

METHODOLOGICAL FRAMEWORK FOR STRESS- TESTING IORPS

Feedback statement to Consultation CP-21-
003

EIOPA-21/876
24 November 2021



eiopa

European Insurance and
Occupational Pensions Authority

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1. INTRODUCTION

According to Article 8(3) and 29(2) of the EIOPA Regulation¹, EIOPA carries out wide consultations of the public, leaving sufficient time for consideration of the proposed approaches, where relevant when carrying out its tasks considering the aim of better regulation. Further, the relevant stakeholder groups, here EIOPA's Occupational Pensions Stakeholder Group² (OPSG), are asked for their advice.

The methodological framework for stress-testing IORPs had been publically consulted from 22 June to 22 September 2021.

For CP-21-003, EIOPA received seven contributions (including from the OPSG) from the following types of stakeholders:

- ▶ Actuarial representative organisations (three responses),
- ▶ Insurance and reinsurance undertakings representative organisations (one response),
- ▶ Pension funds/IORPs representative organisations (two responses).

The total number of comments received was 202.

¹ Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/79/EC, *OJ L 331, 15.12.2010, p. 48–83*.

² The OPSG submitted its advice on 14th September 2022, which can be found here:
<https://www.eiopa.europa.eu/sites/default/files/publications/administrative/cvs/irsg/opsg-21-26-stress-test-methodology.pdf>

2. SUMMARY OF COMMENTS RECEIVED

The feedback received was broadly positive, supporting the framework and its key components, whilst highlighting challenges and potential limitations of the suggested approaches:

- ▶ **Support of the horizontal approaches**, highlighting the need to interpret the results in light of the highly divergent schemes, types of IORPs and frameworks;
- ▶ **Support of the toolbox approach**, stressing the need to limit the set of analyses employed and to tailor the design to the objective of an individual exercise in a proportionate manner;
- ▶ **Support of the approaches to address new and emerging risks**, particularly environmental risks, acknowledging the different levels of sophistication of IORPs and the generally limited data availability.

Regarding the application of standardised approaches to cover all types of IORPs and occupational pension schemes, stakeholders perceived this as a positive ambition, in particular as the dividing lines between defined benefit (DB) and defined contribution (DC) schemes is becoming more and more blurred with the further development of risk-mitigation structures at collective level as well as new pension protection mechanisms. Whilst it is seen as highly desirable to reach a view on the entire IORP sector in Europe, the analysis of the individual results from the horizontal analyses requires a good understanding of the national and IORP-specific characteristics as well as the regulatory frameworks. Further, the projection tools are to some extent a new type of analysis for DB IORPs, so that sufficient time and consideration needs to be given for all IORPs to apply them.

A toolbox approach, promoting the use of a certain set of analyses for specified objectives, was generally well-received. Standardised approaches can reap significant efficiency gains, both for IORPs carrying out the stress test as well as national competent authorities and EIOPA analysing the results. However, the objectives of stress test will require tailoring of the technical specifications of the applied tools and analyses to gain relevant insights. Therefore, a balance needs to be struck in keeping standardised approaches and tailoring of the analytical tools so that they are fit for purpose. Further, acknowledging the different starting points of the individual IORPs, for example in using stochastic approaches, proportionality needs to be considered in future exercises, so that simplified – yet relevant – approaches are possible.

The approaches to analyse environmental risks in future stress tests were well supported by stakeholders and the importance of environmental risks, in particular transition risks, was

highlighted. Of course, it needs to be acknowledged that there is still a steep learning curve on how to design and carry out environmental stress test – both at the level of IORPs and at the level of competent authorities and EIOPA.

All comments received were duly considered. The methodological framework for stress-testing IORPs has benefitted from corresponding clarifications and amendments. Yet, stakeholders also provided a number of comments relating to the actual design and technical specifications of future stress tests, which could not be reflected in the methodological framework for stress-testing IORPs, yet they will be considered in future exercises. Further, some stakeholders stressed their concerns on the specifications of the common methodology, its market-consistent valuation and the use of a risk-free rate, which were out of scope of the methodological framework for stress-testing IORPs.

ANNEX: COMMENTS RECEIVED ON CP-21-003

EIOPA's Occupational Pensions Stakeholder Group (OPSG)			
no	Ref.	Comments	EIOPA response/processing
1.	General introductory remarks	<p>As stated already in many previous OPSG-comments regarding the pan-European stress test, the OPSG appreciates, that EIOPA is conducting this kind of stress test exercise so as to assess the macro impact of stress scenarios on financial stability and – more specific – on the landscape of IORPs in total Europe. We further support EIOPA in thinking over the methodology used in the latest stress test (2019) and especially the idea of a toolbox approach meaning that not all available tools within the stress test framework shall be used every time. In general, the OPSG thinks that this idea should lead to a reduction of effort and complexity for the participating IORPs. Some members are concerned about the horizontal approach proposed by EIOPA as huge differences between IORPs are in place across different member states, between DB and DC and within the two types of IORPs limiting comparability and requiring a very careful interpretation of the results of such horizontal approach. The OPSG stated several times in the past, that the Common Balance Sheet (CBS) approach (as an approach highly dependant on valuation conventions used) is not very suitable to assess the vulnerabilities of IORPs in a fair and comprehensive manner and that the OPSG in general prefers a cash-flow analysis approach instead. The arguments need not to be repeated in detail again here. One example: in case of negative risk free rates such approach can lead to giving wrong steering signals to IORP's management. In such a situation market values of high-quality fixed income securities being held to maturity by the IORP for strategical reasons may be well above par and therefore well above the payback amount at maturity. At the same time also the market value of liabilities will be higher than the sum of all future benefit cashflows. If the duration of liabilities is higher than (or equal to) the duration of assets this may lead to a financial gap (on a market value level), which may in many cases automatically vanish until all the payments become due. If the duration of assets is higher than the duration of liabilities the same situation can lead to an over-estimation of risk buffers and of the IORP's risk capacity. Another important point, which will be treated more in detail under the respective numbers in this paper, is, that assuming that IORPs are earning risk-free rates on the asset side in a baseline scenario is not correct from a methodological point of view. Since investments earning risk free rates are in fact hedged against most market relevant risks (otherwise they would earn the respective risk premiums) any stress scenario addressing these risks is not applicable (it would lead in fact to a "double-stress"). So, a baseline scenario should take the capacity of IORPs to earn additional risk premiums into account.</p>	<p>Thank you for providing your comments and your support of the approaches set out in the draft methodological framework. Indeed, the framework is expected to reap efficiency gains in designing stress test exercises and in particular in choosing the analytical tools to be employed. The specific calibrations as well as the focus of the analyses will take into account the specific perspective and objectives of the respective exercise as well as the specificities of the different types of IORPs, schemes and pension obligations.</p>

2.	No. 22, 1 st bullet-point	The OPSG suggests to add at the end of that paragraph “or any combination of these”.	Agreed. This has been added.
3.	No. 26, 3 rd , 4 th and 6 th bullet-point	<p>The mandate of EIOPA includes to assess the consequences of such scenarios regarding financial stability in total and to assess the impact on the national economies. This can be estimated in a qualified manner by using e.g. the total amount of sponsor support calculated in the stress scenarios by the IORP. For this, further information about the individual sponsor companies is not needed – and is in many cases difficult or impossible for the IORPs to deliver (often also from a legal perspective). Furthermore individual sponsor companies are not subject of supervision by EIOPA – except for the case, that they are insurance companies themselves.</p> <p>EIOPA carried out an assessment of the different IORPs across MS, however it does not seem exhaustive. As regards DC plans two additional features should be considered. The first refers to the activities managed by DC IORPs. If they manage both accumulation and decumulation and if in this case they take over any longevity risks, IORPs have to accrue technical provisions for the purpose of the pay-out, meaning that they get in fact under DB framework (but only) from the starting point of the decumulation phase onwards. If DC IORPs are only focused on the accumulation phase, they do not manage longevity risks, moreover solvency issues in the classical sense do not matter. Such differences have a relevant effect on the practicability of any horizontal approach. The results of any projection tools for such IORPs are much more difficult to interpret and to compare by EIOPA/NCAs. If the scope of projections of future retirement income is to assess the effect on financial stability through the real economy, such analysis may be effective where IORPs account for a relevant share of retirement income, otherwise it is negligible.</p> <p>The second missing feature is the option for members of DC IORPs to select the investment option (if it exists) and to change it during the accumulation phase or even to change the IORP if they are not satisfied, both of which is legally not possible in some states of the European Union. It means that in this case it is up to the members to manage their risks stemming from the accumulation phase. Also, in this case, some concerns regarding the interpretation of the horizontal approach arise. If, for example, the projection should end up showing a shortage (however it might be defined) in the future retirement income for certain plan members, the explanatory power of such result with respect to the IORP would be negligible as the potential for management actions by IORPs would be very limited (if possible at all). It is up to the single member to choose and change the investment option, based on the findings of the projection of future retirement provided by the Pension Benefit Statement. For that reason, in such cases the projections of retirement income would have to be coherent to the results shown in the Pension Benefit Statements and should be used in this way to derive a macro prudential view.</p>	<p>Partially agreed. Indeed the detailed financial situation of individual sponsor companies will not usually be relevant when assessing the transmission of stress on the real economy on a national level.</p> <p>The analysis of IORP characteristics and its relevance to stress-testing in Chapter 2 is intentionally high-level and does not rule out that more detailed aspects of IORPs, such as mentioned here, can be relevant.</p>
4.	No. 43	The OPSG generally supports the idea of a toolbox approach, where the tools are chosen depending on the concrete objective of the respective stress test. However, the catalogue of possible tools, which could be applied is larger than the list of tools which have been applied so far in former exercises.	Partially agreed. The aim of the toolbox approach is to give guidance in selecting and tailoring

		Therefore, when it comes to the selection of concrete tools, EIOPA should take consideration, that such selection does not result in an increased effort for the participating IORPs, but in a reduced effort compared to previous exercises, since many IORPs struggled already in the past with the additional effort of the EIOPA stress test. This hint seems to be particularly relevant before the background, that not all kinds of tools are equally suitable for assessing e.g. the financial strength of single IORPs or for performing horizontal analysis or other kinds of assessments. The OPSG suggests to bring therefore a toolbox together with the aim of increasing the number of IORPs participating in the stress test in order to get a representative group of participating IORPs.	the appropriate tools in relation to the ST objective. Sample selection (including the coverage aim) is also geared to the ST objective.
5.	No. 44	The projection of retirement income is a completely new tool within the stress test toolbox for IORPs providing for DB plans. In case of DC plans replacement rates for respective members have been assessed so far. It is generally reasonable to assess the impacts of different scenarios on retirement income for the beneficiaries, if there is a meaningful risk in this regard from their perspective. In cases where such risk is only minimal, because far reaching sponsor support measures in combination with effective pension protection schemes are in place, the application of such additional tool is not necessary and causes only unnecessary extra cost and effort for the IORPs without any significant advantage. Some members argue that also in cases, where occupational pensions only play a marginal role with regard to the total pension level (taking also other pillars into account), such instrument would not be necessary. If such instrument is to be applied (because the aforementioned protection mechanisms do not exist at all or to an acceptable extent), such tool should be designed in a way, that also smaller IORPs are able to cope with this new requirement and thus contributing to our aim to increase the number of participating IORPs and maximize the representativeness of the exercise. That means, that IORPs should not be forced to do a stochastic analysis and that especially smaller ones could do also a deterministic analysis for the pre-defined scenarios, which would be much simpler. Of course, if an IORP is already using stochastic modelling techniques within its own internal risk management framework, it can also do a stochastic analysis in this context (if it wants so). However, as said before IORPs should not be forced generally into such stochastic modelling framework. Otherwise it has to be feared, that without any necessity a lot of additional cost would be caused on the side of the IORPs, which in the end would have to be paid by beneficiaries and employers and would cause a sustainable damage to the landscape of occupational pensions in Europe as a whole. Any deterministic approach or other shortcut to replace a stochastic approach should be on a best estimate basis and should ensure that the outcome will be coherent to the outcome in case a stochastic analysis would have been performed (in other words a deterministic approach should not be used in order to deliberately get to more optimistic results than otherwise would be the case).	Disagreed. As ultimate risk bearers, plan members constitute a relevant destination of risk to be assessed in a ST. Since retirement saving aims to replace income, the retirement income projection approach is appropriate.
6.	No. 47	The horizontal approach would be a perfectly right way to run the stress test if IORPs were comparable. However, huge differences between IORPs are in fact in place between different member states, between DB and DC and between the different types of IORPs. This is the reason why IORP2 is - and should stay - a minimum harmonization directive.	Partially agreed. This comment will be taken into consideration in future ST exercises and specifically the discussion of its results. Also

		<p>In the reference to point 26. of the Discussion Paper, the OPSG already addressed some features of DC IORPs which have not been considered by EIOPA and the way they would compromise the achievements of the horizontal approach, the interpretability of the results, their explanatory power and their usefulness for IORPs.</p> <p>EIOPA should further reflect on the opportunity to introduce such a horizontal approach for the next stress test, given the relevant distinctions between IORPs still in place. The OPSG welcomes the approach followed so far by EIOPA, based on a strong cooperation with stakeholders, however, for the OPSG it seems to be necessary to engage further in order to find the right way to deal with the huge differences in place that would undermine the results and the interpretability of the proposed tools for such approach.</p>	<p>see the response to comment number 1.</p>
<p>7.</p>	<p>No. 52-65</p>	<p>The OPSG has outlined several times in the past, where the OPSG sees fundamental problems regarding (valuation depending) balance sheet simulation techniques (please refer to the OPSG’s comments regarding the latest stress tests 2019 and 2017) and especially regarding the Common Balance Sheet (CBS). So, these arguments need not to be repeated in detail any more. So, just as a reminder and for the sake of completeness the main counter-arguments from the OPSG’s point of view shall be very briefly written down here:</p> <ul style="list-style-type: none"> a) Balance-sheet-tools are one-periodic models based on certain valuation conventions (e.g. mark-to-market valuation conventions for the CBS), from which the results are heavily depending. b) Hence, if used as a steering instrument for IORPs or if any conclusions from an interpretation of the figures shall be drawn, the CBS delivers only short-term-oriented signals and allows short-term-oriented interpretations which contradict to the long-term nature of an IORP’s business. Long-term compensation effects over time cannot be assessed in such a framework, although they are highly important for the long-term-oriented business nature of IORPs. c) No IORP gets into financial difficulties just for the reason, that some kind of marked-to-market balance sheet (i.e. the CBS) shows certain financial gaps at one certain point in time. Financial problems, which trigger negative consequences for beneficiaries (and/or employers) can only arise out of two circumstances. Either on a short-term horizon the IORP is not able to pay the guaranteed (or expected, as the case may be) benefits. This would be more an issue of liquidity risk. Or on a longer term perspective it is highly probable, that the IORP at some point in the future is not able any more to pay the (guaranteed or expected) benefits, when they are due, because the IORP is running out of money. The latter risk can better be assessed in a multi-periodic cash-flow-oriented stress-test-approach. d) It is much more problematic to include national or individual specifics of an IORP into such a framework. 	<p>Noted. A BS-Tool provides a picture at a certain point in time and reveals the effect of a given scenario. The CBS - as a tool - has some drawbacks but provides a comparable view.</p>

		<p>e) Also the solidary and collective character of an IORP’s business as well as IORP-specific funding and financing measures, such as certain streams of additional financing by sponsor companies over a longer period of time, are much more difficult to integrate adequately into the model.</p> <p>f) If there is only one valuation after a shock event, it is nearly impossible to model, how an IORP and the related stakeholders (beneficiaries, employers, governing bodies etc.) most probably will react over time and which implications this might have in the long run.</p> <p>g) The integration of a risk margin on top of the best estimate of liabilities (which is usually capital cost based) does not make sense for IORPs – some members stress especially not for ones, which operate on a “not-for-profit” basis. Such an approach is only needed if a transfer to another entity is foreseen. These situations are rather rare, except when considering to transfer to an insurer.</p>	
8.	No. 54	The discount rate for the valuation of the technical provisions as well as valuation conventions for assets in the NBS are based on national provisions, and hence these discount rates may differ significantly and the results based on NBS are significantly different and cannot meaningfully be compared in any horizontal approach.	<p>Partially agreed.</p> <p>A NBS as a ST-Tool applied at the EU level has some shortcomings, but reveals the effect of a given scenario. Compared to a baseline-scenario, it demonstrates the vulnerability which can be considered horizontally in a national context.</p>
9.	No. 55	It is stated that the CBS is valued on a market-consistent basis. This is only partly true. The model is theoretically right when the cashflows are certain. Where pension payments are not certain, e.g. because the arrangement includes a reduction of pensions under certain circumstances, the valuation needs to take such uncertainties into account. This can e.g. be done by projecting the cash flows where this option of reductions is included and then use the risk-free rate for discounting those cash flows. Alternatively, the cashflows as if they were certain are used with a (upwards) correction for that in the discount rate. The adjusted discount rate would then be the risk-free rate plus a component (could be referred to as the risk premium) to allow for the conditionalities in the pension payment. Valuing such conditional pension payments with the risk-free rate results in a too high result, is overstating the liabilities and hence is not market-consistent.	Noted.
10.	No. 67	“Projections are inherently a challenging task, as most future developments cannot be predicted with certainty.” Likewise, this is true for the two balance sheet approaches. A valuation is the discounted value of the future (uncertain) pension payments. So, there is no fundamental difference from this perspective between the approaches. In a projection such challenge is only seen more clearly, whilst in a valuation it is not made transparent as it is still in the underlying valuation approach (a valuation is also having cashflows at the basis for the discounting).	Partially agreed, a current valuation of assets and liabilities, for which market prices do not exist, requires certain assumptions and uncertain inputs. However, long-term projections are potentially even more complex due

