<table>
<tr><td colspan="2">Comments Template on EIOPA-CP-15-004
Consultation Paper on
the Call for Advice from the European Commission on the identification and calibration of infrastructure investment risk categories</td><td>Deadline
09.August.2015
23:59 CET</td></tr>
<tr><td>Company name:</td><td colspan="2">IRSG</td></tr>
<tr><td>Disclosure of comments:</td><td>EIOPA will make all comments available on its website, except where respondents specifically request that their comments remain confidential.
Please indicate if your comments on this CP should be treated as confidential, by deleting the word Public in the column to the right and by inserting the word Confidential.</td><td>Public</td></tr>
<tr><td></td><td colspan="2">Please follow the instructions for filling in the template:
⇨ <u>Do not change the numbering</u> in column “Reference”.
⇨ Please fill in your comment in the relevant row. If you have <u>no comment</u> on a paragraph, keep the row <u>empty</u>.
⇨ Our IT tool does not allow processing of comments which do not refer to the specific paragraph numbers below.
o If your comment refers to multiple paragraphs, please insert your comment at the first relevant paragraph and mention in your comment to which other paragraphs this also applies.
o If your comment refers to sub-bullets/sub-paragraphs, please indicate this in the comment itself.
Please send the completed template to CP-15-004@eiopa.europa.eu, <u>in MSWord Format</u>, (our IT tool does not allow processing of any other formats).

The paragraph numbers below correspond to Consultation Paper No. EIOPA-CP-15-004.</td></tr>
<tr><td>Reference</td><td colspan="2">Comment</td></tr>
<tr><td>General comments</td><td>IRSG welcomes EIOPA’s draft advice as a step in the right direction. However, the current draft does</td><td>Public</td></tr>
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	not go far enough in order to remove the impediments to infrastructure investments for insurers. The proposed definition refers to project finance and excludes an important part of infrastructure investments. Furthermore, the capital charges are still too high for the risk posed by investments in infrastructure. The framework on criteria proposed by EIOPA appears very restrictive and might exclude even more investments. Therefore, IRSG suggests that EIOPA introduces more flexibility in the criteria. IRSG acknowledges the challenges in calibrating risk charges. However, there is sufficient evidence that the capital requirements can be lowered. This holds true for the risk charges for the individual asset classes, but should also apply in a portfolio context where low correlation factors between infrastructure and other asset classes, preferably zero, should be recognised. IRSG highlights the following regarding the definition: - The definition with reference to project finance excludes unnecessarily any infrastructure corporates. This exclusion should be avoided. - Particularly, the definition should be extended so that infrastructure projects that are pre-financed or co-financed by the European Investment Bank (EIB) fall within the proposed definition. In Section 3.1., we provide examples of high-quality transactions within the Investment Plan for Europe, that would be excluded from investment eligibility due to the overly restrictive definition proposed by EIOPA. IRSG highlights the following regarding the criteria: - There needs to be more flexibility in the area of criteria since the current list of criteria has	

	the potential of disqualifying many projects and therefore not removing impediments for infrastructure investments. - IRSG proposes the allowance of internal ratings for the determination of credit quality steps for infrastructure. - Further proposals on the criteria are included in IRSG's comments below. IRSG highlights the following regarding the calibration: - IRSG suggests that EIOPA includes a calibration proposal for the counterparty default risk module. - If a recalibration in the spread risk module is chosen, then the liquidity and credit risk approach should be combined. - The credit risk approach should not be restricted to CQS 2 and 3. - The probability of sale set at 10% in the liquidity approach is not well justified and leads to too conservative results. - EIOPA should make a separate proposal for unlisted infrastructure equity investments. - Recognition of low, ideally zero, correlation between infrastructure and other assets is key.	
Section 1.1.		
Section 1.2.		
Section 1.3.		
Section 1.4.		

Section 1.5.	The liquidity and credit risk approaches can be combined into a single approach accounting for these two risks. According to paragraph 1.21 EIOPA is still considering whether the two methods should be combined under the spread risk module. Furthermore, under a combined approach, the spreads should reduce by approximately the sum of the respective reductions for the credit risk approach and liquidity approach. IRSG supports an adjustment of the spread risk charges based on a comparison of loss given default rates in order to more adequately reflect the risk characteristics of infrastructure debt instruments, especially lower default rates, higher recovery rates and regular cash flows. Current capital charges as well as the charges currently proposed in EIOPA's draft advice make infrastructure investment uneconomical. The proposed adjustment for the spread module consists in adjusting the capital charge by the ratio of the loss-given default for infrastructure debt to the loss-given default for corporate bonds. This could be achieved through the following amendment to the Solvency II spread risk sub-module: Article 176 (Add) 4 Notwithstanding paragraph 3, bonds or loans to infrastructure shall be assigned a reduced risk factor $stress_{reduced,i}$ as follows: $$stress_{reduced,i} = stress_i \times \frac{LGD_{specific}}{LGD_{other}}$$ where: (a) $stress_i$ denotes a function of the credit quality step i and/or of the modified duration of the bond or loan *i*, as set out in paragraph 3 depending on whether a credit assessment by a denominated ECAI is available or not;	Public

(b) $LGD_{specific}$, denotes the loss-given default to the infrastructure bonds or loans;
(c) LGD_{other}, denotes the loss-given default for bonds.

