



EIOPA-16-490

30 June 2016

**Final Report on Consultation Paper no.
16/004 on the request to EIOPA for
further technical advice on the
identification and calibration of other
infrastructure investment risk categories,
i.e. infrastructure corporates**

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1. Introduction

1.1. Background

- 1.1. On 14 October 2015, the European Commission issued a call for advice¹ to EIOPA for further technical advice on the identification and calibration of infrastructure investment risk categories in Commission Delegated Regulation (EU) 2015/35 supplementing Directive 2009/138/EC (Solvency II) (hereinafter "Delegated Regulation").
- 1.2. This request followed a previous call for advice on the topic of infrastructure, the response to which was submitted to the Commission on 29 September 2015 (hereinafter "first call for advice"). In that response, EIOPA proposed a more granular treatment of debt and equity investments in qualifying infrastructure projects, which are financed using a special purpose vehicle (SPV) structure.²
- 1.3. Based on EIOPA's advice, on 30 September 2015 the Commission adopted an amendment to the Delegated Regulation.³
- 1.4. With the latest call for advice, EIOPA was asked to further consider the evidence regarding the treatment of infrastructure corporates.

1.2. Scope of the call for advice

- 1.5. The Commission requested that EIOPA's advice cover the following main tasks:
 - Define criteria or classifications to identify safer debt or equity investments in infrastructure corporates with or without an External Credit Assessment Institution (ECAI) rating.
 - To advise on appropriate calibrations for such investments:
 - Either based on the Delegated Regulation amendment of 30 September 2015 (i.e. the first call for advice).
 - Or based on new asset categories.
 - To provide a rigorous framework for insurers performing due diligence.
- 1.6. The Commission also requested that the advice include a cost-benefit analysis.

¹ [Call for advice on infrastructure corporates](#)

² [Infrastructure final advice September 2015](#)

³ [Amendment to Delegated Regulation](#)

1.3. Process followed by EIOPA

- 1.7. Overall EIOPA sought to strike an appropriate balance between timely delivery and adequate consultation with stakeholders. EIOPA was aware of the importance of this work in relation to the Commission's Action Plan on Capital Market's Union (CMU). At the same time, the work conducted on infrastructure, prior to this call for advice, had not focused on corporates. EIOPA therefore considered that it was important to engage further with stakeholders in order to identify all potentially relevant quantitative and qualitative information, as well as to benefit as much as possible from their expertise. EIOPA was also conscious of its duty to conduct open public consultations on its work. Bearing these considerations in mind, EIOPA proposed to deliver its final advice to the Commission by the end of June.
- 1.8. As a first step, between 19 November and 10 December EIOPA issued a call for evidence to request information on the nature and risk profile of infrastructure corporates and in particular any empirical evidence regarding their performance. As part of their responses, some stakeholders provided specific drafting suggestions regarding how the qualifying criteria for infrastructure projects would need to be amended to allow suitable corporates to qualify.
- 1.9. EIOPA discussed the issues with its Insurance and Reinsurance Stakeholder Group (IRSG). EIOPA also held a Roundtable event on 12 February with key stakeholders representing insurers, asset managers, and industry associations to discuss the approach and initial proposals. Following this on 15 April, EIOPA published a consultation paper⁴ (CP), setting out the analysis performed and draft findings and proposals.
- 1.10. Some further analysis was necessary on specific topics following the publication of the CP, for example regarding the analysis of bond spreads for longer maturities. Nevertheless, since EIOPA was able to present the general approach, calibration methodology and proposed qualifying criteria for public consultation, EIOPA considers the consultation to have a valuable exercise.
- 1.11. EIOPA had envisaged holding another event with stakeholders following the public consultation. However, this was not possible since it was necessary for EIOPA to prioritise the further analysis regarding infrastructure corporate debt, as well as analysis of some data provided by stakeholders during the public consultation, in order to meet the deadline of the end of June.

⁴ [EIOPA-CP-16-005](#)

1.4. Summary of proposals in the consultation paper

1.12. Based on the analysis conducted prior to April the following preliminary results and conclusions were presented for public consultation:

- To recommend changing the scope of the infrastructure project asset class as defined currently in the Delegated Regulation. This is principally to remove the restriction to project financing via a single SPVs and making some amendments to the security package requirements. This is intended to allow “project-like” corporates to qualify for the same treatment as projects (e.g. a 30 % risk charge for equity), where the risk is equivalent.
- To recommend a risk charge of 36% for listed and unlisted equities in infrastructure corporates, provided that a number of qualifying criteria are met. It was also proposed that such corporates would need to comply with some of the risk management requirement applicable to projects.
- The spreads of selected infrastructure corporate bonds were less volatile than those of non-infrastructure corporate bonds used for comparison. However, it was stated that further analysis is needed before a sound judgement can be made whether the spread risk of infrastructure corporate debt differs from the one implied by the standard formula.

1.5. Structure of the Final Report

1.13. This final report should be read in conjunction with the CP, which provides more details on the rationale for some parts of the advice. This document presents the text of EIOPA’s final advice, the main feedback provided by stakeholders to the CP, the results of further analysis conducted by EIOPA, and the conclusions EIOPA has reached for each of the topic areas in turn (Chapters 2, 3 and 4). Annexes I to V provide additional information on the analysis conducted of the risk profile of infrastructure debt investments. The Impact Assessment is included as Annex VI. Annex VII provides a full list of all the comments received to the CP and EIOPA’s response to them.

1.6. Next steps

1.14. The advice will be submitted to the European Commission by the end of June 2016.

1.7. Acknowledgment

1.15. EIOPA would like to thank the Insurance and Reinsurance Stakeholder Group (IRSG) and all the participants to the public consultation for their comments on

the draft advice. The responses received have provided important guidance to EIOPA in preparing a final version of the advice for submission to the European Commission. All of the comments made were given careful consideration by EIOPA. A summary of the main comments received and EIOPA's response to them can be found in Chapters 2, 3 and 4 and a full list of all the comments provided and EIOPA's responses in Annex VII.

1.8. IRSG opinion

1.16. The IRSG opinion as well as the particular comments can be found on the EIOPA website.⁵

⁵ <https://eiopa.europa.eu/about-eiopa/organisation/stakeholder-groups/opinions-feedback-from-the-eiopa-stakeholder-groups>

2. Recommendations regarding the calibration of equity and debt investments in infrastructure corporates

2.1. Final advice

1.17. The following advice is based on the assessment of the available evidence summarised in sections "Conclusions: equity calibration" and "Conclusions: debt calibration".

Debt investments

EIOPA has not found sufficient evidence to conclude that the spread shocks for infrastructure corporates other than "project-like" corporates should be lower than currently foreseen in the Delegated Regulation.

Equity investments

EIOPA recommends an equity risk charge of 36 % for well-diversified portfolios of infrastructure equity investments in infrastructure corporates that meet the requirements set out in Chapter 3, sub-section "Infrastructure corporates".

EIOPA recommends for these equities a correlation coefficient with equity type 1 of 75 % and with equity type 2 of 100 %.

2.2. Summary of main stakeholder comments on the calibration of debt and equity investments in general

Use of market prices

1.18. Some stakeholders argued that the results of the analysis based on market prices are not representative for the risk of private, untraded investments. EIOPA does not agree for the following reasons: Solvency II requires a market (consistent) valuation of investments. Consequently, depending on its characteristics the fluctuations of their values in the Solvency II balance sheet may display certain similarities to the behaviour of quoted prices for other infrastructure investments. Moreover, it would seem counterintuitive if the capital requirement for an entity changed whenever it is listed or taken private. The question whether the entities used for the analysis are sufficiently similar to the possible investments by insurers in infrastructure corporates is discussed below.

Consideration of longer holding period

- 1.19. Stakeholders argued that infrastructure investments are held over longer periods than other investments. They consider therefore that short-term market fluctuations are not the right basis for measuring their risk.
- 1.20. EIOPA already considered the pros and cons of this argument in its work on infrastructure projects. EIOPA came to the conclusion that recognising the benefits of longer holding periods is a possible option (so called "liquidity approach" for infrastructure project debt) but from a prudential perspective not the preferable one.⁶
- 1.21. Solvency II measures risk in terms of the fluctuations of basic own funds over a twelve month period. These own funds are determined on the basis of market (consistent) valuations. Using other measures of risk could mean that changes in the level of own funds are not fully captured. If the difference in the measured risk and the investment volumes were material this could result in non-compliance with the requirement of Article 101(3) of Directive 2009/138/EC (hereinafter the "Solvency II Directive").
- 1.22. Therefore, EIOPA considers the approach taken in the CP to analyse the risk of infrastructure corporate investments as adequate.

Representativeness of entities used for analysis

- 1.23. A number of stakeholders argued that the entities EIOPA used for its analysis are not representative for the private deals that insurers are mostly interested in.
- 1.24. As mentioned in the CP, EIOPA is aware of the limitations that the chosen approach has. Nevertheless, EIOPA continues to believe it is the most appropriate approach. The entities analysed derive a large portion of their revenues from activities that are regulated or protected by some barriers to entry (i.e. they possess properties that have been put forward by stakeholders as being reasons why private deals exhibit a better risk profile). At the same time, they benefit from a degree of diversification that will normally not be achieved in the private deals stakeholders mentioned.
- 1.25. Therefore, EIOPA considers that stakeholders have not demonstrated why the risk profile of private deals should be meaningfully better than the entities EIOPA has analysed.
- 1.26. Stakeholders suggested as alternatives to the approach taken to use the infrastructure project calibration or to take into account information on cash

⁶ See EIOPA (2015): Final Report on Consultation Paper no. 15/004 on the Call for Advice from the European Commission on the identification and calibration of infrastructure investment risk categories, p. 23.

flow stability. The first alternative is discussed in the section below “Different treatment of infrastructure corporates and infrastructure projects” within Chapter 3. Data on cash flows can be useful as additional evidence. However, it is not clear to what extent more stable cash flows translate into lower volatility of market prices and how this should be calibrated.

- 1.27. In summary, EIOPA is aware of the limitations that the approach chosen has, but considers it the most appropriate given the disadvantages of the alternatives.

2.3. Further analysis and stakeholder feedback concerning the risk profile of equity investments

Introduction

- 1.28. Stakeholders named listed infrastructure funds and infrastructure equity indices that they considered relevant. In addition they identified telecom companies that were deemed to be relevant examples for “core” infrastructure telecom corporates. EIOPA analysed this evidence.
- 1.29. EIOPA also continued its analysis of the dependencies between the prices of infrastructure corporate equities and other equities. Another area was the potential impact of introducing a separate risk charge for qualifying infrastructure corporate equities on the adequacy of the type 1 and type 2 equity charges.

Analysis of listed infrastructure funds

- 1.30. Stakeholders have emphasised the greater control over the infrastructure entity as a crucial advantage of non-traded private transactions. As EIOPA stated in the CP, a possible way to understand the effect of this control is to analyse the market prices of listed infrastructure funds (where the underlying assets are not traded).
- 1.31. However there are inherent limitations in this approach due to the potential lack of adequate diversification within each portfolio, and the fact that individual assets in particular funds may also not meet all the qualifying criteria recommended by EIOPA.
- 1.32. Prior to the publication of the CP, EIOPA had identified two such listed infrastructure funds. In response to the consultation, stakeholders named 14 infrastructure equity funds that they considered to be relevant for EIOPA’s analysis. This included also the two funds that EIOPA had already identified. EIOPA was not able to retrieve data for four of the funds. For six of the remaining funds no price information before the middle of 2008 is available. This means there is not sufficient price history to draw conclusions on their

behaviour under stressed conditions. Table 1 shows for each of the four remaining funds the historical 99.5 % Value-at-Risk (VaR) of annual returns based on the available historical price information.

<i>Fund</i>		1	2	3	4
<i>Empirical % VaR</i>	99.5	38%	11%	23%	25%

Table 1: Results of analysis of listed infrastructure funds

1.33. The result for fund No. 1 is similar to what could be expected based on the calibration for type 1 equities. Funds No. 2 and 3 are mostly concerned with buying and holding the equity and subordinated debt of PFI project companies in the UK and were included in the project equity portfolio that EIOPA analysed in its first call for advice on infrastructure. The corporates that qualify under the “wider” infrastructure corporate criteria most likely will differ substantially from the entities in these two funds. While these results show how well certain infrastructure project funds performed, they are not considered very instructive in terms of the adequate equity risk charge for “wider” infrastructure corporates. Fund No. 4 was also analysed in EIOPA’s previous advice, since a part of its portfolio consists of projects.

Analysis of additional existing infrastructure equity indices

1.34. In section 6.1 of the CP, EIOPA analysed the performance of equity indices both for the infrastructure sector as a whole and individual sectors. During the public consultation, stakeholders suggested as additional evidence a number of other infrastructure equity indices. EIOPA looked at the behaviour of these indices and the analysis is considered to confirm the results of the previous work.

Analysis of telecoms companies provided by stakeholders

1.35. Various respondents to the CP stated the names of some telecom companies that they considered to be examples of relevant infrastructure entities. In total around 20 companies were cited. Of these companies, EIOPA was only able to identify potentially relevant data for four corporates, some listed in the US. These companies have not performed very well and the 99.5 % 12-month VaR figures exceed 70 %. The other companies cited were either not listed or had only been listed very recently.

Correlations

1.36. In the CP, EIOPA stated that it would conduct further analysis of the dependency between qualifying infrastructure corporate equities and other equities. EIOPA looked at tail-correlations, correlations on a weekly and

monthly basis. In addition, correlation parameters were derived that – based on historical price movements - would have resulted in sufficiently high capital requirements for a model portfolio.

- 1.37. The different methods produce a range of results. However, it is obvious that large decreases in the proxy used for type 1 equities occur almost simultaneously with large losses in the infrastructure corporate equity portfolio.
- 1.38. The overall analysis indicates that the diversification potential is limited. On this basis, EIOPA recommends for qualifying infrastructure corporate equities a correlation of 0.75 with type 1 and 1 with type 2 (i.e. for the purpose of aggregation qualifying infrastructure corporate equities would be treated like type 2 equities). This has also the advantage of being consistent with the approach chosen for qualifying infrastructure project equities.

Impact of infrastructure corporate equity asset class on risk charge for type 1 and type 2 equities

- 1.39. The recommended differentiated treatment for qualifying infrastructure corporate equities potentially has an impact on the adequacy of the existing equity shocks for type 1 and type 2. EIOPA recognised this point in the Section “Analysis of Impacts: policy issue 1” within the Impact Assessment put for public consultation.
- 1.40. Following the publication of the CP, EIOPA conducted some further analysis to try to quantify the impact and this is included within the revised Impact Assessment (see Annex VI). The conclusion of the analysis is that the impact is considered to be negligible even if the proportion of qualifying infrastructure corporate equities within the total equity asset class is assumed to be quite large (e.g. 5 %).

2.4. Conclusions: equity calibration

- 1.41. Based on the results presented in the CP and the further analysis EIOPA recommends the introduction of an equity risk charge of 36 % for investments in infrastructure corporate equity that meet the requirements set out in Chapter 3, sub-section “Infrastructure corporates”. For the purpose of aggregation qualifying infrastructure corporate equities should be treated as type 2 (i.e. a correlation of 0.75 with type 1 and 1 with type 2 should be used). Given the proximity of the proposed 36 % to the 39 % equity risk charge for type 1 equities EIOPA did not look into the question whether a different symmetric adjustment than for type 1 or type 2 equities would be advisable.

2.5. Further analysis of the risk profile of debt investments

Introduction

- 1.42. EIOPA continued the work of analysing the spread behaviour for a portfolio of selected infrastructure corporate bonds as described in section 7.2 of the CP using data sourced from Datastream from Thomson Reuters. Stakeholders also named additional bonds and corporates that they deemed candidates for an inclusion in the portfolio.
- 1.43. One element of the analysis was to compare the spread behaviour of the infrastructure portfolios with that of portfolios of non-infrastructure corporate bonds with the same rating.
- 1.44. Another aspect of the analysis was to compare the observed spread behaviour for the infrastructure corporate portfolios with the behaviour to be expected based on the standard formula Solvency Capital Requirement (SCR) calibration.
- 1.45. The limited number of bonds available, though, meant that an analysis with the level of granularity of the standard formula was not possible. As a result, EIOPA decided to use different approaches to provide an indication of how the spread volatility compares with the standard formula. Due to the limited number of bonds available it was also not possible to differentiate between secured and unsecured bonds.
- 1.46. Based on the number of bonds the highest weight should be assigned to the results for A-ratings. The number of AA- and BBB-rated bonds available during the financial crisis is limited.
- 1.47. The analysis of the portfolio of selected infrastructure corporates was complemented by an analysis of the behaviour of the Markit iBoxx GBP Utilities index for maturities between 1 and 5 years.

Analysis of the spread behaviour for a portfolio of selected infrastructure corporate bonds

Additional bonds and companies provided by stakeholders

- 1.48. EIOPA is very grateful for the information provided by some respondents to the CP on the bonds and corporates they considered relevant for the analysis. A considerable part of these bonds or corporates had already been included in the portfolio of selected infrastructure corporates. Thus, the limited number of additional bonds is unlikely to alter the results substantially.

- 1.49. A meaningful number of bonds suggested by stakeholders were denominated in British Pound (GBP). The analysis that EIOPA performed for the Markit iBoxx GBP Utilities index does not suggest that the behaviour of GBP-denominated bonds is materially different from EURO-denominated bonds. Even if this was the case it would be difficult to reflect in the standard formula calibration (i.e. in the form of a different treatment of GBP and EURO denominated bonds).
- 1.50. Even with the suggested additions the number of bonds with longer maturities is still very limited. Moreover, there is significant overlap between the issuers of longer dated bonds denominated in GBP and those denominated in EURO.
- 1.51. In view of the above, EIOPA decided that it was not necessary to repeat the analysis to include the additional bonds provided (both those denominated in GBP and EURO) in the portfolio of selected infrastructure corporate bonds, or to create a separate portfolio of infrastructure corporate bonds denominated in GBP.

Methodological aspects

- 1.52. This section describes some methodological considerations before the results of the analysis are set out in the following sections.

Smoothing

- 1.53. The CEIOPS advice on the spread calibration looked at three-month average spreads. Using averages may eliminate potentially existing idiosyncratic distortions, but it has also limitations. One of them is, for example, that the determination of the period over which spreads are smoothed must necessarily include an element of judgement. As the conclusions are similar for smoothed and unsmoothed spreads, EIOPA has decided to present the results for both approaches.

Calculation of confidence intervals

- 1.54. EIOPA used the bootstrapping⁷ approach to derive as additional information the 95 % confidence intervals for the spreads. **This provides a measure for the uncertainty with respect to the point estimate for the 99.5 % Value-at-Risk.** The bootstrapping technique aims to overcome the limitation of a small sample size but relies on a large number of random selections. As a consequence, the range of VaR figures from the bootstrapping exercise may be different from the (unobservable) actual 99.5% VaR required by the standard formula.

⁷ Bootstrapping is a [resampling](#) technique used to obtain estimates of summary statistics. The random sampling is processed with replacement, providing an estimation of the sampling distribution of the desired statistic. The sampling distribution allows for assigning measures of accuracy, e.g. confidence intervals, to the sample estimates. Based on the empirical distribution function of the observed data, the bootstrapping algorithm constructs a large number of resamples with replacement of the observed dataset.

Results of the comparison of infrastructure and non-infrastructure

- 1.55. One element of the analysis was to compare the spread behaviour of the infrastructure portfolios with that of portfolios of non-infrastructure corporate bonds with the same rating. Further details on the composition of the portfolios can be found in Annex I.
- 1.56. In the analysis presented in the CEIOPS advice on the spread calibration the proportion of financials in the portfolios was limited to one third. For this reason EIOPA also applied the same restriction on the proportion of financials to the portfolio of non-infrastructure bonds when performing the comparison of the spread behaviour.
- 1.57. The empirical Value-at-Risk of the spreads for the portfolios of infrastructure and non-infrastructure (with and without the limitation on financials) corporate bonds per rating class are set out in Annex II.
- 1.58. **The comparison shows that the spread volatility for the infrastructure corporates was around 25 % lower for AA-rated and more than 50 % lower for A- and BBB-rated bonds. Based on the number of bonds the highest weight should be assigned to the results for A-ratings.** The differences are more marked, when the comparison is made to the non-infrastructure portfolio without a limit on the proportion of financials.⁸ **One point to have in mind is that no adjustment was made for differences in maturities.**

Results of the comparison with the standard formula

- 1.59. Another aspect of the analysis was to compare the observed spread behaviour for the infrastructure corporate portfolios with the behaviour to be expected based on the standard formula calibration.
- 1.60. The spread shocks in the standard formula differ with modified duration and rating. Consequently, the most straightforward way to make the comparison would be to form sub-portfolios of the infrastructure corporate bonds for all rating and modified duration "bands" in the standard formula and to calculate the spread volatility for each of these "bands".
- 1.61. However, due to the limited number of infrastructure bonds available an analysis of spread behaviour using the same level of granularity that exists in the standard formula was not possible.

⁸ Similar results are obtained when comparing the empirical Value-at-Risk for the Markit iBoxx EUR Utilities and Markit iBoxx GBP Utilities indices with the figures for the comparable corporate index as described in paragraphs 1.99 to 1.101 of the CP. The comparable corporate indices are constructed to have a similar composition in terms of ratings and maturities.

- 1.62. As a result, EIOPA decided to use different approaches to provide an indication of how the spread volatility compares with the standard formula. These approaches and the results are described below.

Comparison for all maturities

- 1.63. While it is necessary to take differences in maturities into account it was deemed to be useful as a first step to look at the results for all maturities combined. Annex III sets out the empirical Value-at-Risk for the infrastructure corporate sub-portfolios with ratings AA, A and BBB of all bonds, as well as the 95 % confidence interval derived based on the bootstrapping technique. When interpreting the results one has to bear in mind that the number of bonds for AA and BBB is limited.
- 1.64. A straightforward approach is to compare the results with the spread shocks that the standard formula assumes for short modified duration up to 5 years.
- 1.65. Not taking into account different maturities is of course a simplification. Yet, the comparison provides useful information: the standard formula implies a lower volatility in spreads for longer-dated bonds. This means that if there is a meaningful portion of bonds in the portfolio of infrastructure corporates with modified durations of more than 5 years then the observed Value-at-Risk for the whole portfolio would have to be below the spread risk charge for short maturities to indicate a better risk than implied by the standard formula.
- 1.66. **For AA and A the standard formula spread shocks for modified durations up to 5 years lie within the 95 % confidence interval around the empirical 99.5 % Value-at-Risk of spreads.** There is, therefore, on a 95 % confidence level not enough evidence to conclude that for AA and A infrastructure corporates the risk is materially different than the standard formula spread shock for short maturities.
- 1.67. **For BBB the standard formula shock for short maturities is very close to the upper bound of the confidence intervals using unsmoothed data and just outside the confidence interval for smoothed data.** Taken together the values are relatively close to the upper bound of the confidence intervals.
- 1.68. **When interpreting the results the highest weight should be given to the results for A-ratings as the number of available infrastructure corporate bonds during the financial crisis was significantly higher than for AA and BBB.**

Comparison for maturity buckets

- 1.69. The limited number of bonds in the infrastructure portfolio makes it difficult to analyse the spread behaviour for numerous different maturity buckets.

Differences in the behaviour of average spreads over all maturities for infrastructure and non-infrastructure bonds may at least partially reflect simply differences in maturities instead of risk.⁹

- 1.70. Due to the limited number of infrastructure bonds EIOPA decided to analyse only two maturity buckets: a first one for bonds with remaining maturities between 1 to 7 years, and a second bucket for remaining maturities of more than 7 years. The results were calculated for each rating class separately. The results for the shorter maturity bucket can be directly compared with the spread risk charge for modified durations of up to 5 years in the standard formula.
- 1.71. The results have to be interpreted very carefully as most buckets include only a very limited number of bonds. Further details on the number of bonds available for each bucket and the development of spreads over time are set out in Annex IV.
- 1.72. The results without smoothing are as follows: (the conclusions for smoothed data are similar):
- For AA the observed 99.5 % Value-at-Risk for the shorter (1.08) and longer maturities (1.09) are close to the results for the whole portfolio (1.06).
 - The observed Value-at-Risk for the A-rated portfolio of shorter-maturity infrastructure bonds is somewhat higher (1.53) than the value for all maturities (1.33). However, the confidence intervals are quite similar. For longer maturities the observed Value-at-Risk is significantly lower than for both the shorter-maturity bonds and the whole portfolio (1.09). This may at least partly be due to the need to introduce interpolations in the dataset to compensate for missing values.
 - For BBB the observed Value-at-Risk for the shorter (2.09) and longer-maturity portfolios (1.93) as well as for the whole portfolio (1.95) are relatively close.
- 1.73. **In summary, it is difficult to draw conclusions from the evidence. Most buckets include a very limited number of bonds. For A and BBB relatively low values can be observed for the longer-maturity buckets. However, the results may very well be due to the above mentioned factors. For the bucket with the largest number of observations (shorter-maturity A-rated bonds) the observed Value-at-Risk is slightly higher than the corresponding standard formula risk charge.**

⁹ For AA and A the average maturity of infrastructure bonds is lower than for non-infrastructure bonds. The differences for BBB are relatively small while the average time to maturity is lower than for AA and A.

Comparison of the Value-at-Risk of the infrastructure portfolios and the spread risk charge implied by the standard formula

- 1.74. Another method used to compare the spread volatility of the infrastructure portfolio and the standard formula, was to calculate the 99.5 % Value-at-Risk implied by the standard formula for the spreads for the AA, A and BBB including *all* maturities. The approach was set out in the CP in section 7.3.
- 1.75. The approach allows the different maturities to be taken into account without the need to create different buckets which reduces the number of available bonds. The calculation of the implied spread volatility is performed separately for the different rating categories based on the modified durations of each bond included in the portfolio. Following the methodology for calculating the Value-at-Risk the implied spread volatilities for all bonds are equally weighted.
- 1.76. Table 2 below compares the Value-at-Risk for the different ratings categories with the average standard formula implied volatility:¹⁰

Rating	99.5% VaR (without smoothing)	99.5% VaR (with smoothing)	Average SF-implied spread
AA	1.06%	0.99%	0.99%
A	1.33%	1.22%	1.28%
BBB	1.95%	1.74%	2.39%

Table 2: Comparison of VaR for infrastructure portfolios and average spread implied by standard formula

- 1.77. **For AA and A the observed Value-at-Risk figures are relatively close to the average standard formula implied spread volatility. This is not the case for BBB. Given the number of bonds available for the different rating classes the highest weight should again be put to the results for A.**¹¹

Results of the analysis of the Markit iBoxx GBP Utilities 1-5 index

- 1.78. EIOPA presented the results of some analysis of the behaviour of the Markit iBoxx GBP Utilities index in the CP (see section 7.3).
- 1.79. In order to complement the analysis done for the Markit iBoxx GBP Utilities index EIOPA looked at the sub-index that includes only maturities between 1 and 5 years. This means that the modified duration is below 5 years. As a

¹⁰ One could argue that it would be wrong to look at the average implied spreads over the whole period as the observed Value-at-Risk is driven by crisis periods. However, during the relevant period there is very limited variation in the implied spreads (i.e. the average implied spread is a suitable representative). See Annex V.

¹¹ After the global financial crisis the number of BBB-rated bonds in the infrastructure corporate bond portfolio increased substantially.

consequence, it is much easier to compare the observed volatility with the standard formula.

- 1.80. The empirical 99.5 % Value-at-Risk of annual changes in the annualised benchmark spread for the period between April 2003 and May 2015 is 150 basis points for unsmoothed values and 140 for smoothed values. The number of bonds in the index during the time considered was limited (between 10 and 20).
- 1.81. When interpreting the results the composition in terms of ratings has to be considered. Figure 1 shows the changes in terms of composition with respect to ratings over the period from 2003 to 2012.

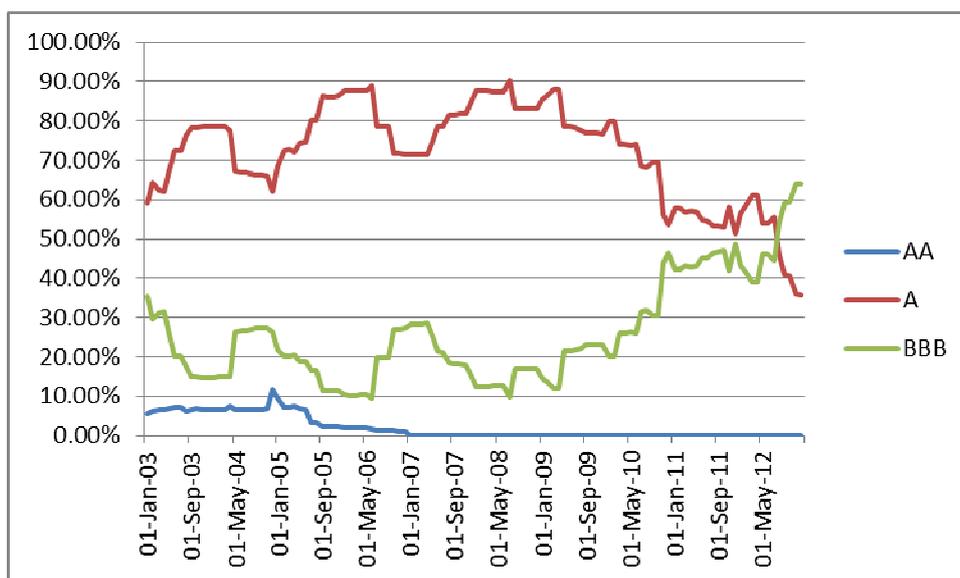


Figure 1: Change in rating composition of Markit iBoxx GBP Utilities 1-5 index between 2003 and 2012

- 1.82. During the period of maximum spread changes the proportion of BBB was roughly between 10 and 20 %. As the index did not contain AA bonds at this time this corresponds to a share between 80 and 90 % for A. According to the standard formula the implied spread shock would therefore be between 151 and 162 basis points. **In summary, the empirical Value-at-Risk is relatively close to the standard formula implied shock.**

2.6. Conclusions: debt calibration

- 1.83. The analysis has shown that the spread volatility of the selected infrastructure corporate bonds is around 25 % lower for AA-rated and more than 50 % lower for A- and BBB-rated bonds. Based on the number of bonds the highest weight should be assigned to the results for A-ratings.

