the accounting measurement of the defined benefit pension funds under the revised IAS 19 would be replaced by another measurement might have significant drawbacks and it is questionable whether the economics of the exposure will be more appropriately reflected. More specifically, an alternative valuation, such as the valuation reflecting the contributions an institution is committed to pay over a specific period as proposed by some respondents, is not common practice in all Member States. It is also questionable whether the alternative approach would be more prudent than the accounting measurement of the defined benefit pension funds. The EBA also believes that this alternative valuation basis would be inconsistent with IFRS and Basel III requirements and may therefore contribute to an uneven playing field across Member States and institutions. Nevertheless, institutions with relevant defined pension plans should carefully consider if losses might arise from these plans and incorporate this in their capital planning to ensure that they hold sufficient capital to withstand such losses.
13. Regarding the view of some respondents that the report does not consider the possible volatility on own funds when a defined benefit pension liability is recognised, the report addresses both defined benefit pension assets and liabilities and it acknowledges that volatility could exist when a defined benefit pension liability is reported (paragraph 86 and summary of the third part of the analysis).
14. With regard to some comments on the extension of the quantitative assessment, the report provides both a qualitative and a quantitative analysis of the possible impact from the accounting and prudential changes. The report also outlines the drivers of the possible impact in the third part, without trying to predict whether volatility will exist in the future. The latter would require an assessment, which would be highly judgemental and heavily dependent on the assumptions used in predicting the future change in the variables that need to be considered to make this estimation. It would therefore be questionable whether it would be appropriate to extrapolate these results for institutions across Member States considering that institutions operate different types of plans, plans might be funded to different degrees (unfunded/partially/fully or over funded) and the investment strategies might differ (investment strategies to hold assets with positive correlation of returns to the discount rates of high-quality corporate bonds). This is also the case in the simulation example provided by some respondents, which gives a possible impact in a hypothetical scenario using a specific set of assumptions, without, for example, considering the change in other variables, such as the assets of the defined benefit pension fund, besides the discount rates. In contrast, the quantitative results of this report are considered in conjunction with the qualitative

assessment. The measures used in this analysis (such as the stratification of estimated impact on CT1 below 20 bps, between 20 and 50 bps and above 50 bps) indicate the magnitude of the estimated impact, which is then considered further in conjunction with the qualitative information, rather than in isolation. Additionally, the EBA acknowledges the possible drawbacks in estimating future events based on the analysis of past information and that an impact of less than 20 bps, for example, might be significant for an institution under certain circumstances (paragraph 88).

15. A longer time horizon could broaden the input data of the analysis, but it is unclear whether this data would still be relevant, given that many defined benefit pension plans have been restructured in recent years. Some plans have switched to defined contribution plans, other plans have cut the level of benefits they provide and others are not offered to new employees. The EBA also believes that the quality of the quantitative assessment might be reduced if interim data were included, because the additional data might be less relevant if actuarial measurements are done on an annual basis and therefore the volatility of own funds might appear lower in the absence of an updated actuarial measurement, impairing the results of the analysis.
16. The report was also modified to show that the impact of ‘other changes’ in IAS 19 cannot be assessed in isolation. There could be an impact in the future in conjunction with the changes in IAS 19 that are considered relevant for the purposes of this report (i.e. immediate recognition of actuarial gains or losses and past service costs) and, in the absence of detailed information for a relevant assessment, these changes have not been analysed further in this report (paragraph 38).
17. Regarding the possible volatility of own funds from changes that do not have a corresponding gain or loss recognised on own funds, the report considers that these changes might introduce volatility, but this would be the case when a plan is overfunded (paragraph 27). Considering the diversity of practices and requirements for minimum funding levels across institutions and Member States, the report was amended to show that this impact was not analysed further in the quantitative assessment but was considered as a possible source of volatility in the qualitative assessment (paragraphs 28 and 85). However, under Article 41(b) of the CRR, such contributions might not need to be deducted from own funds if certain criteria are met³⁵, in which case the impact on the volatility of on own funds might be reduced. This is also relevant for the comments received about the possible difference in the impact of the changes in each Member State as a result of the different minimum funding levels in each jurisdiction. Here, Member States might be able to allow application of Article 41(b) of the CRR if certain criteria are met, as explained above.

³⁵ In addition to Article 41(b), the criteria for the possible exemption are further specified in Article 12 of the draft regulatory technical standards (RTS) on own funds (Part 1) (EBA/RTS/2013/01).