For the purposes of this amendment proposal, the following could be used as an example of how to determine the LGD figures:

(1) Approximately 20%;35% for the infrastructure bonds or loans $LGD_{specific}$ based on the Moody's study "Default rates and recovery rates for project finance bank loans 1983-2008" for the infrastructure and power industry sector;
(2) 60% for the LGD_{other} as it is the expected recovery rate for a BBB bond

Alternatively, IRSG believes that the liquidity and credit risk approaches can be combined into a single approach accounting for these two risks. According to paragraph 1.21 EIOPA is still considering whether the two methods should be combined under the spread risk module. Furthermore, under a combined approach, the spreads should reduce by approximately the sum of the respective reductions for the credit risk approach and liquidity approach.

IRSG supports EIOPA's proposal that infrastructure debt investments without an ECAI rating may still qualify for a tailored standard formula treatment. This issue is important since Infrastructure debt investments are often unrated. IRSG supports EIOPA's proposal of treating qualifying unrated infrastructure debt investments equivalent to rated infrastructure debt with credit quality step 3. Moreover, both internal ratings and ECAI ratings should be allowed.

IRSG also supports EIOPA's aim to change the calibration for infrastructure equity investments. For listed equity the IRSG supports the reduced risk charge of 30 - 39%. However, a separate proposal for *unlisted* infrastructure equity is needed. The proposal should take into account the low correlation between unlisted infrastructure equity and other asset classes which the EIOPA proposal

	unfortunately lacks. The IRSG acknowledges the difficulties of finding a valid data base for unlisted equity. But it also believes that listed equities should not be used as a proxy to calibrate the risk capital charge for unlisted infrastructure equity. IRSG is concerned about the additional requirements for risk management, including the requirement on stress testing. With regard to the prudent person principle, these requirements do not seem necessary, but only cause additional efforts and costs. This is contradictory to the political objective facilitating the long term financing of infrastructure development. Therefore the impact of new requirements and whether they are really necessary should be carefully considered.	
Section 2.1.		
Section 2.2.		
Section 2.3.		
Section 2.3.1.		
Section 2.3.2.		
Section 2.3.3.		
Section 2.4.		
Section 2.4.1.		
Section 2.4.2.		
Section 2.5.		

Comments Template on EIOPA-CP-15-004 Consultation Paper on the Call for Advice from the European Commission on the identification and calibration of infrastructure investment risk categories		Deadline 09.August.20 15 23:59 CET
Section 2.5.1.		
Section 2.5.2.		
Section 2.5.3.		
Section 3.1.	IRSG believes that EIOPA should also consider the inclusion of infrastructure investments in the form of both secured and securitized corporate debt. Otherwise, the definition might miss a lot of the infrastructure universe, including projects that might receive EFSI support. The general approach of excluding "infrastructure corporates" and the narrowing of the analysis to infrastructure project finance appears unjustified. For instance corporates that focus on an operating energy grid will certainly display a different (meaning: better) risk profile than "other corporates". Further, it should be irrelevant whether or not certain market participants, such as corporates operating in the infrastructure sector, have difficulties obtaining funding. Basically, 'infrastructure corporates' – and not only single infrastructure projects - could qualify for an infrastructure asset, if the majority of their business activities indeed lie with providing infrastructure services. The delineation between such 'infrastructure corporates' and project financings in the narrow sense, requires an adequate internal risk assessment approach for such a non-routine investment. IRSG strongly believes that the risk profile of "infrastructure corporates", i.e. businesses which operate infrastructure assets, but are long dated or perpetual (i.e. not limited-life) businesses, should be included within the scope. Infrastructure project finance is only a subset of infrastructure finance and therefore of available infrastructure debt and equity. Most such corporates are limited either by licensing or permitting restrictions or by contractual covenants in their financing from engaging in	Public

	activities outside the scope of operating the infrastructure assets in question and ancillary services. Investors view the risk profile of such corporates as similar to (if not better than) the risk profile of project finance. In many respect these are mature businesses representing what were once large capital projects that now have an established track record during operations. It seems counter-intuitive to exclude infrastructure assets merely because they are a long-way into operations and not necessarily of time limited duration or fully amortising. Typically these businesses have the predictable long-dated and stable cash-flows that project finance models are seeking to replicate. Further, for a given asset and cash flows, it is often possible to structure an investment either as a corporate financing or as a project financing, in each case with a similar level of covenants, security and risk profile. Differing regulatory treatment should arise from different risks rather than form over substance. By way of illustration, investments into the following sectors and transactions would fall outside of the proposed definition but are considered by the market to be core infrastructure and could be expected to feature in a diversified infrastructure portfolio: 1. UK water sector 2. UK ports 3. European airports such as Heathrow, Gatwick, Brussels and Copenhagen 4. Utility transactions outside the UK such as Redexis Gas, Elenia, Net4Gas. For instance, the project "Redexis Gas Transmission and Distribution" (link) pre-financed by the EIB which will receive the backing of the EFSI guarantee in the context of the Investment Plan for Europe, would fall outside the proposed definition. IRSG also believes that the definitions should accommodate infrastructure debt issued by a corporate	

	that owns a portfolio of infrastructure assets (e.g. solar or wind plants or accommodation assets or other smaller bundled projects/assets) where the portfolio of assets has characteristics that are consistent with project finance (whether in construction or operation) or infrastructure corporates. It should be noted that consequential changes, not specifically highlighted in these comments, will be necessary as a result of the IRSG's comments on para 1.52.	
Section 3.2.		
Section 3.2.1.		
Section 3.2.2.		
Section 3.2.3.	The restriction of the application of credit approach to CQS2 and 3 is not indicative of the actual credit risk of infrastructure for the other CQS categories. Given the high leverage of infrastructure projects (for availability-based often above 90%), the equity share is not a relevant driver of the rating. Rather, the rating is driven by the revenue mechanism, the debt structure or cover ratios. The infrastructure debt instruments with high credit quality, i.e. CQS 0 and 1, should also be considered for better treatment than corporate bonds with the same CQS. Infrastructure debt investments are in many cases not rated by ECAI. Therefore, internal ratings in the classification of these investments should be allowed as well. Especially small and medium size projects usually have no rating although they contain low risk. The use of non-ECAI ratings should therefore be allowed.	Public