- 1.84. However, the comparison with the standard formula does not produce conclusive results. The number of available AA- and BBB-rated infrastructure corporate bonds during the financial crisis and of longer-maturity in general is quite limited. Moreover, there is some variation in the results for different maturities and rating classes.
- 1.85. On this basis, EIOPA considers that not sufficient evidence has been found to conclude that the spread shocks for qualifying infrastructure corporates should be lower than currently foreseen in the Delegated Regulation.

3. Recommendations regarding the scope and qualifying criteria for infrastructure projects and infrastructure corporate equities

3.1. Final advice

1.86. As EIOPA proposed in the CP, EIOPA's advice on infrastructure corporates includes the following recommendations:

- Some revisions to the qualifying criteria for infrastructure projects to allow "project-like" corporates to qualify for the risk charges of infrastructure projects according to the Delegated Regulation;
- New criteria to identify a class of qualifying infrastructure corporate equities.

General definition

'Infrastructure assets' means physical assets, structures or facilities, systems and networks that provide or support essential public services.

Infrastructure corporates

Qualifying infrastructure corporate equity investments are recommended to include those investments that meet the definition and criteria requirements set out below:

Definition

'Infrastructure corporate' means an entity or corporate group which derives the substantial majority of its revenues from owning, financing, developing, or operating infrastructure assets in the EEA or OECD in the following lines of business:

- generation, transmission or distribution of electrical or thermal energy;
- distribution or transmission of natural or petroleum gas;
- provision of water or wastewater services;
- waste management or recycling services;
- transport networks or the operation of transport assets;
- social infrastructure.

The assessment whether the conditions above are met should be based on the last reporting period for which figures are available or a financing proposal.

In case a general credit assessment or an assessment for senior secured or unsecured exposures issued by an ECAI for the infrastructure corporate exists it shall be assigned to a credit quality step of at least 3. Otherwise, the infrastructure corporate has been active in these lines of business for at least three years or in the case of an acquired business it has been in operation for at least three years.

Revenue predictability

The revenues generated by the infrastructure assets shall meet the following conditions:

1. One of the following criteria is met:
 - (i) The revenues are availability-based;
 - (ii) The revenues are subject to a rate-of-return regulation;
 - (iii) The revenues are subject to a take-or-pay contract;
 - (iv) The level of output or the usage and the price shall independently meet one of the following criteria:
 - a. it is regulated;
 - b. it is contractually fixed;
 - c. it is sufficiently predictable as a result of low demand risk;
2. Where the revenues are not funded by payments from a large number of users of the service, the party which agrees to purchase the goods or services provided by the infrastructure corporate shall be at least one of the following:
 - (i) an entity listed in Article 180(2) of this Regulation;
 - (ii) a regional government or local authority listed in the Regulation adopted pursuant to Article 109a(2)(a) of Directive 2014/51/EU;
 - (iii) an entity with an ECAI rating with a credit quality step of at least 3;
 - (iv) an entity that is replaceable without a significant change in the level and timing of revenues.
3. The revenues shall be diversified in terms of activities, location, or payers, unless the revenues are subject to a rate-of-return regulation.

Financial structure

In case a general credit assessment or an assessment for senior secured or unsecured exposures issued by an ECAI for the infrastructure corporate exists it shall be assigned to a credit quality step of at least 3. Otherwise the capital structure of the infrastructure corporate shall allow it to service all its debt under conservative assumptions based on an analysis of the relevant financial ratios.

Infrastructure projects

Qualifying infrastructure project investments are recommended to include those investments that meet the definition and criteria requirements set out below.

Requirements are intended to apply to all investments (i.e. rated and unrated debt and equity) unless otherwise stated.

Definition

'Infrastructure project' means an entity or corporate group which derives the substantial majority of its revenues from owning, financing, developing or operating infrastructure assets.

Stress testing

The cash flows generated by the infrastructure assets allow for all financial obligations to be met under sustained stresses that are relevant for the risks of the project;

The stress testing shall consider risks arising from non-infrastructure activities, but the revenues generated by such activities shall not be taken into account when determining whether the financial obligations can be met.

Predictability of cash flows

The cash flows generated for debt providers and equity investors are predictable;

The cash flows generated for debt providers and equity investors shall not be considered predictable unless all except an immaterial part of the revenues satisfies the following conditions:

(a) one of the following criteria is met:

(i) the revenues are availability-based;

(ii) the revenues are subject to a rate-of-return regulation;

(iii) the revenues are subject to a take-or-pay contract;

(iv) the level of output or the usage and the price shall independently meet one of the following criteria:

– it is regulated;

– it is contractually fixed;

– it is sufficiently predictable as a result of low demand risk;

(b) where the revenues are not funded by payments from a large number of users, the party which agrees to purchase the goods or services provided by the infrastructure project shall be one of the following:

(i) an entity listed in Article 180(2) of this Regulation;

(ii) a regional government or local authority listed in the Regulation adopted pursuant to Article 109a(2)(a) of Directive 2009/138/EC;

(iii) an entity with an ECAI rating with a credit quality step of at least 3;

(iv) an entity that is replaceable without a significant change in the level and timing of revenues.

Contractual framework

The infrastructure project is governed by a regulatory or contractual framework that provides debt providers and equity investors with a high degree of protection including the following:

(a) provisions that effectively protect debt providers and equity investors against losses resulting from a decision to terminate the project by the party which agrees to purchase the goods or services provided by the infrastructure project unless one of the following conditions is met;

(i) the revenues are funded by payments from a large number of users;

(ii) the revenues are subject to a rate-of-return regulation;

(b) there are sufficient reserve funds or other financial arrangements to cover contingency funding and working capital requirements of the project;

Where investments are in bonds or loans, this regulatory or contractual framework shall also include the following:

(i) Debt providers have security or the benefit of security to the extent permitted by applicable law in all assets and contracts that are critical to the operation of the infrastructure project.

(ii) Notwithstanding point (i), where undertakings can demonstrate that security in all assets and contracts is not essential for debt providers to effectively protect or recover the vast majority of their investment, other security mechanisms may be used. In that case, the other security mechanisms shall comprise of one or more of the following:

(a) pledge of shares,

(b) step-in rights,

(c) lien over bank accounts,

(d) control over cash flows,

(e) provisions for assignment of contracts.

(iii) the use of net operating cash flows after mandatory payments from the project for purposes other than servicing debt obligations is restricted;

(iv) restrictions on activities that may be detrimental to debt providers, including that new debt cannot be issued without the consent of existing debt providers in the form agreed with them;

Credit quality step (rated debt only)

Where the investments are in debt for which a credit assessment by a nominated ECIA is available, the instrument shall have a credit assessment of at least credit quality step 3

Financial risk (unrated debt only)

Where investments are in debt for which a credit assessment by a nominated ECAI is not available, the investment instrument and other pari passu instruments are senior to all other claims other than statutory claims, and claims from liquidity facility providers, trustees and derivatives counterparties.

Other requirements for unrated debt and equities

Where investments are in equities, or bonds or loans for which a credit assessment by a nominated ECAI is not available, the following criteria are met:

(i) the infrastructure assets and infrastructure project are located in the EEA or in the OECD;

(ii) where the infrastructure project is in the construction phase the following criteria shall be fulfilled by the equity investor, or where there is more than one equity investor, the following criteria shall be fulfilled by a group of equity investors as a whole:

– the equity investors have a history of successfully overseeing infrastructure projects and the relevant expertise;

– the equity investors have a low risk of default, or there is a low risk of material losses for the infrastructure project as a result of the their default;

– the equity investors are incentivised to protect the interests of investors;

- (iii) where there are construction risks, safeguards are established to ensure completion of the infrastructure project according to the agreed specification, budget or completion date;
- (iv) where operating risks are material, they are properly managed;
- (v) tested technology and design is used;
- (vi) the capital structure allows all of the debt to be serviced;
- (vii) the refinancing risk is low;
- (viii) derivatives are only used for risk-mitigation purposes.

3.2. Summary of main stakeholder comments on the scope and qualifying criteria

Different treatment of infrastructure corporates and infrastructure projects

- 1.87. A number of stakeholders, including the IRSG, questioned the different treatment of qualifying infrastructure corporates and projects that EIOPA proposed. They suggested to use the same calibration and to modify the criteria for qualifying infrastructure projects to take account of the specificities of corporates.
- 1.88. As explained in the CP, EIOPA recommends modifications to the qualifying criteria for projects in order to allow “project-like” corporates to qualify for the same treatment as projects. Projects will normally have a stronger security package while those corporates that do not satisfy the revised qualifying criteria for projects, i.e. “non-project-like” corporates often benefit from a higher degree of diversification. Projects are also more likely to perform certain infrastructure activities (e.g. social infrastructure) than corporates (and vice versa). Therefore, it is *a priori* not clear that projects and “project-like corporates” have generally a comparable risk profile to “non-project-like” infrastructure corporates.
- 1.89. Stakeholders argued that it would be wrong to link the regulatory treatment to the legal or organisational form of an entity. They mentioned as an example a project that after the construction phase is converted into a corporate.
- 1.90. EIOPA agrees that in general substance should prevail over form, but fails to see the problem in this respect with the proposal made in the CP. It is proposed that whether an investment qualifies depends not on the legal or organisational form, but on the features that determine the risk for the investor. A project that is changed into a corporate would not cease to meet the requirements for projects, simply because of the changes in the legal form. This, therefore, addresses the concern raised by stakeholders, regarding “cliff-edge” effects. However, should there be more substantive changes in the nature of the investment, such as to the security package, this would be another matter. In this case, EIOPA does not agree with the argument that there is not a material effect on the risk.
- 1.91. Based on the empirical evidence analysed EIOPA does not agree with the proposal to recommend the same treatment for qualifying projects and “non-project-like” corporates.

Infrastructure corporates qualifying criteria

Debt without an ECAI rating

1.92. In the CP, EIOPA asked stakeholders for information concerning the volume of infrastructure corporate debt without an ECAI rating and what criteria could be used to identify suitable debt without an ECAI rating. EIOPA is grateful for the responses received on this point, which indicate that the majority of corporate debt does have an ECAI rating. However, since EIOPA does not recommend a different treatment for infrastructure corporate debt with an ECAI rating, therefore also no such recommendation is made for debt without such an ECAI rating.

Definition - telecoms

1.93. EIOPA received numerous comments, including from the IRSG, on the fact that the list of eligible infrastructure sectors did not include companies operating in the telecoms sector. Respondents pointed out that the telecom sector is heterogeneous. It was argued that in the case of the telecoms sector in particular the performance of listed entities is not representative of the risks of the sector as a whole and should not form the basis of EIOPA's recommendations. For example, stakeholders stated that listed companies in the telecoms sector are usually vertically integrated telecoms, which provide "end user services", and are not representative of the sector as a whole. Respondents therefore presented a case for differentiation between telecom services and telecom infrastructure, such as telecoms towers, fibre networks or data centres. This "pure" infrastructure segment of the telecoms sector is seen as relatively safer. Consequently, it was argued that the riskier investments in telecoms would in any case not meet the qualifying criteria and hence an outright exclusion of the sector is not warranted.

1.94. In terms of the volatility that EIOPA had observed in the historical price data of telecoms, it was stated that this can be explained by the M&A activity, especially in the telecom services sector rather than changes in the fundamental business risk. They also pointed to investors' positive experience in dedicated telecom funds. Some respondents highlighted the possibility of separating infrastructure revenues from consumer revenues as a part of their due diligence. Furthermore, it was asserted that going forward the organisation of the telecom sector is expected to be different from what was observed in the past. It was claimed that some telecom groups are already in the process of separating the wholesale and retail segments. Thus, high barriers to entry and stabilising role of the telecom regulation would create the possibilities of safer investment opportunities.

1.95. Another contention of respondents to the CP was that telecoms should be retained as an eligible sector to support the CMU objective and the Digital agenda. The social benefit provided by telecoms and its contribution to the

economic development was also acknowledged by stakeholders. Stakeholders pointed out that the EU vision on 5G cannot be delivered without a robust backbone and that a large number of high quality investment opportunities are expected in preparation of the 5G initiatives.

- 1.96. Whilst EIOPA does not disagree with some of the arguments provided, EIOPA considers it very important that a meaningful amount of data is available to assess historical performance before a more favourable treatment for certain entities is suggested. This approach does admittedly not allow for the emergence of new business models to be taken into account. However, regarding the chosen approach in this technical advice, solely qualitative considerations would not allow for the inclusion of this particular sector, nor of any other sector. Therefore, EIOPA considers that the approach proposed in the CP is still justified.
- 1.97. EIOPA would also mention that telecom companies that have relevant investor protection mechanisms, such as a security package, may qualify for the treatment for infrastructure projects.

Definition – list of eligible sectors

- 1.98. Besides telecoms, various respondents including the IRSG, also named a number of other sectors that they considered to be relevant for inclusion within the scope; these were strategic storage, water irrigation systems, waste management and district heating¹².
- 1.99. EIOPA has made some modifications to the definition based on these comments. As EIOPA explained in the CP, the definition and criteria are intended such that the risk of the qualifying infrastructure investments is comparable to the entities which were used for the calibration. One aspect of this was to include in the definition those sectors or activities for which EIOPA had relevant evidence, primarily in the form of companies in these sectors that EIOPA had analysed as part of the portfolio of infrastructure corporates.
- 1.100. With respect to waste management and district heating, EIOPA identified that a number of the companies analysed, mainly utility companies, also performed waste management services or district heating services. EIOPA has therefore amended the definition to clarify that these activities are also included.
- 1.101. With regard to water irrigation systems, EIOPA considers that the existing text of the “provision of water” already covers all relevant water infrastructure services and thus a change is not proposed. EIOPA has also not revised the definition to include the term “storage”. EIOPA considers storage to generally be a necessary and thus core activity of companies generating, transmitting or distributing energy and therefore captured by the existing definition.

¹² This was also referred to as “heating networks”.

Definition – proportion of infrastructure revenues

- 1.102. Most stakeholders, including the IRSG, objected to the use of the term “vast majority” when specifying the proportion of the company revenues that should be derived from infrastructure activities. It was mentioned that “vast” could be interpreted as meaning very close to 100 % and disqualifying those investments that had more than a *de minimis* proportion of ancillary activities. It was stated that a figure of 75-80 % represents an industry standard and the term “substantial majority” was proposed by a number of stakeholders as an alternative.
- 1.103. EIOPA has accepted the proposal of “substantial majority”, which it considers captures the intention set out in the CP that the provision of infrastructure should be the focus of activities. EIOPA tried to ensure that the corporates issuing the equities and bonds that were included in the portfolios of selected infrastructure corporates analysed derive at least 75 % of their revenues from infrastructure.

Definition – revenues derived from EEA business

- 1.104. The reference to the vast majority of revenues being derived from EEA business was challenged by numerous respondents to the consultation, including the IRSG, arguing that it would exclude investments which are of a similar country risk to those in the EEA. It was also stated that the approach was inconsistent with the one taken for infrastructure projects where investment in projects in the OECD are also permitted.
- 1.105. EIOPA would like to first point out that the approaches for infrastructure projects and corporates are not directly comparable. The requirement for projects only applies in the case that a credit assessment by a nominated ECAI is not available. For corporates, the draft advice did not prohibit revenues from OECD countries but required it to be limited. This was based on the approach described above of having a close link, in terms of risk profile, between the entities analysed for the calibration, most of which derived the majority of their revenues from the EEA, and the qualifying criteria.
- 1.106. Nevertheless, in view of the stakeholder comments, EIOPA would recognise that a different treatment for EEA and OECD is difficult to justify, since within EIOPA’s previous advice on infrastructure and also generally within the Solvency II framework OECD countries are treated as being of an equivalent risk to those in the EEA. EIOPA has therefore finalised its advice to state “EEA or OECD”.

Operating history requirement

- 1.107. The majority of respondents, including the IRSG, did not support the requirement, in the case of corporates without an ECAI rating of at least credit quality step 3, for the corporate to have been active in its respective line(s) of business (i.e. in operation) for a minimum of five years. It was argued that this was problematic for two reasons: first it would exclude suitable new initiatives; and second it would exclude existing enterprises for which there had been a change of "legal ownership", for example due to a merger or a "spin-off", or the case that assets are sold off by the government, i.e. a privatisation.
- 1.108. EIOPA believes that it is appropriate to reflect some of the comments made by stakeholders, but that it is equally important to retain a requirement for a minimum operating history.
- 1.109. To start with, EIOPA's intention was not to exclude well established operations simply due to changes resulting from corporate transactions or privatisations. EIOPA has therefore revised the text of the advice to address this point regarding "acquired business".
- 1.110. Secondly, EIOPA has accepted a proposal from one stakeholder to modify the requirement to a minimum of three, rather than five, years of operations. EIOPA considers that three years still provides a sufficient amount of time to judge if the business has appropriate operational capabilities.

Diversified revenues requirement

- 1.111. Some stakeholders, including the IRSG, argued that there should be no requirement for the revenues to be diversified or that it should not apply in certain situations or to certain types of infrastructure.
- 1.112. The resolution of comments has been used to clarify the intended scope, but EIOPA still considers the requirement to be necessary. The criteria for "wider" corporates do not cover aspects like the security package or termination clauses. The diversification requirement can be seen as an "offset".
- 1.113. Without this criterion entities subject to an availability-based or take-or-pay contract with a single off-taker operating a single asset could qualify even if the security package or the termination clauses were inadequate. The project criteria ensure that such factors are considered. In case the corporate is subject to merchant risk, diversified revenues are considered to be a reasonable requirement.

Infrastructure projects qualifying criteria

- 1.114. Overall respondents to the public consultation supported the revisions to the qualifying criteria for infrastructure projects proposed in the CP, including that qualifying investments would no longer be limited to single assets financed using a SPV. Nevertheless, stakeholders raised a number of concerns, of which the two principal issues are considered to be the stress testing requirement and the security package.
- 1.115. As EIOPA stated during the CP, the criteria for infrastructure projects had been subject to previous consultations and discussions. The amendments EIOPA proposed in April in the CP were based on consideration of whether an equivalent level of risk could be achieved, or if additional argumentation had been provided, in particular regarding specific technicalities or evidence of reasonable market practices.
- 1.116. Bearing this mind, EIOPA considers that it is appropriate to only make a relatively small number of further changes to the criteria in its final advice.

Stress testing

- 1.117. Stakeholders, including the IRSG, did not agree with the revision to the stress testing requirement specifying that the revenues generated by non-infrastructure activities should not be taken into account.
- 1.118. EIOPA believes that it is appropriate to retain its advice on this point. This position needs to be viewed within the context of EIOPA's recommendation to revise the scope of the asset class to extend it beyond single SPV structures.
- 1.119. It is considered appropriate for investments to not be disqualified simply because they entail some non-infrastructure business, and for this reason in the CP EIOPA recommended a change to the definition of "infrastructure project" to acknowledge this. Based on the comments received to the CP with reference to the proportion of revenues derived from infrastructure assets, EIOPA has also now modified the definition of "infrastructure projects" to replace "vast majority" with "substantial majority".¹³
- 1.120. However, in order to ensure a similar outcome to EIOPA's first call for advice on infrastructure in terms of risk, EIOPA considers the requirement proposed for stress testing to be an important safeguard to ensure that the revenues and sustainability of the project are based on its infrastructure activities. In addition, since the project should be engaged principally in infrastructure activities, this requirement should not have a very material impact.

¹³ Comments from stakeholders on the use of the term "vast majority" referred mainly to the definition of infrastructure corporates, but similar wording is used for the definition of infrastructure projects. See section "definition – proportion of infrastructure revenues" above.

Contractual framework – security package

- 1.121. EIOPA included two drafting options for the requirement for security within the CP, but a preference was expressed for the option which entailed a requirement for debt providers to have asset security and an equity pledge¹⁴ in the infrastructure project (option 1). The other option consisted of a requirement where asset security is a “benchmark”, with the possibility for undertakings to demonstrate that alternative security arrangements are equally adequate (option 2).
- 1.122. Although some stakeholders expressed a preference for option 1 on the basis that it is simpler and less likely to result in different interpretations by different national supervisory authorities, the clear majority of respondents supported option 2. It was argued that due to differences in default enforcement procedures and in the tax and registration costs for securities in different member states, there are reasonable differences in the degree to which full fixed and floating security is granted to debt providers at the outset. It was also stated that in some jurisdictions an equity pledge is not legally permitted.
- 1.123. The aim of the revisions proposed to the security requirement was to allow for different financing structures and take into account different practices across member states, where appropriate. Thus, in view of the concerns expressed in the CP responses regarding the different legal requirements and approaches in different jurisdictions, EIOPA has decided that it is more appropriate to include the more principles based requirement in its final advice (option 2). As indicated in the CP, subject to any legislative proposal from the European Commission, EIOPA will monitor the supervision of this requirement and provide guidance to ensure a consistent application by national supervisory authorities.

¹⁴ It should be noted that according to this option, a direct pledge of equity would not be necessary where there are other controls that achieve an equivalent outcome.

4. Recommendations regarding risk management requirements for infrastructure projects and infrastructure corporate equities

4.1. Final advice

1. Insurance and reinsurance undertakings shall conduct adequate due diligence prior to making a qualifying infrastructure investment. In the case of investments in qualifying infrastructure projects, this shall include all of the following:

(a) a documented assessment of how the project satisfies the criteria set out in Article 164a, which has been subject to a validation process, carried out by persons that are free from influence from those persons responsible for the assessment of the criteria, and have no potential conflicts of interest with those persons;

(b) a confirmation that any financial model for the cash flows of the project has been subject to a validation process carried out by persons that are free from influence from those persons responsible for the development of the financial model, and have no potential conflicts of interest with those persons.

2. Insurance and reinsurance undertakings with a qualifying infrastructure investment shall regularly monitor and perform stress tests on the cash flows and collateral values supporting the investment. Any stress tests shall be commensurate with the nature, scale and complexity of the risk inherent in the investment.

3. Where insurance or reinsurance undertakings hold material qualifying infrastructure investments, they shall, when establishing the written procedures referred to in Article 41(3) of Directive 2009/138/EC, include provisions for an active monitoring of these investments during the construction phase, and in the case of investments in qualifying infrastructure projects for a maximisation of the amount recovered from these investments in case of a work-out scenario.

4. Insurance or reinsurance undertakings with a qualifying infrastructure project investment in bonds or loans shall set up their asset-liability management to ensure that, on an ongoing basis, they are able to hold the investment to maturity.

4.2. Summary of stakeholder comments on the risk management requirements

1.124. Stakeholders, including the IRSG, agreed with the proposals for how to apply the existing risk management requirements for infrastructure projects to qualifying infrastructure corporates. In view of this, EIOPA has not changed the advice that it consulted on.

Annex I: Information on the portfolios of infrastructure and non-infrastructure corporate bonds

The selection criteria to identify relevant infrastructure corporates (see paragraphs 1.88 and 1.89 of the CP) resulted in a relatively limited number of bonds being available for each rating class: for AA the number fluctuates between 8 and 30 bonds, for A between 30 and 140 and for BBB between 10 and 180.¹⁵

For the AA-rated infrastructure corporate portfolio electric utilities were the predominant type of corporate until 2011, then surpassed by railroad companies. For the A-rating electric utilities represent the largest share of corporates followed by non-electric utilities. In the BBB category electric utilities dominate followed by toll roads and non-electric utilities.

The number of bonds available for the non-infrastructure corporate bond portfolios is much higher than for the infrastructure portfolios: for AA between 30 and 110, for A between 100 and 390 and for BBB between 130 and 590 bonds.

The proportion of bonds issued by financials has a meaningful impact on the spread behaviour of the non-infrastructure portfolios. This share was around 90 % for AA until 2012 before it dropped to around 40 %. For A the percentage was around 40% to 60% over the whole analysed period, and for BBB-rating the percentage was around 5% before 2009 and never exceeded 33%.

¹⁵ For each selected infrastructure company more than one bond may be included in the portfolio.

Annex II: Comparison of infrastructure and non-infrastructure corporate portfolios

This annex sets out the historical 99.5 % Value-at-Risk for the 12-month cumulated spread changes over the period between June 2002 and December 2015 for the infrastructure and non-infrastructure bond portfolios (with and without smoothing). In addition the behaviour of the spreads is discussed.

AA-rating

Figure 2 shows the historical development of spreads for the “AA” portfolio of infrastructure corporate bonds in comparison to the corresponding portfolio of non-infrastructure corporate bonds.

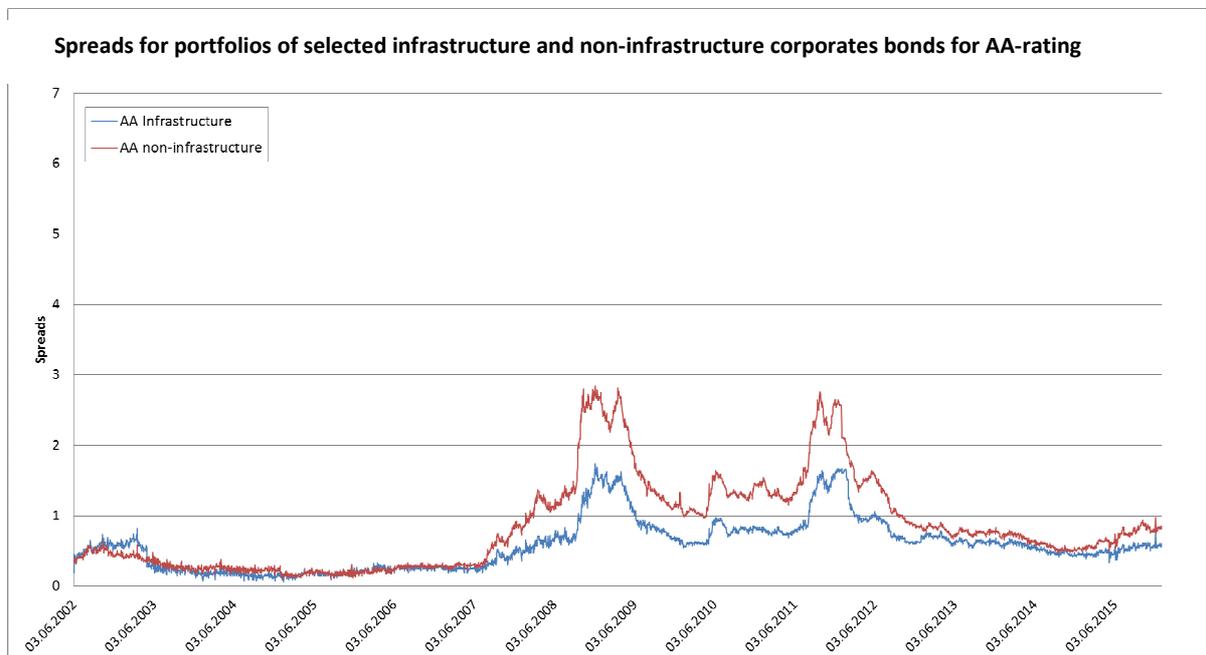


Figure 2: Comparison of spreads for infrastructure and non-infrastructure corporate bond portfolios with AA-rating.

Before 2007, the daily spreads of the selected infrastructure and the non-infrastructure portfolios both exhibited similarly low volatility. Between 2007 and 2013, the spreads of the selected infrastructure portfolio were significantly lower than for the non-infrastructure portfolio. The spikes in the absolute level and volatility occurred more or less simultaneously (i.e. during the financial crises 2008-2009 and 2011-2012). The correlation between the daily spreads of the selected infrastructure portfolio and the non-infrastructure portfolio is 96% over the analysed period. Table 3 shows the empirical Value-at-Risk for the different portfolios using smoothed and unsmoothed spreads.

AA-rating: 99.5% VaR	Without smoothing	With smoothing
Infrastructure	1.06	0.99
Non-Infrastructure	1.94	1.83
Non-Infrastructure 1/3 financials	1.43	1.31

Table 3: 99.5% Value-at-Risk for infrastructure and non-infrastructure corporate bond portfolios with AA-rating

Overall, the Value-at-Risk for the selected infrastructure portfolio is one fourth to one half **lower** than for the non-infrastructure portfolio. The limitation on the proportion of financials in the non-infrastructure portfolio reduces its risk significantly, but the risk is still higher than for the infrastructure corporate portfolio. No adjustment for differences in maturities has been performed.

A-rating

Figure 3 shows the historical development of spreads for the "A" customised infrastructure index in comparison to the corresponding non-infrastructure index.