			to the lack of market information and the long time horizon.
11.	No. 68	“Depending on the objective of the ST exercise, the availability of such management actions may be important to assess.”. Fully agree. That is why a cash flow analysis is providing more added value than a balance sheet approach where these actions are not taken into consideration.	Partially agreed, cash flow projections are an important tool to complement the analysis of the balance sheet.
12.	No. 70	<p>The OPSG already expressed some concerns on the practicability of projection tools (Internal Rate Return, Cash Flow tools and Projection of retirement income from IORP) for DC IORPs which only manage the accumulation phase and where members are allowed to select the investment option (please refer to 26.).</p> <p>As EIOPA stated in point 71. 2nd bullet point, that cash flow tools “<i>can provide insights into the timing and significance of cash-in and cash-out flows; as well as triggering points for supervisory measures or supporting actions by sponsors and members or pension protection mechanisms</i>”. Against this background, the outcome of cash flow tools need to be carefully interpreted for such types of DC IORPs. Safeguards from NCA or sponsors or protection schemes based on such flows are out of scope for DC IORPs.</p> <p>The projections of the income of members and beneficiaries from the IORP should “<i>provide insights into the projected out-payments of IORPs as well as the effects on members and beneficiaries of an IORP</i>”. With reference to the first objective, if an IORP does not manage the decumulation phase since fully outsourced to a life insurance company, some members of the OPSG question the need to project out-payments for such IORPs. As regards the effects on members and beneficiaries of an IORP, the OPSG is of the opinion that the Pension Benefit Statement is the tool institutionally designated for this purpose. In IORPs where members are allowed to choose the investment option (basically DC IORPs), the latter are responsible for the accumulation process and it is up to them to select according to their opinion and preferences the “best” tool to hedge the risk of an inadequate benefit at retirement (change investment option-or the IORP itself if allowed-, increase contribution etc.). The potential for management actions for such IORPs is rather limited. Furthermore, for a full assessment of the effect on financial stability through the real economy, all sources of retirement income should be considered, including public pensions. In member states, in which the first pillar usually provides the bulk of the retirement income, a projection of the future retirement income limited to the one stemming from the IORP would have no real value with regard to assessing the effect on financial stability (through future consumption).</p>	Partially agreed, certainly the analysis of future retirement income (under stress) needs to take into consideration that some IORPs manage the pension obligation only until the retirement date and are subject to the choice of investment option by the member.
13.	No. 71	In an IRR approach EIOPA should not compare the necessary IRR so determined with the risk-free rate only (and determine the necessary level of risk premiums). Instead, one should also take into account the ability of an IORP to earn these risk premiums in the long run, which can e.g. be estimated by assessing the strategic asset allocation of the respective IORP. However, when doing so, one would also	Partially agreed, it is certainly interesting to assess whether the IORP can earn the required risk premium over the risk-free rate,

		have to consider, that a higher level of (long-term-average expected) risk premiums because of a more risky asset allocation most probably coincides with a higher expected volatility of the investment results.	based on the IORP's current investment allocation and corresponding potential, future investment returns. This is mentioned in paragraph 72.
14.	No. 73	Assessing the IRR for stress test purposes is not so much in terms of "profitability". It is more in terms of "long-term investment return needed".	Partially agreed, profitability here means that the IORP must be able to continue its business and to reach the 'long-term investment return needed'.
15.	No. 75	Very true that the cash flows have to take full account of national prudential mechanisms and all actions and measures that could play a role. This is an important advantage of such a cash flow analysis above either the NBC or the CBS.	Noted.
16.	No. 77	Some remarks on that number: <ul style="list-style-type: none"> - From the OPSG 's point of view it is still not right to calculate cash-flows based on the assumption of risk-free-returns while applying at the same time a stress-scenario, which should not have much impact on the IORP if it invested all its assets on a risk-free basis. - It should be remarked that such long-term simulations as proposed here of course fit to the long-term nature of an IORP 's business. However, one has to be aware of the fact, that assumptions, which are often based on current circumstances, might not be valid any more in the longer term future, which limits the potential for interpreting the results. - An inflation adjustment should only be applied in case of an IORP, which carries an inflation risk – and not in cases where there is absolutely no inflation risk for the IORP. In the latter case, in which usually the beneficiaries carry the inflation risk, such risk can be taken into account in benefit projection tools. 	Partially agreed, an analysis using the assumption of risk-free returns has merits in terms of consistency, objectivity and comparability of the results. The results certainly have to be interpreted in light of the assumptions used. Changes in long-term expectations and inflation are important considerations that may be in the focus of attention for a specific stress test.
17.	No. 77, 2 nd bullet-point	"The concept of the CBS specifies that IORPs should be in a position to yield risk-free returns." This statement is not true. Market-consistent valuation is based on applying (expected) risk-free rates to certain liability-oriented cash flows. This does not imply that the investment strategy is in any way aimed at "just" generating risk-free returns. The risk-free concept applies just to the valuation of liabilities itself.	Partially agreed, whilst this is a basic assumption of the CBS, it should not be understood as if IORPs should manage their assets with a view to only yield risk-free returns.

<p>18.</p>	<p>No. 78 - 85</p>	<p>It has to be considered, that applying too complex stochastic simulations (or stochastic simulations at all) to IORPs would result in an undue and inadequate burden for most – but especially smaller – IORPs in many member states. Also, in that case the underlying probability distributions for the stochastic variables have to be thoroughly discussed.</p> <p>Also, a stress test exercise assessing the impact on cohorts in a way, that calculations for all individual contracts within such cohort become necessary, is much too complicated. Experience shows, that defining cohorts and doing the calculation for “average cohort members” (i.e. persons having an average age, an average benefit level etc.) gives a fairly realistic picture about what happen to the beneficiaries in the respective stress scenarios. Some members are in general concerned about such an assessment and hint to the fact, that individual projections are already given in the pension benefit statement. Moreover, in member states, where the first pillar accounts for the main share of the retirement income, such projections limited to retirement income received from an IORP are not suitable for an assessment of future macro-economic effects.</p> <p>Additionally, as already said, using risk free returns as return assumptions for assets does not seem to be appropriate, because this would mean, that the IORP holds an asset portfolio which is hedged against many market risks, such as equity risks, credit risks, liquidity risks etc. In such an approach, the stress scenario should not assume realisations of such risks, otherwise the stress test would be inconsistent in itself. So, from that angle using standardized investment returns by asset classes reflecting the asset allocation of the IORP seems to be a more reasonable and easier approach.</p>	<p>Partially agreed, stress test specifications need to take into consideration the different types of IORPs and sophistication in carrying out projections.</p> <p>Further, the idea of analysing the situation of different cohorts does not mean that the projections have to be done at the level of the individual member. Simplifications, like the one mentioned here, can be employed.</p> <p>The use of risk-free returns as a basic assumption has merits, please see the response to comment number 16.</p>
<p>19.</p>	<p>No. 81-96</p>	<p><i>The background survey is aimed at collecting some context information from the NCAs and IORPs so to shed light on the Stress Test results in terms of comparability, robustness and completeness of the results.</i></p> <p>We are supportive of the introduction of a background survey and are convinced it’s an excellent tool to introduce appropriate proportionality in the stress test exercise. It also allows to put the stress test results in the right perspective especially when trying to compare the results of different member states. It also allows to identify the appropriate tools and to assess the cost/benefit/relevance of each stress test exercise. This tool allows to take into account proportionality triggers such as:</p> <ul style="list-style-type: none"> • AUM of IORPs in the member state / GDP, e.g. when evaluation of the potential for systemic risk. The AUM/GDP does not exceed 25% for all member states except for one. It only exceeds 10% for seven member states. 	<p>Noted.</p>

		<ul style="list-style-type: none"> • AUM of IORPs in the member state / total assets of the financial sector, e.g. when evaluating the cost/benefit/relevance of cross-sectoral stress tests. • Number of IORPs in the Member state, e.g. in member states with a large number of IORPs the assessment of the resilience of financial institutions can be measured based on a limited sample of IORPs without aiming to have a sample that represents x% of the AUM in the member state. • Distribution of the AUM per IORP in the member state, e.g. to assess the cost/benefit of a cash flow exercise and the tools used. • Average amount of assets/benefits per beneficiary, e.g. in some MSs IORPs AUM and pension savings per individual are relatively small. Use different perspective for RI (and related risks) for those MSs where occupational pensions deliver large(r) part retirement income. • Number of active IORP members / working population e.g. to assess the relevance of the transmission effects onto the financial stability. <p>The use of derivatives, e.g. IORPS that do not use derivatives and have no options for early pension withdrawal before retirement age, liquidity risk is very limited/non existing</p>	
20.	No. 89	<p>The OPSG already expressed in previous comments regarding stress tests the opinion, that it will be almost impossible to do a reasonable assessment of a sponsor’s financial strength by using data provided by IORPs. Sponsor companies belong to different industries and e.g. balance sheet data or P&L data for different sponsor companies cannot be seriously compared if these sponsors belong to different industries. That is why professional rating agencies have experts for different industries and why they apply also different credit KPIs and different thresholds for different industries.</p>	Noted, previous stress tests used publicly available data.
21.	No. 92 – 99	<p>The Investment Behaviour Survey (IBS) has already been quite a complex, burdensome and extremely laborious exercise within the 2019 stress test showing a high degree of dyssynergy to other supervisory reporting of IORPs. The OPSG would have hoped, that EIOPA tried to simplify this survey and to reduce the effort related to it. In opposite, it seems that EIOPA wants to put even more emphasis and detailed analysis on some aspects, which will not enhance the quality of results but putting additional efforts and costs on the IORPs.</p> <p>With reference to the regulation of investments, EIOPA could rely on NCAs for regulations applying on a general bases, limiting the request to that added by the IORPs under their investment policies (if any).</p> <p>On derivatives, the request could be limited to the cases in which the use of such instruments is relevant, while excluding the cases in which the use of derivatives is negligible.</p> <p>The length of 5 years after the shock to indicate the expected adjustment of asset class allocation, by net selling or net buying, and the new asset allocation could be too long - especially when investments</p>	<p>Partially agreed.</p> <p>The IBS is an instrument that combines qualitative and quantitative information, to evaluate the impact of the adverse scenario on the IORP’s asset values and asset allocation. It mainly relies on IORP information rather than investment regulation. For limiting the burden on IORPs, some information related to the regulation would be collected directly by the supervisory authorities; the number of requests</p>

		are made through mandates that could be shorter than 5 years or having a residual length less than 5 years.	on derivatives would be decided during the tool’s selection process of future stress test exercises taking into consideration their country and IORP specific relevance.
22.	No. 100	The description of the Stock Take Survey in this paragraph is not very concrete. Hence, a qualified opinion on this issue cannot be given. Broadly speaking the use of such tool should be very limited to avoid an unnecessarily burdensome and costly stress test.	Partially agreed The STS is a dedicated survey aimed at addressing a specific topic which require qualitative characterizations. Its contents heavily depend on the selected topic but will also reflect cost/benefit ratio upon the tools selection process of future stress test exercises.
23.	No. 106	<p>In table 3.1 EIOPA states, how appropriate certain tools may be for assessing the financial position of an IORP. The OPSG doubts, whether the CBS is really suitable to asses solvency risk, because as mentioned before the OPSG believes, that the Common Methodology cannot be relied on giving the correct economic steering signals regarding solvency of an IORP and because the application of solvency requirements according to the IORP-II directive are still subject to more specific regulations on a national level and national supervisory law and to national legally prescribed valuation practices, which will – as EOIPA noted itself in the table – in many cases deviate from country to country. Hence, one, purely mark-to-market based CBS, which is more or less a “snapshot” at a certain moment and hence neglects to a certain degree the long-term nature of an IORP’s business cannot tell much about IORPs being able to fulfil solvency requirements.</p> <p>The CFA can also be used to provide information on solvency risk, albeit in a different way. Measuring whether or not there will be a point in time where the IORP has insufficient financial means to cover the pension payments. The timespan, the amount of shortage and, in case of a stochastic approach, the probability of the occurrence of such an event provide valuable information about whether the IORP is likely to meet its obligations under the current rules, regulations and agreements with stakeholders. As such the CFA provides a more detailed view of the solvency risk of the IORP.</p>	Partially agreed. In the context of a European stress test exercise, it is also important to be able to compare the financial position of IORPs between different Member States at a certain moment as explained in par. 110. Such a comparison makes only sense if all IORPs determine their solvency position based on a common methodology and parameters. In this context, the CBS has its place in the EIOPA stress test exercises although the results may differ from those of the NBS. EIOPA is of the opinion that the advantages and disadvantages of the CBS are fairly presented in the paper.

24.	No. 110	<p>“...the valuation of the assets and liabilities should be performed based on the same methodologies and parameters.” We note that the CBS measures all pensions as guaranteed as they are discounted on the basis of risk-free rates. The CBS methodology should also take the conditionalities of pensions into consideration. (see further our comment to No. 55 under the detailed comments)</p>	<p>Noted. See response n°9.</p>
25.	No. 111	<p>Projecting balance sheets under different scenarios over several years into the future is also an extremely complex exercise, which cannot be done with adequate effort and costs especially be smaller IORPs.</p>	<p>Partially agreed. EIOPA has taken note of the remarks and concerns about the complexity and cost that the projections of balance sheets over several years may entail (proportionality).</p>
26.	No. 112	<p>The proposed comparison of projected IORP ‘s assets and the remaining expected future benefit payments comes with regard to costs and effort already quite close to a balance sheet projection. Hence, the last comment also applies to this number.</p>	<p>Partially agreed. It is true that in some cases (rough) projections of the BS are needed in a CFA in order to be able to assess for example the necessary recovery measures (security mechanisms). EIOPA has taken note of the remarks and concerns about the complexity and cost that the projections of balance sheets over several years may entail (proportionality).</p>
27.	No. 118	<p>The proposed liquidity indicator normally can be a simple way to determine a figure allowing a quick and rough assessment of the liquidity risk of an IORP for certain periods of time. However, as EIOPA itself recognized in point 116., liquidity is often not one of the most relevant risks of IORPs and consequently its assessment on a quantitative basis should be limited to the cases where that risk really matters. Possible criteria to assess the materiality of the risk could be the size in the use of OTC (and hence less liquid) derivatives, possibilities early withdrawal without restrictions, if allowed, the share of illiquid assets and quantitative limits defined by national regulations for the investment in illiquid assets. This information could be obtained e.g. by engagement with NCAs.</p>	<p>Partially agreed. EIOPA has taken note of your additional suggestions with regard to the practical implementation of the assessment of the liquidity risk.</p>
28.	No. 120-122	<p>EIOPA should be cautious in drawing conclusions out of simple quotient figures. If in a given year the income of an IORP is a certain percentage of the assets under management, that does not mean, that this ratio stays constant. In a held to maturity bond portfolio which is currently valued at 100% of the</p>	<p>Partially agreed EIOPA has taken note of your remarks and concerns about the valuation of the potential of IORPs</p>

		<p>nominal amount and which pays a fixed coupon, a decrease in market value due to rising yields in the markets would mean nothing regarding the ability of the IORP to generate sufficient income: after that event the IORP would receive exactly the same amount of coupon payments and at maturity the bonds will be paid back at par (of course, if no default occurs). Also the ratio between income and contributions is meaningless for an assessment of that type. In a DB system where there is sufficient capital accumulated to cover the liabilities it just does not matter if contributions fall, because in that case also no new benefits will accrue. Please take into account that there are some very old DB IORPs, who do not receive contributions anymore, because they are completely in the decumulation phase and which may be nevertheless financially healthy.</p>	<p>to maintain their business under adverse scenarios. As stated in par. 120, this is not a general risk that will affect all the IORPs in all the Member States. However, in some cases the income of IORPs is limited to a maximum percentage of the assets under management and/or a percentage of the received contributions. In the event of a decline in income, an IORP may no longer be able to cover its operational expenses and be forced to cease its activities.</p>
29.	No. 152	<p>The methodology has to be flexible enough to include national specifics such as e.g. contract boundaries which exist in some European countries.</p>	<p>Partially agreed. EIOPA does not intend at this stage to revise the definitions and application of the contract boundaries of the CBS (see paragraph 55). However, in applying the contract boundaries in a CFA, a distinction should be made between the perspectives of the stress test exercises. For the assessment of the financial position of an IORP (perspective 1) with a CFA on the short/medium term, it can be accepted to take into account the simplifications that can be derived from the contract boundaries. However, if EIOPA wishes to assess the transmission effects of adverse scenarios via the IORP sector onto financial stability (perspective 2), it makes sense in a CFA to let the IORPs evolve in a</p>

			going concern scenario with future pension accruals, future contributions and new members. EIOPA is fully aware that a CFA with a going concern / open population approach is more complex and costly and that not all IORPs are familiar with this kind of projections. Therefore, within the framework of the ST2019, the open population simulation was kept optional and the projection horizon was limited in time. As stated in par. 152, proportionality considerations will be taken into account in the elaboration of the technical specifications of the next stress test exercises.
30.	No. 177	<p>The introduction of the concepts of unprotected and protected DC schemes is confusing. It is unclear where the different terms of pension plan, scheme and fund refer to. The table amalgamates the pension plan, the funding vehicle and the underlying investments (e.g. when talking about a protected DC IORP). It introduces also a new concept of "plan provider" without any definition.</p> <p>The OPSG advises EIOPA not to try to invent new definitions for DB and DC in order avoid any confusion with existing definitions. Especially, it has to be insured, that an IORP for a given pension product does not have to participate in DB AND DC stress tests at the same time.</p>	Partially agreed. The international delineation of DB-DC (first column) is maintained throughout the paper. The table merely illustrates that even within this international definition, there is heterogeneity within the DB and DC buckets that need to be taken into account when applying tools horizontally.
31.	No. 180	<p>The OPSG very much agrees, that is very important to do a cost/benefit analysis when selecting the tools to be used in a concrete stress test exercise. Since many tools are available in the toolbox, which are suitable to answer different kinds of questions and allowing different insights, it would be not appropriate to apply too many of them at the same time in a single stress test exercise. So, it is of utmost important, that EIOPA limits the effort and cost for participating IORPs to an adequate level by clearly defining concrete aspects, which shall be assessed in the specific exercise, and carefully selecting the appropriate tools accordingly. Choosing too many tools at the same time would create unnecessary and inadequate burdens for the participating IORPs and hence would create inadequate costs, which in the end will be passed on to beneficiaries and/or employers. Additionally, it could lead to a decrease in</p>	Agreed. This will indeed be part of the analysis and reflected upon during the tools selection process of future stress test exercises.

		quality, since doing too much at the same time could lead to the situation, that the IORPs resp. their advisors prepare the answers and calculations to the stress test exercise less thoroughly.	
32.	No. 193	The OPSG supports the idea, that NCAs should select participating IORPs, so that a representative view is given for their respective country. We note that a representative view could go beyond selecting only some of the largest IORPs in case the smaller IORPs have clearly different characteristics and have together still a significant market share.	Noted.
33.	No. 196-198	In this context it makes absolutely sense that NCAs do not only take pure balance sheet size but also other risk characteristics of certain IORPs into account.	Noted.
34.	No. 204-206	We welcome the considerations concerning proportionality (e.g. if a large number of (small) similar IORPs exist in a member state, this could be taken into account to reduce the participation rate. See comments on the background survey (No 81-96) for some other examples where proportionality could be taken into account.	Noted.
35.	No. 221	EIOPA is right in saying, that the NBS has the disadvantage of not being directly comparable for IORPs located in different member states. However, one further advantage not mentioned here is, that usually IORPs steer their business according to the rules of their NBS (and have steered their business in the last decades according to NBS rules, which cannot be simply switched to a different convention). So, the CBS offers better comparability across member states, but the NBS delivers more meaningful steering signals for the respective IORPs (and is not only simpler to be calculated).	Partially agreed. NBS not necessarily simpler to calculate than CBS, but systems are more easily available for the NBS calculation.
36.	No. 239	The OPSG agrees that a hybrid approach for defining a stress scenario has definite advantages against a purely historic and a purely forward-looking approach.	Noted
37.	No. 269-276	IORPs should assess inflation risk only to the extent they are really exposed to it. Some IORPs might not be imposed to inflation risk at all, e.g. because the benefits do not contain any inflation component and the costs are completely carried by the employer.	Partially agreed. Inflation risk is a factor affecting the real purchasing power of members' benefits, where member outcomes are being considered.
38.	No. 296-297	To which extent the use of derivatives increases liquidity risk is very much depending on the types of derivatives used – and on the liquidity of the derivative instruments themselves. Standardized derivative contracts which are publicly traded on an exchange (e.g. EUREX) tend to be extremely liquid whereas OTC-derivatives are usually much more less liquid. This has to be taken into account.	Partially agreed. There are at least two factors, the liquidity of the derivative itself and the liquidity effects of the derivative being triggered.