Section 3.3.		
Section 3.3.1.	For the sake of clarity, the IRSG recommends introducing the definition of an "infrastructure project entity" as well as "infrastructure operating entity": - 'Infrastructure project entity' means an entity which was created specifically to finance infrastructure assets, where the contractual arrangements give the lender a substantial degree of information over the financial performance of the entity and a comprehensive security package - 'Infrastructure operating entity': An entity which operates infrastructure assets, where the contractual arrangements give the lender a substantial degree of information over the financial performance of the entity, a comprehensive security package and the primary source of payments to creditors and equity investors is the income generated by the assets being financed; Further, it should be clarified, that infrastructure financing does not require the physical ownership of the mentioned structures, systems and networks, but also for example the concession to operate them. Finally, while the IRSG agrees that the "separation" concept does work for a project entity during the construction phase, it stresses that the concept of "privileged access" to the underlying assets and/or related cash flows may be more realistic for brownfield type of transactions. Further, a number of enhancements to the definitions are needed, for example: • More clarity about what would qualify as an "essential service" or a "public service". • It is unclear what is intended by the "substantial" degree of control that lenders need to have over assets and income.	Public

	• It is unclear why the definition should be restricted to monopolies/oligopolies, or how “limited competition” would be assessed. In the toll road example given in para 1.72, this flaw would be reflected in the level of predicted income. This requirement should instead be reworded to read as “not subject to full competition”. • A reference to “facilities” should be introduced. Otherwise the approach may result in investment in projects such as schools and hospitals not qualifying, as these may not be covered by the reference to “structures”. We seek clarification on the proposal to replace “lenders” with “investors” as stated in paragraph 1.74. The replacement would work if the “lenders” are understood to be senior debt or equity investors. However, if “lenders” is meant as “investors in a loan” then the same covenants and security package could be agreed in a project bond. In the definition of "Special Purpose Entity", consider deleting the final sentence "and the structure of which is intended to isolate the special purpose entity from the credit risk of an originator or seller of exposures", or replacing "an originator or seller of exposures" with "other parties" as the current language is a securitisation-style definition. IRSG disagrees with the exclusion of some transactions, such as a power plant providing electricity to a single factory from the scope of the infrastructure definition (as suggested in para 1.71). As noted, the risk profile may be similar (depending on the strength of the off-taker in each case) and the criteria should be based on risk rather than whether or not a corporate has "funding problems".	
Section 3.3.2.	There is a need for greater flexibility when translating the predictability of cash flows and contractual frameworks for stress analysis, since the compliance with the current rigid advice is operationally burdensome.	Public

Section 3.3.2.1.	Where a construction company or operating company is a strong credit, is it intended that there still a requirement to test the ability to meet its obligations in the event of an insolvency of such entity? If there are limited companies which can replace the contractor, it may be that a project will not qualify on this test, which seems inappropriate if this risk of contractor failure is assessed as low risk.	Public
Section 3.3.2.2.	The predictability of cash flows implicitly includes the predictability of revenues and costs (which are made up by revenues and costs) so the consideration in paragraph 1.89 appears to be unnecessary. The requirement in the advice on predictability of cash flows, 2.a.iv that *"the level of output shall be…sufficiently stable"* should focus on predictability rather than stability. Requirements for cash flows to be "sufficiently stable" could have unintended consequences for transactions with some economic/volume risk like essential infrastructure involving toll roads, airports, as well as renewables. For example, projects in some jurisdictions (e.g. UK) are supported by renewable certificates where there is implicitly more exposure to market prices. The criteria should be a long dated investment with a high degree of predictability. Predictable unstable cash flows that meet all obligations to creditors and generate returns for equity investors should not be disqualified. It is also important that the requirements on the predictability of cash flows remain non-cumulative. In particular, EIOPA should make sure merchant infrastructure (eg power plant, road) is not excluded from the scope of the definition. Regarding greenfield projects, some projects might not be initially in line with the projections, not only on the downside case but also some projects might perform better than expected. As a consequence, EIOPA should not penalise projects that have shown a better performance than expected. EIOPA's proposal does not reflect the fact that some projects might have experienced important changes during the construction or operation phase (e.g. modifications required by the	Public

procurement entity, new investments, service enhancement etc.) – which does not imply that these projects are not performing well or that the cash-flows are not predictable. These circumstances should be taken into account when assessing the predictability of cash-flows for greenfield projects.

Requirement 2(a) and (b) appear to cover the same point. In relation to 2(b), it is worth noting that market practice in some jurisdictions will mean first perfected security interests over all assets are not taken - for example, it is market practice in Spain to take promissory mortgages, rather than full perfected mortgages, due to stamp duty liabilities which arise on the grant of certain mortgages, and therefore on the current criteria project finance in Spain in accordance with current practices would be excluded.

The reference to credit rating requirements (see 2.b.iii of the advice on predictability of cash flows) should include both an ECAI rating and an internal rating, and the requirement should only apply only at the time when the investment is made.

- An internal credit assessment should also be encouraged given the aim to reduce overreliance on external ratings (as specified by rating regulation CRA III, Regulation 462/2013). An internal rating can be understood either as an internal rating of a partner company eg from a credit institution with an approved internal rating system of the internal rating or an internal rating from the investor
- A requirement of a minimum rating should only apply at the time when the investment is made; otherwise it is not clear what would happen in case an off-taker is downgraded. The risk of cliff effects should be avoided.
- The requirement of CQS 3 for the off-taker seems too restrictive. EIOPA should consider to change the requirement to CQS 4.