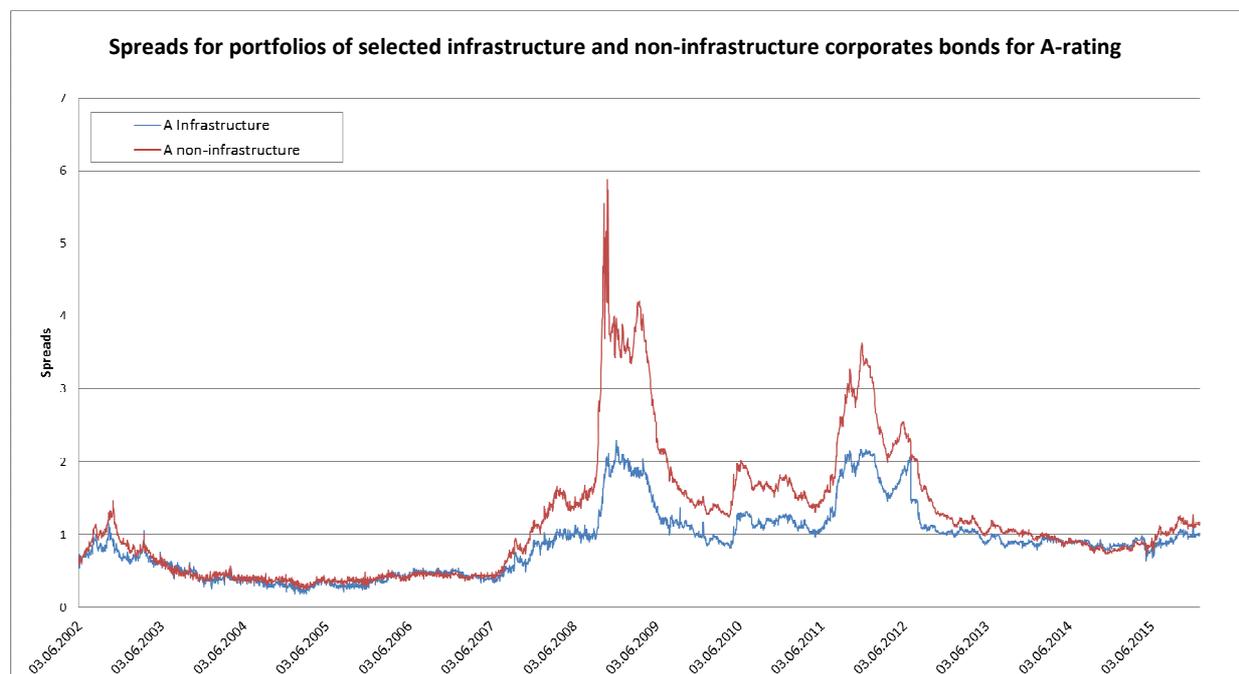


Figure 3: Comparison of spreads for infrastructure and non-infrastructure corporate bond portfolios with A-rating.

The behaviour of A-rated infrastructure and non-infrastructure corporate bonds are similar to the AA-rating, with increased spreads during times of financial crisis. The correlation between the daily spreads of the selected infrastructure portfolio and the non-infrastructure portfolio is 94% over the analysed period. Table 4 shows the

empirical Value-at-Risk for the different portfolios using smoothed and unsmoothed spreads.

A-rating: 99.5% VaR	Without smoothing	With smoothing
Infrastructure	1.33	1.22
Non-Infrastructure	3.28	3.06
Non-Infrastructure 1/3 financials	3.00	2.81

Table 4: 99.5% Value-at-Risk for infrastructure and non-infrastructure corporate bond portfolios with A-rating.

Overall, the Value-at-Risk for the selected infrastructure portfolio is always less than half the value for the non-infrastructure portfolio. The same observation as for AA applies for the restriction on financials. As expected the values when taking 3-month averages are somewhat lower. No adjustment for differences in maturities has been performed.

BBB-rating

Figure 3 shows the historical development of spreads for the “BBB” customised infrastructure index in comparison to the corresponding non-infrastructure index.

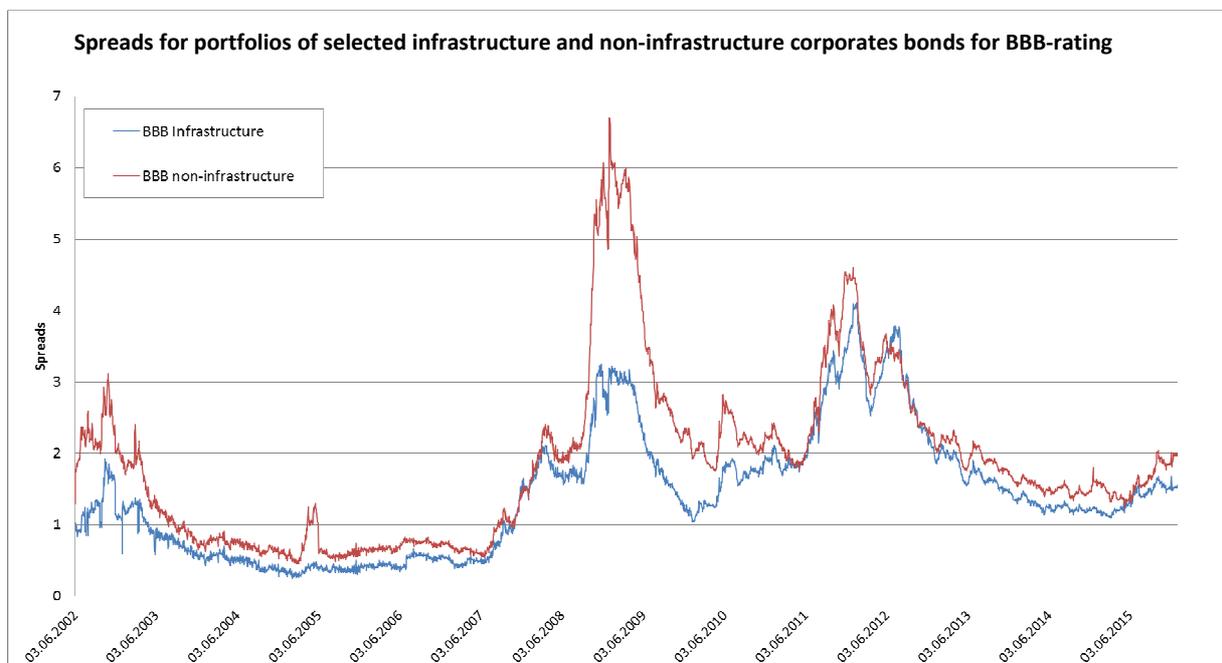


Figure 4: Comparison of spreads for infrastructure and non-infrastructure bond portfolios with BBB-rating

For BBB-rated corporate bonds, the spreads for the selected infrastructure portfolio are only significantly lower than for the non-infrastructure portfolio during the financial crisis 2008-2009 (roughly half). Before 2008 and after 2013 the spreads for infrastructure corporates are slightly lower than for non-infrastructure. During 2012-2013 both displayed similar behaviour with increased spreads and volatility. Table 5 shows the empirical Value-at-Risk for the different portfolios using smoothed and unsmoothed spreads.

BBB-rating: 99.5% VaR	Without smoothing	With smoothing
Infrastructure	1.95	1.74
Non-Infrastructure	4.38	4.17

Table 5: 99.5% Value-at-Risk for infrastructure and non-infrastructure corporate bond portfolios with BBB-rating

Overall, the Value-at-Risk for the selected infrastructure portfolio is always less than half the value for the non-infrastructure portfolio. A restriction of financials was unnecessary as their proportion was always below one third. No adjustment for differences in maturities has been performed.

Annex III: Absolute Value-at-Risk figures for the infrastructure corporate bond portfolio with confidence intervals

The tables in this annex show the point estimates for the empirical 99.5 % Value-at-Risk of the spreads for the AA, A and BBB infrastructure bond portfolios based on the historical time series. In addition a 95 % confidence interval derived by bootstrapping is provided.

In order to ensure a sufficient degree of convergence the results for 5.000 and 10.000 simulations were compared.

Table 6 to Table 8 show the results for the infrastructure portfolio with AA-, A- and BBB-rated bonds. The figures for AA and BBB should be interpreted with care as the number of bonds included in the calculations is very limited.

Infrastructure AA – rating		Without smoothing		With smoothing	
	99.5% VaR point estimate	95% confidence interval	99.5% VaR point estimate	95% confidence interval	
10000 simulations	1.06	[0.5, 1.33]	0.99	[0.41, 1.25]	

Table 6: Point estimates for the 99.5% Value-at-Risk of the infrastructure corporate bond portfolio with AA-rating and 95 % confidence intervals derived with bootstrapping based on 10000 simulations

Infrastructure A - rating		Without smoothing		With smoothing	
	99.5% VaR point estimate	95% confidence interval	99.5% VaR point estimate	95% confidence interval	
10000 simulations	1.33	[0.59, 1.55]	1.22	[0.48, 1.46]	

Table 7: Point estimates for the 99.5% Value-at-Risk of the infrastructure corporate bond portfolio with A-rating and 95 % confidence intervals derived with bootstrapping based on 10000 simulations

Infrastructure BBB – rating		Without smoothing		With smoothing	
	99.5% VaR point estimate	95% confidence interval	99.5% VaR point estimate	95% confidence interval	
10000 simulations	1.95	[0.88, 2.49]	1.74	[0.73, 2.3]	

Table 8: Point estimates for the 99.5% Value-at-Risk of the infrastructure corporate bond portfolio with BBB-rating and 95 % confidence intervals derived with bootstrapping based on 10000 simulations

Annex IV: Results per maturity bucket for the portfolio of selected infrastructure corporate bonds

In this annex the point estimates of the Value-at-Risk as well as the confidence intervals for the two maturity buckets (one to 7 years and more than 7 years) are presented. In addition, the development of spreads over time is charted.

AA-rating

For the first maturity bucket (1 to 7 years) around 3 to 18 bonds were available for the AA-rated infrastructure corporate bond portfolio. As this is a very small number to calculate a mean spread, the variation of this mean in terms of a range of one standard deviation around the calculated mean spreads is shown as well. The daily spreads of the first maturity bucket for the AA-rated infrastructure corporate bond portfolio (shown in orange), compared to all maturities of the same portfolio (shown in blue), can be seen in Figure 4.

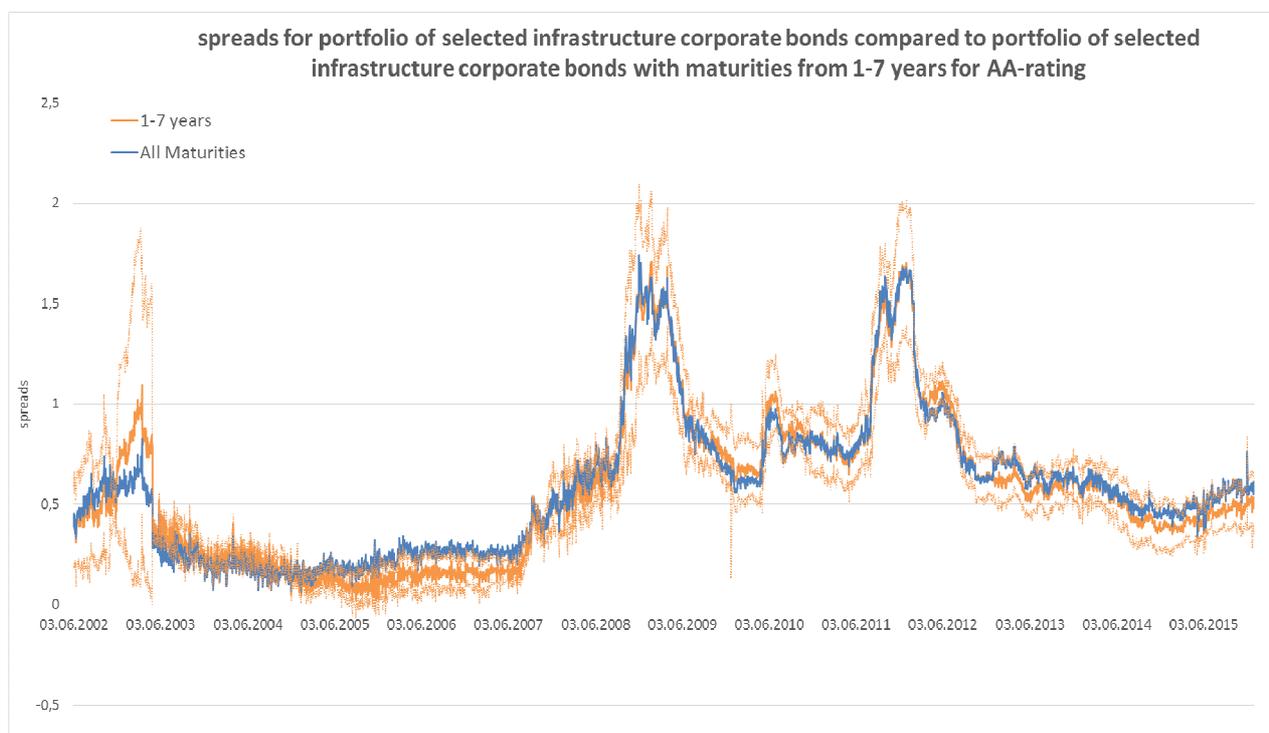


Figure 6: Daily spreads of AA-rated infrastructure portfolios for all maturities (shown in blue) and maturities up to seven years (shown in orange). Thin orange lines indicate range of one standard deviation around calculated mean spread.

The variation in the calculated mean spreads for the first maturity bucket is rather high at the beginning of the dataset in 2002 and 2003, as well as during times of financial crisis (2008 to 2009 and 2011 to 2012). This indicates that the behaviour of the selected shorter-term bonds is quite inhomogeneous. Between 2005 and 2007 and from 2014 onwards the spreads for the shorter-term bonds are somehow lower than for the portfolio of all maturities.

For the second maturity bucket (more than 7 years), a similar number of bonds (around 3 to 17) were available for the AA-rated infrastructure corporate bond

portfolio. On some days, especially during the financial crisis in 2008, no data was available for these bonds. In this case the missing values were linearly interpolated. The daily spreads of the second maturity bucket for the AA-rated infrastructure corporate bond portfolio (shown in green), compared to all maturities of the same portfolio (shown in blue), can be seen in Figure 5. The variation in the calculated mean spreads for the second maturity bucket is relatively high for the whole time period, not only during the financial crises. Between 2005 and 2007 and from 2014 onwards the spreads for the higher maturities are slightly higher than for the portfolio of all maturities, and the behaviour of the spreads during the financial crises 2008 to 2009 and 2011 to 2012 is quite similar.

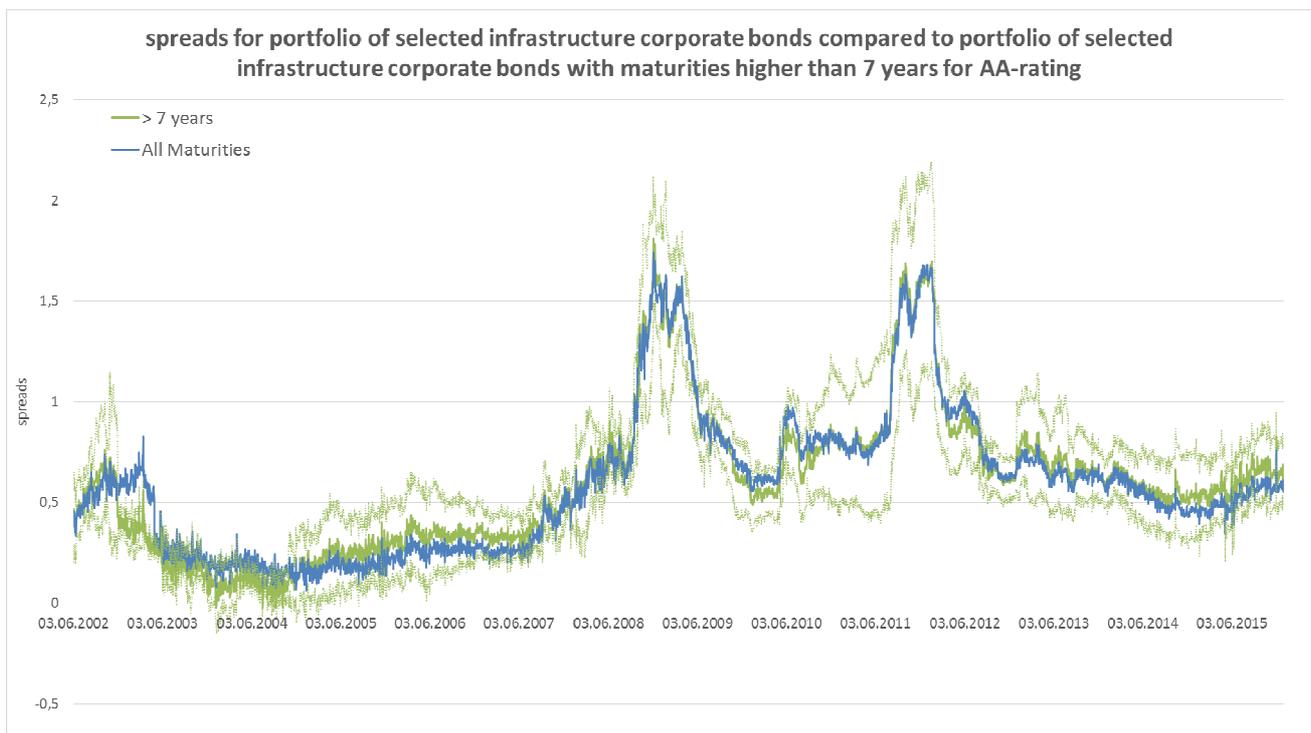


Figure 7: Daily spreads of AA-rated infrastructure portfolios for all maturities (shown in blue) and maturities of more than seven years (shown in green). Thin green lines indicate range of one standard deviation around calculated mean spread.

The Value-at-Risk estimates and the confidence intervals for the AA-rated infrastructure corporate portfolio are set out in Table 9:

Infrastructure
AA – rating

Without smoothing

With smoothing

	99.5% VaR point estimate	95% confidence interval	99.5% VaR point estimate	95% confidence interval
All maturities	1.06	[0.5, 1.33]	0.99	[0.41, 1.25]
1-7 years maturity	1.08	[0.52, 1.37]	1	[0.42, 1.28]
>7 years maturity	1.09	[0.53, 1.42]	1.01	[0.44, 1.33]

Table 9: Value-at-Risk estimates and confidence intervals from bootstrapping algorithm for AA-rated infrastructure corporate bond portfolio for all maturities, shorter-term maturities (up to 7 years) and longer-term maturities (more than 7 years)

The Value-at-Risk estimates and the confidence intervals are very similar for the AA-rated portfolio of shorter-term and longer term infrastructure bonds portfolios. There is not a significant difference between the behaviour of the shorter-term bonds compared to the results for the infrastructure portfolio containing bonds of all available maturities.

A-rating

For the maturity bucket of 1 to 7 years around 20 to 70 bonds were available for the A-rated infrastructure corporate bond portfolio. The daily spreads of the shorter maturity bucket for the A-rated infrastructure corporate bond portfolio (shown in orange) compared to all maturities of the same portfolio (shown in blue), can be seen in Figure 6.

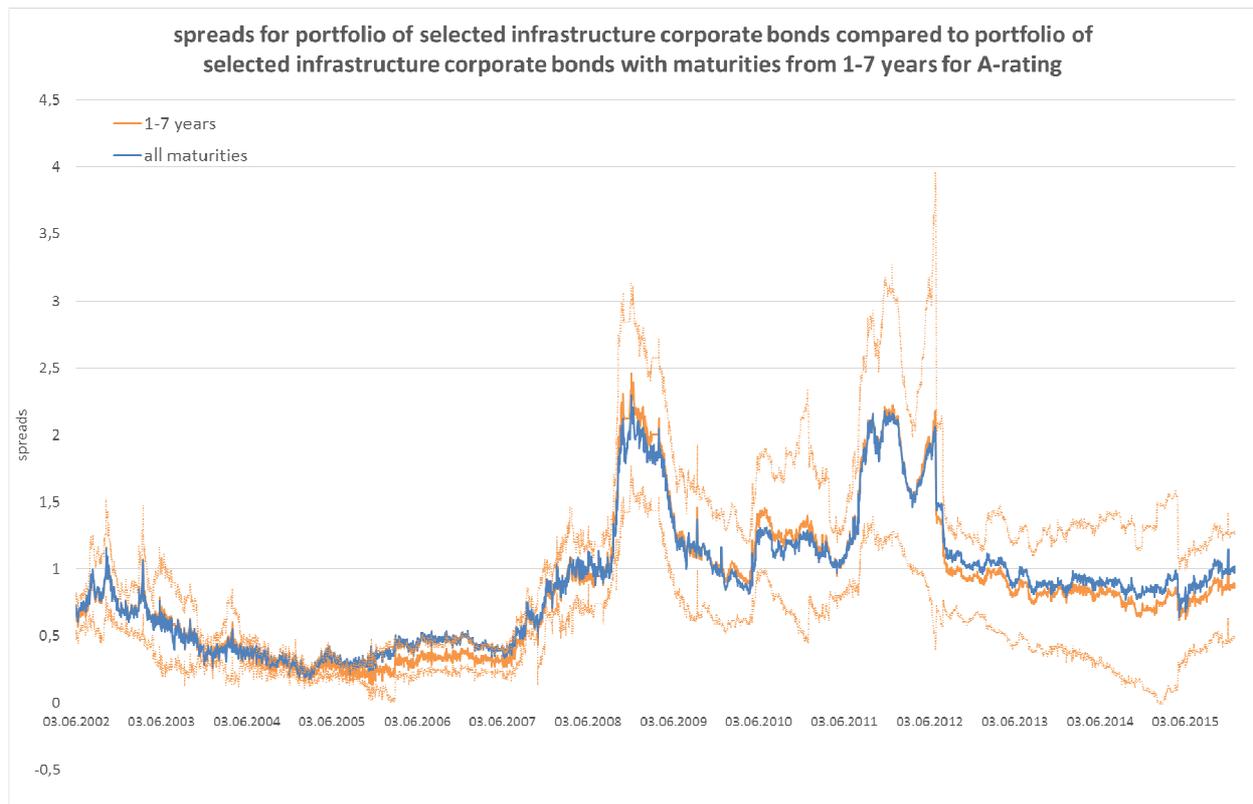


Figure 8: Daily spreads of A-rated infrastructure portfolios for all maturities (shown in blue) and maturities up to seven years (shown in orange). Thin orange lines indicate range of one standard deviation around calculated mean spread.

For the A-rated bonds, the variation of the calculated spread mean is even higher than for AA-rated bonds, and does not decrease after the crisis periods 2008 to 2009 and 2012 to 2012. This means the behaviour of the A-rated shorter-term bonds is even more inhomogeneous than for the AA-rated bonds.

For the longer maturity bucket, between 7 and 53 bonds were available. Unfortunately, there are a lot of data gaps for these bonds, especially during the financial crisis 2008. The daily spreads of the longer maturity bucket (shown in green), compared to all maturities of the same portfolio (shown in blue), can be seen in Figure 7.

The variation in the mean spreads for the second maturity bucket is higher than for the first maturity bucket, but during 2008 to 2009 and 2010 to 2011 the spreads are slightly lower than for the portfolio of all maturities. This may at least partly be due to the necessary interpolations that had to be introduced because of the missing values in these periods.

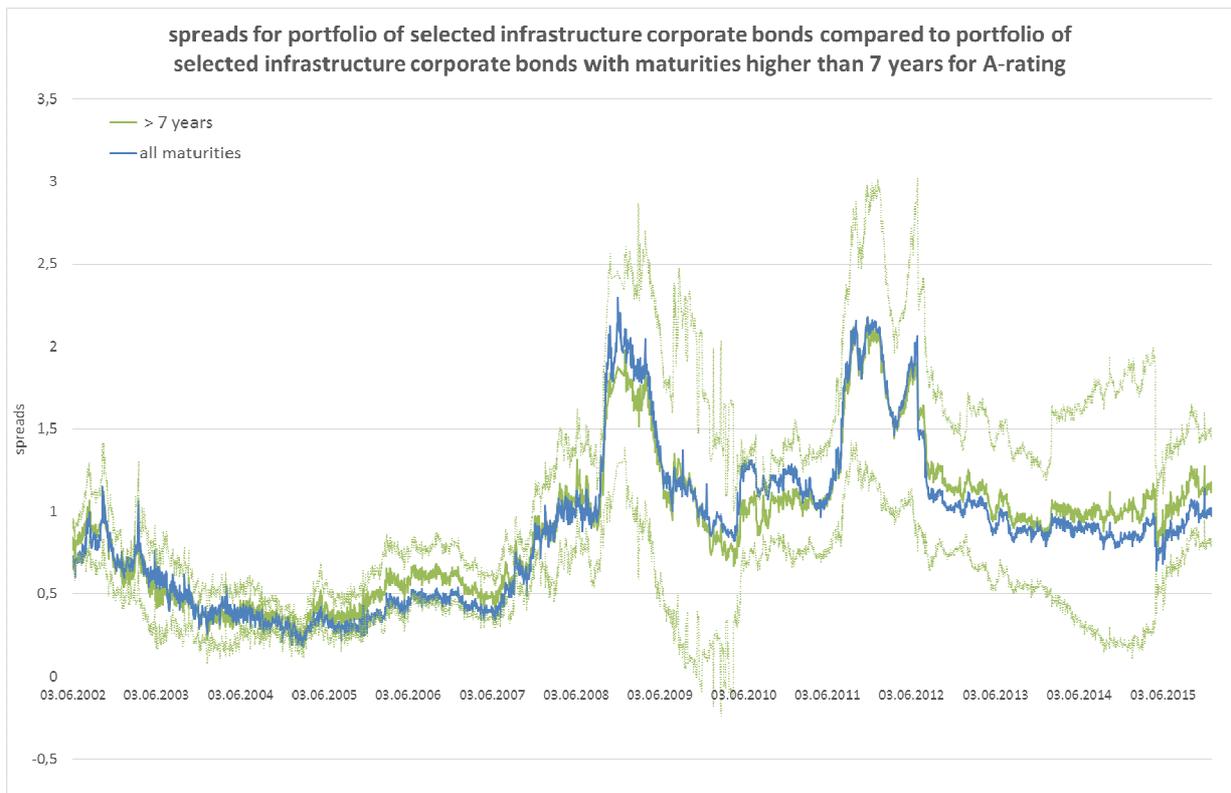


Figure 9: Daily spreads of A-rated infrastructure portfolios for all maturities (shown in blue) and maturities of more than seven years (shown in green). Thin green lines indicate range of one standard deviation around calculated mean spread

The Value-at-Risk estimates and the confidence intervals for the A-rated infrastructure corporate portfolio are set out in Table 10.

Infrastructure A – rating	Without smoothing		With smoothing	
	99.5% VaR point estimate	95% confidence interval	99.5% VaR point estimate	95% confidence interval
All maturities	1.33	[0.59, 1.55]	1.22	[0.48, 1.46]
1-7 years maturity	1.53	[0.58, 1.59]	1.42	[0.49, 1.51]
>7 years maturity	1.09	[0.53, 1.42]	1.01	[0.44, 1.33]

Table 10: Value-at-Risk estimates and confidence intervals from bootstrapping algorithm for A-rated infrastructure corporate bond portfolio for all maturities, shorter-term maturities (up to 7 years) and longer-term maturities (more than 7 years)

The Value-at-Risk estimates for the A-rated portfolio of shorter-term infrastructure bonds are somewhat higher compared to the estimates for the all maturities portfolio, but the confidence intervals are quite similar. Overall, there is not a significant difference between the behaviour of the shorter-term bonds compared to the previous results for the portfolio containing all A-rated infrastructure bonds.

For longer maturities the Value-at-Risk estimates are significantly lower than for the shorter-term bonds or for the whole portfolio. Again, this may at least partly be due to the necessary interpolations in the dataset to compensate for missing values.

BBB-rating

For the shorter maturity bucket, around 5 to 40 bonds were available, with a very limited number of bonds available before 2009. The daily spreads of the first maturity bucket for the BBB-rated infrastructure corporate bond portfolio (shown in orange), compared to all maturities of the same portfolio (shown in blue), can be seen in Figure 8.

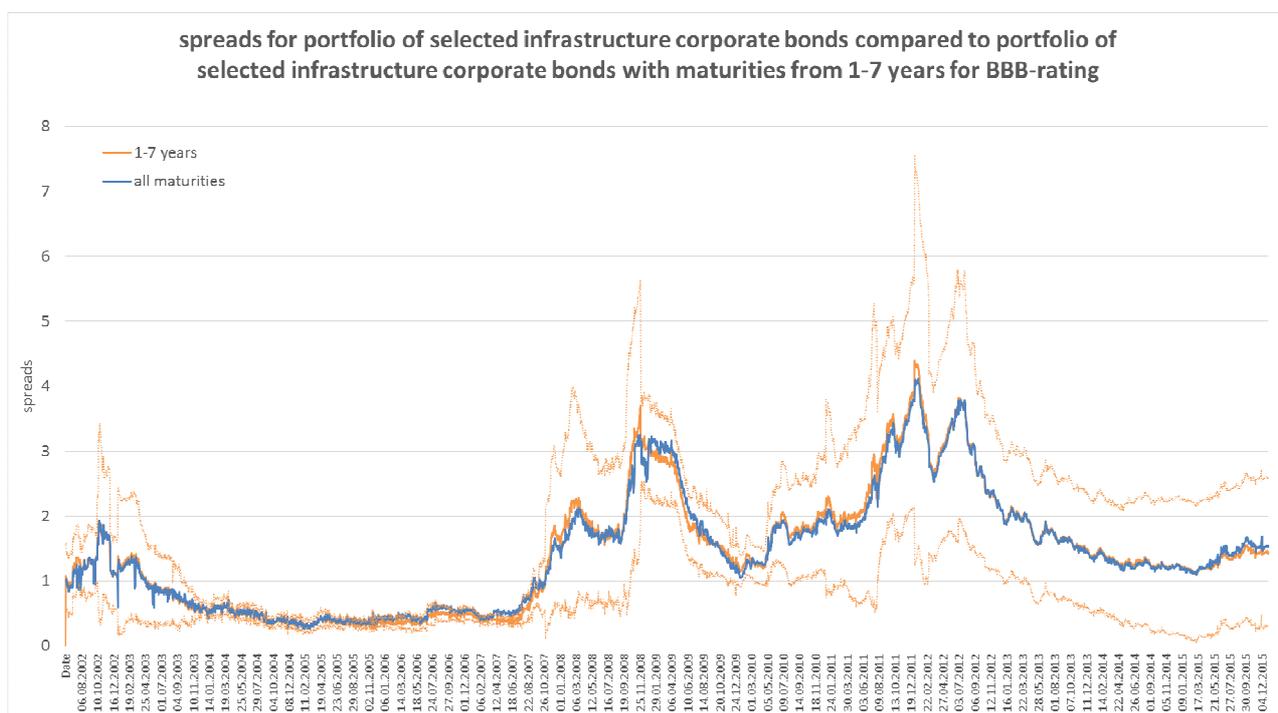


Figure 10: Daily spreads of BBB-rated infrastructure portfolios for all maturities (shown in blue) and maturities up to seven years (shown in orange). Thin orange lines indicate range of one standard deviation around calculated mean spread

The spread mean for the infrastructure portfolio of the shorter-term bonds is very similar to the values for the portfolio containing all available maturities, although the variation is relatively high from 2008 onwards, and remains at an elevated level.