39.	No. 304	It is too simple to say that real estate is 0 % liquid. One constructive idea: A good approach for assessing liquidity risk might be to analyse how many % of assets can be liquidated without any big discount within 2 days, one week, one month etc.. By doing that one gets a liquidity profile of an asset portfolio over the time axis.	Partially agreed. Liquidity in (direct) property investment is low enough to be effectively zero for a considerable period, at least several months. Also, the use of property in the text is just an example.
40.	No. 305	Please refer to comment on No. 118	Noted.
41.	No. 315-320	The OPSG agrees, that it seems almost impossible to find a good and objective approach for a quantitative assessment of operational risk. Hence, a qualitative approach seems to be most reasonable.	Noted.
42.	No. 326-328	The OPSG agrees not to assess labour market is as a risk category of its own (with regard to the financial position of IORPs). Furthermore, such an assessment would be much more difficult given different social law and different labour market structures in different European member states.	Noted.
43.	No. 329 and following	The OPSG notes, that the level of granularity in the stress test 2019 was already extremely high going far beyond the granularity of national reporting requirements.	Noted. The cost and benefit of the degree of granularity will be determined per exercise and in connection with the aim of the exercise. Wherever possible, the aim will be to link up with the EIOPA data reporting templates and hybrid approaches can be envisaged that aim to strike a more proportional balance between the advantages of a granular and bucketing approach.
44.	No. 390 and following	General: Regarding the assessment of ESG risks the OPSG thinks that it is problematic to do any quantitative stress testing regarding ESG risk factors just as in a “traditional stress test” by applying certain stress factors to certain pre-defined economic activities. The qualitative assessment in the 2019 stress test made already the difficulty transparent, e.g.: Agriculture may be done in a more and a less sustainable way (whereas there might be already a debate for that economic activity about what is sustainable and what is not). A similar statement holds for other activities. In general, it has to be feared, that such uniform stress applications for all IORPs will lead to a worsening of risk adjusted yields	The challenge of a quantitative climate change stress test is noted.

		and hence to a decrease in funding probabilities. Additionally, it could lead to herding effects and put damage to capital markets and create additional structural risks.	
45.	No. 404	The OPSG agrees, that there is a lack of reliable methodology and data so that physical risks should not be explored.	Agreed.
46.	No. 408 and 416	<p>A majority of OPSG members believes, that it is problematic to assess the climate sensitivity of the individual assets held by an IORP. This would require a lot of inadequate effort and costs on the side of the IORP (which in the end are paid by beneficiaries and/or sponsors). A certain degree of grouping certain assets to asset segments and assuming average impacts for these might be a reasonable approach for simplification. This is particularly true (but not only then) when the investments are through funds.</p> <p>However, some members think that looking at average impacts in a certain sector or geography does not provide a clear picture of transition risks in the portfolio and that the stress test of IORPs should align with the ECB stress test, where emphasis is put on both past and future firm-level emissions, based on firm-specific emission reduction targets.</p>	Noted and partially agreed.
47.	No. 421	The OPSG supports the idea of drafting the reporting templates in a way, so that a synergy to the existing disclosure and reporting requirements can be achieved to the maximum extent possible.	Noted.
48.	No. 440 and following	In general: When it comes to disclosure and communication of the results EIOPA should strive towards a purely fact oriented, balanced and careful communication. In the 2019 stress test the report itself was very fact oriented and balanced whereas EIOPA 's press statement and summary put an extremely strong emphasis only on negative findings and aspects (which were mainly driven by one single country). The problem is that journalists, when they write about the pan-European stress test usually do not seem to read the full report but focus only on the press statement and a summary. Hence a ny summary presentation and any press statement from EIOPA should take this very carefully into account. In the 2019 exercise there were countries (e.g. Germany and Portugal) where there has been problematic reaction towards some press articles (e.g. one serious and prominent German newspaper wrote that employees with occupational pension products would have to "act now" causing a lot of panic amongst beneficiaries) which definitely weakened the trust of employees (but also employers) into their occupational pension systems. In times when occupational pension systems (also due to some negative developments in first pillar pensions) need to be strengthened we simply cannot afford unnecessary mistrust against existing occupational pension systems in General. Of course, it is EIOPA 's duty to clearly and transparently address problems which have been found during a stress test exercise, but these have to be put into a holistic context.	Noted, in line with EIOPA's mandate to carry out European-wide stress tests and to make recommendations to address or remedy vulnerabilities, stress test reports conclude on a factual, objective and transparent basis only.

49.	No. 445	<p>EIOPA is right in creating transparency regarding the sample of the participating IORPs by describing the selection criteria which have been applied and in explaining “how the sample of participating IORPs is consistent with the sampling criteria” – in an abstract manner. But the OPSG sees no additional advantage in identifying the participation IORPs by their name. This has already been a problematic point in the 2019 exercise and it leads to the phenomenon that the public tends to project certain results of the stress test which are valid for a certain country automatically to the single participating IORPs of that member state – irrespective if such projection is correct or not. This leads to increased uncertainty and to unnecessary and increased needs for explanations on the side of the IORPs. On the other hand, EIOPA did not explain where the concrete advantage of such publication of names is to be seen – even not in No. 446 and 447.</p>	<p>Disagreed, the results of an exercise need to be transparent in terms of understanding the scope of the participating IORPs in order to provide meaningful information.</p>
50.	No. 451	<p>The OPSG very much supports the overarching principle that results of individual IORPs are not disclosed. One further argument in favour of this principle (not mentioned in the discussion paper) is, that there is not ONE single result of the stress test for a given IORP and that (as a consequence) results of the exercise are often difficult to interpret in a correct way, so that after a certain background (e.g. actuarial background) is needed to correctly read the results for a certain IORP. Publishing single results nevertheless could trigger a lot of unnecessary and damaging uncertainty, irritation etc..</p>	<p>Noted.</p>
51.	Additional comment to No. 405	<p>Interesting research on the topic of the impact of climate change on mortality has been published by the Australian Actuaries Institute: https://actuaries.asn.au/public-policy-and-media/thought-leadership/the-dialogue/the-impact-of-climate-change-on-mortality-and-retirement-incomes-in-australia</p> <p>The study suggests that the impact of climate change on mortality could be quite significant, although it will differ very much to geographical circumstances (which are in Europe quite different from those in Australia)</p>	<p>Noted.</p>
Actuarial Association of Europe (AAE)			
52.	General	<p>The actuarial profession would be happy to support on applying most adapted methods and assumptions for measuring the vulnerability and sustainability of pension sector in general and IORPs in special. We support EIOPA in their effort to illustrate what kind of methods could be available but are hesitant to support the approach of a toolbox. Each problem to be analysed requires adapted methods and assumptions, that can be existing approaches but that often are fine tuned to fit the purpose.</p> <p>We as the actuaries offer to support EIOPA, e.g. in making an expert judgement of what is the best approach. In the case of the stress test it is the supervisors in concertation with the sector to make a choice so that results can be consolidated on market and European level.</p>	<p>Noted, indeed, the toolbox approach should help to identify which analytical tools should be employed. In a second step, the methods and tools need to be tailored to the objective and scenario at hand.</p>

53.	General	<p>Creating a framework for the test of the vulnerability of the IORP, the sponsor and the beneficiaries of the pension schemes is probably feasible. The framework will probably not be the same for all jurisdictions and all types of scheme.</p> <p>Developing a framework for the test of the sustainability in function of the economic and environmental consequences is more challenging. It involves much more aspects than purely pensions and IORP. It should be based on a in depth analysis of the influence of the IORP and be extension the pension system on all economic and social flows. This implies macroeconomic modelling and analysis that is normally done by the Central Planning Bureaus with extensive capacity.</p> <p>It seems that such analysis is needed so that the position of IORPs at the one hand but also of Pensions second pillar at the other hand is clear and can be discussed objectively.</p>	<p>Noted, indeed, the calibration of a scenario is always done in close collaboration with the ESRB and the ECB.</p>
54.	15 and 192 ff	<p>Local supervisors should select most appropriate participants for each exercise, so in each exercise new IORPs will participate in the stress test. The selection of participating IORPs need to be done in a way that the sample represents the characteristics and structure of the national market.</p>	<p>Partially agreed, national supervisory authorities should select a relevant sample to understand the effects of a certain adverse scenario on their national IORP sector. That does not mean that the sample has to be different for every exercise.</p>
55.	26 and section 2.2.1	<p>We considered as very important observation that the concept of solvency needs to be considered on national levels. For different pension schemes biometric or investment risks can be shared between the IORPs, sponsors and members of PPSs in different ways. In some cases these risks could be shifted by the IORPs to other ultimate risks takers. Therefore, performed stress test has to consider the impact on adverse scenarios on different stakeholders and on the financial stability of the IORPs in context of the national regulations. Shifting the biometrical and investment risks to other has significant implications on investment behaviour and investment choices made by IOPRPs. Such investment behaviour needs be considered and analysed not only with relation to impact on the real economy but also in the context of the poverty risk for people after retiring.</p> <p>Additionally, in different Member states the IORPs provide different types of obligations to their members and respectively different guarantees. With that regard ST should be focussed on the most important and meaningful elements for the different stakeholders. Considering the recent demographic trends and evolution of the pension schemes we should note the hybrid characteristics of the schemes – some of DC plans could have DB elements (like guarantees) and some DB plans may have DC characteristics in the future. Hence it is challenging to define one universal set of indicators and scenario for stress testing, that can be applied to each and every IORP.</p>	<p>Partially agreed. Indeed the aim of the Discussion Paper is to design stress-test exercises in such way that they focus on elements relevant to the goal of the stress-test exercise. Depending on the goal a horizontal approach or an approach focussing on national / IORP specificities may be called for.</p>

56.	43-48 121, 122, 128	<p>As actuaries we fully support the holistic analysis that appropriately might evaluate the objectives of the project. We want to point out that actuarial work is based on choosing the right methodology and assumptions in function of the problem to be solved and the use of our professional judgement where needed. Based on the above mentioned we think that it is difficult to set up the actuarial analysis in the universal tool box.</p> <p>In general, a ready for use toolbox could be useful for the particular exercise but the cost-benefit analysis need to be in place. The balance between investments in “ready-for-use” instruments and the materiality of the expected results has to be reached.</p> <p>Developing a framework for the test of the sustainability in function of the economic and environmental consequences is more challenging. It involves much more aspects than purely pensions and IORP. It should be based on a in depth analysis of the influence of the IORP and be extension the pension system as a whole on all economic and social flows. This implies macro-economic modelling and analysis that is normally done by the Central Planning Bureaus with extensive capacity. It is true that actuaries have an opportunity to be more involved in such work. The activities of the AAE Social Security subcommittee are entering this domain, here we are connecting this work to occupational pensions.</p> <p>It seems that such analysis is needed so that the position of IORPs at the one hand but also of Pensions second pillar at the other hand is clear and can be discussed objectively.</p>	<p>Partially agreed. EIOPA mandate is inter alia to assess potential transmission effects onto the wider system and the tools can be deployed to that end. The impact on the wider system indeed typically requires more extensive macro-models and are beyond EIOPAs competence.</p>
57.	49	<p>Creating a framework for the test of the vulnerability of the IORP, the sponsor and the beneficiaries of the pension schemes is probably feasible. Most likely the framework will not be the same for all jurisdictions and all types of scheme.</p>	<p>Agreed.</p>
58.	50	<p>We find the suggested three instruments (tools) as applicable for the analysis on the ST outcomes. For Pension industry the quantitative analysis based on BS and CFs’ projections is sufficient. In addition the survey can be used as an instrument for qualitative assessment.</p>	<p>Partially agreed.</p> <p>A survey could also gather quantitative information, going beyond other tools (see para 100. Stock Take Survey).</p>
59.	58 and 59	<p>It is proposed to determine time value of technical provision by using the risk-free interest rate (58) (59).</p> <p>This is only the theoretically right approach in case the liabilities are either fully guaranteed or, if not, all conditionalities are already included in the cash flow that is used for the valuation. In cases where the liabilities do have conditional characteristics we see that those conditionalities are often not taken into account in the cash flows used for the valuation. In those cases using a risk-free interest rate would lead to a too high valuation outcome. In those cases the valuation should be based on the risk-free interest</p>	<p>Noted, see also replies to comments 9 and 24.</p>

		<p>rate plus an appropriate risk premium. This risk premium should reflect the uncertainties of the liabilities due to the conditional characteristics they contain. This requires sound actuarial judgement. This is the way forward when applying a deterministic valuation, which is very common. If the same valuation would be carried out on a stochastic basis (the conditionalities are then translated into the cash flows for the valuation and then a risk-free interest rate is applied for the discounting) the outcome should be approximately the same.</p> <p>In the case that the liabilities fully depend on the outcome of the investments (e.g. a collective defined contribution system) the discount rate for the deterministic valuation should be set at the risk-free interest rate plus the risk premium based on the asset allocation. In other words in such situation is the appropriate discount rate equal to the expected return on the assets.</p> <p>In many situations the liabilities are neither fully guaranteed nor fully dependent on the development of the assets. In those situation actuarial judgement is needed to set an appropriate discount rate.</p> <p>Regarding the RFR we suggest to apply IORP-specific adjustment to the RFR before applying the interest curve (e.g. illiquidity adjustments or adjustments with respect of lower risk of cancellation). Different approaches to estimate the time value of provisions are possible and established in national markets. To achieve comparability we suggest deeper analysis and discussion of this point.</p> <p>Possible calculation of appropriate risk margin is not explained in document or template. But this issue needs to be discussed as the methodological approach for Solvency II doesn't fill for IORPs.</p>	
60.	68	<p>Including management actions is an important part to achieve reliable results. On the other side implementation of management actions after each year of projection is very challenging. With each year uncertainty about current market conditions, labour law or tax implications is increasing and could impact the "real" management action. So, the significance of results is decreasing with each year of projection.</p> <p>Interpretation of results should always respect the number of years projected.</p>	Agreed, long-term projections are indeed complex due to the lack of market information and the long time horizon.
61.	70	<p>All three different types of projection tools differ completely in which way results can be interpreted and for which purpose the results can be used. Complexity to implement each tool is different too. Therefore, we highly recommend not to use results from one tool for other than the specific stress test goal.</p>	Agreed, the choice and design of analytical tools depend on the objective of the exercise.
62.	73 and 113	<p>The IRR gives more insight in the "financial ambition" than in the financial situation of an IORP. The IRR is important indicator which shows the level of investment return that could guarantee that all future benefits can be paid on the base of the current funding of IORP. We agree that IRR assessment gives only a rough indication that the solvency position of the IORP may be affected in some point in the future if the IRR is greater than the expected return. We believe that the IRR could be a useful</p>	Partially agreed, the IRR can be compared to the current and past investment returns and to the actual asset allocation.

		instrument in the discussion with sponsors and member representatives as the concept is rather intuitive.	
63.	75	This request results in a high complexity of calculation. Each national balance sheet must be simulated as well as the cashflow and their mutual reaction, together with management reactions (see 68). This is a really challenging task and results in some simplification to be applied during projection. Therefore, interpretation of results should take all model assumptions into account.	Noted.
64.	77	Regarding time horizon of cash flows we would like to mention that it is obvious that with increasing years of projection uncertainty increases and reliability of results decreases. Of course all cash flows that are used in a valuation need to be included in a cash flow analysis. We wouldn't want to lose information. In the forward projection of the membership we would suggest to limit this to 20 years. In situations where the membership development is rather stable over the years, it is already enough to project only 1 year and use those outcomes to model the development of the fund for the subsequent years. This could be a very practical application of proportionality. Of course sound actuarial judgement is needed when such approximations are made. We would like to add that some assumptions should be used consistent when projecting assets as well as provisions, e.g. inflation rate	Noted, please also see the response to comment number 60.
65.	168	There are many possible tools, but a few of them are redundant for specific aims of stress test. Perhaps a kind of matrix "for which goal of stress test which tool" gives more insights	Noted. The tables in this chapter describe the advantages and disadvantages of each tool. Tool selection for a specific exercise uses this information in connection with the objective of the specific exercise.
66.	177	This table is helpful to classify different cashflow	Noted.
67.	314	Stress test does only refer to operational risk as a part of ORA exercise to be implemented by each IORP. It could be helpful to refer to ORA exercise for more aspects and we recommend to include certain scenario's in ORA and consolidate the conclusions and recommendations of the ORA vice versa in stress test results.	Noted. Where the ORA is an IORP's own risk assessment, the EU IORP ST is a risk assessment that applies common scenarios and methodologies.