	• The credit rating requirements should read as follows (additions are underlined) *"...ii.i an entity with an ECAI or <u>internal rating</u> with a CQS of at least 3 <u>at the time of investment</u>"* • It needs to be ensured that the 2.d) condition in paragraph 1.89 is a requirement that does not apply for projects with a duration of less than 5 years. Furthermore, since cash flows can never be forecasted exactly, it should read as follows: "*…has been <u>reasonably</u> in line with projections.*"	
Section 3.3.2.3.	Point 2.d in the advice on contractual framework needs to be further improved to better reflect current practice and good project management. • While it is generally true that the project entity does not issue new debt, regulated assets that are remunerated on a regulatory asset base (RAB) or are similarly operating under a licensing, tariff or other governmental or regulatory system or support framework in a situation of limited competition should be allowed to raise more debt as long as it increases their RAB and therefore their remuneration. • An improvement in this requirement is also needed to allow for roll-over refinancing; for instance, in the case of the Australian PPP market tenors are typically up to 10 years compared to a much longer project life. • In light of the above, the requirement could be redrafted as follows (additions are underlined): *"…d) the covenant package to restrict activities of the project company is strong including ~~the provision that the project shall not issue~~ <u>limitations on leverage and issuance of new debt</u>"* Requirement 2(a) and (b) appear to cover the same point. In relation to 2(b), it is worth noting that market practice in some jurisdictions will mean first perfected security interests over all assets are	Public

	not taken - for example, it is market practice in Spain to take promissory mortgages, rather than full perfected mortgages, due to stamp duty liabilities which arise on the grant of certain mortgages, and therefore on the current criteria project finance in Spain in accordance with current practices would be excluded. It does not make sense that in *Requirement 2.e* regarding the contractual framework that reserve funds have a *"longer than average coverage period"*. It is more appropriate to have a coverage period consistent with market practice.	
Section 3.3.3.	See 3.2.3 above	Public
Section 3.3.4.		
Section 3.3.4.1.	The IRSG supports the suggested advice on political risk. However, many post-closing changes in rules are in the form of local regulation in addition to laws. Therefore, point b) may be redrafted: "*there is a low risk of specific changes in law and <u>regulations</u>*..." Non-EEA and non-OECD jurisdictions should be allowed as long as political risk is mitigated. • Point 2.a or the advice on political risk could therefore be redrafted to read: *"the assets of the infrastructure project entity are located in a member state of the EEA or OECD <u>or the risk is sufficiently mitigated (e.g. guarantee by an international organisation such as the World Bank or the project is insured via credit insurance).</u>"* It will be challenging to prove that there will be a low risk of specific changes to law, regulatory actions or the imposition of exceptional taxes. Requirements 2.b and 2.c should be removed:	Public

	• The requirement that there will be a low risk of specific changes to law, regulatory actions or the imposition of exceptional taxes may be challenging to prove in practice. In any case, companies are always assessing via their risk management and pillar 2 the valuation of their assets based on their allocation, their investment policies and their strategies. • There is a concern that points 2.b and 2.c of the advice on political risk may potentially exclude Italy, Spain, Czech Republic or Norway from the scope of the identification of infrastructure jurisdictions. • Excluding these countries from the scope of investment into countries with recent changes is contrary to the wider political objective, that EU countries that would benefit the most from infrastructure investment are able to do so. • It is paramount that projects are always assessed on an individual basis.	
Section 3.3.4.2.	The advice on structural requirements needs further improvement to enable the recognition that some project finance transactions use another entity as the issuer vehicle. • The present definition appears to imply that infrastructure debt can only be issued out of the operating entity, when in reality some project finance transactions use another entity as the issuer vehicle. The proof of separation of assets and cash flows should distinguish between greenfield and brownfield transactions. The following concepts could be used in order to simplify structural requirements for brownfield-type investments: - For greenfield projects, the assets and cash flows of the project company shall be considered as effectively separated from other entities if the project company is a special purpose entity that is not permitted to perform any function other than developing, owning, and operating the	Public

	infrastructure asset. - For brownfield projects, the cash-flows generated by the assets owned by the project or operating entity cannot be diverted away from the investors of the project or operating entity (both debt and equity holders) . Regarding the strength of the sponsor (point 4 in advice box in paragraph 1.98.): the IRSG suggests the following rewording: "The project or operating entity has a strong sponsor (for instance a highly reputed and experienced developer, or for operational entities solid shareholder(s) or a long and diversified list of shareholders (for listed entities))." Paragraph 2 should include "financing" of the infrastructure asset. Consider also overlap of paragraph 2 with definition of "Special Purpose Entity" (see 3.3.1 above). Requirement 4.a in the advice on structural requirements causes concern as it would be hard to support a sponsor's new ventures into a new market. At a minimum the following changes should be made to the wording: *"~~very~~ strong track record ~~and relevant country and sector~~ experience"* Requirement 4.b on the *"high financial standing"* of the sponsor is restrictive. Some equity fund sponsors for example do not have significant financial standing, given that few building contractors are rated. These entities can be accommodated by commensurately stronger security packages / structuring. Their ability and incentive for them to work through difficulties should also be considered. Equity sponsors are not necessarily industrial companies, but could be financial institutions or infrastructure funds, for that the "financial standing" concept is not very relevant. The definition and identity of the "sponsor", which is derived from the Basel II approach, which is also unclear, should be refined as well. It should in any case therefore be enlarged for example by	