For the longer term maturity bucket until 2007 only one or two bonds were available. There are also large data gaps in 2002 and 2008, which were interpolated linearly. The daily spreads of the longer maturity bucket (shown in green), compared to all maturities of the same portfolio (shown in blue), can be seen in Figure 9.

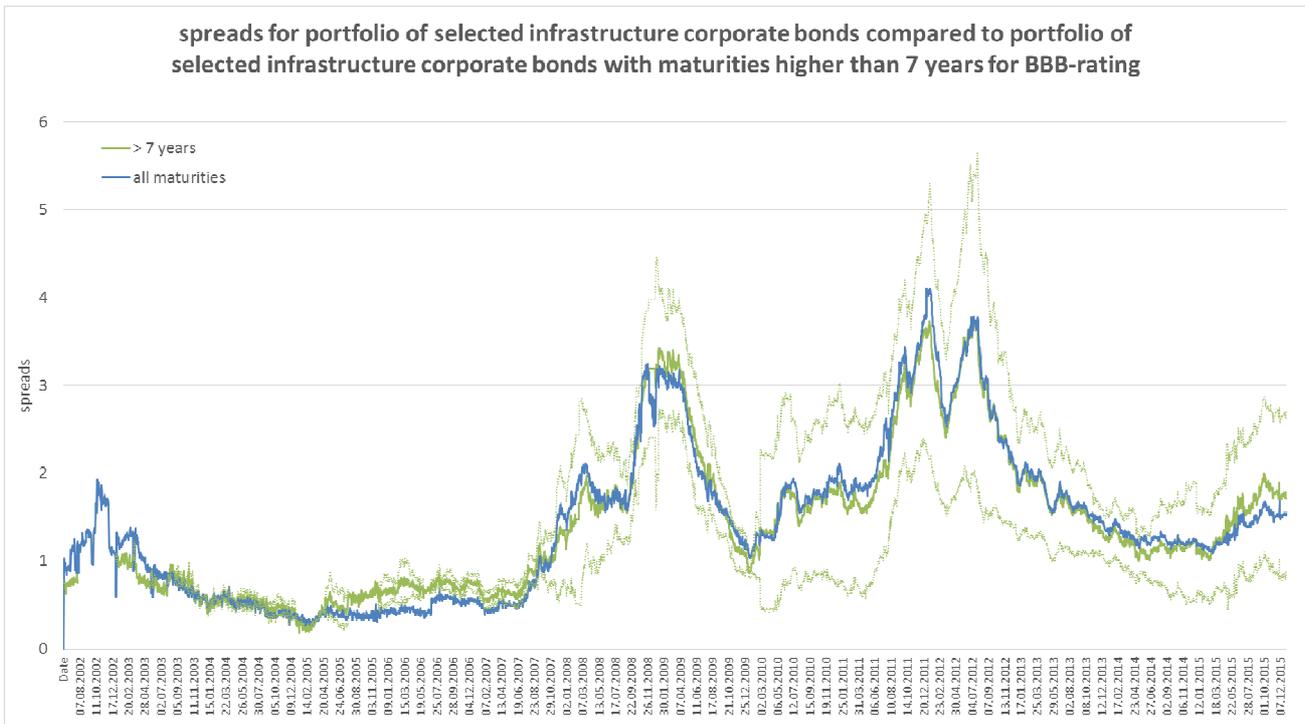


Figure 11: Daily spreads of BBB-rated infrastructure portfolios for all maturities (shown in blue) and maturities of more than seven years (shown in green). Thin green lines indicate range of one standard deviation around calculated mean spread

The Value-at-Risk estimates for shorter and longer maturities are quite similar as shown in Table 11.

Infrastructure BBB - rating	Without smoothing		With smoothing	
	99.5% VaR point estimate	95% confidence interval	99.5% VaR point estimate	95% confidence interval
All maturities	1.95	[0.88, 2.49]	1.74	[0.73, 2.3]
1-7 years maturity	2.09	[0.85, 2.29]	1.77	[0.69, 2.16]
>7 years maturity	1.93	[0.83, 2.11]	1.81	[0.68, 1.99]

Table 11: Value-at-Risk estimates and confidence intervals from bootstrapping algorithm for BBB-rated infrastructure corporate bond portfolio for all maturities, shorter-term maturities (up to 7 years) and longer-term maturities (more than 7 years)

Annex V: Development of the standard-formula implied spread for the infrastructure corporate bond portfolios with different ratings over time

This annex sets out the development of the spread risk charge implied by the standard formula over the period between 2002 and 2015 for the infrastructure corporate bond portfolios with AA-,A- and BBB-ratings as well as the corresponding average implied spreads. The corresponding methodology is described in paragraphs 1.74 to 1.77.

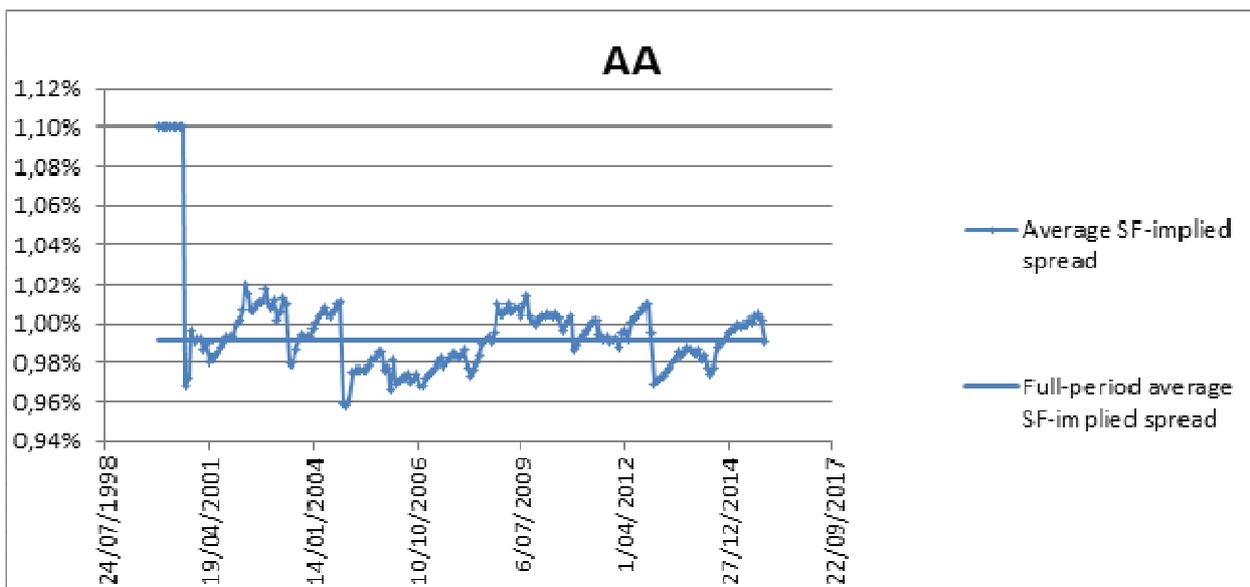


Figure 12: Development of standard formula implied spreads for AA-rated infrastructure corporate portfolio and average implied spread for whole period

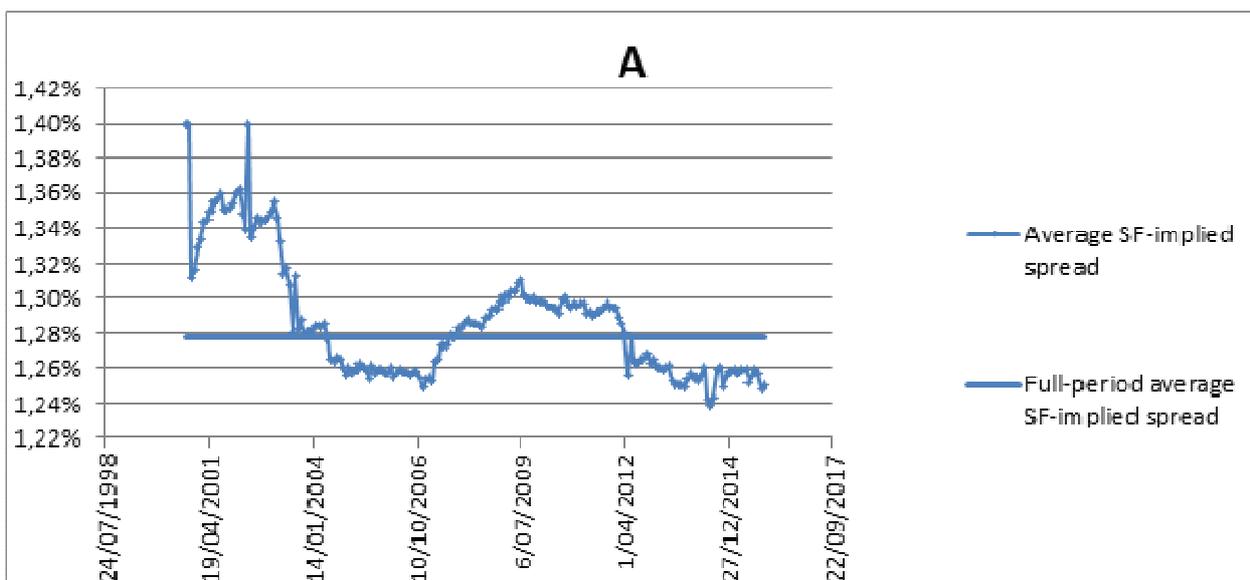


Figure 13: Development of standard formula implied spreads for A-rated infrastructure corporate portfolio and average implied spread for whole period

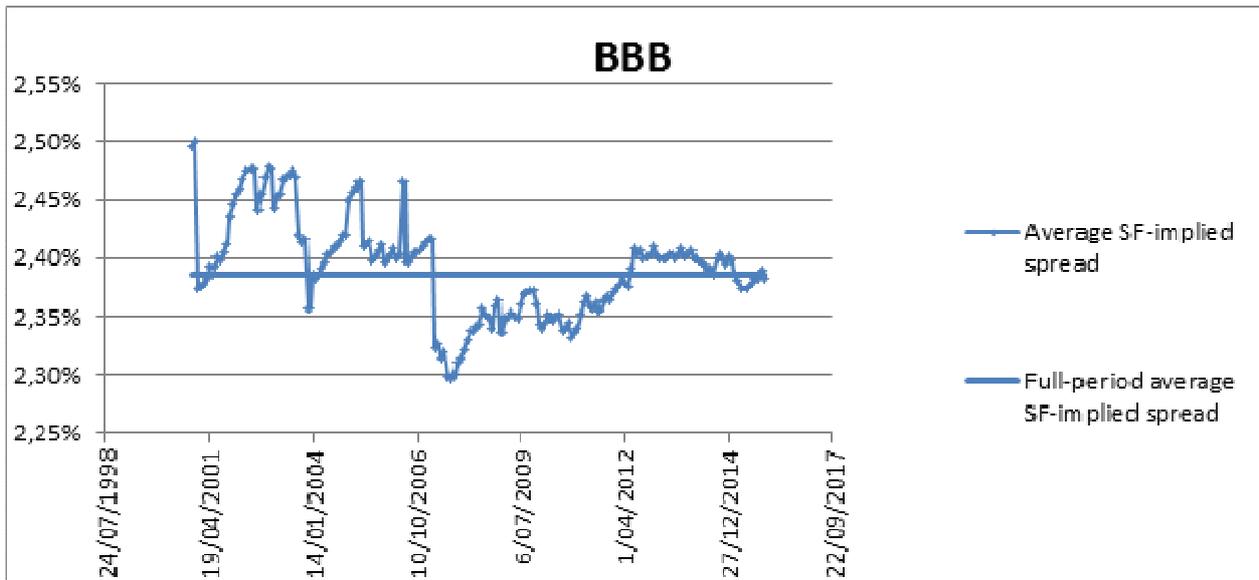


Figure 14: Development of standard formula implied spreads for BBB-rated infrastructure corporate portfolio and average implied spread for whole period

Annex VI: Impact assessment

Section 1: Procedural issues and consultation of interested parties

On 14 October 2015, EIOPA received a call for advice from the Commission to provide technical advice on the identification and calibration of infrastructure investment risk categories other than infrastructure projects, i.e. infrastructure corporates.

In the request for technical advice the Commission requested a cost-benefit analysis. The analysis of costs and benefits is undertaken according to an Impact Assessment methodology.

Prior to October 2015 EIOPA had been working on infrastructure investments by insurers based on a previous call for advice from the Commission. In response to this first call for advice, EIOPA proposed a differentiated treatment within Solvency II for investments in infrastructure projects that meet a series of qualifying criteria designed to identify safer, higher quality investments. During the public consultation on that draft advice (EIOPA CP 15/004), EIOPA also received feedback from stakeholders on the treatment of infrastructure corporates.¹⁶

Following the receipt of the latest call for advice, between 19 November and 10 December, EIOPA issued a call for evidence¹⁷ to request information on the nature and risk profile of infrastructure corporates and in particular any empirical evidence regarding their performance. EIOPA also analysed relevant market and academic studies. Between 15 April and 16 May EIOPA conducted a public consultation on draft technical advice and its Impact Assessment.

EIOPA has made a small number of changes to the Impact Assessment to reflect the further analysis that conducted since the publication of the CP, as well as the amendments that have been made to the draft advice based on the feedback received from the public consultation. EIOPA received one comment on the Impact Assessment specifically seeking clarification concerning the assessment of costs and the related outcome for the case that listed infrastructure companies' equities remain under the existing Type 1 listed equities calibration. Since, this case represents the Baseline scenario, EIOPA does not consider it necessary to adjust the Impact Assessment based on this comment.

Section 2: Problem definition

The Solvency II framework currently does not lay down a specific treatment for infrastructure corporates, and therefore such investments would normally be treated as any other equity or corporate debt investment.

EIOPA has been tasked to consider whether the existing Solvency II requirements, in particular those concerning the standard formula approach to determine an

¹⁶ See [Final Report to CP 15/004](#)

¹⁷ The responses can be found [here](#)

undertaking's SCR, are sufficiently risk sensitive to reflect the risk of investments in infrastructure corporates.

This work reflects the aim of the Commission, as part of the CMU, to promote increased investment in Europe through *inter alia* the removal of barriers to investment, such as those arising from regulatory requirements. It also reflects arguments made by a range of stakeholders that infrastructure as an asset class, has a number of beneficial features compared to other types of corporate exposures. This includes, for example, high barriers to entry and limited competition, a high degree of predictability of cash flows based on long-term contracts, and limited correlation to other economic factors.

At the same time, in order to justify any change to the existing Solvency II requirements, it is necessary for EIOPA to identify evidence that the revised calibration still meets the requirement set out in Article 101(3) of Directive 2009/138/EC. In the case of infrastructure, there can be challenges because a significant proportion of investments are private, unlisted assets, as well as often long-term in nature. There are also challenges in relation to the definition of infrastructure corporates, since they may conduct a range of activities, not all of which may conform to the definition of infrastructure assets¹⁸.

Therefore, in analysing the risk of infrastructure corporates, it is necessary for EIOPA to consider in particular the following:

- In accordance with Directive 2009/138/EC the regulatory capital requirements should be set at a level such that undertakings will be in a position, with a probability of at least 99.5 %, to meet their obligations to policy holders and beneficiaries over the following 12 months.
- Solvency II lays down a standard formula approach for the calculation of the Solvency Capital Requirement, which is intended to reflect the risk profile of most insurance and reinsurance undertakings. Bearing in mind the situation of small and medium, sized undertaking in particular, the standard formula approach should not be overly complex.

Baseline

When analysing the impact from proposed policies, the Impact Assessment methodology foresees that a baseline scenario is applied as the basis for comparing policy options. This helps to identify the incremental impact of each policy option considered. The aim of the baseline scenario is to explain how the current situation would evolve without additional regulatory intervention.

The baseline for this Impact Assessment Report is based on the current situation of EU insurance and reinsurance markets, taking account of the implementation of the

¹⁸ In the first call for advice, EIOPA recommended the following definition of infrastructure assets "physical structures or facilities, systems or networks that provide or support essential public services".

Solvency II framework by insurance and reinsurance undertakings and supervisory authorities. In particular the baseline includes:

- The content of Directive 2009/138/EC, as amended by Directive 2014/51/EU;
- The Solvency II Delegated Regulation (2015/35/EU) and the amendment to that regulation adopted by the Commission on 30 September 2015.

Section 3: Objectives

Objective 1: To define risk sensitive capital requirements for investments in infrastructure corporates in line with the 99.5 % Value-at-Risk (VaR) measure provided for by Article 101 of Directive 2009/138/EC

Objective 2: To develop criteria to be used to clearly define infrastructure corporates and provide for a consistent interpretation by supervisory authorities and undertakings

Objective 3: To facilitate effective due diligence and risk management systems in undertaking in relation to infrastructure investments

These objectives are consistent with the following objectives for Directive 2009/138/EC:

- advance supervisory convergence,
- improved risk management of EU undertakings, and
- better allocation of capital resources.

They are also consistent with objective of increased financing for infrastructure investments and sustainable growth included in the Commission's Action Plan on Building a Capital Markets Union.

Section 4: Policy options

With the intention to meet the objectives set out in the previous section and based on the analysis of the available evidence regarding infrastructure corporates, EIOPA has considered to the following issues:

- (1)The scope of a separate asset class for equity in infrastructure corporates within the SCR standard formula
- (2)The nature of the definition and qualifying criteria for equity in infrastructure corporates
- (3)Whether the scope of the infrastructure project asset class should be amended

In the context of the above issues, the following options have been analysed:

Policy issue 1: Whether there should be a separate asset class for equity in infrastructure corporates within the SCR standard formula

- Option 1.1: a new asset class for equity investments in listed infrastructure corporates (listed equity - medium scope)
- Option 1.2: a new asset class for equity investments based on a lower risk subset of listed infrastructure corporates (lowest risk equity - narrow scope)
- Option 1.3: a new asset class for equity investments in listed and unlisted infrastructure corporates (listed and unlisted equity - broad scope)

Policy issue 2: The nature of the definition and qualifying criteria for a new asset class of infrastructure corporate equity

- Option 2.1: Develop a precise description of the necessary features based on the entities analysed
- Option 2.2: Develop risk-based criteria based on the risk characteristics of the entities analysed
- Option 2.3: Develop a definition based on certain necessary features supplemented with several risk-based criteria (combined solution)

Policy issue 3: Whether the scope of the infrastructure project asset class should be amended

- Option 3.1: Change only the definition of infrastructure project entity to allow for other structures besides project financing (i.e. SPV)
- Option 3.2: Change the definition of infrastructure project entity and revise the requirements regarding the security package (option 3.1 + additional changes)

Infrastructure corporate debt

As described in consultation paper and Chapter 2 of this Final Report EIOPA also analysed the treatment of infrastructure corporate debt. Since the conclusion of this analysis is that there is not sufficient evidence to conclude that the spread risk is lower than the standard formula no changes to the current regulatory treatment are recommended. Consequently, no policy options were considered for this topic and therefore an analysis of impacts is not necessary.

Risk management requirements

EIOPA also recommends some risk management requirements for infrastructure corporates. EIOPA is not proposing any new requirements in addition to those recommended for projects. In view of this no alternative options were considered.

Section 5: Analysis of impacts

Policy issue 1: The scope of a separate asset class for equity in infrastructure corporates within the SCR standard formula

The analysis of equity price data of listed equities in infrastructure corporates indicates that the risk is lower than implied by the current standard formula risk charges for infrastructure corporates. The analysis is primarily based on a portfolio of

infrastructure corporate equities, for which the empirical VaR 99.5 % based on 12-month returns between 2000 and 2015 was roughly 36 %. The current standard formula risk charges are 39 % (type 1 – listed equities) and 49 % (type 2 – unlisted equities).

Impact on undertakings, supervisory authorities and policy holders

A more granular treatment for infrastructure corporates within the SCR standard formula should result in higher risk sensitivity. This should provide for a more efficient allocation of capital. It also supports the objective of increased investment in infrastructure by reducing the regulatory barriers. A wider scope to the asset class is more likely to have a greater impact in increasing investment.

In terms of the impact on policy holders, it is also necessary to analyse the effects of changes on the overall level of risk charges of the standard formula in order to ensure that there is not a reduced level of policy holder protection. Improved risk sensitivity of the standard formula should in theory lead to higher risk charges for certain asset than those currently applied. Thus, a differentiated treatment for a higher quality subset of an existing asset class (e.g. infrastructure), would imply that the average risk of the remaining assets in that asset class increases. This assessment would depend on the materiality of the subset that is extracted from the existing asset class. EIOPA has carried out an analysis of the expected impact. This analysis required an assumption to be made regarding the proportion of infrastructure investments compared to those in equity as whole. Based on this analysis an increase in the risk charge of listed and unlisted equity by 1 % respectively could be justified if infrastructure represented 8 % of the total listed equity and 7 % of the total unlisted equity. The exact proportion of infrastructure equity cannot be ascertained due to the frequency of private transactions for which EIOPA does not have data. However, based on EIOPA's analysis of the available data, the proportion is considered to be significantly less than the above figures of 7 % and 8 %, and potentially even below 1 %. Based on this assumption, the impact of the existing standard formula risk charges for listed and unlisted equity (type 1 and type 2) is considered to be negligible.

It can also be noted that the scheduled review of the methods, assumptions and standard parameters used when calculating the SCR with the standard formula prior to 2018¹⁹ should be an occasion to perform a more holistic analysis on the adequacy of the overall structure and risk charges.

At the same time, policy issue 1 entails costs for insurers and supervisory authorities. There are costs arising from the additional complexity and tasks associated with the introduction of a specific infrastructure corporate asset category. There are costs to assess compliance with the new requirements, since the boundary between the new and existing asset categories may not be straightforward. There may also be a need to require additional information to be reported by undertakings. For insurers, the costs are balanced against the benefits provided by the more efficient allocation of capital.

¹⁹ See recital 150 of the Delegated Regulation

Impact of option 1.1: a new equity asset class for equity investments in listed infrastructure corporates

EIOPA's analysis is based on listed equities due to the limited availability of evidence of private placements. If a direct connection between the data set and the calibration is considered paramount then an option based on listed equities would be preferred. The entities which EIOPA has selected for analysis benefit on average from a high degree of diversification in terms of geography and activities, which may not be the case of private placements. They may also be less leveraged than privately held investments. It can also be noted that CEIOPS advice for the Level 2 Implementing Measures on Solvency II in 2010 recommended a different treatment of unlisted and listed equities based on the results for a listed proxy for private equity investments. Therefore, as a general starting point, the current standard formula approach is to consider unlisted entities as of higher risk than listed entities.

However, if the data analysed is only considered to be representative of the risk of listed infrastructure corporates, it is not clear that this justifies a change from the current standard formula risk charges, given the costs outlined above. The observed 36 % is relatively close to the 39 % risk charge for listed equities. There is also dispersion in risk between different sectors of the listed infrastructure equities analysed (e.g. defensive and cyclical).

Impact of option 1.2: a new asset class for equity investments based on a lower risk subset of those analysed

Since it may not be warranted to create a new asset class for listed equities with a risk charge which is not materially below 39 %, EIOPA considered whether there is a subset of infrastructure corporates which display a meaningfully lower risk than the whole set. The equities of the companies in the energy transmission and distribution sectors as well as the stocks of water utilities, displayed on average lower volatility. This evidence could be used to support a differentiated treatment for entities with similar revenue mechanisms.

However, in this case the calibration would also have to be based on a very small sample size, and in addition, stakeholders indicated that they are also interested in corporates which have a limited exposure to merchant risk.

Impact of option 1.3: a new asset class for equity investments in listed and unlisted infrastructure corporates for a relatively broad range of infrastructure sectors

For unlisted equities, there is a meaningful difference between the risk observed of 36 % and the risk charge in the standard formula of 49 %. EIOPA therefore considered whether the listed corporates analysed can represent an adequate proxy for unlisted corporates. Despite the considerations set out under option 1.1, EIOPA believes there are some convincing arguments why the corporates selected are a suitable proxy for unlisted equities. In principle the risk of an entity should not depend on whether it is listed or not. Secondly, where listed entities display a better risk profile, this is arguably due to the greater stability of the cash flows. This stems from the

“protected” revenues due to contractual arrangements, regulation or the fact that the infrastructure entity provides essential services combined with barriers to entry. It is not determined by whether or not they are listed. It should also be possible to develop criteria to capture the characteristics of the listed proxies that contribute to their better risk profile, for example by requiring diversified revenues, predictability of revenues, a minimum number of years of operation, and a reasonable degree of leverage (see policy issue 2).

Policy issue 2: The nature of the definition and qualifying criteria for infrastructure corporates

It is necessary to evaluate the most appropriate means to ensure that qualifying investments are limited to those entities with a risk profile that is comparable to the entities used during the calibration analysis. EIOPA judged that there were three main options for developing criteria to capture suitable investments.

Impact of option 2.1: Develop a precise description of the necessary features based on the entities analysed

This option is to identify the easily observable features of the entities that were analysed. This provides for a very close link between the entities that were used for the calibration analysis and the entities that should then qualify for the corresponding SCR treatment. In theory, with this option there is a limited risk that the entities which qualify are different in risk profile to those that were the basis of the calibration.

Nevertheless, this may also unnecessarily exclude certain investments. The absence of entities performing certain activities from the list of entities that EIOPA analysed does not necessarily mean that the risks arising from such activities are higher. There are, for example, operators of tunnels with listed equities that are therefore included in the list of entities analysed, while it was not possible to identify any listed bridge operator. However, there is no reason to believe that a bridge is per se of higher risk than a tunnel. EIOPA was also not able to identify any social infrastructure corporate with listed equities, but is aware from its previous analysis of infrastructure projects that certain types of social infrastructure can have relatively low risk.

Impact of option 2.2: Develop risk-based criteria based on the risk characteristics of the entities analysed

This option is to develop risk-based criteria, which seek to capture the underlying properties of infrastructure corporates that determine the nature of the risk. The advantage of this option is that it provides for a risk sensitive approach, which should not result in the inadvertent elimination of suitably high quality investments. However, for the standard formula approach, there should also not be undue complexity in the requirements.

It can also be noted that this option would be similar to the approach taken for EIOPA’s advice on infrastructure projects. However, one reason for that approach was the proprietary nature of the Moody’s database on project loans, which meant that

EIOPA had limited information about the individual properties of the projects. In contrast, there is a reasonably large amount of information available for infrastructure corporates that issue bonds or are listed on a stock exchange.

Option 2.3: Develop a definition based on certain necessary features supplemented with several risk-based criteria (combined solution)

This option combines some precise features, such as to specify the sectors that can qualify, with what are considered to be the main drivers of risks (e.g. the revenues mechanisms and financial structure). This rationale for this is that the observable properties (e.g. the type of activities that an entity performs or whether or not is listed) alone may not be sufficient to separate lower and higher risk investments. For example, the risk of a corporate that generates power will depend largely on the mechanisms (contracts, markets, regulations) that determine prices and volumes, rather than the fact that it generates power.

Impact on undertakings, supervisory authorities and policy holders

The precise description approach (option 2.1) is unlikely to have a significant impact in supporting the objective of increased investment in infrastructure. Purely risk-based criteria (option 2.2) should better support this objective. Option 2.3 involves specifying a reasonably broad range of sectors and is therefore considered to support the objective of increased investment in infrastructure as well. Stakeholders were also asked during the public consultation if suitable sectors had been inadvertently excluded and adjustments were made to the final advice based on these comments.

Risk-based criteria are by nature more subjective, i.e. option 2.2 and to some extent option 2.3. This creates a risk of divergent application across Member States and to the protection of policy holders if the risk of an investment is not properly evaluated. In addition, there may be higher costs for undertakings and supervisory authorities to verify compliance with risk-based criteria compared to precise requirements²⁰, as would be the case for option 2.1. These costs and risks would be higher for option 2.2 than option 2.3, since the latter option consists of only a limited number of risk-based criteria.