68.	397	We completely understand the aim of EIOPA and ESRB to implement climate stress. But the implementation of climate stress is currently really challenging, even with indication as given in 409 ff. Many of the indicators like NACE are currently not available for all asset classes.	Noted.
DAV – German Association of Actuaries // IVS – German Institute of Pensions Actuaries, branch association of DAV			
69.	General	<p>Creating a framework for testing the vulnerability of IORPs, sponsors and beneficiaries of pension schemes is probably feasible. The framework, however, can probably not be the same for all jurisdictions and all types of schemes.</p> <p>Developing a framework for environmental stress testing is a more challenging task. It involves many more aspects than purely pensions and IORPs. It should be based on a deep analysis of the influence of each IORP and - as an extension - of the whole pension system on all economic and social flows. This implies macroeconomic modelling and analyses which are normally done by the Central Planning Bureaus with extensive capacity.</p> <p>It seems that such analyses are needed so that the position of IORPs on the one hand but also of Pensions second pillar on the other hand is clear and can be discussed objectively.</p>	Noted, please also see the response to comment number 53.
70.	15 and 192 ff	We completely support the approach that local supervisors should select most appropriate participants for each exercise. To ensure consistent and comparable results, we would suggest to add the recommendation that alternation of participating IORPs between each stress test should be reduced to the necessary minimum.	Noted, please also see the response to comment number 54.
71.	20	We much appreciate that EIOPA considers the specific situation of occupational pension providers	Noted.
72.	Chapter 3 in general	A horizontal approach across member states and pension schemes (DB and DC) could lead to apparent comparable results but due to the huge differences between member states and pension schemes this aim is hard to achieve.	Noted, please also see the response to comment number 1.
73.	44	<p>A large toolbox combined with a changing selection of tools makes more automated processes more inefficient. This results in higher workloads and cost for participating IORPs.</p> <p>We fully respect that EIOPA wants to provide a comprehensive toolbox for many purposes, but cost-benefit analyses should be kept in mind, too.</p>	Partially agreed, the standard use of certain tools for certain purposes, as envisaged by the toolbox approach, is expected to bring efficiency gains.
74.	58 and 59	Before applying the risk-free interest rate, IORP-specific adjustments will be required. Various approaches could be discussed – we are of course at EIOPA’s disposal for further explanations	Noted. Also see replies to comments 9, 24, 59.

		Possible calculation of the appropriate risk margin is not explained in the document or template. But this issue needs to be discussed as the methodological approach for Solvency II doesn't fit for IORPs.	
75.	68	Including management actions is an important part to achieve reliable results. On the other side, implementation of management actions after each year of projection is very challenging. With each year, uncertainty about current market conditions, labour law or tax implications is increasing and could impact the "real" management action. So, the significance of results is decreasing with each year of projection. Interpretation of results should always respect the number of years projected.	Agreed, please also see the response to comment number 60.
76.	70	All three different types of projection tools differ completely with regard to the way results can be interpreted and to the purpose results can be used for. Therefore, we highly recommend not to use results from one tool for other than the specific stress test goal.	Agreed, please also see the response to comment number 61.
77.	73	The IRR gives more insight in the "financial ambition" than in the financial situation of an IORP.	Partially agreed, please also see the response to comment number 62.
78.	75	This request results in a high complexity of calculation. The national balance sheet must be simulated as well as cash flows and their mutual reaction, together with management reactions (see 68). This is a really challenging task and results in some simplification to be applied during projection. Therefore, interpretation of results should include all model assumptions.	Noted.
79.	77	Regarding the time horizon of cash flows we would like to mention that it is obvious that with increasing years of projection uncertainty and reliability of results will decrease. General conclusions on the long run are reliable but after about 20 years no result should be allocated to specific years. We would like to add that some assumptions should be used consistently for the projection of assets as well as provisions, e.g. inflation rate.	Noted, please also see the response to comment number 60.
80.	112	In Germany, pure cash flow analysis is complex and needs deep insights into local solvency regulations. In many IOPRs the national balance sheet can not be derived only from contribution and benefit cash flows.	Noted. EIOPA has taken note of your remarks and concerns about the complexity and feasibility of cash flow analyses in Germany.

81.	168	Some tools seem to be redundant. Perhaps a matrix “for which goal of stress test which tool” could provide more insights.	See reply to comment number 65.
82.	177	We really appreciate this table; it is helpful to classify different cash flows in a consistent way.	Noted, also see reply to comment number 30.
83.	182	One more aspect for IOPRs should be the „reasonable additional time and money effort “. Selection of tools should respect the cost-benefit-ratio within any IORP.	Partially agreed. EIOPA agrees that this aspect should be taken into account. This aspect is not phrased as such in section 3.5, however it is (indirectly) already taken into account in the list of aspects. Please see paragraph 181 and the description of the aspect named “Delivery of results from the IORP’s point of view” (for the “cost” part of the ratio), and paragraph 180 (for the benefit).
84.	314	The stress test does only refer to operational risk as a part of the ORA exercise to be implemented by each IORP. It could be helpful to refer to the ORA exercise for more aspects and why not ask IORPs to consider certain scenarios and consolidate the conclusions and recommendations of the ORA.	Please see response to comment number 67 above.
85.	336	A higher level of granularity in equity shocks would not be very useful. When a general stress scenario is applied, no individual “types of business” will be spared (or even benefit from that); all types of business would be adversely affected. Specialised shock scenarios in which many types of business suffer and only a few benefit can of course be created (e.g. COVID-19 pandemic in which streaming platforms, e-commerce suppliers’ benefit). But that would not be a general stress scenario. Furthermore, such periods with stressed types of business can better be considered as market cycles which are to be countered through an appropriate degree of diversification.	Noted. The cost and benefit of the degree of granularity will be determined per exercise and in connection with the aim of the exercise. Wherever possible, the aim will be to link up with the EIOPA data reporting templates and hybrid approaches can be envisaged that aim to strike a more proportional balance between the advantages of a granular and bucketing approach.

86.	Chapter 6 in general	<p>We support EIOPAs view that environmental stress testing is just a variation of “traditional” stress testing, thus the same tools should be used to limit the burden for IORPs by introducing new additional approaches or tools. A time saving approach could be to conduct both traditional and environmental stress testing simultaneously using the same tools but different stress scenarios.</p> <p>We ask EIOPA to consider that environmental risk faces lack of historical data, so there is a high uncertainty about how and when risk may materialize. Environmental stress testing should focus on assets only, as an effect on liabilities of an IORP is hard to estimate and assume.</p> <p>If NACE code is used for categorization of assets to assign shocks, it should be used on the most granular level to enable realistic results. EIOPA should provide input on how to categorize illiquid assets for which no NACE code is available.</p> <p>As a quantitative environmental stress testing includes many simplifications, qualitative comments should be considered in addition and for explanation.</p>	Noted, partially agreed and accommodated in an addition to para 395.
87.	397	We completely understand the aim of EIOPA and ESRB to implement climate stress. But implementation of climate stress is currently really challenging, even with an indication as provided in 409 ff. Many indicators like NACE are currently not available for all asset classes.	Noted.
88.	445	Each IORP participating in stress testing should be allowed to decide whether the name is published or not – this disclosure could have an impact on main sponsors of each IORP.	Disagreed, please also see the response to comment number 49.
German Insurance Association (GDV)			
89.		<p>The scope of the consultation is unclear; is it about the preparation of a document on the procedure of stress tests for IORPs or about possible stress test tools and their application? Explicit comments or questions on EIOPA's expectation horizon would be helpful.</p> <p>From our point of view, this discussion paper aggregates methods of stress tests that have been used so far and that are planned. Unfortunately, there is no critical review of possible redundancy (for example in comparison to national stress tests) in the paper at all. This paper should give more weight to the principle of economy when applying several models and procedures. This applies especially about the often-advised goal of cost reduction.</p> <p>Moreover, we miss in the discussion paper a critical review of imposed procedures in the sense of a sensitivity analysis, i.e. ‘an evaluation of the degree by which a model’s results vary in response to changes to the values of input variables’ (IAIS 2021 – Application Paper on Macroprudential Supervision). Checking adequacy and practicability of given models and procedures a posteriori may help to evaluate the volatility of the achieved results. This could help to evaluate to suitability of certain</p>	Noted, the discussion paper presents the procedural and methodological approaches to be employed in an IORP stress test in a structured way.

		procedures and models in the future and could improve the acceptance (for example using less data when certain variables have no significant effect on the results).	
90.	Complexity vs. Proportionality	<p>The discussion paper shows a vast range of different tools, which can be applied according to the specific stress-test needs. Some of these tools are extremely complex, such as multi-year shock scenarios or stochastic analyses. Within the discussion paper the trade-off of complexity and proportionality is not discussed in detail.</p> <p>The idea that IORPs should in principle be equipped with the entire range of methods presented, in the sense of a toolbox from which EIOPA can select, seems desirable from a supervisory perspective. From the company's point of view, this would entail a disproportionate amount of additional work and costs, which would be detrimental to the actual objective.</p> <p>The implementation of the idea would be a disproportionate effort for IORPs due to the large number of proposed methods and the complexity of specific methods. Reasonable simplifications based on the principle of proportionality, especially regarding heterogenic structure of IORPs, should be imposed.</p>	Noted, the discussion paper sets out a toolbox of types of analyses, which can be employed in a stress test, subject to the specific objective of the exercise and weighing efforts against benefits.
91.	Adequacy and Practicability	<p>Data produced for the EIOPA stress test is not required in any other context. The EIOPA stress test means additional expenditure of time and costs with no added value. In general, it should be noted that stress-test reporting to the NCA is completely different, although National and European supervisory follow similar objectives.</p> <p>The intended fundamental decision of the IORP II Directive not to switch to a uniform market valuation of assets and liabilities in the quantitative pillar as under Solvency II, but to continue to set the solvency requirements on the national balance sheet, is once again undermined by proposing the Common Balance Sheet (CBS). If the requirements outlined in the paper were implemented in the EIOPA stress tests, they would go beyond Solvency II, as a risk-free yield curve is proposed without the volatility adjustments.</p> <p>To ensure practicability, an alignment of the procedures and requirements of EIOPA and National supervision would be economically reasonable and appropriate.</p>	Noted. EIOPA is mandated to carry out European-wide stress tests, for which common methodologies have to be applied.
92.	Heterogeneity vs. Comparability	<p>There is a great heterogeneity between IORPs. This is also addressed in the introduction of the discussion paper. But, in contrast to the introductory section the following sections try to achieve a maximum of comparability without considering the status quo. In our opinion this leads to inaccurate conclusions. From an association's point of view, it is unclear what is the real benefit of this comparability across European IORPs when it comes to stress-testing.</p> <p>The microprudential perspective is fully covered by the national supervisory authorities with their respective supervisory instruments - in Germany, for example: BaFin stress tests, analyses and reports</p>	Noted, please also see the response to comment number 1.

		by the responsible actuary and the actuarial function (VMF) and, the recently introduced Own Risk Assessment (ERB für EbAV). EIOPA should focus on the macroprudential view, i.e. financial market stability by using already available data and results of national stress tests executed by the respective NCA. From our point of view, comparability at European level does not create any added value if this is guaranteed in terms of solvency and stability in the respective national supervisory framework. This becomes even more obvious by evaluating the procedures from a cost-benefit perspective.	
93.	Methods and Data Availability	Proposed methods can only be executed if there is enough appropriate data. When it comes to environmental stress testing for IORPs proposed procedures by EIOPA should also orientate on data availability. Therefore, one can learn from previous, not favourable attempts, like the Sustainable Finance Disclosure Regulation. This is also true for the determination of retirement income (RI): there is no adequate methods to project inflation, wages and periods of unemployment up to several decades (if necessary); an extrapolation of previous data of these variables is unsatisfactory, too. Therefore, one should only implement methods that are cost-efficiently to implement by IORPs, respecting their heterogenic structure. Moreover, one should evaluate, a priori, the explanatory power of proposed methods. For example, in previous stress tests the submission of data on sponsor support was compulsory. But, for IORPs with many employers the definition and application of Sponsor Support is not possible due to lack of data. When it comes to missing data, a possibility could be that certain parts of the stress test, although intended to analyse in the quantitative part, should be performed in the qualitative part of the stress-test.	Noted, indeed the projection of future developments is inherently complex, yet important to carry out relevant analyses of an adverse economic scenario's effects on IORPs as well as members and beneficiaries.
94.	22-23	Although acknowledging different risk mitigation strategies across member states, member companies told us that during previous stress-tests the guarantee scheme of the German life insurers must not be considered. Achieved results and their interpretation are only meaningful to a limited extent. Therefore, we urge to use available knowledge of stress-tests from NCA by implementing already exercised procedures and methods.	Noted.
95.	27-29	In reference 27 both perspectives are introduced. Unfortunately, there is no discussion of how results of existing national stress-tests can be matched to EIOPA's stress-test procedures, especially regarding perspective 1. In the rest of the discussion paper, there is no connection to the introduced perspectives and the following instruments.	Noted. A discussion whether national stress-test procedures/results can be instrumental in carrying out a specific IORP stress-test exercise is beyond the scope of this Methodological Discussion Paper.
96.	62-65	The comparison of NBS and CBS is not straightforward. There is no comparison or analysis in the sense of applicability or from a cost-benefit perspective. The description in the respective references is biased	Noted.

		with the attempt of favouring the CBS approach. A clear analysis of both in the light of existing legal standards (IORP II Directive) would be more rational.	
97.	70	The projection of retirement income of member and beneficiaries from the IORP using the bottom-up procedure is not an easy task for IORPs due to lack of data and suitable models. In every case there is a great uncertainty and achieved results are highly volatile. Associated problems are described in detail in our statement to the opinion to the consultation paper on draft EIOPA opinion on the supervision of long-term risk assessment by IORPs providing DC schemes.	Partially agreed, the risk management of IORPs needs to address the effects on members and beneficiaries, which requires a 'bottom up' calculation. It is acknowledged that IORPs may dispose of sophisticated models to varying degrees.
98.	74-77	Due to the current handling of Protektor and sponsor support within EIOPA's stress tests and also other national regulatory requirements the informative value of the cash flow tool is questionable from our point of view. We see it as difficult to adapt the methodology to the real world. But these methodological difficulties also lead to a particularly high additional effort without added value.	Noted.
99.	82	PEPP and the structure of certain IORPs, especially IORPs using a collective approach, are not comparable. Adaption of an approach for IORPs is associated with considerable costs, especially when there is no former application of this model in an IORP environment as it is the case for EIOPA's stochastic model for PEPP. Therefore, we think that challenges of implementation for IORPs should be discussed here.	Partially agreed, PEPPs may use collective risk-management techniques, which are comparable to those used by IORPs, so that the stochastic approaches developed for PEPP may be useful here.
Norwegian Actuarial Association			
100.	364	<p>Norwegian IORPs suffered greater losses by hedging global equity investments to the Norwegian Kroner (NOK) (MSCI World in local currency) both during the financial crisis in 2007/2008 and lock-down due to Covid-19 spring 2020, compared to not hedging the equities (MSCI World in NOK). In the ST the IORPs increases the potential loss by not hedging given "In case the ST includes a currency shock, the following applies: Where an IORP holds assets denominated in a currency other than that of the balance sheet of the IORP, the asset should be first subject to the respective asset shock and then the resulting amount should be transformed into the currency of the IORP's balance sheet by applying the shocked exchange rate."</p> <p>Should the stress-test differentiate between equities and bonds regarding applying shock on the exchange rate?</p>	Noted, the calibration and combination of shocks for stress tests require applying clear rules, so that indeed it seems most appropriate to first apply the asset-type specific shock to the investment denominated in a certain currency before translating that value into the domestic currency, using the shocked exchange rate.

		<table border="1" data-bbox="421 209 954 360"> <thead> <tr> <th></th> <th>Financial crisis</th> <th>Covid-19 spring 2020</th> </tr> </thead> <tbody> <tr> <td>MSCI World in NOK</td> <td>-44 %</td> <td>-22 %</td> </tr> <tr> <td>MSCI World in local currency</td> <td>-55 %</td> <td>-33 %</td> </tr> </tbody> </table> <p data-bbox="409 405 1641 520">PS: Norway allowed the exchange rate to float freely first in March 2001, after introducing an inflation target as part of its monetary policy framework. Before 2001 the Norwegian monetary policy was geared towards a stabilised exchange rate, linked to EURO, ECU, Dollar and gold at different times. This should be taken into account if analysing shocks before 2001.</p>		Financial crisis	Covid-19 spring 2020	MSCI World in NOK	-44 %	-22 %	MSCI World in local currency	-55 %	-33 %	
	Financial crisis	Covid-19 spring 2020										
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MSCI World in local currency	-55 %	-33 %										
PensionsEurope and AEIP (European Association of Paritarian Institutions)												
101.	General comments	<p data-bbox="394 762 1659 935">We would like to thank EIOPA for the constructive dialogue with us on the EIOPA 2015, 2017 and 2019 IORP stress test exercises and how to improve EIOPA stress testing methodology for IORPs. We would like to also thank EIOPA for good cooperation and communication as well as its timely updates in regard to the preparation of EIOPA Discussion Paper on Methodological Framework for Stress-Testing IORPs. In our stakeholder feedback, we make recommendations on the toolbox of common methodological principles and guidelines but also suggestions for its use in the next IORP Stress Test exercise in 2022.</p>	Thank you for your comments and the support of this important work.									
102.	General comments	<p data-bbox="394 978 1648 1034">We welcome the EIOPA Discussion Paper on a Methodological Framework for Stress-Testing IORPs and that it recognises</p> <ul data-bbox="394 1058 1637 1262" style="list-style-type: none"> • the heterogeneity of the IORP sector; • the important characteristics of IORPs, particularly their long-term horizon and ability to pass through risks to the ultimate risk bearers; • multiple and various criteria for future IORP stress tests; • the usefulness for EIOPA, NCAs and IORPs themselves. <p data-bbox="394 1281 1659 1361">We support the consideration by EIOPA of the creation of a Toolbox consisting of 3 main parts (balance sheet instruments (both national balance sheets and EIOPA’s common balance sheet), projections (e.g. internal rate of return, cash flow analysis and retirement income) and surveys (being a</p>	Noted, please also see the response to comment number 1.									