	changing to "creditor".	
Section 3.3.4.3.	The requirement on amortizing debt should not be part of the framework, as considered in paragraph 1.104. There are some projects where there is a component of non-amortizing debt, where a bullet repayment may be guaranteed or adequately covered and controlled before the payment date. It is not clear how 2(b) assists in assuring the ability of the entity to repay debt, nor why 4 or 6 should be strict requirements. IRSG believes paragraph 4(c) is inappropriate. This paragraph effectively seeks to evaluate factors which may result in a sponsor providing more financial support to a project than it is contractually obliged to. This is not consistent with a limited recourse, project finance structure (the contractual obligations of which should be considered on their own merits). IRSG proposes to replace the requirement 6 in paragraph 1.107 with the following: - "For debt investment in an infrastructure project or operating entity, the underlying cash flows generated by the project or operating entity cannot be diverted away from the qualifying investors." - The exclusion of subordinated debt is not necessary as it can achieve a high level of financial soundness. - In the event that the requirement for seniority is retained, this should be without prejudice to the existence of super-senior swaps which exist in most infrastructure projects for risk mitigation purposes. It would therefore not be possible to ensure that the instrument possess the highest level of seniority at all times.	Public

Section 3.3.4.4.	IRSG notes that the criteria on construction risk seem to go further than those of rating agencies' methodologies and, in addition, the criteria for non-rated debt are significantly more restrictive than for rated debt. In point 2.d on the advice on construction risk, the monitoring and management of risks have to be done by the investors and cannot be outsourced to a third party. Investors can have support with technical advice from a third party for example. The requirement could be redrafted to read: *"when assessing whether the conditions in points a) to c) are met insurance and reinsurance undertakings shall use independent ~~thirdparty~~ technical and legal expertise."* • Section (a) of the definition of a suitable construction company shall be removed. There are other contractual arrangements with construction companies than fixed-price/date, certain turn-key contracts that adequately transfer risk and create incentives for the construction company to deliver a project on time and within the applicable specifications. • Fixed-price date-certain turn-key construction engineering and procurement contracts are not the only contractual framework for effectively mitigating construction risk. • There are also more differentiated penalty/incentive schemes (cf. NEC3 contracts) which incentivize the right behaviour, while simultaneously avoiding excessive interface problems as in the case of a fixed-price, fixed-date contract which incentivize risk transfer to subcontractors • Therefore, a) should be supplemented by: 'the infrastructure project entity enters into a fixed-price date-certain turnkey construction engineering and procurement contract with a realistic time horizon and estimate of costs **or** an incentive and risk-sharing mechanism which is based on a detailed bottom-up cost analysis and has adequate risk contingencies	Public

	In addition, the requirement that one turnkey EPC contract is entered into should not be an absolute requirement. In various sectors, one contractor does not "wrap" all construction work in this way (e.g. this is often not the case in off-shore wind transactions). Regarding paragraph 1.111 2.b) the requirement of "substantial liquidated damages" is unclear and too restrictive. It should read as "*liquidated damages <u>in line with market practices</u>*" (additions underlined). The IRSG recommends to modify the requirement in paragraph 1.111 point 2.c) in order to ensure that innovative European projects can also be included in the scope of qualifying infrastructure: "The construction company has the necessary expertise and capabilities, is financially strong~~, and has a strong track record in constructing similar projects;"~~	
Section 3.3.4.5.	The requirement for material risks related to the operation of infrastructure assets to be transferred to a operating company should be removed from the advice on operating risk. • It is frequently the case that operation and management contracts are shorter than the life of the concession, thereby putting the risk back with the project company. Therefore, it is possible that the project company conducts the operation and management of the infrastructure assets. • It is common practice for the project company to retain the risk budget for lifecycle works – and reserve appropriately rather than have a fixed price contract with a lifecycle contractor. • There are various examples where project companies, such as airports, do not sub-contract the operation. These project companies have gained a lot of experience with the operation and should be allowed to continue doing so.	Public

	The condition for the operator to have a *"very strong track record"*, as proposed in 2.c of the advice on operating risk is too restrictive and should be dropped in order to allow for innovative projects.	
Section 3.3.4.6.	The requirement to document *"fully proven technology and design"* would be difficult and exclude innovative projects. This could limit investment and innovation relating to both new and existing technologies. For example, it is not clear whether a variation on an existing design would still meet the "fully proven technology and design" requirement.	Public
Section 4.1.	1.117. The discussion about whether to apply or not the spread risk module should not be triggered by the lack of empirical spread data but rather by the appropriateness to consider spread risk coming from a prudent risk identification process. Not the availability of data but the relevance of the risk factor should be dominant. 1.118. We do not agree with EIOPA's argument for treating infrastructure projects in the spread risk module. Price quotation is a common practice amongst banks as bank loans bear mainly floating rate interest rates referenced to a short term money market index, e.g. LIBOR. This pricing practice does not express the existence of spread risk volatility of an Infrastructure project. In comparison as we have seen in the financial crisis the index, e.g. LIBOR reflect the banks' default risk which is empirically proven by the different Interest Rate Swap rates depending on the floating leg index, .i.e. EIONA, 3-M-EURIBOR etc. (please reference to the risk-free interest rate discussion) 1.119. Infrastructure debt will be most often categorized as level 3 assets. This is why there are most similarities of its balance sheet value with other level 3 assets rather than with corporate bonds which are more of level 1 or level 2 types. This is why the conclusion would support the counterparty default risk approach: A drop of value even without default does not need to be the consequence of spread movements but of impairment which is driven by default risk and does not express a different	Public