Policy issue 3: Whether the scope of the infrastructure project asset class should be amended

Stakeholders have argued that other types of financing structures, such as corporates, can exhibit a similar profile to infrastructure projects financed using an SPV structure. It is stated for example that the underlying assets and thus revenue predictability can be the same. Therefore, it is contended that a "substance over form" approach should be taken which does not incentivise one structure over another. EIOPA's intention in considering the options below was to assess whether changes to the criteria for

²⁰ Examples of precise requirements would be regarding the minimum size of the company or a requirement to be listed.

infrastructure projects could be made, whilst maintaining an equivalent level of risk and thus allowing for the same calibration to be used.

Impact of option 3.1: Change only the definition of infrastructure project entity to allow for other structures besides project financing (i.e. SPVs)

The recommendations during the first call for advice were based on evidence for infrastructure projects financed by SPVs. The restriction to SPV financing therefore provides a direct link between the evidence used for the purpose of the calibration and the qualifying entities. The removal of this link creates the possibility that entities which are not sufficiently similar in their risk profile can qualify.

A single SPV financing structure also has some advantages in terms of providing for a clear separation of the project's assets from other entities and a relatively simple structure. An expansion of the scope therefore has the potential to increase costs for supervisory authorities to verify compliance with the qualifying criteria.

Nevertheless, from a risk-based perspective, the key features of the higher quality infrastructure investments that EIOPA identified during the first call for advice were, amongst other things, the higher predictability of revenues and the protection mechanisms for investors which lead to higher recovery rates. In theory these features are not limited to project financing. Therefore, provided these qualifying criteria remain fundamentally the same, the risk of unsuitable, higher risk investments being able to qualify, and thus the risk to policy holder protection, is considered to be minimal.

Impact of option 3.2: To change the definition of infrastructure project entity and also revise the requirements regarding the security package

EIOPA considered whether it was appropriate to revise the requirement for infrastructure projects that the investor has security "to the extent permitted by law in all assets and contracts necessary to operate the project". The rationale for this requirement is evidence that secured debt holders have significantly higher recovery rates than unsecured debt holders. Stakeholders argued that when other types of financing structures are used this requirement would not be met, but that alternative security mechanisms are possible which provide an equivalent level of protection to the investor.

The existing requirement for projects provides the highest level of security that the investor will be in a position to protect or recover as much of their capital as possible, in all possible circumstances. It is also considered to provide clarity as to what is required. However, it does not provide for any flexibility and it risks eliminating investments that are of a suitably high quality. This would not be the case if a more principled based approach was taken.

Impact on undertakings, supervisory authorities and policy holders

Since EIOPA judges that changes can be made whilst providing for an equivalent level of risk, both options are considered to ensure a high level of policy holder protection consistent with the requirements of Directive 2009/138/EC. It can be acknowledged that option 3.2 introduces an element of subjectivity into the assessment. It therefore also increases the risk of misjudgements regarding the degree of safety provided by a particular security mechanism, and thus to the protection of policy holders, if the risk of an investment is not properly evaluated. This approach also may result in higher compliance costs for undertakings and supervisory authorities.

However, this is balanced against the impact of this change in terms of supporting the aim of increased investment in infrastructure. The existing qualifying criteria were designed specifically for the features of SPV financing. Based on discussions with stakeholders, a change only to the definition of “infrastructure project entity” is unlikely to increase the number of eligible investments.

Impact of the risk management requirements

EIOPA stated in the first call for advice that the proposals for risk management requirements do not add substantive new requirements, but rather apply or provide additional specification regarding existing Solvency II requirements. EIOPA therefore considered that the additional costs for undertakings arising from the proposals compared to Directive 2009/138/EC and the Delegated Regulation were minimal. In turn, EIOPA considers that the application of some of these requirements to investments in infrastructure corporates also results in minimal costs, whilst providing the benefit, in particular to policy holders, of promoting effective risk management.

Section 6: Comparing the options

On policy issue 1 (The scope of a separate asset class for equity in infrastructure corporates within the SCR standard formula), EIOPA recommends option 1.3 (a new equity asset class for listed and unlisted equities investments in a relatively broad range of infrastructure sectors). Bearing in mind the cost and complexity associated with introducing a specific treatment, as well as the aim to have a meaningful impact in terms of potentially qualifying investments, EIOPA considered option 1.1 and 1.2 to not be viable. EIOPA judged that option 1.3 can be prudentially justified based on the analysis conducted on the equity prices of infrastructure corporates and therefore should result in more risk sensitive capital requirements.

On policy issue 2 (the nature of the definition and qualifying criteria) EIOPA proposes option 2.3 (a definition based on certain necessary features supplemented with several risk-based criteria) with the aim to strike a balance between risk-sensitivity and undue complexity. This limits the costs to undertakings and supervisory authorities and the risk of divergent interpretations, which arise from having more subjective criteria. However, it provides for a higher degree of policy holder protection than a purely descriptive approach, since some risk based criteria are necessary to eliminate potentially riskier investments. This is because the lower risk of qualifying

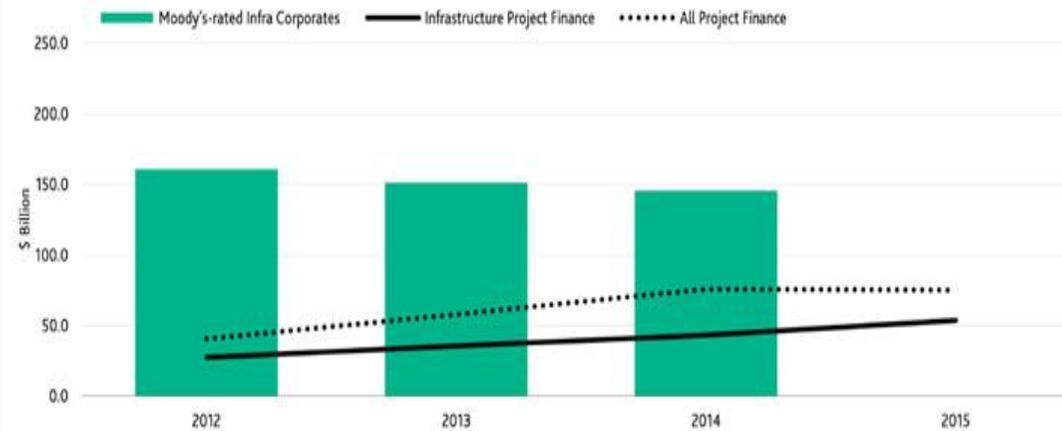
infrastructure equity investments does not result primarily from the particular characteristics of the assets, but from low demand risk due to the contracts arrangements, relevant regulations or the fact that essential services are provided with barriers to entry, plus the existence of a reasonable finance structure.

On policy issue 3 (whether the scope of the infrastructure project asset class should be amended), EIOPA proposes option 3.2 (change the definition of infrastructure project entity and also revise the requirements regarding the security package). Option 3.1 is not considered to have a meaningful impact in terms of additional suitable qualifying investments and thus is not considered to justify the implementation costs. EIOPA proposes to revise the definition to allow non-SPV financing structures to qualify and to provide for a more principles based approach requirement regarding the security package. These have the benefit of providing additional flexibility to undertakings, whilst they are still deemed to provide an equivalent level of risk. A number of other minor drafting changes are also proposed to the qualifying criteria for projects, which are not considered to have a substantive impact.

Annex VII: Resolution of comments table

Summary of Comments on Consultation Paper CP-16-005 Technical advice on other infrastructure investment risk categories				
<p>EIOPA would like to thank AB Stokab, AFME – ICMA Infrastructure Working Group (WG), Association of British Insurers (ABI), Association Française de Gestion financière (AFG), Finance Norway, FIRIP, FTTH Council Europe, German Insurance Association – Gesamtverband der Deutschen Versicherungswirtschaft e. V.GDV, Insurance Europe, Invest Europe, IRSG, Long Term Infrastructure Investors Association (LTIIA), Moody's Investors Service Ltd (Moody's), EIOPA Occupational Pensions Stakeholder Group (OPSG), The Association of Corporate Treasurers, The Investment Association, and Vahta d.o.o.</p> <p>The numbering of the paragraphs refers to Consultation Paper No. EIOPA-CP-16/005.</p>				
No.	Name	Reference	Comment	Resolution
1.	IRSG	General comments	<p>The EIOPA Insurance and Reinsurance Stakeholder Group (IRSG) welcomes the opportunity to comment on EIOPA consultation CP-16-005. This is an important consultation in connection with the Commission's Capital Markets Union initiative as well as the Investment Plan for Europe, so appropriate definition and calibration of corporate infrastructure transactions is essential.</p> <p>IRSG welcomes (with the exception noted in the following paragraph) EIOPA's initiative to extend the definition of qualifying infrastructure so that it also includes not only project finance structures, but also corporate infrastructure transactions, which represent an important share of the overall infrastructure investments universe. Moody's estimates that <i>"... in Europe over the period 2012-14, [we] estimate that total capex by Moody's-rated infrastructure corporates was more than 4x the combined capital value of the infrastructure project finance transactions (whether rated or not) that reached financial close during the period ..."</i></p>	

Infrastructure Capital Expenditure in Europe: Infrastructure Corporates compared with Infrastructure Project Finance



Note: Infrastructure project finance excludes oil & gas, mining, petrochemical and industrial projects
 Source: Moody's, Thomson Reuters Project Finance International

Source: Moody's, *Bridging \$1 trillion infrastructure gap needs multi-pronged approach*, 24 February 2016.

Please note that one IRSG member does not approve the contents of this submission, since the member doesn't believe that prudential regimes are the right place to proceed with a trade off between capital requirements and investments.

Broadly, IRSG believes that the current scope limitation to infrastructure projects SPVs fails to capture a large part of the infrastructure universe. We also believe that the current calibration of infrastructure corporates is based on "normal" corporates, and there is proof that non-infrastructure corporates are more risky than infrastructure corporates which makes the current calibration unnecessarily conservative and punitive.

IRSG favors the application of the criteria for infrastructure project finance to infrastructure corporates, with appropriate modifications of the requirements for the contractual framework. IRSG also supports the extension of the capital treatment for infrastructure projects to infrastructure corporates. **Where eligible infrastructure corporates ("qualifying infrastructure corporates") and infrastructure project finance entities have sufficiently similar risk profiles, applying the same capital treatment is justified.**

Partially agreed. In the consultation paper (CP) EIOPA proposed some revisions to the existing project finance criteria to allow for other financing structures, including corporates, to qualify to the extent that a comparable level of risk can be assured.

			<p>In addition, the WG believes that EIOPA's analysis of a wide range of infrastructure corporates justifies an investigation of an additional more tailored capital treatment for <i>non</i>-qualifying infrastructure corporates.</p> <p>For infrastructure corporates that do not fulfill the definition and qualifying criteria, but that do, based on data, exhibit lower risk than other corporates, IRSG believes that EIOPA's analysis on the wide infrastructure spectrum would support follow-up work on their recalibration. More specifically, EIOPA's ongoing analysis should be used to inform:</p> <ul style="list-style-type: none"> • A more tailored, risk-based capital charge for non-qualifying infrastructure corporate equity • A more tailored, risk-based capital charge for non-qualifying infrastructure corporate debt <p>We recommend that the criteria and definitions for project finance infrastructure transactions should be used as a basis for the identification of infrastructure corporates and should be amended where necessary. The safeguards already embedded in the criteria for project finance can justify an alignment between the capital treatment of project finance and qualifying corporate infrastructure; otherwise opportunities for regulatory arbitrage will emerge.</p>	<p>EIOPA has now concluded its analysis on infrastructure corporate debt and presented the results in Chapter 2 of this Final Report. Regarding future work on the calibration, as part of the scheduled review of the methods, assumptions and standard parameters used when calculating the SCR with the standard formula prior to 2018, for which EIOPA expects to provide advice to the Commission, there may be a review of the treatment of corporates. However, the scope of the review is still to be defined.</p> <p>Not agreed regarding all types of infrastructure corporates. As mentioned above, EIOPA proposes to amend the project criteria to allow "project-like" corporates. This should avoid regulatory arbitrage. For other types of corporates, the evidence available indicates that their risk profile is different and therefore EIOPA considers that a different approach in terms of qualifying criteria and risk charges is justified. EIOPA</p>
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			<p>For example, we believe that the lists of securities and indices selected by EIOPA should be adjusted per the recommendations included in this consultation response to include additional securities and indices as well as to review the performance of unlisted securities. We have attempted to propose alternative wording for definitions that we believe will in substance capture the overall policy objective of including corporate form transactions which in substance have risks very similar to project finance structures.</p> <p>IRSG believes that the current scope limitation to infrastructure projects SPVs fails to capture a large part of the infrastructure universe. We also believe that the current calibration is based on normal corporates, and there is proof that these are more risky than infrastructure corporates which makes the current calibration unnecessarily conservative and punitive. We therefore support EIOPA's proposal to amend the scope of the infrastructure asset class by removing the restriction to SPV financing and by applying the relevant amendments to the security package requirements, while keeping unchanged the risk management. We also recommend changes such as reflection of the revenues of the ancillary activities in the stress scenarios, as long as an insurer can demonstrate that the stress on the non infrastructure cash flows is severe enough and takes into account the more volatile profile of such activities in a worst case scenario. We also recommend removal of the word "project" from the identification of infrastructure assets/entity, as the assumed limited life of a "project" is not suitable to long-term infrastructure operating activities nor refinancing of such infrastructure activities.</p>	<p>considers that its approach is justified by the available evidence. Please also see the Feedback Statement section regarding the different treatment of "projects" and "corporates"</p> <p>EIOPA has reviewed and analysed all of the additional securities and indices provided, as well as all of the proposals made regarding the qualifying criteria. Please see the feedback statement section and the responses below.</p> <p>Partially agreed. Regarding risk management, please note that the recommendation is not that the approach is unchanged, but that the risk management requirements for "infrastructure projects" are applied, where appropriate, also to qualifying "infrastructure corporates".</p> <p>Regarding the stress testing requirement, please see the feedback statement section "Scope and qualifying criteria".</p> <p>Not agreed regarding the use of the term "project". This is</p>
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			<p>We have strong concerns regarding EIOPA’s intentions to calibrate capital requirements for infrastructure corporates based on available market data, for a number of reasons. First, in terms of the calibration for equities, we believe that unlisted infrastructure equities exhibit lower (short-term) volatility than for comparable listed infrastructure equities. It is not clear that EIOPA’s data demonstrates that equity risk charges based on price volatility for listed transactions also represents the nature of risks for unlisted transactions, which are a significant portion of infrastructure equities’ investable universe. The available data mainly represents public entities and is therefore not representative of the predominantly private deals that insurers engage in.</p> <p>Broad corporate listed bond or listed equity indices/portfolios are not representative of the risk profiles that today form a substantial part of the infrastructure corporates that insurers invest in. Generally, since c. 2004 the population of listed infrastructure corporates has reduced significantly. This is mostly driven by those being bought by private unlisted infrastructure equity funds (which have insurance companies and pension funds amongst others as their investors / limited partners). Limited Partners are naturally long-term investors who are able to pay the premium to take the companies private as (a) they valued the long-term cashflows more highly than public market equity investors more likely to be driven by short-termist views and (b) this long-term view permitted them (generally) to allow the companies to carry higher debt burdens than listed equity companies. Again, this higher debt was deemed acceptable due to the long-term and stable nature of the company revenues, and the ability of the equity investor to take a long-term view of equity returns.</p> <p>In those cases where assets have gone into private hands the companies:</p>	<p>considered to be relevant to distinguish between the “infrastructure project” asset class and the recommended new asset class of “infrastructure corporate”. Neither definition provides a restriction on the lifetime of the asset.</p> <p>Please see the Feedback Statement sections “Use of market prices” and “Representativeness of entities used for analysis”.</p>
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- 1) often agree to some form of financial and operational covenants with their creditors which also reflect the long term approach of the owners and,
- 2) the owners typically have much more focus on and control of the company than investors in listed equity.

We do not believe that EIOPA has developed a persuasive argument as to why corporate structures entail more risk than projects (or SPVs). The data previously supplied from two separate Moody's reports, including Moody's Infrastructure Finance Default Study (9 March 2015) highlights average recovery for project finance debt of 80%, and for senior secured infrastructure debt of 75%, versus 53% for senior secured corporates and 37% for senior unsecured corporates (see table below). This is acknowledged by EIOPA in para 1.110 in Section 7.4. Also, introducing separate capital requirements entails the risk that when choosing the legal vehicle for an infrastructure project, there will be a bias towards the vehicle that is "cheaper" in terms of capital requirements (organizational arbitrage). Prudential regulation should avoid pushing infrastructure business in the direction of one or another type of legal setup unless there is very clear evidence that legal setup does in fact make a difference. EIOPA does not present such evidence.

EXHIBIT 17

Recovery Rates for Defaulted Corporate Infrastructure Debts

Sector	Senior Secured	Senior Unsecured
Utilities	76%	58%
Regulated E&G Utilities and Networks	83%	63%
Unregulated E&G Utilities and Power	80%	55%
Transportation	74%	n/a
Average Corporate Infrastructure Debt Securities	75%	57%
Average Non-Financial Corporate Issuers	53%	37%

Source: Moody's

Not agreed. Please see above regarding the evidence for infrastructure corporates. Regarding the Moody's study; as noted EIOPA considered the evidence within the Moody's studies and acknowledged this within its CP. However, EIOPA does not consider that this evidence is inconsistent with its recommendations.

Not agreed regarding arbitrage. The proposals to revise the definition and criteria for infrastructure projects should prevent such "cliff edges" where the change to the legal form has not affected the nature of the risk. It is not agreed that the fact that the insurer is not in a position to influence a change should be linked to the appropriate capital charges. The insurer needs to be able to manage the risk that the capital charge of an investment may change over time due to a change in the risk. This is also the case for example if there is change in the rating.

			<p>It should be considered that, over time, an infrastructure project may become incorporated – either as the result of a decision by the owners or as a consequence of the project being sold off to an entity which prefers the corporate setup. It’s very important to avoid “cliff edges” where capital charges change from one day to the next simply because of a change in legal setup. It should be considered that the insurer may not always be in a position to influence a change of legal setup. Consequently, as a result of change in capital charges due to a change in legal setup, an insurer might be forced to pull out of the investment at very short notice. This cannot be the intention of prudential regulation.</p> <p>In addition, EIOPA has recognised that insurers invest in infrastructure with a long-term holding perspective and their risk exposure is a combination of liquidity risk and credit default risk. Recalibrating infrastructure corporates based on the behaviour of listed companies would not be in line with these findings and therefore cannot be justified in a risk-based framework. We are not aware of any new findings or economic basis which would justify taking an approach for corporate infrastructure different from the approach taken for non-corporate infrastructure.</p> <p>With regards to the definition of an infrastructure corporate, IRSG strongly believes that “vast” should be replaced by “substantial”,. The word “substantial” is widely understood to imply a much higher percentage than a technical majority of say 51%. The percentage of revenues received in corporate infrastructure transactions should be materially higher than 50%, however a fixed percentage would be unhelpful and unworkable. Some investors may view “vast” to mean nearly 100%, whereas a workable definition must be sufficiently flexible to result in a percentage materially higher than 50% but less than 100%.</p> <p>Finally, the IRSG supports Option 2 in terms of security package, which is consistent with market practices in many jurisdictions.</p>	<p>Please see the Feedback Statement section “Consideration of longer holding period”</p> <p>Please see the Feedback Statement section “Scope and qualifying criteria”.</p> <p>Please see the Feedback Statement section “Scope and qualifying criteria”.</p>
2.	OPSG	General comments	<p>The OPSG acknowledges that this consultation addresses the treatment of infrastructure corporates in Solvency II, the prudential framework for insurance and reinsurance undertakings. It is, therefore, not directly relevant to IORPs, which are subject to the IORP directive. That being said, the OPSG would like to take the opportunity to contribute to EIOPA’s consultation in this field, as the ongoing discussion on infrastructure investments may also be relevant to IORPs,</p>	

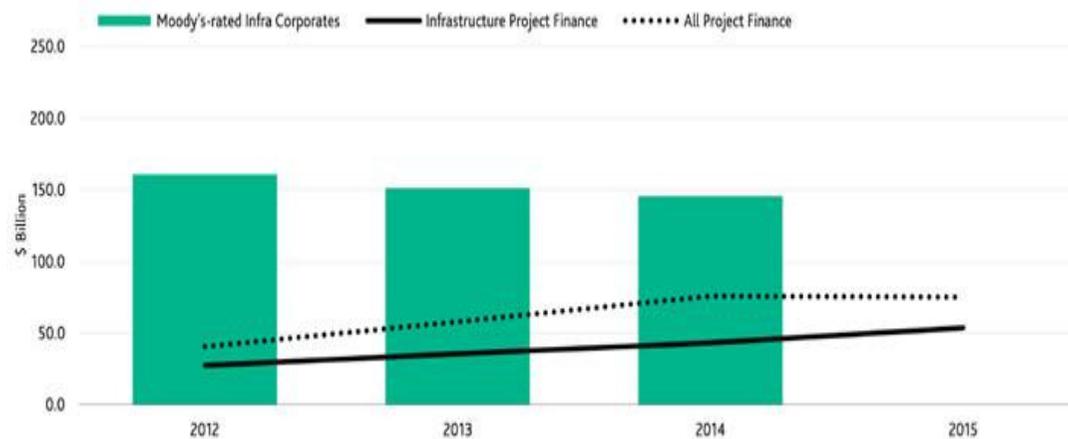
		<p>for example in the context of risk assessment work.</p> <p>The OPSG welcomes the efforts of EIOPA to define and identify infrastructure corporates as a separate risk category in the Solvency II framework. This comes as a follow-up to the work already done on the identification of infrastructure project finance back in 2015, when, informed by EIOPA's advice, the European Commission amended the Solvency II Delegated Act in a number of areas, including the identification of infrastructure corporates and ELTIFs as separate risk categories with a tailored approach.</p> <p>In the context of the current EIOPA consultation, there are two areas on which the OPSG would like to share further thoughts.</p> <p>Firstly, on the identification of infrastructure as a separate asset class.</p> <ul style="list-style-type: none"> • The OPSG supports the mandate given by the European Commission to EIOPA already in 2015, aimed at identifying infrastructure as a separate asset class. Both insurers and pension funds are significant investors in infrastructure, for at least the following reasons: infrastructure assets have interesting long-term and often illiquid investment profiles that suit their liabilities; infrastructure assets are little correlated to other assets so they bring diversification to their portfolios; infrastructure assets bring additional investment yields, which are very valuable for fulfilling their commitments to policyholders and pensioners. • Against this background, the OPSG supports the identification of infrastructure as a separate and distinct asset class. At the same time, it recognises that in practice infrastructure can take the form of either infrastructure projects or infrastructure corporates so any definition aimed at covering infrastructure in general should be able to incorporate all types of investment vehicles. <p>• The OPSG understands that the previous EIOPA advice only focused on infrastructure projects so it is sensible at this stage to investigate, in line</p>	<p>Partially agreed. Whilst there are arguments in favour of a single infrastructure asset class in terms of simplicity of the standard formula approach, the calibration should primarily be based on an analysis of the available evidence and the risks of different types of infrastructure investments.</p> <p>Please see the feedback statement section "Scope and</p>
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			<p>with the EC call for advice, the inclusion of infrastructure corporates in the infrastructure asset class. The OPSG supports such an extension of scope, in order to achieve a complete definition of infrastructure that does not leave out part of the infrastructure spectrum. This way, it also avoids that regulation creates incentives for a specific investment vehicle simply because of the limited scope of a definition.</p> <p>Secondly, on the issue of a tailored capital treatment of infrastructure in Solvency II or in the risk assessment framework for IORPs.</p> <ul style="list-style-type: none"> • The OPSG believes that, once infrastructure has been identified and defined as a separate asset class with very specific risk profile and characteristics, it makes perfect sense to investigate a tailored prudential treatment for this asset class. This makes obvious sense in the case of infrastructure, where there is academic evidence that this asset class often exhibits significantly lower risks compared to other equity/corporate debt risks*. In fact, the previous EIOPA advice, focused on infrastructure project finance, brought significant evidence suggesting that infrastructure assets as a whole may represent lower risk compared to other assets. However, for the sake of simplicity, an IORP should have the option to subsumize infrastructure investments under a suitable other asset class if a separate recognition in its risk assessment would become too burdensome for it or if the portion of infrastructure assets within its asset allocation is not significant. • In addition, the previous EIOPA advice included an explicit recognition of the fact that, when investing in infrastructure, insurers are only partially exposed to market/liquidity risk, and are in fact largely exposed to credit/default risks of these assets. The OPSG believes that this consideration equally applied to IORPs. It derives from the ability of both insurers and IORPs to buy these assets with a long-term, buy-and-hold perspective. The same argument applies to a range of assets held by both insurers and pension funds and should be recognised when calibrating regulatory requirements for these investors. • The OPSG understands that in the current consultation EIOPA no longer recognises the actual exposure to default risk and is in fact focused on measuring solely the risk emerging from an exposure to the full market volatility of an artificial portfolio of infrastructure corporates that are listed. The OPSG does not support this approach, and the reasons for this include: 	<p>qualifying criteria” and response to comment 1.</p> <p>The treatment of IORPs is out of scope of this Call for Advice.</p> <p>The treatment of IORPs is out of scope of this Call for Advice. Please also see the Feedback Statement section “Consideration of longer holding period”.</p> <p>Please see the Feedback Statement sections on “Use of market prices”, “Representativeness of entities used for analysis”, and “Different treatment of</p>
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			<ul style="list-style-type: none"> ○ It is not justified to measure the risk of a long-term investor based fully on a short-term behaviour of financial markets. ○ It is not justified to ignore the actual risk exposure of an investor that has the ability to buy and hold an asset. ○ It is not justified to measure risk based on a theoretical portfolio of listed infrastructure entities, given that in practice many infrastructure corporates in which institutional investors invest are in fact unlisted. ○ EIOPA does not bring any proof that infrastructure corporates are more risky than infrastructure project finance (which was already calibrated in 2015, and did reflect default risk and not only market risk). <ul style="list-style-type: none"> • The OPSG believes therefore that, once the definition ensures that the risk profile of infrastructure corporates is similar to the one of infrastructure projects, this is enough of a justification to apply the same capital treatment to both and thus avoid an approach that is not reflective of the actual risks that investors face when deciding to buy these assets. <p>*A few relevant studies on infrastructure include:</p> <ul style="list-style-type: none"> • Moody’s (2015) study on “Infrastructure Default and Recovery Rates, 1983-2014” has shown lower probabilities of defaults (PD) and LGD statistics and lower rating volatility for all rating classes, including Aaa and Aa. • A study by Blanc-Brude/Whittaker (2015) , notes that the Private Finance Initiative (PFI) portfolio, composed of securities listed on the London Stock Exchange, predominantly exhibits higher returns than the market, with much lower drawdown and tail risks and very little, or no, correlation with the market. • A study by Bitsch, Buchner and Kaserer (2010) shows that for unlisted infrastructure equity there is a lower risk of default than for other equities as well as a higher return. 	<p>infrastructure corporates and infrastructure projects”</p> <p>Please see the feedback statement section “Scope and qualifying criteria” and response to comment 1.</p> <p>Please see the response to comment 1 regarding the study by Moody’s.</p> <p>EIOPA considered this evidence as part of its previous advice on infrastructure (projects). EIOPA does not consider that it is directly relevant to the current advice on infrastructure corporates.</p> <p>EIOPA also considered the evidence provided by these studies.</p>
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			<ul style="list-style-type: none"> • A JP Morgan Asset Management study (Global Real Assets (2013): A case for Core Infrastructure) notes that unlisted infrastructure equities are nearly uncorrelated with both listed infrastructure and global equity. Historical correlation is only 0.1 between private infrastructure and global equities. 	
3.	AFME – ICMA	General comments	<p>The AFME ICMA Infrastructure Working Group (WG) welcomes the opportunity to comment on EIOPA consultation CP-16-005. This is an important consultation in connection with the Commission’s Capital Markets Union initiative as well as the Investment Plan for Europe, so appropriate definition and calibration of corporate infrastructure transactions is essential.</p> <p>We welcome EIOPA’s initiative to extend the definition of qualifying infrastructure so that it also includes not only project finance structures, but also corporate infrastructure transactions, which represent an important share of the overall infrastructure investment universe. Moody’s estimates that <i>“... in Europe over the period 2012-14, [we] estimate that total capex by Moody’s-rated infrastructure corporates was more than 4x the combined capital value of the infrastructure project finance transactions (whether rated or not) that reached financial close during the period ...”</i></p>	

Infrastructure Capital Expenditure in Europe: Infrastructure Corporates compared with Infrastructure Project Finance



Note: Infrastructure project finance excludes oil & gas, mining, petrochemical and industrial projects
 Source: Moody's, Thomson Reuters Project Finance International

Source: Moody's, Bridging \$1 trillion infrastructure gap needs multi-pronged approach, 24 February 2016

The WG believes that the current scope limitation to infrastructure project finance SPVs fails to capture a large part of the infrastructure universe. We also believe that the current calibration of infrastructure corporates is based on normal corporates, and there is proof that "normal" corporates are more risky than infrastructure corporates; this makes the current calibration unnecessarily conservative and punitive.

The AFME ICMA WG favors the application of the *criteria* for infrastructure project finance to infrastructure corporates, with appropriate modifications. The WG also supports the extension of the *capital treatment* for infrastructure projects to infrastructure corporates. **Where eligible infrastructure corporates ("qualifying infrastructure corporates") and infrastructure project finance entities have sufficiently similar risk profiles, applying the same capital treatment is justified.** In addition, the WG believes that EIOPA's analysis of a wide range of infrastructure corporates justifies an investigation of an additional more tailored capital treatment for *non-qualifying* infrastructure corporates.