		<p>mixture of qualitative and quantitative instruments). We believe that in relation to the objectives of the stress test, the Toolbox can allow introducing further proportionality and create a better cost-benefit ratio as taking into account the specific pension scheme/IORP characteristics in the different Member States.</p> <p>In general terms it is positive that EIOPA aims to implement horizontal approaches in future stress tests both across various types of IORPs (DB, hybrid, DC) and Member States. Next to the recognition of numerous (technical) challenges with the horizontal approach, the point that DB, hybrid, and DC schemes are (fundamentally) very different with each other (and across the EEA) adds to the complexity.</p> <p>The broad heterogeneity of the IORP sector will make the horizontal approach likely more complex and less comparable than one should hope for. We think that, if practically doable, such approach would undoubtedly increase the added value of the results of these stress tests for both European and national policymakers and national supervisory authorities and IORPs. But EIOPA should recognise the shortcomings and incomparability between scheme types and countries and the results of the application of a horizontal approach should be interpreted with caution due to the great heterogeneity across schemes and Member States. On top of that, EIOPA and NCAs should take care that the horizontal approach does not create an excessive administrative burden nor an unbalanced cost-benefit ratio, especially for small and medium sized IORPs.</p> <p>We find it of utmost importance how EIOPA communicates the stress test results to the wider public. In the past, the wording of EIOPA press release has not always been fully in line with the stress test report itself.</p> <p>Finally, we are not in favour of disclosing the names of participating IORPs, as we do not recognise the arguments in favour of the disclosure of the names of participating IORPs and it is not clear what would be the benefits. The focus of the stress test is a.o. on financial stability, not on the solvency of individual IORPs. General EU communication might differ from national context or situation, and we fear this approach might damage public opinion and lead to mistrust for members and beneficiaries concerned; this happened in 2019 in some countries after publication of the stress test report. In our view the best way to disclose the achievements of the Stress Test is on a national base, without reference, neither direct nor indirect, to the list of participating schemes.</p> <p>We are looking forward to continuing good and constructive dialogue with EIOPA on appropriate stress testing methodologies for IORPs.</p>	
103.	General comments	<p>The cash flow analysis is mentioned in the discussion paper, but it can be brought up more extensively in several sections, and especially in the paragraphs related to risks. At the same time, although the paper advocates the advantages of the Common Balance Sheet (CBS), it does not mention its various shortcomings. We do not believe that the CBS can be implemented in an effective way,</p>	<p>Noted, please also see the responses to comment numbers 1 and 16.</p>

		<p>especially for small and medium sized IORPs, for a number of reasons linked to its complexity and interpretation difficulty.</p> <p>To assess members’ and beneficiaries’ benefits, not the risk-free return but the long term expected return should be used as the basis. A calculation at the risk-free return can only come at the second place to give an indication of the risk (‘a stress scenario’) but not to calculate the expected benefit or the expected replacement income at retirement. IORPs do not invest in a risk-free world, but as long-term investors they receive a risk premium (as well as an illiquidity premium) for the risk (and illiquidity) they accept. This should be correctly reflected in the results of the projection of the cash flows as well as in the results of the stress test. First applying stress on investments in combination with the use of a risk-free rate is a contradiction in terminis. In particular, assuming a risk-free return in the cash flow analysis (open modelling) and applying a shock would be an unrealistic double hit scenario. If acted upon, such assumptions might prevent IORPs from long-term investments into sustainable real assets, which seems counter to the aims of the CMU.</p> <p>We strongly agree with the proposed focus on climate risk within broader field of potential environmental risks. The risk is seen as most material by the sector and risk management tools and models developed by the market are more advanced than for other types of environmental risks. We agree with EIOPAs view that the environmental stress is just a specific type of “traditional” stress test, so that in consequence the same tools should be used to limit the burden for IORPs by introducing new approaches. The climate risk itself, however, is by no means a traditional type of risk. There is no historical data, low certainty about likeliness scenarios and timing, as well as a debate about if climate risk to some degree is already priced in. A broad spectrum of models exists in the market but there is a lack of consensus. Importance of climate change warrants inclusion in the stress test, but this uncertainty should be reflected in conclusions and communication by EIOPA.</p>	
104.	Chapter 2	<p><u>Recognition of heterogeneity</u></p> <p>We welcome the fact that EIOPA’s discussion paper recognises the heterogeneity of the IORP sector and the need to incorporate type of obligation but also the relationship between the IORP and the sponsor. At the same time, we welcome the recognition of important characteristics of IORPs, most notably their long-term horizon and ability to pass through risks to the ultimate risk bearers.</p> <p>We also agree with the dual overarching perspective and two objectives of the ST, which stem from EIOPA’s Regulation (EU) No 1094/2010. On the one hand, the ST aims at assessing the impact of an adverse scenario on the financial position of an IORP and, on the other hand, it aims at assessing the transmission effects of adverse economic scenarios via the IORP sector onto financial stability.</p> <p>However, in regard to financial stability, the discussion paper could recognize more clearly that IORPs involve smaller risks in comparison to other institutions, such as banks. At the same time, the stabilizing role of the IORP sector (e.g. rebalancing) could also be mentioned. For instance, the results of EIOPA’s 2019 IORP stress test confirmed again IORPs’ countercyclical behaviour and their important role in</p>	Noted, please also see the response to comment number 1.

		<p>stabilising financial markets. As long-term investors, IORPs are able to mitigate financial shocks and collectively work as a stabilising factor for the financial sector. IORPs’ long-term investment horizon and their ability to follow countercyclical investment strategies support the observation that IORPs can act as ‘shock absorbers’ in the economy by providing liquidity and by not being forced to sell assets, when asset prices are squeezed, but buying these to rebalance their strategic asset allocation. The 2019 results support the results of EIOPA’s previous IORP stress tests and confirm that IORPs have rebalancing asset strategies, buying equity related investments after they dropped. It is in our opinion therefore important that both EU and domestic legislation continues to allow IORPs’ countercyclical behaviour.</p>	
105.	Par.24, 27	<p>Assessments of the resilience, systemic risk and transmission effects of IORPs</p> <p>Par.24: “Assessments of the resilience of financial institutions to adverse market developments” are not relevant in the situation of pensions funds, because there is no risk of a bank run there and every shock will ultimately be borne by the members and beneficiaries and sponsors.</p> <p>“Potential for systemic risk posed by”, or to, financial markets participants” does neither play a role in the case of pension funds; At the contrary, the rebalancing policies implemented by pension funds contribute to stabilising of financial markets. In the respect we also refer to our position papers on previous IORP stress tests exercised by EIOPA (see PensionsEurope Position Paper on EIOPA 2019 IORP Stress Test (March 2020)).</p> <p>Par.24: we have the same comment in relation to the notion of “Assessing the transmission effects of adverse economic scenarios via the IORP sector onto financial stability.”</p>	<p>Disagreed. Chapter 2 provides an extensive motivation of the relevance of EIOPA’s mandate to assess the resilience of IORPs to adverse market developments and the potential for systemic risk posed by IORPs.</p>
106.	Par. 47, 48, 180	<p><u>The toolbox and the selection criteria including the cost benefit ratio and the usefulness for IORPs</u></p> <p>We welcome the fact that EIOPA recognises multiple and various criteria for future IORP stress tests like practical considerations, the proposed cost-benefit ratio tool and the insightfulness and usefulness for NCAs and IORPs themselves. The potential benefit of participating in EIOPA’s stress test for IORPs can only be the case though, if and when the tools applied in the stress test are fully aligned with national practices and supervision and not based on stress test tools that are not fit for national policy setting and supervision. The benefit refers to the insightfulness of the results provided by a tool, while the cost has to do with the tool’s practicability for the parties involved (EIOPA, NCAs and IORPs).</p> <p>The consideration by EIOPA of the creation of a Toolbox consisting of 3 main parts (balance sheet instruments (both national balance sheets and EIOPA’s common balance sheet), projections (e.g. internal rate of return (IRR), Cashflow analysis (CFA) and Retirement Income (RI) and surveys (being a mixture of qualitative and quantitative instruments) can be fully supported as, in relation to the objectives of the stress test, it allows to introduce further proportionality and create a better cost-</p>	<p>Noted.</p>

		<p>benefit ratio as taking into account the specific pension scheme/IORP characteristics in the different Member States.</p> <p>In this context, we also are of the opinion that the Tables presented by EIOPA in Section 3 of the consultation document provide for a good overview of possible tools. These tables could in our view even be further improved, amongst others by also including horizontal applicability (see also further in these general comments) and practical considerations in general.</p>	
107.	Par. 42, 43, 44, table 3.7b	<p><u>Focus on fit for purpose</u></p> <p>In the context of the cost-benefit ratio, we also consider it as positive that EIOPA is aiming at a tailored approach, in the sense that the tools to be used in future stress tests should be chosen in relation to the objective(s) of such tests.</p> <p>This also goes for the recognition by EIOPA of the importance of the possible use by IORPs of stress test tools, for example in the context their own ORAs.</p> <p>Furthermore, the observation of EIOPA of the existence of the large variety in pensions scheme types in EU Member States (DB, hybrid, DC) and its intention to distinguish between these types in its choice for the use of different stress testing tools – being fit for the purpose - can in our view contribute to an adequate costs-benefits balance as it might introduce further proportionality and create a better cost-benefit ratio for the stress tests exercise.</p>	Noted. This comment will be taken into consideration in future ST exercises
108.	Chapter 3.5	<p><u>Selection criteria</u></p> <p>In our view, another factor could also contribute to such (an adequate costs-benefits) balance, namely avoidance by EIOPA of the use of an overload of multiple and simultaneous stress tools. In this respect, we appreciate that EIOPA announces that it wants to select relevant tools for relevant purposes. We would like to suggest elaborating more on this selection process of relevant tools (e.g. how will EIOPA select tools from toolbox? And which criteria will be considered as relevant and why?).</p> <p>In addition, we would like to suggest that EIOPA should make explicit that for specific goals one or more tools might not be needed (for certain IORPs and/or certain Member States). For example, stress testing the liquidity impact on sponsor main interests seems not to be logic for IORPs without any sponsor support. The potential result/advantage of this possible example of a tailored approach would be that certain IORPs do not unnecessarily have to participate in such stress test or should not apply a specific tool if not relevant.</p> <p>In respect of the selection process of suitable stress test tools for specific purposes, we furthermore wonder if a limitation of the simultaneous use of at maximum two or three tools in the one and same stress test would be a useful suggestion.</p>	Noted. Chapter 3 aims at providing guidance in the tools selection process by defining the criteria that are most relevant. However, it does not aim at devising an automatic decision process. This should be avoided as the context of each exercise (including its defined objectives) should be taken into account, and cannot be anticipated.). The balance of the cost-benefit assessment may vary from exercise to exercise, depending on the specific insights (benefit) needed from the analysis and the context at the time.

109.	Par. 46, 47	<p><u>Horizontal approach</u></p> <p>In general terms it is positive that EIOPA aims to implement horizontal approaches in future stress tests both across various types of IORPs (DB, hybrid, DC) and Member States. Next to the recognition of numerous (technical) challenges with the horizontal approach, the point that DB, hybrid, and DC schemes are (fundamentally) very different with each other (and across the EEA) adds to the complexity. As mentioned above, we are happy to see that EIOPA recognises this heterogeneity and this will make the horizontal approach likely more complex and less comparable than one should hope for. We think that, if practically doable, such approach would undoubtedly increase the added value of the results of these stress tests for both European and national policymakers and national supervisory authorities and IORPs. But EIOPA should recognise the shortcomings and incomparability between scheme types and countries and the results of the application of a horizontal approach should be interpreted with caution due to the great heterogeneity across schemes and Member States.</p> <p>On top of that, EIOPA and NCAs should take care that the horizontal approach does not create an excessive administrative burden nor an unbalanced cost-benefit ratio, especially for small and medium sized IORPs.</p>	<p>Agreed The results should be interpreted considering the selection process of the appropriate tools based in a cost-benefit ratio according to the choice of IORPs.</p>
110.	Chapter 3.2	<p><u>Focus on materiality</u></p> <p>We advocate that EIOPA should avoid demanding very specific and detailed information with no or only little added value for stress test goals. This would lead to unnecessary costs and administrative burdens for IORPs and would as a consequence mean a distortion of a proper costs-benefits balance of such exercise. More specific, EIOPA should realise that more complex models not always lead to better insights, and therefore we would like to plead amongst others for a focus by EIOPA on material aspects in modelling.</p>	<p>Agreed.</p> <p>This comment will be taken into consideration during the establishing of a concrete Stress-Test exercise.</p>
111.	Chapter 3.2	<p><u>Cash flows are the starting point of many tools</u></p> <p>In some cases, differences between models are smaller than the document seems to suggest. For almost all methods mentioned, IORPs will for example have to use the underlying cash flows to perform the calculations. The CBS, NBS, CFA and to a lesser extent also RI do all depend on projections for like 100 years forward, with assumptions on management actions, legislation, (insolvency) measures and so on.</p>	<p>Agreed.</p> <p>This paper demonstrates the main tools and characteristics. The concrete application depends on the objective of a certain Stress-Test exercise.</p>
112.	Chapter 3.2.1, Chapter 3.3	<p><u>Balance sheet tools</u></p> <p>The present value in a balance sheet (market consistent (or not)) does not give insight in the question whether an event will happen in the future and of the future 'damage'. Conditional cash flows like extra</p>	<p>Partially agreed</p> <p>A BS-Tool provides a picture at a certain point in time. Compared to</p>

		<p>sponsor support, contributions and/or lower benefits/indexations can happen but can also be 0. There is no certainty that these will happen, but still, they will have a (positive) present value (in CBS/NBS).</p> <p>As EIOPA seems to recognise (table 3.1), the present value (i.e. balance sheets) does not give insight in timing, size and likelihood of using security mechanisms.</p> <p>Balance sheet tools (CBS and NBS) have limited potential in assessing the capacity to maintain in business as well as assessing the transmission of risks. Balance sheets give no insights in timing nor in effects on different participants (like age cohorts).</p>	<p>a basis scenario it reveals the sensitivity of a given shock.</p>
113.	Chapter 3.2.1	<p><u>Inherent limitations of the Common Balance Sheet</u></p> <p>The 2019 stress test for IORPs reconfirmed in our view the inherent limitations of the concept of the CBS. The CBS is not an appropriate instrument to cover the wide range of diversity of IORPs in Europe as it has many shortcomings. By way of examples, the CBS (i) is too complex, (ii) market consistent valuations in the CBS are unreliable and too dependent on arbitrary assumptions and approximations/simplifications, (iii) contains the misconception that option values (e.g. of benefit reductions) should be considered as expected values, and its execution is too expensive. Contrary to the CFA, the CBS looks only at (an approximation of) market values and does not take into account future developments indicating the likelihood, timing and severity of events. See for more detail previous responses and papers:</p> <ul style="list-style-type: none"> • AEIP first response to the EIOPA 2019 IORP Stress Test’ from 17 December 2019; • PensionsEurope Position Paper on EIOPA 2019 IORP Stress Test, PensionsEurope Position Paper on appropriate IORP stress testing methodology and EIOPA IORP Stress Test 2017; • PensionsEurope Position Paper on EIOPA’s IORP Stress Test 2015; <p>PensionsEurope Position Paper on EIOPA’s IORP Quantitative Assessment 2015 and EIOPA’s opinion for Risk Assessment and Transparency for IORPs.</p>	<p>Partially agreed.</p> <p>A BS-Tool provides a picture at a certain point in time and reveals the effect of a given scenario. The CBS - as a tool - has some drawbacks but provides a comparable view.</p>
114.	Chapter 3.2.2. Par. 71.	<p><u>Use of the long term expected return</u></p> <p>To assess members’ and beneficiaries’ benefits, not the risk-free return but the long term expected return should be used as the basis. A calculation at the risk-free return can only come at the second place to give an indication of the risk (‘a stress scenario’) but not to calculate the expected benefit or the expected replacement income at retirement.</p> <p>IORPs do not invest in a risk-free world, but as long-term investors they receive a risk premium (as well as an illiquidity premium) for the risk (and illiquidity) they accept. This should be correctly reflected in the results of the projection of the cash flows as well as in the results of the stress test. First applying stress on investments in combination with the use of a risk-free rate is a contradiction in terminis. In</p>	<p>Partially agreed, please see the responses to comments numbers 16, 17 and 18.</p>

		particular, assuming a risk-free return in the cash flow analysis (open modelling) and applying a shock would be an unrealistic double hit scenario. If acted upon, such assumptions might prevent IORPs from long-term investments into sustainable real assets, which seems counter to the aims of the CMU.	
115.	Par. 81-96	<p><u>The background survey</u></p> <p><i>The background survey is aimed at collecting some context information from the NCAs and IORPs to shed light on the stress test results in terms of comparability, robustness and completeness of the results.</i></p> <p>We are supportive of the introduction of a background survey and are convinced it is an excellent tool to introduce appropriate proportionality in the stress test exercise, as it can show which risks are important (or less important) in different Member States: it allows to put the stress test results in the right perspective especially when trying to compare the results of different Member States. Next to that, it allows to identify the appropriate tools and to assess the cost/benefit/relevance of each stress test exercise. This tool can also be used to take into account proportionality triggers (see detailed comments for some suggestions).</p>	Noted.
116.	Chapter 3.4.1	<p><u>The horizontal applicability of balance sheet tools</u></p> <p>In the same reasoning that not all tools suggested by EIOPA will be logic to be applied, attention should also be paid to the fact that for example tools like balance sheets (NBS, CBS) are not applicable/relevant for DC and are therefore (also) not well suited for a horizontal approach between DB and DC. We foresee that this will continuously become more obvious in the future, given the international trends to move from DB to DC.</p> <p>Balance sheet tools (CBS and NBS) are less insightful for DC schemes with no guarantees (funding ratio is always 100%) and therefore less appropriate for horizontal approaches across scheme types. With a European trend towards more DC schemes, we suggest that EIOPA reconsiders the future role of balance sheets for stress test purposes.</p> <p>Too a lesser extent, similar arguments can play a role in the horizontal applicability of projection tools. This is also due to the difference in scheme type, benefits and contract boundaries and the resulting cash flows stemming from these.</p>	Noted, please see the response to comment number 1.
117.	Chapter 3.4.1	<p><u>A preference for complexity?</u></p> <p>The document gives the perception that EIOPA favours complex, stochastic, multi-period models (like CBS or stochastic CFA) over simpler models. Complex models, if and when complete correct calibrated, can give richer information. But more complex models, by definition require more assumptions and</p>	Noted, please also see the response to comment number 16.