	risk aversion as a spread change. 1.120. The economic loss only materializes with default or „forced sale". Most insurers tend to place infrastructure investments into portfolios matched by stable liabilities due to the relative illiquidity of the investment. The likelihood of a forced fire sale of this asset class is very low. This is why a possible deterioration in credit quality does not cause a loss per se absent from the fear and the fact this is will be more likely (when a loss becomes really predictable the debt needs to be impaired anyhow). The argument that the risk is much higher for a sufficiently highly rated diversified pool of long-term debt is again just the repetition of the assumption that there is spread risk when focussing on the one-year horizon. The response to that argument is not to assume a trading motive and therefore consider default risk via cumulative default rates while ignoring the one-year spread risk. 1.121. This is an argument coming from a rather dogmatic approach and not a prudent approach of solvency management. If the existing approach is not appropriate for that type of risk - which is obviously the case - it is the duty of a prudent regulation to come up with alternative methodology especially when they are already applied for comparable risks. The risk here is rather to overestimate the risk and eliminate reasonable and prudent investments.	
Section 4.2.	It is worth noting that spread risk is not an integral and general part of a financial instrument, i.e. infrastructure investments but a consequence of the specific and individual asset-liability position of each insurer. This is in contrast to default risk which is a function of a financial instrument.	Public

Section 4.2.1.	1.123 There are good reasons for the non-existing or limited data on prices and spreads during the lifetime of an infrastructure financial instrument. It is neither prudent nor justified to assume that corporate bonds and infrastructure investments will have the identical risk perceptions and risk aversion. This assumption is by no means supported by statistical evidence. 1.124 This is correct. Insurers tend to have long-term liabilities and they are not in a position of a forced selling to cover liabilities which have come due. Infrastructure investments are ideal from an ALM-perspective and stabilise the solvency of an insurer. Matching liabilities with appropriate assets is a key requirement for a prudent investor. 1.126 Given the previous discussion this is a wrong approach and the basic assumption of coherence between corporate bond risk and infrastructure given spread movements is statistically not evident. 1.127 As there are no market prices - as stated previously in the paper - how can they act as an anchor?	Public
Section 4.2.2.	1.128 Advantages - bullet points: (one) is not an advantage but only a description of a fact. Cumulative default rates do also capture implicitly the risk by its marginal default rates. (two) is a complete wrong anchoring of infrastructure investments to the world of corporate bonds. There is no statistical evidence of any coherence with regard to spread risk. (three) is an argument which is not justified by any statistical analysis. This is natural as one needs to compare short-term investments with a potential risk of forced selling with investments that are not held with a trading motive and that are therefore not endangered to be sold at the 1 in 200 market price. (four) is questionable as the current proposal can heavily overestimate own funds volatility which is also not in line with the prudent person principle. Disadvantages - bullet points: (one) this is correct and the problem of the approach. (two) this is	Public

	correct as a BIS study from 2004 has clearly shown there are no similarities between infrastructure and corporate debt. (three) correct and moreover the so called liquidity risk is derived from a wrongly chosen set of corporate bonds	
Section 4.2.3.	1.131 The description of the facts is correct. But the relevant data sets for deriving conclusions should not be identical for corporate bonds and infrastructure investment. 1.132 The element of judgment is heavily coming from existing data sets on infrastructure. The so called pragmatic approach which is considered to be backed by studies is suffering from the unjustified assumption of coherence between corporate bonds and infrastructure investments. There is no study on infrastructure which could back the pragmatic approach of EIOPA.	Public
Section 4.2.4.	For the liquidity approach, a probability of sale of 10% is assumed. IRSG would argue that this probability should be set at or near 0% given that insurers are usually able to avoid forced sales, ie especially when it is not possible to receive an appropriate price in the market. Based on the known illiquidity of this asset class, insurers typically only include infrastructure assets into portfolios which match liabilities with very low lapse risk. Also, insurers typically purchase a mix of assets to be matched against a portfolio of liabilities. Infrastructure assets, typically being amongst the lowest of secondary market liquidity, will be the “stickiest” asset class e.g. the last asset class to be chosen to be sold due to the long time required to sell the asset to another buyer due to the complexity of the documentation.	Public
Section 4.2.4.1.	1.133 This might be right but is not of relevance where assets are not held with a trading motive as for most infrastructure investments.	Public

Section 4.2.4.2.	1.134 This is correct and there is a difference between long-term holding and holding-to-maturity. 1.135 It is not about a reduction of spread risk but about the inappropriateness to consider spread risk at all for an asset class that is not held for the longer term. 1.136 The rationale applies for all illiquid assets that are held for the long term. Changes in the asset-liability position can be managed properly when considering both sides simultaneously.	Public
Section 4.2.4.3.	1.146 Correct - but only for a one-year horizon given the logic of the decomposition of the overall interest rate. Instead one needs to consider either the cumulative default rates or the marginal default rates over the maturity of the asset. 1.147 This approach is welcome and a first but not final step to achieve more independence from Rating Agencies. 1.148 It is not practical to have a sliding scale of probability of forced sales as it is very hard to calibrate.	Public
Section 4.2.4.4.	1.149 Even under the matching adjustment the risk perception is not correct and should focus on pure default risk. 1.150 When focusing on default risk only this is a logical consequence.	Public
Section 4.2.4.5.	1.151 See the arguments in above comments with respect to the logic of risk when dealing with matched position or positions with a zero probability of forced sales.	Public
Section 4.2.5.		