Please see the response to comment 1.

		<p>For infrastructure corporates that do not fulfill the definition and qualifying criteria, but that do, based on data, exhibit lower risk than other corporates, the WG believes that EIOPA's analysis on the wide infrastructure spectrum would support follow-up work on their recalibration. More specifically, EIOPA's ongoing analysis should be used to inform:</p> <ul style="list-style-type: none"> • A more tailored, risk-based capital charge for non-qualifying infrastructure corporate equity • A more tailored, risk-based capital charge for non-qualifying infrastructure corporate debt <p>Overall, the WG considers that EIOPA's consultation paper refers to appropriate sources of information. In addition, the paper provides a sensible approach by adopting and applying an analytical framework despite a limited amount of objective evidence (and plenty of qualitative subjective evidence). However, we consider in both cases, but particularly that of debt, the conclusions to be overly conservative and technical. We note as per paragraph 1.15 that work is ongoing on the debt side; it would be helpful to get any developing evidence or views on this front.</p> <p>In line with the broader Solvency II framework EIOPA's focus in this consultation is on price volatility. However, we believe that in this asset class broader questions of probability of default and loss given default are also relevant in the context of insurers' capital requirements. There is very limited experience of infrastructure corporates "going wrong". In the UK the very limited obvious examples are Railtrack and the London Underground PPPs, in both of which cases senior debt holders got their capital back in full. Much of the rationale and thought / evidence for this is in our response to the previous EIOPA consultation on this topic.</p> <p>Allied to these considerations are the issues of defining clear "in / out" rules and definitions and the potential for these to either be unclear or, even if clear to create the potential for arbitrage and to have a distorting effect in markets, both for insurance company money and for other sources of capital which might be affected</p>	<p>Please see the response to comment 1.</p> <p>EIOPA does not agree that its conclusions are overly conservative or technical but rather are grounded in the evidence available. EIOPA has now concluded its analysis on infrastructure corporate debt and presented the results in Chapter 2 of this Final Report.</p> <p>Please see the feedback statement Section "Use of market prices".</p> <p>Partially agreed. EIOPA is aware of the challenges of defining "in / out" criteria but considers this to be a fundamental element of the</p>
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			<p>We recommend that the criteria and definitions for project finance infrastructure transactions should be used as a basis for the identification of infrastructure corporates and should be amended where necessary. The safeguards already embedded in the criteria for project finance can justify an alignment between the capital treatment of project finance and qualifying corporate infrastructure; otherwise opportunities for regulatory arbitrage will emerge.</p> <p>We believe that the lists of securities and indices selected by EIOPA should be adjusted per the recommendations included in this consultation response to include additional securities and indices as well as to review the performance of unlisted securities. We have attempted to propose alternative wording for definitions that we believe will in substance capture the overall policy objective of including corporate form transactions which in substance have risks very similar to project finance structures.</p> <p>We support EIOPA’s proposal to amend the scope of the infrastructure asset class by removing the restriction to SPV financing and by applying the relevant amendments to the security package requirements, while keeping unchanged the approach to risk management. We also recommend changes such as reflection of the revenues of the ancillary activities in the stress scenarios, as long as an insurer can demonstrate that the stress on the non infrastructure cash flows is severe enough and takes into account the more volatile profile of such activities in a worst case scenario. We also recommend removal of the word “project” from the identification of infrastructure assets/entity, as the assumed limited life of a “project” is not suitable to long-term or perpetual infrastructure operating activities nor refinancing of such infrastructure activities.</p>	<p>framework to enable suitable investments to be identified. Regarding the point on regulatory arbitrage please see the response to comment 1.</p> <p>Please see the response to comment 1.</p> <p>Please see the response to comment 1.</p> <p>Please see the response to comment 1.</p>
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		<p>We have concerns regarding EIOPA’s intentions to calibrate capital requirements for infrastructure corporates based on available market data, for a number of reasons. First, in terms of the calibration for equities, we believe that unlisted infrastructure equities exhibit lower (short-term) volatility than for comparable listed infrastructure equities. It is not clear that EIOPA’s data demonstrates that equity risk charges based on price volatility for listed transactions also represents the nature of risks for unlisted transactions, which are a significant portion of infrastructure equities’ investable universe. The available data mainly represents public entities and is therefore not representative of the predominantly private deals that insurers engage in.</p> <p>Broad corporate listed bond or listed equity indices/portfolios are not representative of the risk profiles that today form a substantial part of the infrastructure corporates that insurers invest in. Generally, since c. 2004 the population of equity listed infrastructure corporates has reduced significantly. This is mostly driven by those being bought by private unlisted infrastructure equity funds (which have insurance companies and pension funds amongst others as their investors / Limited partners). Limited partners are naturally long-term investors who are able to pay the premium to take the companies private as (a) they value the long-term cashflows more highly than public market equity investors, who are more likely to be driven by short-termist views and (b) this long-term view permitted them (generally) to allow the companies to carry higher debt burdens than listed equity companies. Again, this higher debt was deemed acceptable due to the long-term and stable nature of the company revenues, and the ability of the equity investor to take a long-term view of equity returns.</p> <p>In those cases where assets have gone into private hands the companies:</p> <ol style="list-style-type: none"> 1) often agree to some form of financial and operational covenants with their creditors which also reflect the long term approach of the owners and, 2) the owners typically have much more focus on and control of the company than investors in listed equity. 	<p>Please see the Feedback Statement sections “Use of market prices” and “Representativeness of entities used for analysis”.</p> <p>Please see the Feedback Statement section “Representativeness of entities used for analysis”.</p>
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We do not believe that EIOPA has developed a persuasive argument as to why corporate structures entail more risk than projects (or SPVs).

The data previously supplied from two separate Moody's reports, including Moody's Infrastructure Finance Default Study (9 March 2015) highlights average recovery for project finance debt of 80%, and for senior secured infrastructure debt of 75%, versus 53% for senior secured corporates and 37% for senior unsecured corporates (see table below). This is acknowledged by EIOPA in para 1.110 in Section 7.4. In addition, in the US transportation industry S&P Global Ratings mention that there were two defaults in S&P's rated infrastructure corporates universe. Also, introducing separate capital requirements entails the risk that when choosing the legal vehicle for an infrastructure project, there will be a bias towards the vehicle that is "cheaper" in terms of capital requirements (organizational arbitrage). Prudential regulation should avoid pushing infrastructure business in the direction of one or another type of legal setup unless there is very clear evidence that legal setup does in fact make a difference. EIOPA does not present such evidence.

Please see the response to comment 1.

EXHIBIT 17

Recovery Rates for Defaulted Corporate Infrastructure Debts

Sector	Senior Secured	Senior Unsecured
Utilities	76%	58%
Regulated E&G Utilities and Networks	83%	63%
Unregulated E&G Utilities and Power	80%	55%
Transportation	74%	n/a
Average Corporate Infrastructure Debt Securities	75%	57%
Average Non-Financial Corporate Issuers	53%	37%

Source: Moody's

It should be considered that, over time, an infrastructure project may become

		<p>incorporated – either as the result of a decision by the owners or as a consequence of the project being sold off to an entity which prefers the corporate setup. It is very important to avoid “cliff edges” where capital charges change from one day to the next simply because of a change in legal setup. It should be considered that the insurer may not always be in a position to influence a change of legal setup. Consequently, as a result of change in capital charges due to a change in legal setup, an insurer might be forced to pull out of the investment at very short notice. This cannot be the intention of prudential regulation.</p> <p>In addition, EIOPA has recognised that insurers invest in infrastructure with a long-term holding perspective and their risk exposure is a combination of liquidity risk and credit default risk. Recalibrating infrastructure corporates based on the behaviour of listed companies would not be in line with these findings and therefore cannot be justified in a risk-based framework. We are not aware of any new findings or economic basis which would justify taking an approach for corporate infrastructure different from the approach taken for non-corporate infrastructure.</p> <p>With regards to the definition of an infrastructure corporate, the WG strongly believes that “vast” should be replaced by “substantial”. The word “substantial” is widely understood to imply a much higher percentage than a technical majority of say 51%. The industry agrees that the percentage of revenues received in corporate infrastructure transactions should be materially higher than 50%, however a fixed percentage would be unhelpful and unworkable. Some investors may view “vast” to mean nearly 100%, whereas a workable definition must be sufficiently flexible to result in a percentage material higher than 50% but less than 100%.</p> <p>Finally, the WG supports Option 2 in terms of security package, which is consistent with market practices in many jurisdictions, given differences in legal frameworks applicable to security, and the relevant costs and benefits.</p>	<p>Please see the response to comment 1.</p> <p>Please see the Feedback Statement section “Consideration of longer holding period”</p> <p>Please see the feedback statement section “Scope and qualifying criteria”.</p> <p>Please see the feedback statement section “Scope and qualifying criteria”.</p>
4.		This comment was submitted as confidential by the stakeholder.	

5.	AFG	General comments	<p>First of all, we would like to state that we welcome the overall approach of EIOPA in this new consultation, in trying to further elaborate and adapt the framework within which infrastructure investments are treated under Solvency II, through an interactive dialogue with stakeholders and practitioners.</p> <p>We would like to mention below some of the key comments and suggestions developed in our response to this consultation:</p> <ul style="list-style-type: none"> - We believe that the sectorial scope of infrastructure corporates should cover sectors such as telecom infrastructure, which in particular includes high speed broadband networks that are key in many EU members' national investment plans, part of essential public services and often developed within a framework that satisfies the eligibility criteria. We also believe that the geographical scope shall extend to OECD and EEA, similar to infrastructure projects. - We propose that the qualifying criteria for revenue predictability, when such revenues are not funded by a large number of users, should also be considered as satisfied when the purchasers of goods and services provided by the infrastructure corporate or project, while unrated, feature a low and evidenced counterparty risk. - With regards to the contractual framework for infrastructure projects, we welcome the adjustments proposed by EIOPA, while stressing that option 2 is much more appropriate to address the actual security mechanisms through which debt investors effectively monitor, protect and recover their credit exposure. 	<p>Please see the feedback statement section "Scope and qualifying criteria".</p> <p>Please see the response to comments 84 and 110.</p> <p>Please see the feedback statement section "Scope and qualifying criteria".</p>
6.			This comment was submitted as confidential by the stakeholder.	
7.	Finance Norway	General comments	<p><i>Finance Norway is the industry organisation for the financial industry in Norway. We represent more than 200 financial companies with around 50,000 employees. Our member companies are savings banks, commercial banks, life insurance companies, general insurance companies and financial groups.</i></p> <p>Finance Norway is a member of Insurance Europe. We support the positions reflected in Insurance Europe's reply to this consultation.</p> <p>Finance Norway welcomes the opportunity to comment on EIOPA's consultation</p>	

		<p>paper on advice to the European Commission on the identification and calibration of infrastructure corporates in Solvency II. We very much appreciate EIOPA's aim to deliver diligent advice, and would like to share our views on this important topic.</p> <p>In their role as prudently acting investors, insurers are constantly in search of secure, stable and long-term investments able to match the profile and the characteristics of their liabilities. Necessary infrastructure investments in the European Union as well as the transition towards renewable energies in Europe require multi-billion investments. Investments in renewable energies and infrastructure projects often provide very attractive risk/return patterns regularly associated with very modest risks, generating additional returns for policyholders. In addition, such investments are not at all or only moderately correlated with other financial risks, and therefore often provide diversification benefits to insurers' asset portfolios.</p> <p>As long-term providers of capital, the insurance industry is well suited to fill this emerging funding gap, especially in the current economic environment. However, insurers are currently to a large extent deterred from increasing their investments in such projects through national and European regulations. Their level of engagement will depend on the sensible adaptation of regulatory rules such as Solvency II. We therefore welcomed the Commission's delegated act that created infrastructure as a separate asset class.</p> <p>However, we believe the current scope of the new asset class is too narrow to achieve the Commission's objectives for growth in the European Union. As pointed out by other stakeholders such as Insurance Europe, the distinction between special purpose vehicles (SPVs)/limited purposes entities (LPEs) and corporate-like entities is independent of the underlying infrastructure assets, meaning that both can develop and operate the same type of infrastructure activities and meet the criteria of qualifying infrastructure. When deciding on the scope for qualifying infrastructure investments, substance should prevail over form, and we strongly support the inclusion of corporate structures in the scope of the infrastructure asset class under Solvency II.</p>	<p>Please see the feedback statement section "Scope and qualifying criteria" and the response to comment 1.</p>
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			When calibrating the capital charges for infrastructure investments, we urge EIOPA to heed the "same risk, same rules, same capital charge"-principle. Thus, where eligible infrastructure corporates and infrastructure project entities have sufficiently similar risk profiles, the same capital treatment should be applied.	EIOPA considers that its advice is in line with this principle.
8.	FIRIP	General comments	<p>Dear all,</p> <p>We are pleased to contribute to your consultation mentioned above.</p> <p>First of all we are quite surprised by your analysis of the Telcom Infrastructure risk based only on the high volatility of telecom sector shares.</p> <p>Second of all we would point that you have to consider separately the infrastructure from the service, such as any other Transport infrastructure.</p> <p>Third of all within the past ten years an open access model based on fibre optic cable have been developed with success all around the world and specifically in France, where we have applied the Concession model to the Telecom business for Local Authorities.</p> <p>Nowadays we have enough background in order to demonstrate that this business model is strong and bring some Return On Investment definitely attractive for Infrastructure funds. For instance, the Alsace Region has just awarded its Project to a consortium where 2 infrastructure funds: Marguerite (37%) and Quaero Infrastructure (27 %) with as well Caisse des Dépôts et Consignations (20%), NGE Concessions (8 %) and Altitude Infrastructure (8 %). It's a pure Open Access Model for 380,000 premises connected by 2022 (See press release below).</p> <p>You have to understand that such kind of infrastructure is fully comparable to any other transport infrastructure and very similar to Motorway. We are building the new Networks for at least the next 50 years. The copper networks is technically and physically unable to support such Internet traffic as we are using today. All the Projects lunched show that as soon as the FTTH (Fiber To The Home) infrastructure has been built, the end customers shift from the "Past" coper to the "Future" Fiber. Today in any house you have an average of 5 Internet Of Things Connected, it's keep on increasing every year. The Fiber optic will be needed as Water supply or Power Electricity on the 21st century.</p> <p>Thus please consider that such kind of investment are typically Long Term Investment which must be allowed under Solvency II review. The Fibre Optic</p>	Please see the feedback statement section "Scope and qualifying criteria".

			<p>Infrastructure are the Transport infrastructure of the Future, no Digital World without Fibre.</p> <p><i>Luxembourg, April 11 2016 – The Marguerite Fund announced the financial close of the 30 year fibre-to-the-home concession project launched by the Alsace Champagne-Ardenne Lorraine Region in which it has a 37% shareholding, alongside NGE Concessions, Altitude Infrastructure, Quaero Capital and Caisse des Dépôts et Consignations.</i></p> <p>The 480 million Euro Project involves the design, construction, financing, marketing, operation and maintenance of a new high speed fibre-to-the-home (FTTH) network in the less densely populated areas of the Alsace region, eastern border of France. The roll-out of the network covering 380,000 fibre optic connections in households and small offices in 700 municipalities is expected to be completed by April 2022.</p> <p>A joint venture comprising NGE and Altitude Infrastructure will undertake the construction works as well as the operation and maintenance of the network.</p> <p>The Project is financed by a pool of lenders comprising 6 commercial financial institutions (Société Générale, SCOR Investment Partners, Arkéa Banque Entreprises et Institutionnels, Caisse d’Epargne et de Prévoyance D’Alsace, Caisse Régionale du Crédit Agricole Alsace Vosges, Crédit Industriel et Commercial), with the involvement of the European Investment Bank.</p> <p><i>"This transaction is the first project financing of this scale in the broadband sector in France. It will set a precedent for future ICT projects and support France’s objective to invest 20 billion euros of public and private funds over the next 10 years to build state of the art high speed fibre networks. The Alsace project marks Marguerite’s first investment in the broadband sector and is another example of its pathfinder investment role”,</i> declared Nicolás Merigó, CEO of Marguerite Adviser S.A.</p>	
9.	GDV	General comments	<p>GDV welcomes the opportunity to comment on EIOPA’s thoughts on the identification and calibration of infrastructure corporates and potential qualifying criteria. Excessive capital requirements unnecessarily restrict investment options for insurers. Capital treatment based on the real risks would allow insurers to invest in a risk adequate way, generating additional returns for policyholders and at the same time help stimulate much needed economic growth.</p>	

		<p>In general, substance should prevail over the legal form in qualifying eligible infrastructure. The current limitation of preferential regulatory treatment to infrastructure projects does not consider the concept of substance over form and fails to capture a large part of the infrastructure universe. Moreover, the current calibration is based on normal corporates, not reflecting that there is proof that these are more risky than infrastructure corporates. Both special purpose vehicles/limited purpose entities and corporate-like entities can exhibit the same infrastructure risks and hence meet criteria of qualifying infrastructure. Therefore certain corporate structures for infrastructure risk should be regarded in the infrastructure asset class under Solvency II.</p> <p>However due to a wide variety of corporate structures, GDV finds the distinction between riskier and less risky infrastructure corporates difficult to make. Corporate entities often exhibit corporate risks and hence entail other risks than infrastructure projects. Many infrastructure projects for example have a static behavior with little or no change over time while infrastructure corporates on the other hand often aim to grow and therefore accept multiple and sometimes higher risks in their business conduct.</p> <p>GDV therefore views it as important to find a pragmatic approach that is on the one hand risk adequate but on the other hand not overly complex and cost-intensive for insurers. Core positions are:</p> <ul style="list-style-type: none"> • GDV has strong concerns about EIOPA’s approach on the calibration of the capital requirement for infrastructure corporates based on the performance of listed infrastructure corporates. Public entities are not representative of the predominantly private deals that insurers engage in. Publicly listed entities often exhibit traditional corporate risks such as management risks and growth risks, which insurers aim to avoid with many of the private deals that they invest in. This is in particular true for infrastructure corporates that simply bundle various infrastructure projects. • Calibration for infrastructure projects should be expanded to qualifying infrastructure corporates, provided that risk profiles are identified as being similar; 	<p>Please see the feedback statement section “Scope and qualifying criteria” and the response to comment 1.</p> <p>Please see the Feedback Statement section “Representativeness of entities used for analysis”</p> <p>Please see the Feedback Statement section “Different treatment of infrastructure</p>
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			<ul style="list-style-type: none"> Qualifying infrastructure corporates should be identified by applying the criteria for infrastructure project finance to infrastructure corporates including necessary modifications for the contractual framework. <p>GDV therefore supports the removal of the restriction to SPV financing and the application of relevant amendments to the security package requirements. Underlying infrastructure assets must comply with the criteria for qualifying infrastructure including necessary modifications for the contractual framework, investors should have privileged access to underlying cash flows of the infrastructure assets. The word "project" should be removed from the identification of infrastructure assets, since it is not viewed as suitable to long-term infrastructure operating activities nor refinancing of such infrastructure activities.</p> <p>Current capital charges for infrastructure projects are already very conservative. Qualifying criteria for infrastructure project entities are viewed as very strict and suitable to ensure that only very low risk profile investments will meet all the criteria. As a consequence the lined out approach will in GDV's view ensure that the risk of insurers' investments are not underestimated. Further investigations should be conducted in the course of the upcoming Solvency II review.</p>	<p>corporates and infrastructure projects"</p> <p>Please see the feedback statement section "Scope and qualifying criteria" and the response to comment 1.</p> <p>Regarding the use of the word "project" please see the response to comment 1.</p> <p>Please see the response to comment 1.</p>
10.	Insurance Europe	General comments	<p>Insurance Europe welcomes the opportunity to comment on EIOPA's work to provide advice to the European Commission on the identification and calibration of infrastructure corporates in Solvency II.</p> <p>As noted in the past, Insurance Europe strongly supports the inclusion of corporate structures in the scope of the infrastructure asset class under Solvency II and very much welcomed the Commission's request for advice.</p> <p>Like many other stakeholders, Insurance Europe favours 1) the application of the criteria for infrastructure project finance to infrastructure corporates, with</p>	<p>Please see the Feedback Statement section "Scope and qualifying criteria".</p>

		<p>necessary modifications to the requirements for the contractual framework and 2) the extension of the capital treatment for infrastructure projects to qualifying infrastructure corporates. Where qualifying infrastructure corporates and infrastructure project entities have similar risk profiles, applying the same capital treatment is justified.</p> <p>Regarding EIOPA’s proposals in the current consultation, and also acknowledging that the recalibration of capital requirements is still a work in progress, Insurance Europe notes that:</p> <ul style="list-style-type: none"> • It broadly supports EIOPA’s approach on the identification of infrastructure corporates as part of the infrastructure asset class in Solvency II. Insurance Europe would propose very few suggestions, aimed at better reflecting market reality in the regulatory definition. • It has strong concerns about EIOPA’s approach to the calibration of the capital requirements and would strongly argue that the capital approach of project finance should be extended to qualifying corporates. <p><i>Identification of infrastructure corporates in Solvency II</i></p> <p>Insurance Europe welcomes the extension of the scope of qualifying infrastructure from project entities to the broader range of infrastructure corporates, as it believes that: 1) the current limitation to infrastructure project SPVs fails to capture a large part of the infrastructure universe and 2) the current calibration is based on normal corporates, and there is proof that these are more risky than infrastructure corporates, which makes the current calibration unnecessarily conservative and punitive.</p> <p>Insurance Europe therefore supports EIOPA’s proposal to amend the scope of the infrastructure asset class for the infrastructure corporates with risk profiles similar to infrastructure projects by removing the restriction to SPV financing and by applying the relevant amendments to the security package requirements,</p>	
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		<p>while keeping unchanged the risk management.</p> <p>Insurance Europe would recommend a few changes to the current proposal, including:</p> <ul style="list-style-type: none"> • Reflection of the revenues of the ancillary activities in the stress scenarios, as long as the insurance undertaking can demonstrate that the stress on the non-infrastructure cash flows is severe enough and takes into account the more volatile profile of such activities in a worst case scenario. • Removal of the word "project" from the identification of the infrastructure assets/entity, as the assumed limited life of a "project" is not suitable for long-term infrastructure operating activities nor refinancing of such infrastructure activities. <p>Insurance Europe believes that EIOPA's analysis of the wide infrastructure spectrum would support follow-up work on the recalibration of infrastructure corporates that do not fulfill the definition and qualifying criteria, but that do, based on data, exhibit lower risk than other corporates. From this perspective, Insurance Europe sees value in EIOPA's investigation of diversified infrastructure corporates' debts and equities, based on bespoke indices or portfolios made of carefully selected public issuances of corporates getting most of their revenues from core low volatile non-cyclical infrastructure activities. It also understands that a separate set of criteria should be defined for this (as noted in section 8 of the consultation). More specifically, EIOPA's ongoing analysis should be used to inform:</p> <ul style="list-style-type: none"> • A more tailored, risk-based capital charge for non-qualifying infrastructure corporate equity, where "non-qualifying" should be read as non-qualifying with the revised set of criteria for project finance and corporates. • A more tailored, risk-based capital charge for non-qualifying infrastructure corporate debt, where "non-qualifying" should be read as non-qualifying with the revised set of criteria for project finance and corporates. 	<p>Please see the feedback statement section "Scope and qualifying criteria".</p> <p>Please see the response to comment 1.</p> <p>Please see the response to comment 1.</p> <p>Please see the Feedback Statement section "Different treatment of infrastructure corporates and infrastructure projects"</p>
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		<p>Insurance Europe agrees with the suggestion by EIOPA that decisions to amend Solvency II will have to reflect a balance between changes in the capital requirements and complexity of the standard formula. Such an analysis would have to be considered once EIOPA finalises the necessary work.</p> <p><u><i>Calibration of qualifying infrastructure corporates in Solvency II</i></u></p> <p>Insurance Europe notes that the capital charges developed for infrastructure are already conservative compared to the true economic risks to which insurers are exposed, namely exposure to default losses for bonds and the real risk of long-term underperformance of equity infrastructure. In addition, the recently developed qualifying criteria for infrastructure project entities, on top of the comprehensive due diligence conducted by insurers, are very strict and ensure that only very low risk profile investments get to fulfil all the criteria.</p> <p>As a consequence, Insurance Europe believes that the current capital charges for non-corporate infrastructure are very conservative for the subset of infrastructure corporates meeting all qualifying criteria. This should give comfort that, even if there were some differences between the risk profiles of the average infrastructure corporates and average project finance, the current calibration would not underestimate the risk of insurers' investments because the qualifying criteria ensure the calibrations are only applied to the lowest risk segment.</p> <p>Insurance Europe has strong concerns about EIOPA's intention to calibrate capital requirements for infrastructure corporates based on a selected sample of available market data, for at least the following reasons:</p> <ul style="list-style-type: none"> ▪ The available data mainly represents public entities and is therefore not representative of the private deals that insurers also engage in. No relevant listed bonds or listed equities indices/portfolios can be entirely representative of the infrastructure spectrum. Moreover, publicly listed 	<p>Not agreed. In general, the qualifying criteria for infrastructure projects are considered to be appropriate (subject to the specific revisions proposed to capture corporate infrastructure with an equivalent risk profile) to identify suitable safer investments.</p> <p>Please see the Feedback Statement section "Different treatment of infrastructure corporates and infrastructure projects"</p> <p>Please see the Feedback Statement sections "Use of market prices", "Consideration of longer holding period", and "Representativeness of</p>
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			<p>entities often exhibit traditional corporate risks such as management and growth risks, which insurers aim to avoid with many of the private deals that they invest in. This is in particular true for infrastructure corporates that simply bundle various infrastructure projects. It is in fact difficult to find a sufficiently representative and relevant set of data on which to base a targeted calibration. In fact, one of the key elements that triggered the Commission’s call for advice on infrastructure assets was precisely the limited availability of these investments and the aim to increase their supply.</p> <ul style="list-style-type: none"> ▪ Part of the valuation of such listed instruments involves factoring in the cyclicity of the public traditional corporate bonds markets, while project-like infrastructure investments are not cyclical given the stability and predictability of their cash flows. ▪ A market data based calibration encompasses the systematic nature of public markets, while insurers’ infrastructure project-like corporate portfolios are largely made of investments that are held for the long-term. <p>Insurance Europe believes that an extension of the capital treatment of project finance to qualifying infrastructure corporates is a sensible approach, for at least the following reasons:</p> <ul style="list-style-type: none"> ▪ EIOPA has not come up with a persuasive argument why corporate structures entail more risk than projects (or SPVs). ▪ Introducing separate capital requirements entails the risk that, when choosing the legal vehicle for an infrastructure project, there will be a bias towards the vehicle that is “cheaper” in terms of capital requirements (organisational arbitrage). Prudential regulation should avoid pushing infrastructure business in the direction of one type of legal set-up unless there is very clear evidence that the legal set-up does in fact make a difference. EIOPA does not present such evidence. ▪ It should be considered that, over time, an infrastructure project may become incorporated — either as the result of a decision by the 	<p>entities used for analysis”</p> <p>Please see the Feedback Statement section “Different treatment of infrastructure corporates and infrastructure projects”</p> <p>Regarding the issue of “organisational arbitrage” and “cliff edges” please see the feedback statement section</p>
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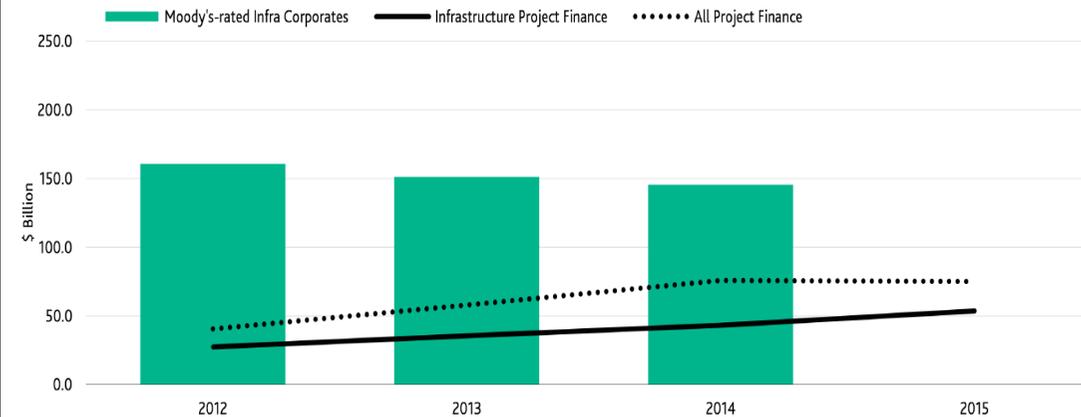
		<p>owners or as a consequence of the project being sold off to an entity that prefers the corporate set-up. It is very important to avoid “cliff edges”, where capital charges change from one day to the next simply because of a change in legal set-up. It should be kept in mind that the insurer may not always be in a position to influence a change of legal set-up. Consequently, as a result of a change in capital charges due to a change in legal set-up, an insurer might be forced to pull out of the investment at very short notice. This cannot be the intention of prudential regulation.</p> <ul style="list-style-type: none"> ▪ In addition, the work conducted by EIOPA in 2015 recognised that insurers invest in infrastructure with a long-term holding perspective and their risk exposure is a combination of liquidity risk and credit default risk. Recalibrating infrastructure corporates based on the behaviour of a selected sample of companies would not be in line with these findings and therefore cannot be justified in a risk-based framework. Insurance Europe is not aware of any new findings or economic basis that would justify taking an approach for corporate infrastructure different from the approach taken for non-corporate infrastructure. <p>Insurance Europe therefore believes that a pragmatic approach, based on the safeguards outlined above and aimed at applying the same relevant criteria and capital treatment to both infrastructure project finance and corporates, is needed at this stage. Further investigations could be done at a later point in time, during the Solvency II review, when it is also likely that more targeted data will become available.</p> <p>To conclude, Insurance Europe believes that impeding investments in corporate infrastructure through excessive capital charges restricts unnecessarily options for insurers. Capital treatment based on the real risks faced by insurers will allow the industry to invest where appropriate, generating additional returns for policyholders and at the same time helping to stimulate much needed economic growth.</p>	<p>“Scope and qualifying criteria”, as well as the response to comment 1.</p> <p>Please see the Feedback Statement section “Consideration of longer holding period”</p> <p>Please see the response to comment 1.</p>
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			Finally, Insurance Europe would like to stress that any changes to the capital requirements for infrastructure investments should also be reflected in the derivation of the Fundamental Spread within the Matching Adjustment calculation. This could be done either by changing the default and downgrade rates or more holistically through an increase in the recovery rate.	Noted. The advice covers the standard formula treatment of infrastructure corporates in the market risk sub-module.
11.	Invest Europe	General comments	Invest Europe welcomes the opportunity to respond to EIOPA's consultation paper on infrastructure corporates and appreciates that EIOPA is seeking further feedback on the proposed approach before specifying its final advice to the European Commission.	
12.	LTIIA	General comments	<p>We welcome EIOPA's recommendation to extend the definition of qualifying infrastructure so that it also includes corporates, based on definitions similar to those adopted for infrastructure projects. Consistent with our earlier comments, we maintain that - since unlisted infrastructure equities exhibit lower (short-term) volatility than comparable listed infrastructure equities - it may be overconservative to calibrate equity risk charges based on the listed data only, whereas listed infrastructure equities only speak for minority of infrastructure equities' investable universe.</p> <p>We would consider it appropriate to apply the same 30% equity capital charge to qualifying infrastructure projects and qualifying infrastructure corporates, given that, with the current definitions, both groups are exposed to substantially the same risks.</p>	<p>Please see the Feedback Statement sections on "Use of market prices" and "Representativeness of entities used for analysis"</p> <p>Please see the Feedback Statement sections on "Different treatment of infrastructure corporates and infrastructure projects"</p>
13.	Moody's	General comments	<p>Moody's Investors Service ("Moody's") welcomes the opportunity to provide comments to EIOPA's Consultation Paper CP-16-005 in relation to the identification and calibration of investment risk in infrastructure corporates.</p> <p>We highlight the significance of the current consultation since capital expenditure by infrastructure corporates in Europe far exceeds that delivered by infrastructure project finance transactions.</p> <p>In Europe over the period 2012-14, we estimate that total capital expenditure by Moody's-rated infrastructure corporates was more than 4x the combined capital value of the infrastructure project finance transactions (whether rated or not)</p>	Noted. EIOPA is very grateful to Moody's for their support during its analysis.

that reached financial close during the period. This is shown in Exhibit 1 below:

Exhibit 1:

Infrastructure Capital Expenditure in Europe: Infrastructure Corporates compared with Infrastructure Project Finance



Note: Infrastructure project finance excludes oil & gas, mining, petrochemical and industrial projects

Source: Moody's, Thomson Reuters Project Finance International

Moody's has published research on the credit performance of two infrastructure-relevant data sets: (1) a data set comprising \$3.3 trillion of Moody's-rated infrastructure debt securities, and (2) a data set comprising \$1.6 trillion of unrated project finance bank loans.