		<p>calibration, which make the outcomes very sensitive for these assumptions. Proper calibration can be too complex (and difficult to apply for medium sized IORPs) and are more costly.</p> <p>Since more complex models will not always lead to better insights, we would like to plead amongst others for a focus by EIOPA on material aspects in modelling and a focus on models which give more useful information to IORPs' board members.</p>	
118.	Table 3.5	<p><u>Definition of a DC pension scheme</u></p> <p>The paper is deviating from commonly used definitions for DC schemes. We would strongly advocate to continue using the current internationally recognised definitions. See, for instance, OECD (2005) 'Private Pensions: OECD Classification and Glossary', p. 13/96: "Defined Contribution (DC) Occupational Pension Plan: Occupational Pension Plans under which the plan sponsor pays fixed contributions and has no legal or constructive obligation to pay further contributions to an ongoing plan in the event of unfavourable plan experience".</p> <p>The definitions used in this discussion paper are also used in EIOPA's regular information requests towards NCAs regarding provision of occupational pensions information (10 April 2018).</p> <p>The introduction of the concepts of unprotected and protected DC schemes is confusing. It is unclear where the different terms of pension plan, scheme and fund refer to. The table amalgamates the pension plan, the funding vehicle and the underlying investments (e.g. when talking about a protected DC IORP). It introduces also a new concept of "plan provider" without any definition.</p> <p>We would like to urge EIOPA to stick to international definitions which are in line with market practice and contract boundaries.</p>	<p>Partially agreed. The definitions in this discussion paper are those that are also used in EIOPA's regular information requests (the column 'scheme type'). The positioning of (un)protected DC schemes therein, as well as hybrid/traditional DB schemes, merely serves to underscore that even within this widely applied taxonomy, there is substantial heterogeneity across schemes.</p>
119.	152.	<p><u>Use of contract boundaries</u></p> <p>152 seems to introduce the assessment of cash flows which are inconsistent with contract boundaries. In some cases, contract boundaries make clear that only accrued benefits are relevant, so new accruals and contributions should not be included for these IORPs. The section describing the best estimate of technical provision (2.5.8. and 2.5.9.) of the annex to IORP Stress Test 2019 Specifications (Technical Specifications- Common Balance Sheet) had appropriate definitions of contract boundaries. These definitions are consistent with market practice and have been working well in previous stress test exercises and we would prefer to keep them unchanged.</p> <p>In the detailed comments, we elaborate on the clarification of the classification.</p>	<p>Partially agreed.</p> <p>EIOPA does not intend at this stage to revise the definitions and application of the contract boundaries of the CBS (see paragraph 55).</p> <p>However, in applying the contract boundaries in a CFA, a distinction should be made between the perspectives of the stress test exercises.</p> <p>For the assessment of the financial position of an IORP (perspective 1) with a CFA on the short/medium term, it can be accepted to take</p>

			<p>into account the simplifications that can be derived from the contract boundaries. However, if EIOPA wishes to assess the transmission effects of adverse scenarios via the IORP sector onto financial stability (perspective 2), it makes sense in a CFA to let the IORPs evolve in a going concern scenario with future pension accruals, future contributions and new members. EIOPA is fully aware that a CFA with a going concern / open population approach is more complex and costly and that not all IORPs are familiar with this kind of projections. Therefore, within the framework of the ST2019, the open population simulation was kept optional and the projection horizon was limited in time. As stated in par. 152, proportionality considerations will be taken into account in the elaboration of the technical specifications of the next stress test exercises.</p>
120.	<p>Chapter 4.4; Par. 206.</p>	<p><u>Market coverage</u> Scope of EIOPA’s ST: we welcome EIOPA’s suggestion to reduce minimum market coverage requirement for proportionality reasons (relevant passage in the consultation paper: “For example, if there is, compared to other Member States, a very large number of similar IORPs in a Member State, in particular of small IORPs, this could be taken into account by reducing the required minimum market coverage for this Member State”).</p>	<p>Noted.</p>
121.	<p>Chapter 5.2; Par. 212</p>	<p><u>Regulatory burden on IORPs and Stress Test requirements</u> We note that introducing extra work for IORPs in the form of stress test requirements (and possibly regulation derived from this in the further future) risks driving IORPs out of competition, especially on</p>	<p>Noted.</p>

		<p>those markets where IORPs only cover a small part of occupational pension provisioning and especially for those entities which are rather small.</p> <p>Due to the increase of regulatory requirements, we notice in some Member States a consolidation is taking place on the market. Not-for-profit organisations with a triangular relation putting sponsor, member and IORP close together and making use of a fully tailor-made service approach are -due to cost efficiency reasons- switched for more commercial solutions with a product approach, generating higher costs resulting in lower benefits. The first group is ruled by IORP II, the second by SII, where the latter only focuses on solvency at the level of the institution without looking at the efficiency at the level of the pension scheme nor the risk from the perspective of the member and beneficiaries.</p> <p>To avoid a further detrimental effect on i) pension provisioning for many members and beneficiaries and ii) on the cost efficiency of especially small and medium sized IORPs, we ask to be very careful not to introduce measures which further distort the internal market and which risk to make disappear the IORP sector in some MS.</p>	
122.	Chapter 3.2	<p><u>Proportionality</u></p> <p>EIOPA should allow IORPs to do the calculations themselves, but at the same time we need to have a more simplified and proportionate approach to different IORPs. Most likely, this can lead to a more prudent model, with poorer reflection, but also less burdensome for IORPs. In that regard, bigger IORPs can make the extended computations while smaller ones can have a simplified approach. This would be in line for example with the approach for the Common Balance Sheet, where some IORPs use stochastic, risk neutral valuation and others take a simplified approach. Furthermore, this would make communication between IORPs and EIOPA easier when clarification requests arise for example on computation and results of the ST.</p>	<p>Partially agreed.</p> <p>This comment will be taken into consideration (Proportionality) during the establishing of a concrete Stress-Test exercise.</p>
123.	Chapter 3.2.1	<p><u>Cash flow Analysis and the Common Balance Sheet</u></p> <p>The Cash Flow Analysis (CFA) is mentioned in the discussion paper, but it can be brought up more extensively in several sections, and especially in the paragraphs related to risks. At the same time, although the paper advocates the advantages of the Common Balance Sheet (CBS), it does not mention its various shortcomings. We do not believe that the CBS can be implemented in an effective way, especially for small and medium sized IORPs, for a number of reasons linked to its complexity and interpretation difficulty. In particular, market consistent valuations of liabilities are unreliable and too dependent on arbitrary assumptions, approximations and simplifications. Thus, we question whether market consistency will provide for a realistic picture of the financial soundness of an IORP due to its long-term horizon. Notably, the execution of the CBS is linked to high costs for IORPs. Given the current shift trend from DB to DC, balance sheets will become less appropriate over time as ST tools.</p>	<p>Noted.</p> <p>A BS-Tool provides a picture at a certain point in time and reveals the effect of a given scenario. The CBS - as a tool - has some drawbacks but provides a comparable view.</p>

124.	Chapter 3.5.3; Table 3.7.b	<p><u>Assessment of the possible use of indicated Stress Test tools</u></p> <p>As seen in its concise assessment of candidate relevant tools, EIOPA recognizes the practicability and possible use of the indicated Stress Test tools by IORPs, e.g. in the context of their Own-Risk Assessment (ORAs).</p>	Noted.
125.	Chapter 3.4:	<p><u>Lack of consistent definitions</u></p> <p>In relation to the horizontal approach, we would like to stress that there should be a consistent applicability of definitions throughout the paper. In some cases the paper can be clearer when horizontal is applied to 'across Member States' and when to 'across scheme types' (and different definitions of DC). In addition, we remark that the definition of DC schemes in table 3.5 is different than previous ones, so we call for sound, existing and commonly accepted definitions also in this exercise. Finally, we recognise that Table 3.4 gives a good overview, but the horizontal approach could be clearer, especially in regard to a horizontal approach across Member States.</p>	Partially agreed. It has been clarified in para 166 that 'across Member States' refers to 'across prudential frameworks'. Also see reply to comment number 30.
126.	Chapter 5	<p><u>Proportional granularity approach</u></p> <p>We recognize that, compared to last time, EIOPA's discussion paper made substantial improvements on the scenario design, risk factor selection and shock application. In regard to granularity, we underline that too much granularity won't improve the results of the stress test, but on the contrary, more granularity can make the stress test more cumbersome. Therefore, we would like to suggest a hybrid approach with proportionate granularity levels, which takes into consideration the stress scenario and composition of the pension fund.</p>	Noted.
127.	Chapter 5	<p><u>Several noticed improvement points</u></p> <p>Overall, we consider this a great improvement on descriptions of scenario design, risk factor selection, and shock application.</p>	Noted.
128.	Chapter 5, 5.6.2	<p><u>Inflation</u></p> <p>Inflation is an important consideration for IORPs, and an important risk for beneficiaries. In countries with guaranteed pension benefits linked to inflation, it could be an important risk for employers as well. We think the section on inflation deserves more consideration than currently is the case: what should be assessed regarding inflation, and what tools to use for that assessment?</p> <p>From a perspective with countries using market valuation of the liabilities (using interest rates), the effect of extremely loose monetary policy to stimulate inflation has had a strong impact on interest rates and thus the market value of liabilities and on assets. Thereby, it has had a strong impact on both</p>	Agreed. See also response to comment number 37. Note that changes to yield curves are of course included in the ST.

		IORPs and beneficiaries, and seems much more relevant than the impact of inflation on operational costs.	
129.	Chapters 3.4.3. and 5: 300, 309, 318-320	<p><u>A pragmatic approach</u></p> <p>We welcome several proposals of EIOPA which reflect a practical approach and the recognition of the diverse pension schemes landscape across the EU as well as of the resulting differences in the use of stress testing tools. We also agree with EIOPA’s pragmatic approach on the liquidity risk and operational risk (qualitative analysis) as well as on the climate stress test, which takes into account only transition risk.</p>	Noted.
130.	Chapter 6	<p><u>General comments on Chapter 6</u></p> <ul style="list-style-type: none"> • The EIOPA Regulation mandates EIOPA to incorporate environmental risk in the stress test. We strongly agree with the proposed focus on climate risk within broader field of potential environmental risks. The risk is seen as most material by the sector and risk management tools and models developed by the market are more advanced than for other types of environmental risks. • We agree with EIOPAs view that the environmental stress is just a specific type of “traditional” stress test, so that in consequence the same tools should be used to limit the burden for IORPs by introducing new approaches. • The climate risk itself, however, is by no means a traditional type of risk. There is no historical data, low certainty about likeliness scenarios and timing, as well as a debate about if climate risk to some degree is already priced in. A broad spectrum of models exists in the market but there is a lack of consensus. Importance of climate change warrants inclusion in the stress test, but this uncertainty should be reflected in conclusions and communication by EIOPA. • We agree with the proposed focus on transition risks at this moment due to limited data availability to assess physical risks. We also agree for not considering legal risk due to limited information available. <p>The methodology document suggests a strong focus on carbon dioxide, but this might not fully capture the main sources of climate-related transition risk (e.g. also technology risk). However, as a first approach, a focus on carbon emission seems sensible, given the current data and modelling challenges inherent in climate risk ST.</p>	Noted and partially agreed, as reflected in the recognition that this insight and expertise on this type of risk is evolving. Also reflected in an addition made to para 395.
131.	Chapter 6	<p><u>EIOPA’s mandate regarding ESG risks</u></p> <p>As for normal risks mandate could be micro-prudential (financial resilience of IORPs) and macro-prudential (systemic). Due to the heterogeneity of European IORPs, their different practices (such as asset allocation and pay-out-methods), and their respective financial assessment frameworks and</p>	Noted.

		<p>steering mechanisms we agree with focus on the micro-prudential perspective in order to shed light into the impact of climate change on individual pension funds. These insights could inform participating IORPs and help them improve the incorporation of climate change in their risk management and asset management policies. The macro-prudential perspective would examine second order effects and therefore add another layer of uncertainty. It is unclear how climate change risks transpose from IORP's balance sheet and investment behaviour into the real economy or the wider financial system.</p> <p>The design of the stress test should mean that it is insightful for participating IORPs. In particular larger IORPs could be interested to conduct the exercise, at least in part, in-house in order to fully understand the outcomes and avoid a 'black box'. On the other hand, smaller IORPs are concerned by the administrative burden this would entail. While the stress test exercise may certainly help to raise awareness and understanding of the potential financial impact of climate changes amongst IORPs, this is not mentioned as an objective of the stress test exercise in the EIOPA Regulation. As such, EIOPA should strive to keep the administrative burden of the climate element proportionate. EIOPA has demonstrated in its previous analysis for the insurance sector that it can conduct such an exercise in-house, provided it has the required data.</p>	
132.	Chapter 6.2.2.	<p><u>Observations on scenario granularity</u></p> <ul style="list-style-type: none"> We agree with EIOPA's assessment that the assessment as to made at the asset level, or potentially even lower (i.e. more granular). Asset-level information provides insights that can be incorporate in an investment policy. Insights at the sectoral level are less useful. This would not show the impact of climate change on best and worst performers within sectors, that IORPs who use ESG integration (e.g. with ESG ratings) aim to select or avoid. <p>If analysis is done based on the NACE sectors, the most granular level of NACE codes should be used. The analysis conducted in the 2019 stress test into 'investments prone to significant greenhouse gas emission intensity' did not provide deep insights as it, for example, lumped together renewable and non-renewable electricity production.</p>	Noted
133.	Chapter 6.2.3.	<p><u>Data availability</u></p> <p>We welcome the recognition of the limited availability of data. The stress test will need to account for this challenge. It would indeed be best if the stress test would be aligned as much as possible with existing reporting formats. For this reason, we welcome the introduction of the European Single Access Point and we believe that it will be crucial to improve data quality</p> <p>The discussion paper mentions that certain regulatory initiatives are underway to improve data availability. Whilst we welcome the development of sustainability-related reporting by companies under the Taxonomy Regulation, EIOPA should assess the merits of inclusion of this information in the climate model. Whereas it will provide useful information to investors about companies' contribution to climate</p>	Noted.

		change mitigation and adaptation, it was not designed to implement a shock scenario onto a portfolio. Currently, it covers only a small 'green' part of the portfolio and may not provide insights into the full portfolio even with the envisaged extension to harmful and other types of activities.	
134.	Chapter 6.2.4.	<p><u>Timing of the shocks</u></p> <p>We welcome the suggestion to use an instantaneous shock. Rather than the exact time at which specific shocks occur, the moment at which these shocks are priced in is relevant. Future shocks can be accounted for by discounting their effect to the present and incorporating them into an instantaneous shock. The stress test should be clear about the exact assumptions used in determining these shocks.</p>	Noted
135.	Chapter 6.3.	<p><u>The design of the climate stress test</u></p> <p>As mentioned, we broadly agree with the considerations on the design of the climate stress test. We have the following recommendations for the development of the actual stress test.</p> <ul style="list-style-type: none"> • Tool selection: balance sheet but assets only. As the effects of climate change on macroeconomic variables such as GDP and interest rates are currently difficult to estimate, we recommend not to focus on liabilities. The same applies to mortality and longevity. As the shock will be modelled in an instantaneous fashion, the balance sheet tool seems to make most sense. • Predefined shocks: we would recommend EIOPA define the shocks, ideally on an asset level (ISIN). This will allow IORPs to perform the stress test efficiently as most IORPs have the ISIN codes of their portfolio readily available. This would cover most liquid assets. Shocks should cover different asset categories and take into account different effects of climate change on the equity and debt of companies. It would be necessary to provide proxies for asset categories for which no ISIN mapping is available (e.g. mortgages, private equity, etc.) or guidance how otherwise to incorporate these in the stress test. • Link with 'Fit for 55' package: according to the new Sustainable Finance strategy of 8 July, there should be an additional climate stress test aligned with the Fit for 55 package. EIOPA could assess whether it can implement through the upcoming 2022 stress test. For IORPs it would not make sense to conduct two climate change stress tests shortly after another with slightly different assumptions. • Global approach: Institutional investors such as IORPs in general invest worldwide, for this reason we believe that in many cases the European economy (including activities therein) might not be representative for worldwide economic activities. The design of the Stress Test should incorporate this parameter as well. <p>Incorporation of qualitative elements. Due to the many assumptions and uncertainties in a quantitative climate stress test, there could also be a role for an accompanying qualitative element. This</p>	Noted

		would enable IORPs to put the quantitative results into the right context, for example by describing planned management actions and changes in strategic asset allocation.	
136.	Par. 4.	We agree that EIOPA should not increase the complexity of different stress testing tools for the future IORP stress test exercises.	Noted.
137.	Par. 5.	We agree that the dividing line between DB and DC pension obligations have become more and more blurred in recent years, whilst numerous fundamental differences between them remain.	Noted.
138.	Par. 9.	We agree that the EIOPA paper focuses solely on bottom-up (institution-run) supervisory STs, which resemble the EU-wide IORP ST exercises conducted so far by EIOPA, whilst we recognise that especially for the smallest IORPs participating in the stress test exercise can be very burdensome and costly, and in that respect possibly they could benefit from a (limited) top-down approach at least in some parts of the stress test.	Noted.
139.	Par. 13.	We agree that STs can be used to achieve different objectives including micro-prudential and macroprudential objectives. However, we find that the natural home of micro-prudential supervision is at the NCAs, whereas EIOPA should have a more important role to play in macro-prudential supervision from the perspective of financial stability.	Noted.
140.	Par. 20.	We welcome that the EIOPA paper recognises that IORPs are very different from other financial institutions e.g. because their obligations and set-up are integrated in the national social security systems to provide retirement income.	Noted.
141.	Par. 21.	We fully agree that due to their long-term obligations, IORPs take a long-term perspective on their operations, i.e. investments, sponsor relations, members and beneficiaries.	Noted.
142.	Par. 22.	We agree that IORPs typically pass on risk to ultimate risk bearers.	Noted.
143.	Par. 23.	We welcome that the EIOPA paper recognises that various aspects of IORPs differ (sometimes markedly) across EU countries, partly as a result of the different prudential and social and labour law frameworks present in each Member State.	Noted.
144.	Par. 26.	The analysis of the IORPs landscape carried out by EIOPA does not seem exhaustive. As regards DC plans two additional features should be considered. The first refers to the activities managed by DC IORPs. If they manage both accumulation and decumulation, IORPs have to accrue technical provisions for the purpose of the pay-out, meaning that they are under the DB framework. If DC IORPs are only	Partially agreed, please see the responses to comment numbers 1, 3 and 12.