Section 4.2.5.1.	The restriction of the credit approach to CQS2 and 3 is restrictive, and is not indicative of the actual credit risk of infrastructure for these CQS categories. For example when looking at Moody's "Infrastructure Default and Recovery Rates, 1983-2014" study shows that there is a lower Probability of Default and Loss Given Default and lower rating volatility for all rating classes. 1.152 Reduction of spread risk charge is not an objective per se but a consequence of the appropriate risk identification of the asset-liability position of an insurer. Changing default rates shall be considered by (i) applying marginal default rates over the maturity of the asset and (ii) a permanent evaluation of the applicable marginal default rate term structure. 1.153 This is an assumption and cannot be commented with respect to capital charge calibration but is meaningful from a prudent portfolio management perspective. 1.154 If the decomposition of the overall spread is properly done why should there be a reduction factor? The correct credit risk component is already a result of that decomposition? 1.155 Is this assumption based on the skepticism that the proposed idea might be not applicable at the edges of the credit risk spectrum due to the non evident reference to corporate risk?	Public
Section 4.2.5.2.		
Section 4.2.5.3.	1.159 It is about finding a proper calibration of infrastructure itself and not to compare it with corporate risk. 1.160 This is an arbitrary assumption with no disclosed statistical evidence.	Public

Section 4.2.5.4.	1.162 The acceptance of non rated debt in general is welcome but a lot more is to be done to achieve independence from rating agencies as required.	Public
Section 4.3.1.		
Section 4.3.2.	1.164 The main disadvantage is that due to the individual characteristics of each infrastructure project one cannot assume that secondary values will overtime vary with primary value of future projects. This is why that approach is not valid for calibrating spread risk - as already concluded by BIS in its study from 2004.	Public
Section 5.1.	IRSG recommends that infrastructure debt should be treated under the counterparty default module to reflect the real risk to which companies are exposed. This is based on the more stable loss history of the asset class and its higher historical recovery rates compared to other asset classes, particularly since infrastructure assets are almost always senior in terms of security, as compared to other corporate bonds which are not always senior and therefore have a more volatile and lower recover rate. IRSG notes that EIOPA have not made a proposal for a review of infrastructure debt under the counterparty default risk module, despite that this approach was requested in the Call for Advice from the European Commission, and the political interest in this solution based on the regulation for the European Fund for Strategic Investments (2015/017). Recital 41 of the regulation references lower default and recovery statistics (i.e. the counterparty default module):*"In light of the general aim of ensuring a regulatory environment conducive to investments, and in light of the fact that infrastructure assets have a strong default and recovery record and that infrastructure project*	Public

finance can be seen as a means of diversifying institutional investors' asset portfolios, the treatment of infrastructure investments, as currently provided for in relevant Union prudential legislation, should be re-examined."

IRSG would like to propose the following approach to calibrate of infrastructure debt under the counterparty default risk module, where risk charges are distinct for infrastructure debt investments depending on their rating and the following duration buckets:

- 1st bucket: duration of up to 5 years
- 2nd bucket: duration of more than 5 and up to 10 years
- 3rd bucket: duration of more than 10 years
- Total loss due to defaults is calculated based on the combination of probability of default (PD) and recovery rates (RR).
- The capital requirement for infrastructure is calculated with the formula:

  〖SCR〗_infrastructure=PD x (1-RR) x Exposure
- A recovery rate (RR) of 50% is assumed. This recovery rate is conservative, given that based on CRA default and recovery data recovery rates for infrastructure range between 60% and 80% and the most common recovery rate is 100%.
- It is assumed that default rates follow a lognormal distribution, in order to use the available information to calculate the 1 in 200 level of defaults needed for the Solvency II SCR calibration. The parameters of a log-normal distribution for each duration bucket and credit quality step are derived from data from Moody's.
- For unrated debt it is proposed to use an approach similar to the treatment for BBB CQS.

The above proposal uses a number of prudent choices and results in capital charges which are significantly lower than the ones proposed by EIOPA. The prudent choices include:

	o The assumed recovery rate of 50% is conservative, given that recovery rates for infrastructure range between 60% and 80% and the most common recovery rate is 100%. o Data on default rates from corporates were used instead of data from infrastructure. o The data consists of cumulative default rates and not annualized default rates (which are lower). o Duration buckets with a conservatively chosen time horizon are proposed and each bucket comprises of cumulative default rates. If, however, infrastructure debt is considered within the spread risk module, spread calibrations would have to be reduced by a significantly larger factor. 1.166 A capital charge based on default rates and loss given default rates only do vary with the maturity of the asset as on shall consider the term structure of marginal default rates. 1.167 It is not a disadvantage that the calibration is not anchored to market prices as they are not relevant when having a proper risk identification. That argument is (as with like many paragraphs in that paper) a result of the not justified assumption that spread risk is an effective risk factor of that investment - which is not with a zero probability of forced sales. 1.168 It is hard to believe that a prudent risk and solvency management of insurers do not measure risk over one year. 1.169 There is no underestimating if the valuation in the accounts is properly done. There are appropriate accounting rules in place to capture that effect.	