We list below our latest reports. These reports are freely available to all interested parties at www.moodys.com (including non-subscribers, following registration).

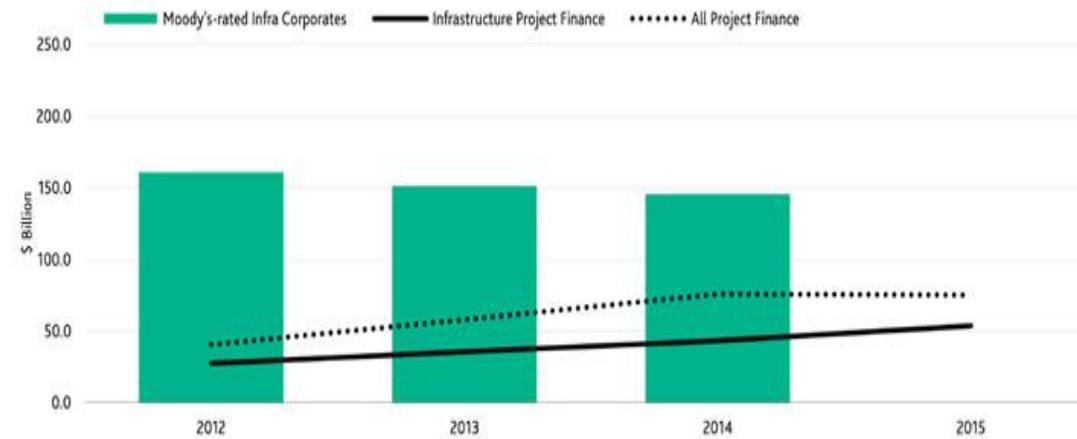
- "Infrastructure Default and Recovery Rates, 1983-2014", March 2015
- "Default and Recovery Rates for Project Finance Bank Loans, 1983-2014", March 2016
- "Default and Recovery Rates for Project Finance Bank Loans, 1983-2013 Addendum", September 2015.

This addendum provides additional information about the performance of projects within the Infrastructure industry sector, during the period 1983-2013.

14.	The Investment Association	General comments	The Investment Association is the trade body that represents UK investment managers, whose 200 members collectively manage over £5.5 trillion on behalf of clients. Our purpose is to ensure investment managers are in the best possible position to:	
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			<ul style="list-style-type: none"> • Build people’s resilience to financial adversity • Help people achieve their financial aspirations • Enable people to maintain a decent standard of living as they grow older • Contribute to economic growth through the efficient allocation of capital <p>The money our members manage is in a wide variety of investment vehicles including authorised investment funds, pension funds and stocks & shares ISAs. The UK is the second largest investment management centre in the world and manages 37% of European assets.</p> <p>The Investment Association welcomes the opportunity to respond to EIOPA’s consultation paper on the identification and calibration of infrastructure corporates.</p> <p>Despite evidence in the Moody’s study on infrastructure default and recovery rates (cited on p.13 of this consultation paper) which indicated that there is the same risk for corporates as for private finance, with the drivers of recovery being strong covenants and limited ownership of assets, Solvency II infrastructure corporates are currently excluded from the qualifying framework.</p> <p>The Investment Association believes that the exclusion of infrastructure corporates:</p> <ul style="list-style-type: none"> • Could incentivise a private equity model of infrastructure financing versus a corporate model, which is unwelcome; and • Would considerably constrain the pipeline of infrastructure projects that insurers and other investors could invest in. <p>Infrastructure corporates represent an important share of the overall infrastructure investment universe. Moody’s estimates that “... <i>in Europe over the period 2012-14, [we] estimate that total capex by Moody’s-rated infrastructure corporates was more than 4x the combined capital value of the infrastructure project finance transactions (whether rated or not) that reached financial close during the period ...</i>”</p>	
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Infrastructure Capital Expenditure in Europe: Infrastructure Corporates compared with Infrastructure Project Finance



Note: Infrastructure project finance excludes oil & gas, mining, petrochemical and industrial projects
 Source: Moody's, Thomson Reuters Project Finance International

Source: Moody's, *Bridging \$1 trillion infrastructure gap needs multi-pronged approach, 24 February 2016*

The Investment Association is also concerned about the potential for cliff-edge effects were an infrastructure project to become an infrastructure corporate over time. This could lead to capital charges changing overnight as a result of a change in legal setup, which could in turn make investors forced sellers as the increased capital requirements would result in these infrastructure corporates no longer being considered suitable investments.

The Investment Association would therefore welcome the inclusion of infrastructure corporates within the Solvency II qualifying framework.

In our response we highlight several areas of concern we have with the existing analysis, and suggest changes that could aid in ensuring that the prudential treatment of infrastructure corporates is line with their risk profile.

In particular, we note concerns that:

- Conclusions drawn from data on listed entities may not apply directly to unlisted entities (which make up a large part of investors' portfolios) given the difference in structure between the listed and unlisted entities.

Regarding the issue of "cliff edges" please see the feedback statement section "Scope and qualifying criteria" as well as the response to comment 1.

Please see the Feedback Statement sections on "Use

			<ul style="list-style-type: none"> • The current definition of “infrastructure corporate” would exclude: <ul style="list-style-type: none"> ○ Infrastructure assets operating in OECD countries that are not in the EEA; ○ Telecoms infrastructure, even where there is a strong social benefit and it is possible to separate infrastructure revenues from consumer goods revenues; ○ Energy storage facilities. ○ Waste management services. ○ Infrastructure corporates with more than a <i>de minimis</i> amount of revenue from ancillary business. • The requirement for a five-year track record for unrated infrastructure corporates is potentially overly restrictive, particularly given the large amount of infrastructure corporate debt that is unrated. <p>The Investment Association welcomes further discussion of any of the points raised in our response.</p>	<p>of market prices” and “Representativeness of entities used for analysis”</p> <p>For the comments on the definition, please see the feedback statement section “Scope and qualifying criteria”</p>
15.	The Association of Corporate Treasurers	General comments	<p>The Association of Corporate Treasurers applauds efforts to make finance available to new single asset infrastructure projects. We are concerned that EIOPA efforts to define such projects puts at risk the current appetite of insurers for the debt of corporate entities engaged in infrastructure investment, maintenance and operation.</p> <p>Efforts to stimulate single asset project finance debt may inadvertently obstruct the current orderly financing of multi asset corporate debt by creating confusion as to which definition the latter comes within.</p> <p>The United Kingdom (UK) in particular within the EU has robust regulation of multi asset infrastructure entities which has enabled water, telecommunications, rail, and energy businesses to raise significant debt in the traded bond markets</p>	<p>Not agreed. EIOPA’s aim is to propose risk charges that can be prudentially justified. EIOPA does not agree that its proposals will adversely affect the functioning of the financing for multi-asset corporate infrastructure debt, in particular based on its proposals to revise the qualifying criteria for infrastructure projects.</p>

		<p>with debt investors relying on the same mix of credit ratings, internal analysis, and publicly available information as available for any other corporate borrower. In addition the UK has utility specific legislation and regulators which hold public deliberations on tariff setting and are obliged where regulating specific utility activities to take account of sustainability of funding.</p> <p>Otherwise infrastructure owners and operators borrow throughout the EU as is evidenced by the lengthy list in Annex III. EU wide infrastructure businesses therefore already access capital markets through which to market their debt to insurers, pension funds, other fund managers, and individuals.</p> <p>We make specific comments on sections of the consultation below but our response overall is for any guidance to insurers to restrict itself defining unrated, single asset businesses within the current terms of Solvency 2, for example as in Table 20 of Regulatory Impact on Banks' and Insurers' Investments (see: https://www.ageas.com/sites/default/files/Regulatory%20Impact%20on%20Banks%20and%20Insurers%20Investments%20-%20final_0.pdf) and not to encroach on the existing capital market available to rated utility infrastructure businesses.</p> <p>We note that the response template does not include provision to answer Question 9. Our response is as follows:</p> <p>(a) The only "benefit" identified is the efficient allocation of capital by the insurer as lender for which it would require greater information than that required for a corporate lending. The question for the insurer is, as with any bond investment, is the return sufficient to justify the additional cost which in this case is monitoring.</p> <p>(b) See above</p> <p>(c) See above</p>	<p>We apologise for this omission.</p> <p>Partially agreed. EIOPA considers that this point is reflected in the Impact Assessment where both the advantages of more risk sensitive capital charges as well as the costs arising from the introduction of new regulatory requirements are discussed.</p>
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16.	Vahta	Section 1.2.	<p>1.26 In addition to removing the restriction for SPVs, particular measures should be introduced on how to consider specific types of financing sources SPVs might have. In the balance sheets of these companies we can find specific financing sources, like mezzanine, senior debt, or special arrangements of bond financing, that have the nature of quasi-equity. This means that usually, for the period of infrastructure build-out phase and for the initial take-up period, this financing sources behave as equity (they bear the business risk, and usually do not demand for return in this initial period). We propose that for the risk evaluations of the SPVs, this financing sources are calculated as equity, provided there is a clear strategy of their development afterwards. If not, the SPVs might be handicapped if compared to other infrastructural projects.</p>	<p>Not agreed. The requirement for the debt investment to be senior only applies to debt without an ECAI rating. In this case, as EIOPA explained in its previous advice (see EIOPA CP—15-004) debt seniority is considered to be important, since the evidence used demonstrating higher recovery rates for infrastructure projects was based on senior debt. Whether certain instruments can be classified as debt or equity has to be analysed on a case-by case basis.</p>
17.			<p>This comment was submitted as confidential by the stakeholder.</p>	
18.			<p>This comment was submitted as confidential by the stakeholder.</p>	
19.	IRSG	Section 2.	<p>We note that EUR and GBP utilities' spreads were significantly less volatile than for other non financial and financial corporates; however we understand from para 1.22 that the work is ongoing in terms of reviewing the maturities and composition of the non infrastructure bonds selected for comparison.</p> <p>As an aside it is generally the case in both the Euro and UK Sterling markets that utilities and infrastructure companies are the companies most able to access the long end of the maturity spectrum - precisely because of their long-term and stable characteristics which we are asking EIOPA to recognise. Hence it may be difficult to always compare like with like as financials and non- infra corporates have historically been less able to access the long end of the market.</p>	<p>Please see the Feedback Statement section "Further analysis of the risk profile of debt investments".</p> <p>EIOPA has done the comparison on an aggregated basis for all maturities. Please see the Feedback Statement section "Further analysis of the risk profile of debt investments".</p>

			<p>We note the comments in para 1.23 regarding price volatility in the year following the period October to December 2007 – clearly this period contained the impact of the early days of the great financial crisis and the fall out from the Lehman collapse in September 2008; it is the case that markets were volatile and spreads widened significantly (a buying opportunity for longer-term investors) in some cases as bank proprietary trading desks (short-term investors) were forced to offload inventory in “fire sale” conditions, a function more of the banks’ problems than the underlying credit of the securities being sold.</p> <p>It would be interesting to see (but very difficult to find data on) the amount of actual two way market trading that took place in this period, as opposed to changes in traders’ quotes or distressed sales.</p> <p>It would be most helpful to also look at default and recovery statistics to the extent they are available for infrastructure corporates and others, which we believe show less default / higher recoveries. Again, we would refer to Moody’s Infrastructure Finance Default Study (9 March 2015).</p>	<p>Not agreed. The Solvency II Framework measures risk based on market (consistent) values.</p> <p>As set out in the CP, EIOPA did also look at default and recovery statistics. Please see Section 7.4 of the CP for an assessment.</p>
20.	AFME – ICMA	Section 2.	<p>We note that EUR and GBP utilities’ spreads were significantly less volatile than for other non financial and financial corporates; however we understand from para 1.22 that the work is ongoing in terms of reviewing the maturities and composition of the non infrastructure bonds selected for comparison.</p> <p>As an aside it is generally the case in UK and EUR markets that utilities and infrastructure companies are the companies most able to access the long end of the maturity spectrum – precisely because of their long-term and stable characteristics which we are asking EIOPA to recognise. Hence it may be difficult to always compare like with like as financials and non- infra corporates have historically been less able to access the long end of the market.</p> <p>We note the comments in para 1.23 regarding price volatility in the year following the period October to December 2007 – clearly this period contained the impact of the early days of the great financial crisis and the fall out from the Lehman collapse in September 2008; it is the case that markets were volatile</p>	<p>Please see the response to comment 19.</p>

			<p>and spreads widened significantly (a buying opportunity for longer-term investors) in some cases as bank proprietary trading desks (short-term investors) were forced to offload inventory in "fire sale" conditions, a function more of the banks' problems than the underlying credit of the securities being sold.</p> <p>It would be interesting to see (but very difficult to find data on) the amount of actual two way market trading that took place in this period, as opposed to changes in traders' quotes or distressed sales.</p> <p>It would be most helpful to also look at default and recovery statistics to the extent they are available for infrastructure corporates and others, which we believe show less default / higher recoveries. Again, we would refer to Moody's Infrastructure Finance Default Study (9 March 2015) (please see above and also see our response to the earlier consultation on this topic).</p>	
21.	IRSG	Section 3.	<p>We agree with all of the statements in paras 1,28 and 1,29 as to the case for infrastructure.</p> <p>We also understand that it is the case that it is relatively hard to quantify these arguments given the diversity of the sector and the very limited history of default and loss within it.</p>	Noted.
22.	AFME – ICMA	Section 3.	<p>We agree with all of the statements in paras 1.28 and 1.29 as to the case for infrastructure.</p> <p>We also understand that it is the case that it is relatively hard to quantify these arguments given the diversity of the sector and the very limited history of default and loss within it.</p>	Noted.
23.	Vahta	Section 3.	<p>1.28 It should be noted, at list for some types of infrastructure, and more specifically those directly serving a big number of end users with services that are of vital importance for normal physical and social life on every day basis (like water, sewage, electricity, telecommunications, waste collection and similar) the risk of churn (a user disconnecting from the infrastructure service) is practically zero. This makes a big difference if compared to other types of infrastructure (like ports and highways), where choice of use between different infrastructures is possible.</p>	Partially agreed. EIOPA considers that this point is already captured by the relevant qualifying criteria, such as regarding stress testing and predictability of revenues

			<p>1.29 It should be noted, that not only “Infrastructure provides a relatively low credit risk alternative to government bonds.”, but we should look deeper. The issue is, that if the analysis is done properly, the infrastructure bond in a specific country could not be riskier than the country’s government bond! Let’s go a bit deeper: what do governments do with the money they get from the government bond emission? Two things: they build infrastructure, or they finance the operating deficit (public wages, social transfers and similar). When governments build infrastructure, the government bond bears two risks, the government/country risk and the infrastructure risk. (in case of using the gov.bonds for financing the operative deficit, the risk is even higher, as money is invested in a non directly productive asset). Investing directly in infrastructure (SPVs bonds for example) for sure jumps on layer of risk (public sector/country related), and the resulting risk must be lower!</p> <p>1.31 This is so (and we are aware of the problem) because there are few historical series of data that can be used for analysis. Moreover, many of the available data is hampered by the fact, that the results from the past are not splitted between the effect/ris/result of infrastructure itself, and other activities the infrastructure operators have made. For example, for the telecommunication sector, practically all the operators that can produce relevant data on the market are vertically integrated, this means that in the same company, infrastructure and end user services are managed, and public data about their performance (and their volatility) cannot be directly applied as “infrastructure only”. Perhaps the only industry that should be able to produce appropriate data for analysis of infrastructure are the electric infrastructure operators. Due to EU regulations, in most of the MS the energy distribution sector has been split into infrastructure companies and electricity trading companies (end users can choose the trader of their choice, independently on who is their infrastructure supplier). An analysis of their performance should give a better estimate of how stable in terms of risk and performance the infrastructure really is.</p>	<p>Not agreed. First in paragraph 1.29 EIOPA was not providing its view on the statements listed but rather explaining some of the arguments put forward. EIOPA’s intention has been to analyse the available data. Furthermore, it is not agreed that an infrastructure investment cannot be riskier than a government bond. It depends on <i>inter alia</i> the nature of the infrastructure asset and the financing arrangements.</p> <p>Please see the Feedback Statement sections on “Representativeness of entities used for analysis” and “Scope and qualifying criteria”.</p>
24.	IRSG	Section 4.	We agree that on your current definition there is a range of “infrastructure corporates” and that these represent a spectrum of risk profiles; we believe it may be appropriate to focus more on the definition of infrastructure corporate in	Noted. Please see the relevant responses below regarding the definition of

			<p>order to include those areas and sectors which are demonstrably better than "standard" corporates. Please see below for our thoughts on definitions.</p> <p>In addition, as far as diversified corporates are concerned, and as mentioned by EIOPA in paragraph 1.73/1.75, there is evidence that cash flows and revenues stemming from infrastructure corporates activities are significantly less volatile than traditional corporates of similar size, leverage and profitability. This is an additional reason why the calibration of infrastructure corporates should reflect this much lower volatility than for traditional corporates, and this cannot be achieved by the approach proposed by EIOPA, which is based on selected market data exhibiting full market volatility, much of which is driven by wider macro issues rather than the creditworthiness of the infrastructure issuers under consideration.</p>	<p>infrastructure corporates.</p> <p>Not agreed. Whilst EIOPA considered the evidence provided by listed infrastructure funds as well as relevant studies of cash flow and revenue data, as explained in the CP there are also significant limitations with the data that is available. Please see also the Feedback Statement section on "Use of market prices"</p>
25.	AFME – ICMA	Section 4.	<p>We agree that on your current definition there is a range of "infrastructure corporates" and that these represent a spectrum of risk profiles; we believe it may be appropriate to focus more on the definition of infrastructure corporate in order to include those areas and sectors which are demonstrably better than "standard" corporates. Please see below for our thoughts on definitions.</p> <p>In addition, as far as diversified corporates are concerned, and as mentioned by EIOPA in paragraph 1.73/1.75, there is evidence that cash flows and revenues stemming from infrastructure corporates activities are significantly less volatile than traditional corporates of similar size, leverage and profitability. This is an additional reason why the calibration of infrastructure corporates should reflect this much lower volatility than for traditional corporates, and this cannot be achieved by the approach proposed by EIOPA, which is based on selected market data exhibiting full market volatility, much of which is driven by wider macro issues rather than the creditworthiness of the infrastructure issuers under consideration.</p>	<p>Please see the response to comment 24.</p>
26.	GDV	Section 4.	<p>As lined out previously, substance should prevail over the legal form. Both special purpose vehicles/limited purpose entities and corporate-like entities can exhibit the same infrastructure risks and hence meet criteria of qualifying infrastructure. In many cases infrastructure corporates are very close in terms of investment profile to infrastructure projects and vice versa. GDV sees evidence</p>	<p>Partially agreed. For this reason, EIOPA recommends revisions to the qualifying criteria for "infrastructure project" to allow for other</p>

			that cash flows and revenues from infrastructure corporates are often significantly less volatile than traditional corporates of similar size, leverage and profitability.	types of financing structures besides single SPV structures to be eligible. This is intended to include some types of infrastructure corporates.
27.	Insurance Europe	Section 4.	<p>Insurance Europe understands that the differences between the risk profile of infrastructure projects and corporates cannot be directly linked to the legal structure and these differences can in fact translate into lower or higher risk for corporates vs projects. Against this background, Insurance Europe believes that a decision to calibrate the capital requirements for corporates based on observable market data would lead to a clear conclusion that corporates are riskier than projects, simply because market data reflects market volatility, and this would in fact contradict EIOPA's analysis that risk can be higher, but can also be lower.</p> <p>Insurance Europe also notes that EIOPA recognises that in many cases infrastructure corporates are in fact very close in terms of investment profile to infrastructure projects so, by taking a significantly different calibration approach, EIOPA basically covers only those cases of corporates that significantly deviate from projects and are close to normal corporates — such an approach is unnecessarily restrictive and similar safeguards could in fact be covered in the identification of corporates and not in an unnecessarily punitive calibration.</p> <p>In addition, as far as diversified corporates are concerned, and as mentioned by EIOPA in paragraphs 1.73&1.75, there is evidence that cash flows and revenues stemming from infrastructure corporates' activities are significantly less volatile than traditional corporates of similar size, leverage and profitability. This is an additional reason why the calibration of infrastructure corporates should reflect this much lower volatility than for traditional corporates, and this cannot be achieved by the approach proposed by EIOPA, which is based on selected market data exhibiting full market volatility.</p>	<p>Not agreed. EIOPA explained that in theory the risk may be higher or lower, but that its analysis should be based on the available quantitative evidence.</p> <p>Not agreed. EIOPA also covers the cases of corporates that are equivalent in risk to projects through the proposed revisions proposed to the infrastructure project qualifying criteria.</p> <p>Please see the response to comment 24.</p>
28.	Vahta	Section 4.	1.36 Generally, more diversified sources of revenue would lead to less risk, but you must take into account also the fact that large infrastructural companies with diversified infrastructure might lose the focus from a specific infrastructure and/or shift their business interest to those infrastructures/countries that grant them more revenue, neglecting thus the rest.	Partially agreed. EIOPA is aware of this risk for larger corporates, which was a consideration when assessing the difference between

			<p>1.37 The building risk is something to be added in the initial phase of an infrastructural project. However, the fact that big infrastructural companies handle this risk better than SPVs cannot be states as true without deeper analysis. An SPV can, for example, employ skilled project managers that would mitigate this risk, where on the other hand, big companies (because of their "established operations" tend to be less responsive in the introduction of new technological solutions that make the project more convenient or more reliable. Handling the procurement process from a higher layer of hierarchy would also lead to less efficient conditions.</p> <p>1.39 Take care, there is not "meaningful market data on the risk characteristics of infrastructure corporates, which is discussed in the Chapters that follow."!! The data available is very seldomly related to infrastructure only!</p>	<p>infrastructure projects and infrastructure corporates.</p> <p>Partially agreed. EIOPA considers that the statements made in the CP are generally accurate, but recognises that there can be cases to the contrary. EIOPA also recognises that SPV projects may have appropriate expertise and controls in place to manage the construction risk and for this reason sought to identify relevant criteria to address this issue during its previous advice (see EIOPA CP-15-004 and Final Report to that consultation)</p> <p>Not agreed. EIOPA considers that overall the CP provides a reasoned analysis of the available evidence on infrastructure corporates including the limitations of this data.</p>
29.	Vahta	Section 5.2.	<p>1.41 For evaluation of infrastructural projects, it's totally inappropriate to use a "12_month volatility of basic own funds measured based on market values", although this is required by the Directive! Infrastructure has life expectancy from 30 to 50 years.</p> <p>1.41 By doing so „Therefore, it is considered to be most appropriate to focus the analysis as far as possible on the prices of traded equities and bonds.“, you might miss the point. It's not true, that the most appropriate is to focus on the analysis as proposed! It's the most convenient, because the data is</p>	<p>Please see the Feedback Statement section "Use of market prices".</p> <p>Not agreed. EIOPA's methodology is not based on what is the most convenient or easiest, but what is</p>

			<p>at hand (although the available data is hampered by the other operations big corporation have, beside their core business). Going the easiest way should not be proclaimed as most appropriate! And then, most appropriate for whom?</p> <p>1.43 There is no evidence, that non listed infrastructure companies are more leveredged than the listed ones, so that should not be taken as a presumption.</p> <p>1.44 first point: Please bear in mind that in the telecommunication field, most big iperators have their infrastructure service's prices regulated in a way that they are limited in terms of return they can generate (LRIC BU, LRAIC BU or „retail minus“ models, according tot he EU regulations and BEREC). It's therefor technically wrong to evaluate the telco infrastrucure on the same level, as the issue the regulators are facing in this case ist he opposite than with other infrastructure (regulation not only sets the price, but sets the highest applicable price). One can therefor not argue that the operators don't make enough revenue, as they cannot do more.</p> <p>1.45 Despite „EIOPA is also not aware of better alternatives“, we propose a corrector. As analysed companies (multinational utilities) bear a lot of other risks (beside the infrastructural one), like the county risk, the financial risk, the investment risk (they build constantly somewhere, and the risk of failed investments is spread on their overall performance), there should be an indicator of „dinamism“. In terms of risk, the more dynamic a company is, the more it exposes it's activities to risk. A „dinamism“ indicator should therefor add or subtract from a generic risk evaluation, based on the specificity oft he case. However, evaluating as best those who are the most static in their sector might satisfy the financial calculations, but surely is not a sign of a long term business operation, which should also be pursued!</p>	<p>considered to be most appropriate based on the Solvency II framework and the available evidence.</p> <p>Not agreed. EIOPA judges that stakeholders have not demonstrated why the risk profile of private deals should be meaningfully better than the entities EIOPA has analysed.</p> <p>Please see the Feedback Statement section "Scope and qualifying criteria".</p> <p>Not agreed. The calibration of such an adjustment factor would be quite complex as a number of factors would have to be quantified and their impact on fluctuations in market prices determined. This seems more appropriate for an internal model than for the standard formula.</p>
30.	IRSG	Question 1.	<p>(a) Do you agree that in the absence of publicly available data on unlisted infrastructure assets; the data on listed entities analysed by EIOPA are an appropriate proxy?</p>	

ISIN	Sub-sector	Issuer ²¹	Coupon	Country of issuer	Volume (EUR million)	Ccy	Maturity	Current rating ²²
XS0612983121	Rail	The Great Rolling Stock Company Ltd	6.5%	UK	400	GBP	04/05/2031	
XS0526995336	Rail	The Great Rolling Stock Company Ltd	6.25%	UK	300	GBP	27/07/2020	
XS0526993802	Rail	The Great Rolling Stock Company Ltd	6.875%	UK	500	GBP	27/07/2035	
XS0957321275	Rail	The Great Rolling Stock Company Ltd	Float	UK	60	GBP	31/12/2023	
XS0516704698	Rail	Porterbrook Rail Finance Ltd	6.5%	UK	250	GBP	20/10/2020	
XS0516704771	Rail	Porterbrook Rail Finance Ltd	7.125%	UK	270	GBP	20/10/2026	
XS1053449028	Rail	Porterbrook Rail Finance Ltd	4.625%	UK	250	GBP	04/04/2029	
XS0638544840	Rail	Porterbrook Rail Finance Ltd	5.5%	UK	250	GBP	20/04/2019	
XS1208436219	Rail	Alpha Trains Finance SA	2.064%		360		30/06/2030	
XS0126604726	Water	Sutton and East Surrey Water	2.874%	UK	100	GBP	31/05/2020	
GB00B1FH8J72	Water	Severn Trent	4.875%	UK	250	GBP	24/01/2042	
XS0790894355	Electricity	Northern Powergrid	4.375%	UK	150	GBP	05/07/2032	
XS0218526274	Electricity	Northern Powergrid	5.125%	UK	200	GBP	04/05/2035	
XS1209166021	Electricity	Northern Powergrid	2.5%	UK	150	GBP	01/04/2025	
XS0165510313	Electricity	Western Power Distribution	5.875%	UK	250	GBP	25/03/2027	
XS0979476602	Electricity	Western Power Distribution	3.875%	UK	400	GBP	17/10/2024	
GB0003405460	Electricity	First Hydro	9%	UK	400	GBP	07/03/2021	
XS0187202303	Electricity (pump storage)	UK Power Networks	5.75%	UK	350	GBP	08/03/2024	
XS0148889420	Electricity (pump storage)	UK Power Networks	6.125%	UK	300	GBP	07/06/2027	
XS1005287203	Electricity	Elenia Distribution Network	4.102%	Finland	3,000	EUR	17/12/2030	
BE0002172386	Gas Distribution	Fluxys SA/NV	4.125%	Belgium	356	EUR	21/12/2015	
XS0942082115	Gas Distribution	Vier Gas Transport GmbH	2.875%	Germany	1,492	EUR	12/06/2025	
XS0942081570	Gas Distribution	Vier Gas Transport GmbH	2%	Germany	1,492	EUR	12/06/2020	
XS0951155869	Gas Distribution	Vier Gas Transport GmbH	3.125%	Germany	749	EUR	10/07/2023	
XS1090450047	Gas Distribution	NET4GAS sro	2.5%	Czech Republic	458	EUR	28/07/2021	
XS1090449627	Gas Distribution	NET4GAS sro	3.5%	Czech Republic	458	EUR	28/07/2026	

²¹ The names of the issuers mentioned in the table are for information only and may not be the legal name of the bond issuer. Please refer to the ISIN of the security for more information.