		<p>focused on the accumulation phase, they do not manage longevity risks, moreover solvency issues do not matter. Such feature has a relevant effect on the practicability of the horizontal approach. Projections tools are neither insightful for such IORPs nor easily interpretable by EIOPA/NCAs. As regards the cash flows analysis, out-flows are not in scope as not managed by such IORPs; being in-flows affected by economic turmoil rather than financial shocks, they are out of scope for the stress test purpose. If the scope of projections of future retirement income is to assess the effect on financial stability through real economy, such analysis may be effective where IORPs account for a relevant share of retirement income, otherwise it is negligible (it is the case in MS where DC are more developed).</p> <p>The second missing element is the option for members of DC IORPs to select the investment option and to change it during the accumulation phase (even to change the IORP if they are not satisfied). It means that it is up to the members to manage the risks coming from the accumulation phase. Also in this case, some concerns on the practicability of the horizontal approach arise. If, for example, the projection should end up showing a shortage of the future retirement income for group members (aside from the way in which such groups are defined), the explanatory power of such result would be negligible as management actions for IORPs would be limited or not possible at all. It is up to the single member to use the opportunity to change the investment option, based on the findings of the projection of future retirement provided by the Pension Benefit Statement. For that reason, projections of retirement income should be limited to the Pension Benefit Statement and not considered for stress test purposes of DC IORPs.</p> <p>Thirdly, we assume that DC plans with an overtime legal minimum guarantee as sometimes required by social and labour legislation and which is covered by the sponsor (and not the IORP), for the purpose of the ST must be considered as a DB plan.</p>	
145.	Par. 32	<p>The CBS by definition does not have a surplus or a deficit, because all items are attributed.</p> <p>Furthermore, the acknowledgement in its analysis by the holistic approach of “security mechanisms in place” and “potential reductions to liabilities” does (and can) not take place in practice, because many items on the CBS are not priced at market values and as future accruals are not taken into account.</p>	Noted.
146.	Par. 39	<p>Negative net effects may occur in the situation of foreign exchange contracts, but not in the case of interest derivatives, because in scenarios of panic/turmoil interest rates usually decrease and the derivatives (e.g. interest rate swaps used to hedge the interest rate risks in the liabilities will deliver positive results.</p>	Noted. Indeed from a liquidity risk perspective other economic scenarios may be relevant (e.g. rising interest rates) than from a solvency risk perspective.
147.	Par. 43.	<p>EIOPA plans to increase the number of tools to run the ST. The selection of the tools should end up with a simplification and not with an increase of work. The use of different tools for the same purpose should</p>	Disagreed, the methodological framework sets out the approaches and procedures to select and

		<p>be avoided. Stress test is burdensome with limited insightfulness for some IORPs, especially DC without guarantee, any further overload of work should be avoided.</p>	<p>design the appropriate analyses for the corresponding objective. It does not necessarily envisage to use more tools than in the past exercises.-</p>
148.	Par. 44.	<p>The toolbox approach introduces new tools for DB and DC plans: the projection of retirement income from the IORPs and stochastic tools.</p> <p>Pension projections are an individual tool to use under the Pension Benefit Statement; they do not seem adequate at group level. We question the relevance of such projections to assess the effect onto financial stability running via the transmission on the real economy when the income stemming from the IORP is not the bulk of the retirement income.</p> <p>Furthermore, it is questionable the usefulness for IORPs of projections of future retirement income for IORPs where members are allowed to select the investment option and to change it during the accumulation phase (basically DC IORPs). In this case members are better entitled to manage the risks coming from an unsatisfactory projection of the future retirement income and the boards of the IORPs have no or limited margins of action. In this framework, the individualized pension projections of the Pension Benefit Statement are the better (and institutional) instrument to support such choice by members.</p> <p>As regards the stochastic tools, considering the evidence provided in tables 3.7a and b, where an assessment of the two methodologies is carried out, in general, deterministic methods seem to be preferable. Broadly speaking, however, flexibility should be granted to participating IORPs to choose between deterministic and stochastic tools, considering a proportional approach.</p>	<p>Partially agreed. The projection of retirement income is new for DB plans. In DC plans it is already developed in previous stress test exercise in the form of representative plan members.</p>
149.	Chapter 3.2, Par. 70, 77, 188, 190	<p><u>Stochastic modelling</u></p> <p>PensionsEurope mapping exercise, via its Members in 2017, regarding ALM tools showed that stochastic modelling is not commonly applied across Member States.</p> <p>EIOPA recognises that stochastic approaches need to be developed (188, 190). This recognition could be reflected better in the rest of the paper.</p> <p>Cash flow analyses with risk free returns do not make sense (77). In this respect a scenario with risk free returns can in itself already be considered as a stress scenario.</p> <p>Furthermore, the CBS is not a prediction (tool), but must be considered as an explanation (tool) of actual values of balance sheet items.</p>	<p>Noted, please also see the response to comment number 16.</p>

150.	Chapter 3.2.1, Table 3.4, 109	For previous stress test exercises, also the CBS is applied differently across IORPs/Member States. In reality, the CBS was implemented by only one Member State (NL) using a stochastic (risk-neutral) valuation. Other IORPs/Member States used risk-neutral, stochastic valuation, others use simplified approaches. As a result, the perspective of comparison cannot be considered as a real advantage of the CBS over the application of NBSs.	Noted. Also see the reply to comment number 125.
151.	Par. 46.	EIOPA can be clearer on the meaning ('definition') and the implication of (the term) horizontal approach when referring to 'across Member States' and 'DB/DC'.	Noted. This is what paragraphs 165-168 do in more detail and with examples.
152.	Par. 47.	<p>The horizontal approach would be a right way to run the stress test if IORPs were comparable, however, relevant differences between IORPs are in place in MS, between DB and DC and within the two types of IORPs. This is the reason why IORP2 is a minimum harmonization directive.</p> <p>In the comment to point 26. of the Discussion Paper we already addressed some features of DC IOPRs which have not been considered by EIOPA and the way they would compromise the achievements of the horizontal approach, the interpretability of the results, their explanatory power, and their usefulness for IORPs.</p> <p>EIOPA should further reflect on the opportunity to introduce such a horizontal approach for the next stress test, given the huge distinctions between IORPs still in place. We welcome the approach followed so far by EIOPA, based on a strong cooperation with stakeholders, however, we deem necessary further engagement to find the right way to deal with the huge differences in place that would undermine the results of the proposed tools for such approach.</p>	Partially agreed, see the response to comments 1 and 6.
153.	Par. 61.	As recognised by EIOPA, CBS as well as NBS do not include the value of the option of renegotiating the pension deal by social partners (as 'other source of protection'). It is not the aim to quantify this option but it might be useful to integrate this information in the background survey.	Agreed. This issue could be subject of a background survey.
154.	Par. 67.	Balance sheets also need projections to calculate the present value, especially the CBS (!). Applying the CBS to a pension scheme with conditional cash flows implies making many assumptions (for applying complex (stochastic) risk neutral valuation).	Noted, please also see the response to comment numbers 12 and 16.
155.	Par. 70.	We already expressed some concerns on the practicability of projection tools (Internal Rate Return, Cash Flow tools and Projection of retirement income from IORP) for DC IORPs which only manage the accumulation phase and where members are allowed to select the investment option.	Partially agreed, to interpret the results, the specificities of the schemes must be understood. With the emergence of obligations that are at the blurry borders between

		<p>As EIOPA stated in point 71. 2nd bullet point, cash flow tools “<i>can provide insights into the timing and significance of cash-in and cash-out flows; as well as triggering points for supervisory measures or supporting actions by sponsors and members or pension protection mechanisms</i>”. Against this background, cash flow tools seem out of scope for such types of DC IORPs as cash-out flows are not relevant and cash-in are affected by economic turmoil not financial shocks. Safeguards from NCA or sponsors or protection schemes based on such flows are out of scope for DC IORPs.</p> <p>The projections of the income of members and beneficiaries from the IORP should “<i>provide insights into the projected out-payments of IORPs as well as the effects on members and beneficiaries of an IORP</i>”. With reference to the first objective, if an IORP does not manage the decumulation phase since fully outsourced to a life insurance, we question the need to project out-payments for such IORPs. As regards the effects on members and beneficiaries of an IORP, we see in the Pension Benefit Statement the tool institutionally designated for this purpose. In IORPs where members are allowed to choose the investment option (basically DC IORPs), the latter are responsible for the accumulation process and it is up to them to select the best tool to hedge the risk of an inadequate benefit at retirement (change investment option-or the IORP itself if allowed-, increase contribution). Management actions for such IORPs are limited. Furthermore, for a full assessment of the effect on financial stability through the real economy, all sources of retirement income should be considered, especially public pensions. In MS where 1st pillar provides the bulk of retirement income, a projection of the future retirement income limited to the one stemming from the IORP would have no real added value on assessing the effect on financial stability.</p>	<p>DB and DC, such horizontal tools have the advantage that the effects actually can be analysed.-</p>
156.	Par. 76.	<p>Not only deterministic scenarios need assumptions about probability, also stochastic model. In a stochastic approach, also probabilities are needed to unknown future developments: is defining a probability to 1000 scenarios easier than to 1?</p>	<p>Noted, stochastic approaches can assess a much higher number of possible future states of the world.</p>
157.	Par. 79.	<p>EIOPA mentions the option of also inflation-adjusted projections as EIOPA believes the effects of benefit reductions are more severe over time when expressing those in real terms. Please note inflation-adjusted projections will imply inflation-adjusted discount rates, which will neutralise these effects. Therefore, we prefer to work in real terms.</p>	<p>Noted, that depends on the design of the scenario and the specific objective of the stress test.</p>
158.	Par. 81-96	<p><u>The background survey</u></p> <p>A background survey can also be used to take into account proportionality triggers such as:</p> <ul style="list-style-type: none"> • AuM of IORPs in the Member State / GDP, e.g. when evaluation of the potential for systemic risk. The AuM/GDP does not exceed 25% for all Member States except for one. It only exceeds 10% for seven Member States. 	<p>Noted.</p>

		<ul style="list-style-type: none"> • AuM of IORPs in the Member State / total assets of the financial sector, e.g. when evaluating the cost/benefit/relevance of cross-sectoral stress tests. • Number of IORPs in the Member State, e.g. in Member States with a large number of IORPs the assessment of the resilience of financial institutions can be measured based on a limited sample of IORPs without aiming to have a sample that represents x% of the AuM in the Member State. • Distribution of the AuM per IORP in the Member State, e.g. to assess the cost/benefit of a stress test exercise and the tools used. • Average amount of assets/benefits per beneficiary, e.g. in some Member States IORPs AuM and pension savings per individual are relatively small. We suggest EIOPA to consider using a different perspective for RI (and related risks) for those Member States where occupational pensions deliver large(r) part retirement income. • Number of active IORP members / working population e.g. to assess the relevance of the transmission effects onto the financial stability. • The use of derivatives, e.g. IORPS that do not use derivatives and have no options for early pension withdrawal before retirement age, liquidity risk is very limited/non existing. <p>The possibilities and process to renegotiate the pension deal amongst social partners.</p>	
159.	Par. 82-83	<p>As in most countries, pensions are defined as an annuity (and not at all / or only partly as a lump sum), we believe the stochastic PEPP model, which focus on the accumulated assets at the end of the accumulation phase (so assuming a lump sum payment) does not totally fit for purpose. The assessment should include annuity payments and result in a distribution of annuity and/or lump sum, depending on scheme type.</p>	Partially agreed, depending on the individual situation, both lump sum and annuity payments may be assessed.
160.	Par. 85.	<p><u>Representative members versus cohorts of members:</u></p> <p>We prefer the hypothesis of representative members; as regards benchmarking, it is difficult to give an opinion without methodological details.</p> <p>More granularity in members and including retirees will give better insights in risks but will imply extra work as well. EIOPA should consider the cost-benefit ratio careful if EIOPA’s objective is to include more EU IORPs in its upcoming ST 2022. Therefore, calculating representative membership should not be too burdensome.</p>	Noted.

161.	Par. 85.	The suggested benchmarking of “the probability of reaching a pay-out phase that equals the contributions?” will highly depend on the timing contributions. This approach should be adjusted for inflation!	Partially agreed, the effect of inflation indeed is important to consider here.
162.	Par. 85.	To assess members’ and beneficiaries’ benefits not the risk-free return but the long term expected return should be used. A calculation at the risk-free return can only come at the second place to give an indication of the risk (‘a stress scenario’) but not to calculate the expected benefit or the expected replacement income at retirement.	Disagreed, please also see the response to comment number 16.
163.	Par. 95.	With reference to the regulation of investments, EIOPA could rely on NCAs for regulations applying on a general bases, limiting the request to that added by the IORPs under their investment policies (if any). On derivatives, the request could be limited to the cases in which the use of such instruments is relevant, while excluding the cases in which the use of derivatives is negligible.	Partially agreed. For limiting the burden on IORPs, some information related to the regulation may be collected directly by supervisory authorities; the number of requests on derivatives would be decided during the tool’s selection process of future stress test exercises taking into consideration their country and IORP specific relevance.
164.	Par. 98.	The length of 5 years after the shock to indicate the expected adjustment of asset class allocation, by net selling or net buyer and the new asset allocation could be too long especially when investments are made through mandates that could be shorter than 5 years or having a residual length less than 5 years.	Partially agreed. The 5-years horizon is consistent with the long-term nature of IORP. For assessing the impact of the shock on the investment behaviour of the IORP, it’s also relevant to consider the possible impact of management’s mandates change over the assessment period.
165.	Par. 100.	In general, the Stock Take Survey is not sufficiently defined, so it is difficult to evaluate the new tool. Broadly speaking the use of such a tool should be very limited to avoid a burdensome and costly stress test.	Partially agreed The STS is a dedicated survey aimed at addressing a specific topic which require qualitative characterizations. Its contents

		Furthermore, please make sure the cost benefit ratio is kept in balance. Previous reporting exercises have shown that these exercises can become very extensive and very time consuming with different (external) parties involved. We therefore would argue to limit these stock taking surveys to a minimum.	heavily depend on the identified topic but will also reflect cost/benefit ratio upon the tools selection process of future stress test exercises.
166.	Par. 107.	We agree on the fact that for unprotected DC schemes the liabilities are equal to the assets and so no solvency risk arise.	Noted.
167.	Table 3.1 and Par. 110	<p>Management actions will be based on the NBS, not on the CBS. Therefore, the CBS will give a less relevant picture of solvency risk (as EIOPA seems to recognise).</p> <p>CBS only gives partial information as no information on timing, size and likelihood of using security mechanisms.</p> <p>We suggest reflecting these comments explicitly in Table 3.1.</p> <p>Solvency risk CFA – we would prefer “yes, if …” instead of “no, unless …”.</p> <p>“Potential to maintain its business” – not totally clear what EIOPA means by this - we believe more information is needed</p> <p>The CBS is not suitable as a method to assess solvency risks, because the CBS is by definition in equilibrium as all balance sheet items are attributed.</p> <p>The CBS cannot be used for the assessment of the potential to generate income, because it can only be calculated with the assumption of going concern, which needs making many assumptions.</p>	<p>Partially agreed.</p> <p>Management actions will in practice indeed be based on the national prudential frameworks (NBS). However, in the context of an EU stress test exercise, it is also important to be able to compare the financial position of IORPs between different Member States at a certain point in time as explained in par. 110. Such a comparison makes only sense if all IORPs determine their solvency position based on a common methodology and parameters. In this context, the CBS has its place in the EIOPA stress test exercises although the results may differ from those of the NBS. EIOPA is of the opinion that the advantages and disadvantages of the CBS are fairly presented in the paper.</p> <ul style="list-style-type: none"> - The wording of the solvency risk CFA was changed as suggested in Table 3.1. - The solvency position of an IORP according to the CBS specifications can be deduced from the reported security mechanisms (sponsor support, benefit reductions and/or PPS).