- The following 1 in 200 **default rates are derived**:

Duration bucket / Credit quality step	**0**	**1**	**2**	**3**	**4**	**5 and 6**
Up to 5 years	3.4%	3.4%	3.4%	8.8%	31.8%	50.5%
More than 5 years and up to 10 years	3.9%	3.9%	7.3%	13.3%	43.0%	62.3%
More than 10 years	5.9%	8.1%	11.7%	18.4%	61.5%	90.6%

- The following capital charges are derived:

Duration bucket / rating	**AAA**	**AA**	**A**	**BBB**	**BB**	**B**
Up to 5 years	1.70%	1.70%	1.70%	4.40%	15.90%	25.30%
More than 5 years and up to 10 years	2.00%	2.00%	3.70%	6.70%	21.50%	31.20%
More than 10 years	3.00%	4.10%	5.90%	9.20%	30.80%	45.30%

The above figures assume a zero probability of sale of the assets matching a pool of liabilities. Although IRSG believes that the probably of sale is very low, realistically it is not zero. IRSG would

	recommend a very slight increasing of the above capital charges to reflect a probability of sale of between 0 to 5%. IRSG does not have data to support this assumption. However, given the prudence required by undertakings in the purchase of long term illiquid but stable assets to match long term liability portfolios with very low lapse risk, it is highly unlikely that insurers who do prudent matching will need to sell infrastructure assets until their maturity, irrespective of the levels of interest rates. Stated another way, if EIOPA proceeds with using a credit spread risk approach, IRSG strongly supports using a combination of the two approaches stated in consultation sections 1.19 and 1.20, which will result in capital charges lower than in Table 2, but slightly higher than in the table immediately above. IRSG recommends using a probability of sale assumption less than 10% based on the prudential person principal that will govern the decision making process of undertakings.	
Section 5.2.	1.171 This argument is not valid when valuing the positions properly in the accounts.	Public
Section 5.3.		
Section 6.1.		
Section 6.2.	The approach taken for the calibration of unlisted equity infrastructure is concerning, since the IRSG believes the prices for listed equities cannot be used as a proxy, especially not on the correlation side. The stock market is sensitive to macroeconomic and political factors, and cannot be used as a proxy to look at unlisted infrastructure equity. 1.180 This approach is heavily if not exclusively dependent on the right choice of proxies. 1.181 Those proxies except the third bullet point might be not in line with the eligibility criteria of infrastructure investments as they do not represent projects only but operating companies which	Public

	have a (completely) different risk profile.	
Section 6.2.1.	1.183 The conclusion is heavily influenced by the definition of proxies. As proxies seem to be operating companies also the outcome is not surprising. But the IRSG believes this is not relevant for project type equity.	Public
Section 6.2.2.		
Section 6.2.3.	1.192 Another limitation of the interpretation is whether returns of equity of an operating company investing into equity of project SPV are suitable proxies when having run through a risk inventory exercise of the proxies.	Public

Section 6.3.	There should be clear distinction between listed and unlisted equity infrastructure investments. The returns of unlisted equity infrastructure investments are less volatile and uncorrelated with other asset classes. Unlisted equity should therefore be included in a new sub-module with a 22% charge. The IRSG believes that the zero correlation between unlisted infrastructure equity and other equity should be recognised in the definition of an unlisted infrastructure equity risk sub-module. 1.195 IRSG supports this as project SPVs especially do not bear strategic management risk as corporates (operating companies) do. A consequence of it is that equities of operating companies do normally trade above the pure NAV in contrast to equity of project SPVs. 1.197 This assumption is not evident from statistical analysis. 1.198 To which losses EIOPA refers here - marked-to-marked losses or realized losses?	Public
Section 7.1.		
Section 7.2.	1.202 The advice should properly take into account the existing requirements under pillar 2 for investments. 1.203 The stipulation of steps and procedures in relation to infrastructure investments should be in accordance with the prudent person principle. 1.204 See comment 1.203. Costs should be capped to those which are needed to set up an appropriate risk management framework for infrastructure investments within the existing Solvency II system - a main focus here is to avoid cost for external ratings and/or for plausibility checks of external ratings.	Public

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Section 7.3.	There is no justification for setting elements of risk management, as the Prudent Person Principle is presently the best practice. Legislating for best practice would prevent future improvements. 1.207 Those specifications are welcome as they are in line with the prudent person principle and with all other asset classes. 1.208 Referencing infrastructure investments to the Guideline on non-routine investment activities seem only appropriate as long as those investments are non-routine for an undertaking. Once they are routine investments they shall be treated like all other routine investments. 1.212 There are alternatives to requiring an external audit, e.g. stressing the financial model 1.215 Work-out strategies are in principle superior to forced sale strategies. Therefore it is prudent to incentivise work-outs and disincentive forced sales.	Public

Section 8.	In the asset class for qualifying infrastructure, guarantees by regional governments and local authorities (RGLA) should be treated as central government exposures, given their lower risk. • Guarantees provided by the central government are assigned a risk factor of 0% for SCR spread risk, concentration risk and counterparty default risk under the Solvency II Delegated Acts. From a risk perspective, there should be no difference between a guarantee provided by a central government or RGLA. In some member states regional governments possess more fiscal powers compared to the central government. • In the event of a default a clear guarantee ensures repayment by the RGLA, thereby exposing Insurance companies directly to the creditworthiness of the RGLA. The lower credit risk of the RGLA should therefore be recognised in prudential regulation. • For the counterparty default module, article 199 point 11 of the Delegated Acts ensures that RGLA guarantees are treated as central government exposures. Not recognising RGLA guarantees within qualifying infrastructure would lead to an inconsistent treatment in comparison to the counterparty default module. Therefore the IRSG propose to add the following paragraph within the asset class of qualifying infrastructure: <u>*“Exposures which are fully, unconditionally and irrevocably guaranteed by counterparties listed in the implementing act adopted pursuant to point (a) of Article 109a(2) of Directive 2009/138/EC shall be treated as exposures to the central government.”*</u>	Public
Annex I		
Annex II		

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Section 1.		
Section 2.		
Section 2.1.		
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Section 3.1.		
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Section 3.2.1.		
Section 3.2.2.		
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Section 4.1.		
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Section 4.4.		

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Section 4.5.		
Section 5.		
Annex IV		
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