			- The potential of an IORP to maintain its activities is explained in section 3.3.2.3. For example, if the income of an IORP is expressed as a percentage of the assets under management, the CBS can also provide insights into the consequences of an unfavourable scenario on the IORP's income.
168.	Par. 111.	Projecting the CBS forward multi-period is very complex when stochastic risk neutral valuation is being used. This would imply using trees-in-trees or other complex methods not being used in practice. (Projecting the NBS forward multi-period is far less complex but can also be time consuming/costly and as such is from a cost/benefit perspective not preferable).	<p>Partially agreed</p> <p>In function of the characteristics of the pension schemes, the applicable contract boundaries and/or the applied simplifications, the CBS may consist of a rather straightforward deterministic valuation or of a more complex stochastic valuation.</p> <p>EIOPA has taken note of the remarks and the concerns about the complexity and feasibility of the projection of stochastic based CBSs over several years. They will be taken into consideration in the elaboration of the technical specifications of future stress test exercises.</p>
169.	Par. 116. and 119.	As EIOPA itself recognized, liquidity is not one of the most relevant risks of IORPs. Against this background, to reduce the burden and the cost of the stress test, liquidity risk could be assessed on a materiality basis, for example only when there is a large use of derivatives, when early withdrawal is allowed without restrictions or when regulations on quantitative limits on illiquid assets are not in place. Another criterion could be the share of illiquid assets. This information could be obtained with survey tools (BS and IBS) or through engagement with NCAs (national regulations on quantitative limits for	<p>Agreed.</p> <p>EIOPA has taken note of your suggestions to reduce the burden and the cost of the assessment of the liquidity risk.</p>

		illiquid assets). The tools envisaged in points 117. to 119. should be limited to the IORPs where the liquidity risk matters, considering one or more of the aforementioned criteria.	
170.	Par. 127	Multiple CBS is not possible in practice, because for each consecutive projection (at t+1, t+2, etcetera) a risk neutral scenario set is needed in order to calculate the options (leading to "trees in trees").	<p>Partially agreed</p> <p>In function of the characteristics of the pension schemes, the applicable contract boundaries and/or the applied simplifications, the CBS may consist of a rather straightforward deterministic valuation or of a more complex stochastic valuation.</p> <p>EIOPA has taken note of the remarks and concerns about the complexity and feasibility of the projection of stochastic based CBSs over several periods. They will be taken into consideration in the elaboration of the technical specifications of future stress test exercises.</p>
171.	Par. 131.	Please note that increased longevity might not only have a negative impact on the financial position of IORPs, but also on the budgetary situation of many Member States. Therefore, many Member States will increase the retirement age (or already did so). The stress scenario should take these (current and future) policy measures into account to correctly assess the longevity risk. To avoid complexity a pragmatic approach is due.	<p>Partially agreed.</p> <p>The boxes in section 3.3 are intended to illustrate the tool selection process through straightforward examples. Should EIOPA wish to develop one of the examples from these boxes into a future stress test exercise, the technical specifications may be more extensive. EIOPA has taken note of your suggestion to further develop an adverse scenario with regard to the longevity risk.</p>

172.	Table 3.2	Table 3.2 should reflect that also CFA shows investment behaviour (impact if restrictions in asset allocation and investment response (selling/buying) is included in cash flows (so also 'direct impact'))	Partially agreed From a theoretical point of view, the investment behaviour of IORPs in terms of asset allocation and investment responses could indeed be included in a CFA as an additional reporting requirement. However, this seems to be a heavy exercise for IORPs because CFAs usually run over (very) long periods. Therefore, EIOPA is of the opinion that surveys are a more suitable / proportionate tool to assess the investment behaviour.
173.	Table 3.3	Since the CBS presents the <u>present</u> value of all security mechanisms (at t=0), it is difficult to relate these security mechanisms to (future) economic indicators going forward. This should be reflected in table 3.3 as it is not only about timing but also about getting a feeling of the severeness of the stress impact.	Noted. A precision was added in Table 3.3 (see also explanations in par. 149).
174.	Par. 149	<u>The CBS does not show which risk bearers will be hit, but intends to show the market value needed in order to get rid of these risks, with the assumption that there are markets for this; however, in practice such markets do not exist.</u>	Partially agreed. In the context of the second perspective (see 2.2.2), it is important to assess who will bear funding shortfalls (sponsors, members or PPS). In practice, the recovery measures will be derived from the national prudential frameworks (NBS). However, it is usually not possible to deduce directly from the NBS who will bear the financing shortfalls. Although the solvency position may differ between the CBS and the NBS, the CBS has the merit to

			show who will bear funding shortfalls (sponsors, members or PPS).
175.	Par. 152.	<p>Without new accruals, the IORP would follow a more defensive investment strategy, so excluding new accruals will not give an adequate representation (of going concern). The same is true for security mechanisms and other policy assumptions, which in many cases are based on a going concern approach.</p> <p>Like in previous stress tests, contract boundaries should be leading in selecting new / future service accruals or not.</p> <p>For IORPs/schemes where obligations of the IORP to pay benefits are only established following payments of contributions to the IORP/scheme, cash flows to be included in the calculation of technical provisions should be determined as follows:</p> <ol style="list-style-type: none"> 1. All cash flows relating to obligations of the IORP relating to current members and beneficiaries shall be recognised in the calculation of technical provisions, unless otherwise stated below. Apart from the cases described below, obligations shall include those obligations relating to current members and beneficiaries which result from contributions received by the IORP after the valuation date. 2. Any cash flows relating to obligations of the IORP relating to contributions received by the IORP after any of the following dates shall not be recognised in technical provisions: <ol style="list-style-type: none"> a. The future date where the IORP has a unilateral right or obligation to terminate the agreement with the plan sponsor and/or the plan members to provide the pension benefits as agreed between plan sponsor and plan members; b. The future date where the IORP has a unilateral right or obligation to reject additional contributions; c. The future date where the IORP has a unilateral right or obligation to amend the contributions payable after this date or the benefits related to those contributions in such a way that the contributions fully reflect the risks related to them and the related benefits; or d. The future date where the sponsor or sponsors have a unilateral right to terminate future accrual of benefits. <p>For IORPs/schemes where obligations of the IORP to pay benefits are established independently from payments of contributions to the IORP, cash flows to be included in the calculation of technical provisions should be determined as follows:</p>	We refer to the answer of ref. 119.

		<p>1. All cash flows relating to obligations of the IORP relating to current members and beneficiaries shall be recognised in the calculation of technical provisions unless otherwise stated below. Apart from the cases described below, obligations shall include those obligations relating to current members and beneficiaries which are established after the valuation date. Any contributions which are directly linked to the financing of certain obligations established after the valuation date shall also be recognised in technical provisions, unless otherwise stated below.</p> <p>2. Any cash flows relating to obligations established after any of the following dates shall not be recognised in technical provisions:</p> <ul style="list-style-type: none"> a. The future date where the IORP has a unilateral right or obligation to terminate the agreement with the plan sponsor and/or the plan members to provide the pension benefits as agreed between plan sponsor and plan members; b. The future date where the IORP has a unilateral right or obligation to reject the establishment of additional obligations; c. In cases where contributions are directly linked to the financing of certain obligations established after the valuation date, the future date where the IORP has a unilateral right or obligation to amend those contributions or those obligations to fully reflect the risk; or <p>The future date where the sponsor or sponsors have a unilateral right to terminate future accrual of benefits.</p>	
176.	Table 3.4	<p>We would suggest a more positive assessment of the NBS, since the NBS is the (national) indicator for policy and interventions (not the CBS).</p> <p>We would suggest mentioning explicitly that CBS in terms of cost/benefit ratio does not fit for unprotected DC plans and as such is not ideal to compare results across scheme types within a country nor to compare results across countries.</p>	Noted. Table 3.4 describes the tools objectively; many of the other tables in this chapter more subjectively indicate applicability / proportionality of the various tools to the various objectives of a ST exercise.
177.	Par. 165. and 168.	Please refer to point 47.	
178.	Par. 180.	We appreciate the cost-benefit approach that EIOPA wants to follow in the selection of the tools. In the comment of point 26 we already argued on the criteria to select the tools, please refer to such comments. Every module of the stress test should be assessed with one tool, overlapping tools for the same characteristic would be confusing.	Please refer to EIOPA’s answer to comment n°144 (and to related comments n°147, 148, 152, 155, 176)."

179.	Par. 181.	<p>Interpretability is important indeed. We noted that even experts have difficulty in understanding/explaining results from the CBS (esp. when discounted via a risk neutral approach), as EIOPA recognises (in 185). This should be better reflected in tables 3.7a and 3.7b.</p> <p>We support the criteria defined to define the practicability of the horizontal approach. We already raise some concerns over the practicability of the tools for DC schemes. Please, refer to points 26 and 44.</p>	Noted
180.	Par. 185.	<p>Given the fact that the CBS does not give any insight in the size and the timing of the potential intervention of the security mechanisms it is less useful for IORPs in terms of their own risk management process. Furthermore, CBS uses a risk-free rate which does not result in a market consistent view as it does not take into account any risk premium which will be realised on the investment portfolio. Therefore, we believe the only advantage of the CBS is the comparability of the results amongst the different MSs, excluding those MSs which have a pure DC market. This should be better reflected in tables 3.4, 3.7a and 3.7b.</p>	Partially agreed.
181.	Table 3.6	<p>A correct cost/benefit ratio is an important criterium to add to table 3.6. Furthermore, the possibility of standardisation of the selected tool might be another useful criterium to add.</p>	<p>Noted. Table 3.6 aims at listing aspects, which in addition to the relation to the ST objectives and the horizontal applicability aspects, should be considered in the tools selection process. This process should be driven by finding the right balance between the cost and the benefit, and thus a reasonable cost-benefit ratio.</p> <p>The table thus does not list "criteria", but aspects that help EIOPA to strike the right cost/benefit ratio.</p> <p>Please refer to paragraph 179.</p>
182.	Table 3.7a and 3.7b	<p>(see also comments on 181 and 185)</p> <p>It would help by making clearer whether scores like 'low', 'moderate' etcetera are meant in positive or negative way (via notes added to tables). E.g. we believe for IORPs the score on practicability would be higher for a NBS than for a deterministic CFA, and the one for the deterministic CFA would be higher</p>	Partially agreed. Clarifications have been provided.

		than for a stochastic CFA or a CBS. We have a similar issue regarding insightfulness for EIOPA and NCA in table 3.7a.	
183.	Par. 194.	<p>Even if the principle of materiality to define the perimeter of the IORPs involved in the exercise is not addressed in the paper, it may be useful to argue on that point. The threshold of 500m EUROS does not seem adequate since it does not reflect the real risk underlying national markets. The IORP sector is bankruptcy-remote, as EIOPA itself recognizes in 22. of the Discussion Paper. Considering that one of the objectives of the stress test is to assess the potential systemic risk linked to IORPs, EIOPA should focus the exercise in MS where the systemic risk may have a certain relevance. To find the right candidates the assets as a percentage of GDP seems to be a better measure than a fixed amount of EUROS in absolute values. The assets as a percentage of GDP reflects the size of the national market and may be assumed as a proxy to measure the magnitude of the effect of a remote bankruptcy of an IORP.</p> <p>If the risk of going bankrupt could have a certain relevance for DB IORPs (and for MS where such IORPs represent the main share of the market), such risk does not exist for pure DC IORPs by definition. Such evidence should be considered by EIOPA when defining the boundaries of the stress test.</p> <p>When defining the criterion for the sample selection to be considered by NCAs, EIOPA should consider not only quantitative criterion but also qualitative, like the type of IORPs. Therefore, we welcome the balance survey as this tool might be a way to introduce more proportionality and as such make the ST much more cost effective.</p>	Partially agreed, the sample needs to be relevant for the respective stress test to cover the corresponding IORP sector. The legal framework of IORPs to mitigate the risk of insolvency is very different across Member States, so that the analyses of such risks is relevant.
184.	Par. 197.	The composition of the national samples should not only reflect the different tools EIOPA will decide to use for different types of IORPs but also the relevance of the different types of IORPs in terms of assets. If for example, the national landscape is dominated by a certain type of IORP (either DB or DC) and the other has a marginal relevance, NCAs should be given the opportunity to scrap the latter from the stress test	Noted, please also see the response to comment number 183.
185.	Par. 200.	<p>EIOPA is right in recognizing that it is not always necessary for achieving a meaningful result to have a very high market coverage. It depends on the ability to capture the IORPs through whom better assess the resilience after the shock and the systemic risk. It is not necessary to fix a minimum market coverage in terms of assets as well as members and beneficiaries. EIOPA and NCAs could cooperate to involve larger IORPs as a reliable proxy of the national markets.</p> <p>Moreover, the coverage of pure DC IORPs (at least some of them), should be assessed cautiously, given the quite limited relevance of the findings and the high costs related to the stress test that, in the end, will be fully borne by members/beneficiaries. Once again, we question the need of the horizontal approach for pure DC IORPs.</p>	Noted.

186.	Par. 201.	This point contains a clear analysis of the differences in place across MS. EIOPA states that “... <i>National specificities may determine which characteristics are relevant in different national markets, <u>because of the diversity of IORPs throughout the EEA. Therefore, not all NCAs will necessarily consider the same characteristics, or weigh them equally.</u></i> ” EIOPA implicitly recognizes the differences across MS and the difficulties stemming from such heterogeneity to define a comparable sample, suitable for the horizontal approach.	Noted.
187.	Par. 205. and 206.	We fully support the idea to select the sample among larger IORPs as they would represent a reliable proxy of the national markets. As EIOPA recognizes, meaningful results are not always linked to the size of the sample but to its representativeness. It depends on the characteristics of the underlying market. EIOPA should be primarily focused on the representativeness of the sample rather than on the number of the participating IORPs. It is questionable the comparability of the results across MS given the huge differences in place and considering that legislative safeguards prevent DB IORPs from bankruptcy, while such risks do not arise for pure DC IORPs.	Noted.
188.	Par. 212.	We note that introducing extra work for IORPs risks driving them out of competition, especially on those markets where IORPs only cover a small part of occupational pension provisioning and especially for those entities which are rather small. Due to the increase of regulatory requirements, we notice in some MS a consolidation is taking place on the market. Not-for-profit organisations with a triangular relation putting sponsor, member and IORP close together and making use of a fully tailor-made service approach are -due to cost efficiency reasons- switched for more commercial solutions with a product approach, generating higher costs resulting in lower benefits. The first group is ruled by IORP II, the second by SII, where the latter only focuses on solvency at the level of the institution without looking at the efficiency at the level of the pension scheme nor the risk from the perspective of the member and beneficiaries. To avoid a further detrimental effect on i) pension provisioning for many members and beneficiaries and ii) on the cost efficiency of especially small and medium sized IORPs, we ask to be very careful not to introduce measures which further distort the internal market and which risk to make disappear the IORP sector in some MS.	Noted.
189.	Par. 222.	We suggest not to use the word “valid” here, because the validity of CBS comparisons can be/has been disputed (see remarks at chapter 3 and CBS).	Noted. EIOPA’s (and others’) view is that CBS based comparisons have significant validity.
190.	Par. 235.	To our knowledge, the ECB/ESRB developed the scenario for the stress test the last time in 2019. Therefore, it would be insightful to mention the ECB/ESRB although EIOPA bears responsibility.	Agreed. Par 232 mentions the cooperation with the ERSB, and the

			ST report in 2019 acknowledges contribution of ECB/ESRB.
191.	Par. 242.	The application of a one-time, permanent shock as was applied in previous stress tests implicitly also involves a lot of assumptions (i.e. that the shock is permanent and therefore persists over all future periods). Building a multi-period scenario changes those implicit assumptions, but is not fundamentally different compared to the one-time shock. Nevertheless, complexity should be avoided to keep the cost-benefit ratio in balance, especially for small and medium sized IORPs.	Partially agreed. See response to comment number 90 regarding complexity.
192.	Par. 248.	Future state of the financial position can be very relevant for some Member States but might be totally irrelevant for others given the small occupational pension/IORP sector. Also contract boundaries can determine if new/future service accruals should be considered or not. We believe this paragraph is very much applicable to IORPs from the Netherlands. But a similar exercise might be much less relevant in other Member States. Furthermore, the suggestion on how to incorporate the strategic asset allocation can be practically implemented.	Partially agreed. Relevance varies across member states, but the sector is significant in several states and even where currently small, may well increase in significance in future.
193.	Par. 270.	Price inflation is important for the purchasing power for retirees. But the focus on price inflation is maybe not optimal for all stakeholders in IORPs, especially the members. How about focus on wage inflation which is important for new accruals and pension schemes with benefits related to (final) salary? We think inflation will manifest itself as well strongly in the housing market and successively in wages. Maybe inflation of prices in these areas is realised sooner than in consumer prices. All in all, the issue of inflation risk is complex as there is not a general correct way to include inflation and this would depend on the scheme type, the pension plan and the status of the member/beneficiary.	Partially agreed. The effects of price and wage inflation on IORP, employer and member situations is complex. See also comment and response number 37
194.	Par. 288.	This paragraph needs to be more explicit; what is exactly meant?	Agreed, example has been added for clarification.
195.	Par. 297. and 299.	We believe this paragraph correctly describes the liquidity risks of IORPs.	Noted.
196.	Par. 305.	Although on first sight we think this is a logical and simple indicator that could be used for IORPs, it would be good not to draw conclusions from it quickly and firmly. Experience in the coming years should refine its interpretation and usefulness.	Agreed.
197.	Par. 313. and 320.	For Cyber Risk, we see a more qualitative approach and agree with the reasons mentioned in this paragraph which form obstacles to make it a quantitative analysis. A future quantification of Cyber risk needs to be accompanied with a correct interpretation of the measure.	Agreed.

198.	Par. 327.	We agree with the observation that labour markets risks are <u>not relevant</u> to the assessment of an IORPs financial position.	Noted.
199.	Par. 329. and 331.	We are of the opinion that too much granularity will not improve the stress test results. On the contrary, more granularities can make the stress test more cumbersome. Therefore, we would like to experience with the hybrid approach proportionate granularity levels considering the stress scenario and composition of the pension fund. See also our comments on the cost-benefit ratio, our request to focus on materiality, etcetera.	Noted. The cost and benefit of the degree of granularity will be determined per exercise and in connection with the aim of the exercise. Wherever possible, the aim will be to link up with the EIOPA data reporting templates and hybrid approaches can be envisaged that aim to strike a more proportional balance between the advantages of a granular and bucketing approach.
200.	Par. 421	We fully agree that the set of reporting templates used to collect results should (fully) take into account the existing reporting and/or disclosure requirements at the European level, namely the EIOPA's regular information requests towards NCAs regarding provision of occupational pensions information.	Noted.
201.	Par. 442.	We find it of utmost importance how EIOPA communicates the stress test results to the wider public. In the past, the wording of EIOPA press release has not always been fully in line with the stress test report itself.	Noted, please see the response to comment number 48.
202.	Chapter 8.2.1; Par. 445 and Chapter 8.3; Par. 451	<p>Disclosure of IORP names: We are not in favour of disclosing the names of participating IORPs, as we do not recognise the arguments in favour of the disclosure of the names of participating IORPs and it is not clear what would be the benefits. General EU communication might differ from national context or situation and we fear this approach might damage public opinion and lead to mistrust for members and beneficiaries concerned. It is important also to mention that the downside risks also did not materialise in the 2019 ST, but we continue to feel it aims at working towards a micro-prudential mandate. In our view the best way to disclose the achievements of the Stress Test is on a national base, without reference, neither direct nor indirect, to the list of participating schemes.</p> <p>Disclosure of individual ST results: We continue to believe that individual stress test results should not be disclosed, in particular if based on CBS. The publication of the individual names of participating IORPs may put pressure on these IORPs to publish at least parts of their stress test results, which cannot be the aim of a consolidated pan-European stress test exercise having a macro-prudential background. It may also confuse members and sponsors of the IORPs if the pan-European stress test leads to different</p>	Disagreed, please see the response to comment number 49.

		results than the national stress tests, which exist in many countries. Potential benefit reductions are based on NBS, so CBS analysis can be misleading for uninformed readers.	
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