²² The transactions in the table are not necessarily rated. If a transaction is rated, the current rating is available from the relevant ECAI.

			XS1090620730	Gas Distribution	NET4GAS sro		Czech Republic	269	EUR	28/01/2021	
			NO0010649221	Gas Distribution	Solveig Gas	5.32%	Norway	133	GBP	30/12/2027	
			XS0718981995	Ports	ABP	6.25%	UK	500	GBP	14/12/2026	
			XS0883686650	Water	Affinity Water	4.5%	UK	563	GBP	31/03/2036	
			XS0883690090	Water	Affinity Water	3.625%	UK	563	GBP	30/09/2022	
			XS0883688516	Water	Affinity Water	1.548%	UK	563	GBP	01/06/2045	
			XS0609003701	Water	Bristol Water	2.7%	UK	46	GBP	25/03/2041	
			XS0827573766	Electricity	ESB Finance Ltd	6.25%	Ireland	600	EUR	11/09/2017	
			XS0856023493	Electricity	ESB Finance Ltd	4.375%	Ireland	498	EUR	21/11/2019	
			XS1239586594	Electricity	ESB Finance Ltd	2.125%	Ireland	497	EUR	8/06/2027	
			XS0492262844	Electricity	ESB Finance Ltd	6.5%	Ireland	314	EUR	05/03/2020	
			XS0992646918	Electricity	ESB Finance Ltd	3.494%	Ireland	300	EUR	12/01/2024	
			XS0563639805	Rail	Eversholt Funding plc	5.831%	UK	818	GBP	02/12/2020	
			XS0563638401	Rail	Eversholt Funding plc	6.359%	UK	818	GBP	02/12/2025	
			XS0593975328	Rail	Eversholt Funding plc	3.697%	UK	473	GBP	22/02/2035	
			XS0439818039	Water	Yorkshire Water Services	6.375%	UK	747	GBP	19/08/2039	
			XS0504218990	Water	Yorkshire Water Services	6%	UK	747	GBP	14/04/2025	
			XS0440541752	Water	Yorkshire Water Services	Var	UK	747	GBP	30/12/2039	
			XS0810290832	Water	Yorkshire Water Services	3.625%	UK	318	GBP	01/08/2029	
			XS0436054885	Gas	Northern Gas Networks	5.875%	UK	232	GBP	08/07/2019	
			XS0494932741	Gas	Northern Gas Networks	5.625%	UK	221	GBP	23/03/2040	
			XS0904707287	Electricity	North West Electricity Networks	5.875%	UK	207	GBP	21/06/2021	
			XS0733486848	Water	Northumbrian Water Finance	5.125%	UK	428	GBP	23/01/2042	
			XS0257411297	Water	Northumbrian Water Finance	1.71%	UK	292	GBP	16/07/2049	
			XS0257412261	Water	Northumbrian Water Finance	1.75%	UK	292	GBP	16/04/2053	
			XS0240294339	Water	Northumbrian Water Finance	1.63%	UK	87	GBP	30/01/2041	
			XS0462854687	Gas	Phoenix Natural Gas	5.5%	UK	297	GBP	10/07/2017	
			XS0485672405	Water	South East Water	var	UK	149	GBP	03/06/2041	
			XS0415065399	Water	Southern Water Services	6.125%	UK	335	GBP	31/03/2019	
			XS0905648621	Water	Southern Water Services	4.5%	UK	285	GBP	31/03/2038	
			XS0271386244	Water	Southern Water Services	4.5%	UK	294	GBP	31/03/2052	
			XS0497976	Utilities	Wales & West Utilities	Var	UK	570	GBP	22/08/20	

			<table border="1"> <tr> <td>216</td> <td></td> <td>Finance</td> <td></td> <td></td> <td></td> <td></td> <td>35</td> <td></td> </tr> <tr> <td>XS0497976562</td> <td>Utilities</td> <td>Wales & West Utilities Finance</td> <td>5.75%</td> <td>UK</td> <td>570</td> <td>GBP</td> <td>29/03/2030</td> <td></td> </tr> <tr> <td>XS0497976133</td> <td>Utilities</td> <td>Wales & West Utilities Finance</td> <td>6.75%</td> <td>UK</td> <td>570</td> <td>GBP</td> <td>17/12/2036</td> <td></td> </tr> <tr> <td>XS0702021311</td> <td>Utilities</td> <td>Wales & West Utilities Finance</td> <td>4.625%</td> <td>UK</td> <td>453</td> <td>GBP</td> <td>13/12/2023</td> <td></td> </tr> <tr> <td>XS0702020933</td> <td>Utilities</td> <td>Wales & West Utilities Finance</td> <td>5%</td> <td>UK</td> <td>453</td> <td>GBP</td> <td>07/03/2028</td> <td></td> </tr> <tr> <td>XS0471076876</td> <td>Utilities</td> <td>Wales & West Utilities Finance</td> <td>5.125%</td> <td>UK</td> <td>219</td> <td>GBP</td> <td>02/12/2016</td> <td></td> </tr> <tr> <td>XS0438200361</td> <td>Utilities</td> <td>Wales & West Utilities Finance</td> <td>6.25%</td> <td>UK</td> <td>295</td> <td>GBP</td> <td>30/11/2021</td> <td></td> </tr> </table> <p>While it is difficult to find publicly available granular data to support that listed instruments may not be the best proxies for the reasons mentioned above, using some relevant infrastructure indices such as the Cambridge index for equity clearly demonstrates a much lower volatility of the unlisted European (or worldwide) infrastructure equity market than the listed equity markets.</p> <p>For debt EIOPA used the Moody’s default and recovery rates study to take some additional comfort that infrastructure corporates exhibit a lower risk profile than the conventional corporates. However, there is no evidence that the infrastructure corporate debt analysed in such study is listed. The only tangible evidence of such study is that infrastructure corporate expected loss profile is far closer to that of infrastructure projects’ one than to that of non financial corporates. Given the size and the depth of the study, this should be enough evidence to justify expanding the treatment of infrastructure projects to corporates.</p>	216		Finance					35		XS0497976562	Utilities	Wales & West Utilities Finance	5.75%	UK	570	GBP	29/03/2030		XS0497976133	Utilities	Wales & West Utilities Finance	6.75%	UK	570	GBP	17/12/2036		XS0702021311	Utilities	Wales & West Utilities Finance	4.625%	UK	453	GBP	13/12/2023		XS0702020933	Utilities	Wales & West Utilities Finance	5%	UK	453	GBP	07/03/2028		XS0471076876	Utilities	Wales & West Utilities Finance	5.125%	UK	219	GBP	02/12/2016		XS0438200361	Utilities	Wales & West Utilities Finance	6.25%	UK	295	GBP	30/11/2021		<p>EIOPA understands that the index mentioned is based on private appraisal values. See Feedback Statement section “Use of market prices”.</p> <p>Please see the response to comment 1.</p>
216		Finance					35																																																												
XS0497976562	Utilities	Wales & West Utilities Finance	5.75%	UK	570	GBP	29/03/2030																																																												
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31.	AFME – ICMA	Question 1.	<p>(a) Do you agree that in the absence of publicly available data on unlisted infrastructure assets; the data on listed entities analysed by EIOPA are an appropriate proxy?</p> <p>Broadly, the WG agrees that the data used by EIOPA may be representative of listed infrastructure corporates, but it is not representative of unlisted corporates, which comprise a significant part of investable infrastructure corporates universe. Unlisted infrastructure transactions feature a ‘smoothing and lagging effect’ similar to that recognised in unlisted real estate (see, for example, an overview in Geltner D, MacGregor BD and Schwann GM. Appraisal Smoothing and Price Discovery in Real Estate Markets, Urban Studies May 2003 40: 1047-1064).</p>	<p>Please see the response to comment 30.</p>																																																															

Generally, since c. 2004 the population of listed infrastructure corporates has reduced significantly. This is mostly driven by their being bought by private unlisted infrastructure equity funds (which have insurance companies and pension funds amongst others as their LPs). These naturally long-term investors were able to pay the premium to take these companies private as (a) they valued the long-term cashflows more highly than public market equity investors more likely to be driven by short-termist views and (b) this long-term view permitted them (generally) to allow the companies to raise more debt than listed equity companies. Again, this higher debt was deemed acceptable due to the long-term and stable nature of the company revenues, and the ability of the equity investor to take a long-term view of equity returns.

(b) If not, please provide a comprehensive justification and supporting evidence, including data, International Securities Identification Numbers (ISIN) codes and examples.

The WG considers that Annex IV lists representative infrastructure bond issuers. However, please note that BAA PLC does not longer exist – rather this is now “HAL” (Heathrow Airport Ltd).

The WG considers that the bonds in the table below may be a useful addition for EIOPA’s analysis of listed infrastructure corporate bonds. Additional information on each of the following listed bonds are available in the bond prospectuses.

ISIN	Sub-sector	Issuer ²³	Coupon	Country of issuer	Volume (EUR million)	Denomination	Maturity	Current rating ²⁴
XS0612983121	Rail	The Great Rolling Stock Company Ltd	6.5%	UK	400	GBP	04/05/2031	The transactions in the table are not necessarily rated. If a transaction is rated, the
XS0526995336	Rail	The Great Rolling Stock Company Ltd	6.25%	UK	300	GBP	27/07/2020	
XS0526993802	Rail	The Great Rolling Stock Company Ltd	6.875%	UK	500	GBP	27/07/2035	
XS0957321275	Rail	The Great Rolling Stock Company Ltd	Float	UK	60	GBP	31/12/2023	

²³ The names of the issuers mentioned in the table are for information only and may not be the legal name of the bond issuer. Please refer to the ISIN of the security for more information.

²⁴ The transactions in the table are not necessarily rated. If a transaction is rated, the current rating is available from the relevant ECAI.

			XS0516704698	Rail	Porterbrook Rail Finance Ltd	6.5%	UK	250	GBP	20/10/2020	current rating is available from the relevant ECAI.
			XS0516704771	Rail	Porterbrook Rail Finance Ltd	7.125%	UK	270	GBP	20/10/2026	
			XS1053449028	Rail	Porterbrook Rail Finance Ltd	4.625%	UK	250	GBP	04/04/2029	
			XS0638544840	Rail	Porterbrook Rail Finance Ltd	5.5%	UK	250	GBP	20/04/2019	
			XS1208436219	Rail	Alpha Trains Finance SA	2.064%		360		30/06/2030	
			XS0126604726	Water	Sutton and East Surrey Water	2.874%	UK	100	GBP	31/05/2020	
			GB00B1FH8J72	Water	Severn Trent	4.875%	UK	250	GBP	24/01/2042	
			XS0790894355	Electricity	Northern Powergrid	4.375%	UK	150	GBP	05/07/2032	
			XS0218526274	Electricity	Northern Powergrid	5.125%	UK	200	GBP	04/05/2035	
			XS1209166021	Electricity	Northern Powergrid	2.5%	UK	150	GBP	01/04/2025	
			XS0165510313	Electricity	Western Power Distribution	5.875%	UK	250	GBP	25/03/2027	
			XS0979476602	Electricity	Western Power Distribution	3.875%	UK	400	GBP	17/10/2024	
			GB0003405460	Electricity	First Hydro	9%	UK	400	GPB	07/03/2021	
			XS0187202303	Electricity (pump storage)	UK Power Networks	5.75%	UK	350	GBP	08/03/2024	
			XS0148889420	Electricity (pump storage)	UK Power Networks	6.125%	UK	300	GBP	07/06/2027	
			XS1005287203	Electricity	Elenia Distribution Network	4.102%	Finland	3,000	EUR	17/12/2030	
			BE0002172386	Gas Distribution	Fluxys SA/NV	4.125%	Belgium	356	EUR	21/12/2015	
			XS0942082115	Gas Distribution	Vier Gas Transport GmbH	2.875%	Germany	1,492	EUR	12/06/2025	
			XS0942081570	Gas Distribution	Vier Gas Transport GmbH	2%	Germany	1,492	EUR	12/06/2020	
			XS0951155869	Gas Distribution	Vier Gas Transport GmbH	3.125%	Germany	749	EUR	10/07/2023	
			XS1090450047	Gas Distribution	NET4GAS sro	2.5%	Czech Republic	458	EUR	28/07/2021	
			XS1090449627	Gas Distribution	NET4GAS sro	3.5%	Czech Republic	458	EUR	28/07/2026	
			XS1090620730	Gas Distribution	NET4GAS sro		Czech Republic	269	EUR	28/01/2021	
			NO0010649221	Gas Distribution	Solveig Gas	5.32%	Norway	133	GBP	30/12/2027	
			XS0718981995	Ports	ABP	6.25%	UK	500	GBP	14/12/2026	
			XS0883686650	Water	Affinity Water	4.5%	UK	563	GBP	31/03/2036	
			XS0883690090	Water	Affinity Water	3.625%	UK	563	GBP	30/09/2022	

			XS088368 8516	Water	Affinity Water	1.548%	UK	563	GBP	01/06/2045		
			XS060900 3701	Water	Bristol Water	2.7%	UK	46	GBP	25/03/2041		
			XS082757 3766	Electricity	ESB Finance Ltd	6.25%	Ireland	600	EUR	11/09/2017		
			XS085602 3493	Electricity	ESB Finance Ltd	4.375%	Ireland	498	EUR	21/11/2019		
			XS123958 6594	Electricity	ESB Finance Ltd	2.125%	Ireland	497	EUR	8/06/2027		
			XS049226 2844	Electricity	ESB Finance Ltd	6.5%	Ireland	314	EUR	05/03/2020		
			XS099264 6918	Electricity	ESB Finance Ltd	3.494%	Ireland	300	EUR	12/01/2024		
			XS056363 9805	Rail	Eversholt Funding plc	5.831%	UK	818	GBP	02/12/2020		
			XS056363 8401	Rail	Eversholt Funding plc	6.359%	UK	818	GBP	02/12/2025		
			XS059397 5328	Rail	Eversholt Funding plc	3.697%	UK	473	GBP	22/02/2035		
			XS043981 8039	Water	Yorkshire Water Services	6.375%	UK	747	GBP	19/08/2039		
			XS050421 8990	Water	Yorkshire Water Services	6%	UK	747	GBP	14/04/2025		
			XS044054 1752	Water	Yorkshire Water Services	Var	UK	747	GBP	30/12/2039		
			XS081029 0832	Water	Yorkshire Water Services	3.625%	UK	318	GBP	01/08/2029		
			XS043605 4885	Gas	Northern Gas Networks	5.875%	UK	232	GBP	08/07/2019		
			XS049493 2741	Gas	Northern Gas Networks	5.625%	UK	221	GBP	23/03/2040		
			XS090470 7287	Electricity	North West Electricity Networks	5.875%	UK	207	GBP	21/06/2021		
			XS073348 6848	Water	Northumbrian Water Finance	5.125%	UK	428	GBP	23/01/2042		
			XS025741 1297	Water	Northumbrian Water Finance	1.71%	UK	292	GBP	16/07/2049		
			XS025741 2261	Water	Northumbrian Water Finance	1.75%	UK	292	GBP	16/04/2053		
			XS024029 4339	Water	Northumbrian Water Finance	1.63%	UK	87	GBP	30/01/2041		
			XS046285 4687	Gas	Phoenix Natural Gas	5.5%	UK	297	GBP	10/07/2017		
			XS048567 2405	Water	South East Water	var	UK	149	GBP	03/06/2041		
			XS041506 5399	Water	Southern Water Services	6.125%	UK	335	GBP	31/03/2019		
			XS090564 8621	Water	Southern Water Services	4.5%	UK	285	GBP	31/03/2038		
			XS027138 6244	Water	Southern Water Services	4.5%	UK	294	GBP	31/03/2052		
			XS049797 6216	Utilities	Wales & West Utilities Finance	Var	UK	570	GBP	22/08/2035		
			XS049797 6562	Utilities	Wales & West Utilities Finance	5.75%	UK	570	GBP	29/03/2030		
			XS049797 6133	Utilities	Wales & West Utilities Finance	6.75%	UK	570	GBP	17/12/2036		
			XS070202 1311	Utilities	Wales & West Utilities Finance	4.625%	UK	453	GBP	13/12/2023		
			XS070202 0933	Utilities	Wales & West Utilities Finance	5%	UK	453	GBP	07/03/2028		
			XS047107	Utilities	Wales & West	5.125%	UK	219	GBP	02/12/2016		

			<table border="1"> <tr> <td>6876</td> <td></td> <td>Utilities Finance</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>XS043820</td> <td>Utilities</td> <td>Wales & West</td> <td>6.25%</td> <td>UK</td> <td>295</td> <td>GBP</td> <td>30/11/2021</td> <td></td> </tr> <tr> <td>0361</td> <td></td> <td>Utilities Finance</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <p>While it is difficult to find publicly available granular data to support that listed instruments may not be the best proxies for the reasons mentioned above, using some relevant infrastructure indices such as the Cambridge index for equity clearly demonstrates a much lower volatility of the unlisted European (or worldwide) infrastructure equity market than the listed equity markets.</p> <p>For debt EIOPA used Moody’s Infrastructure Finance Default Study (9 March 2015) to take some additional comfort that infrastructure corporates exhibit a lower risk profile than the conventional corporates. However, there is no evidence that the infrastructure corporate debt analysed in such study is listed. The only tangible evidence of such study is that the infrastructure corporate expected loss profile is far closer to that of infrastructure projects than to that of non financial corporates. Given the size and the depth of the study, this should be enough evidence to justify expanding the treatment of infrastructure projects to corporates.</p>	6876		Utilities Finance							XS043820	Utilities	Wales & West	6.25%	UK	295	GBP	30/11/2021		0361		Utilities Finance							
6876		Utilities Finance																													
XS043820	Utilities	Wales & West	6.25%	UK	295	GBP	30/11/2021																								
0361		Utilities Finance																													
32.			This comment was submitted as confidential by the stakeholder.																												
33.	AFG	Question 1.	<p>Question 1 (a)</p> <p>We understand the methodology that you have applied. We believe that you have well determined what are the disadvantages of such a method (in particular the limited representativity of the sample). We suggest that further considerations for the calibration percentage are given on the analysis of the listed infrastructure funds and of the studies provided by the EDHEC-Risk Institute.</p>	Please see the Feedback Statement sections on “Use of market prices” and “Representativeness of entities used for analysis”.																											
34.	GDV	Question 1.	<p>(a) Given the the lack of reliable data, the use of listed infrastructure assets could be seen as a best approach. However, GDV does not support the use of data on listed entities in order to measure the risk of infrastructure corporates. Listed entities are not representative of the predominantly private deals that insurers engage in. Publicly listed entities often exhibit traditional corporate risks such as management risks and growth risks, which insurers aim to avoid with many of the private deals that they invest in. This is in particular true for</p>	Please see the Feedback Statement sections on “Use of market prices” and “Representativeness of entities used for analysis”.																											

			<p>infrastructure corporates that simply bundle various infrastructure projects.</p> <p>Price movements of listed infrastructure assets will also contain “normal” stock/bond market volatility and general market behavior, which is a contradiction to the assumed absence of overall market dependence within infrastructure investments. Moreover the data provided is seen as a proxy. The challenge is less the set of data but the higher volatility of large, publicly traded entities compared to private or small public corporates (see comment to section 7.3). Moreover, the aim/objectives of the investment may materially differ: insurers are often investing in unlisted projects to benefit from the stability and the predictability of the cash flows over the long term, similar to project companies.</p> <p>(b) It is difficult to find publicly available granular data to support that listed instruments are not an adequate proxy. However, the general concerns outlined above should illustrate why the listed entities are not representing an adequate proxy.</p>	
35.	Insurance Europe	Question 1.	<p>(a) No.</p> <p>Insurance Europe does not agree with EIOPA’s approach to use data on listed entities in order to measure the risk of infrastructure corporates.</p> <ul style="list-style-type: none"> • For debt, publicly listed bonds often do not provide the same protection to lenders through security packages or covenants sets. This is not reflected in the market performance of these bonds. • Project-like infrastructure equity portfolios are made of unlisted companies, where the controlling rights of the shareholders provide an additional layer of comfort on the underlying activities, including when it is relevant the ancillary activities. The valuation of listed equity is affected by a range of factors that have nothing to do with the underlying investment. Using listed equity as a proxy introduces a lot of issues around filtering out the effects of general market behaviour in order to focus on the essential: the risk to corporate infrastructure. <p>In addition, the aim/objectives of the investment may materially differ: insurers are investing in unlisted projects like infrastructure corporate debt or equity the same way they invest in project companies: to benefit from the stability and the predictability of the cash flows over the long term.</p>	<p>Please see the Feedback Statement sections on “Use of market prices” and “Representativeness of entities used for analysis”, the response to comment 30 and paragraph 1.44 of the CP.</p>

			<p>(b)</p> <p>While it is difficult to find publicly available granular data to support the fact that listed instruments may not be the best proxies for the reasons mentioned above, using some relevant infrastructure indices such as the Cambridge index for equity clearly demonstrates a much lower volatility of the unlisted European (or worldwide) infrastructure equity market than the listed equity markets.</p> <p>For debt, EIOPA used the Moody's default and recovery rates study to take some additional comfort that infrastructure corporates exhibit a lower risk profile than the conventional corporates. However, there is no evidence that the infrastructure corporate debts analysed in such study are listed. The only tangible evidence of such study is that the infrastructure corporate expected loss profile is far closer to the infrastructure projects' one than the non financial corporates' one. Given the size and the depth of the study, this should be enough evidence to justify expanding the treatment of infrastructure projects to corporates.</p>	
36.	Invest Europe	Question 1.	<p>Although it may be an appropriate proxy for listed infrastructure corporates, we remain of the view that the risk weighting for unlisted infrastructure corporates should not be derived from an index or list of listed entities. This is a horizontal issue that investors in other unlisted, long-term, illiquid asset classes face within Solvency II. Not only does such an approach fail to reflect the real risk that investors face when investing in such assets, it measures a risk which does not really exist for investors in these assets.</p> <p>We note that EIOPA has stated that "<i>in principle the (short-term) risk of an entity should not depend on whether it is listed or not</i>" but we disagree with this view. While listed and unlisted infrastructure assets might share certain characteristics (based for example on the sector or the nature of asset) the very fact that one is in private ownership and the other is traded on a public market has a profound impact on the riskiness of that asset from the perspective of an investor.</p> <p>In the short-term the existence of a market price for an asset, determined in a</p>	<p>Please see the Feedback Statement sections on "Use of market prices" and "Representativeness of entities used for analysis".</p>

		<p>market that is both liquid and deep, has a profound impact on the investor's risk when investing in the asset. If an asset <i>does not have</i> a daily market price then market price volatility is not a relevant measure of the risk faced by investors investing in that particular asset (even if other assets that share certain characteristics <i>do</i> have such a price).</p> <p>There are also reasons why listed and unlisted (infrastructure) corporates would have different risk profiles. For example, listed infrastructure corporates might be more volatile than their unlisted equivalents because they are exposed to additional factors such as general market volatility, which is driven by short-term market sentiment, that are unrelated to the underlying characteristics, condition or performance of the assets. Given the diverse nature of infrastructure investing the sectors and sub-sectors in which listed and unlisted infrastructure corporates operate may differ substantially, leading to differences in performance and volatility.</p> <p>We believe that there are other options that could be used to calibrate a risk charge for unlisted infrastructure corporates. A possible solution could be to use the net asset value (NAV) of such corporates to determine the volatility of such assets. One could also consider analysing the cash flow volatility of unlisted infrastructure corporates or volatility in EBITDA. These alternatives would be much closer to market practice by investors and better reflect the true risk that insurers face when investing in those types of assets.</p> <p>A mechanism could be found for insurance undertakings and / or infrastructure funds to provide EIOPA with access to an appropriate and representative sample of such data from which the volatility of unlisted infrastructure corporates could be derived with more accuracy.</p> <p>Invest Europe's infrastructure members, both fund managers and investors in those funds, would welcome the opportunity to discuss in greater detail with EIOPA how investors are currently measuring the risks of investing in unlisted infrastructure corporates and how an alternative data set of unlisted infrastructure corporates could be constructed, and then used to develop an</p>	
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			<p>appropriate risk calibration for this type of investment.</p> <p>We recognise that EIOPA needs to make progress in order to meet the Commission’s deadline for advice and while in that context listed corporates might be seen as the most attractive and suitable approach we still have serious concerns whether it is the right proxy for unlisted infrastructure corporates.</p> <p>However, even if such approach were taken then the portfolio of entities set out in Annex III of the consultation paper would need to be carefully constructed to provide the best possible (albeit sub-optimal) data set. In our view only pure infrastructure corporates whose primary business is the ownership and operation of (rather than service of) infrastructure assets should be used. In addition, the mix of subsectors represented would need to reflect those invested in by unlisted infrastructure corporates.</p> <p>The list of selected entities should be looked at again in order to ensure that it captures only pure infrastructure corporates as currently it seems to capture companies that might not meet this criterion and are likely to bring additional volatility in to the index (i.e. ALPIQ, BKW, RWE and EDF).</p>	
37.	LTIIA	Question 1.	<p>We think that the data used by EIOPA is representative of listed infrastructure corporates, but it is not representative of unlisted corporates, which comprise a significant part of investable infrastructure universe. Unlisted infrastructure features ‘smoothing and lagging effect’ similar to that since long recognized in unlisted real estate (see, for example, an overview in Geltner D, MacGregor BD and Schwann GM. Appraisal Smoothing and Price Discovery in Real Estate Markets, Urban Studies May 2003 40: 1047-1064).</p> <p>Comparing, over a long term, quarterly volatilities of (diversified) infrastructure funds to volatilities of listed infrastructure indices with similar assets can provide further evidence as to risk profile differences between listed and unlisted infrastructure. Such data series, with 10 years duration or more, are available for Australian infrastructure. For example, one can compare volatilities of unlisted Australian funds of First State Investments (dating from 2001), Hastings (dating from 1996) and IFM (dating from 1996), on the one hand, and volatilities of UBS Australia Infrastructure & Utilities or MSCI Australia Utilities, on the other</p>	<p>Not agreed. As explained in the CP (Section 6.2) EIOPA only included those entities whose vast majority of revenues were from infrastructure activities.</p> <p>Please see the Feedback Statement sections on “Use of market prices” and “Representativeness of entities used for analysis” as well as the response to comment 30.</p>

			<p>hand. Proprietary research by our members, based on those data sets, shows that quarterly volatility of unlisted infrastructure is approximately half the volatility of listed infrastructure. Due to data licensing restrictions, we are unable to share the research itself, but will be happy to provide to EIOPA all the technical information that is necessary for replicating it.</p> <p>While it is difficult to conduct a similar study with European data sets, because long performance series for European unlisted funds do not seem to be available at this time, we think that findings that are based on the Australian data are important enough in defending our view that the risk profile of listed infrastructure companies is not necessarily representative of the risk profile of unlisted companies.</p>	
38.	The Investment Association	Question 1.	<p>a) Do you agree that in the absence of publicly available data on unlisted infrastructure assets, the data on listed entities analysed by EIOPA are an appropriate proxy?</p> <p>The Investment Association understands that there is a lack of available data regarding unlisted infrastructure assets. However, conclusions drawn from data on listed entities may not apply directly to unlisted entities, given the differences in structure between the two.</p> <p>This is because listed market entities would be subject to market volatility which may not be linked to the risk attached to the underlying investment. Further, investors investing in private unlisted debt are more likely to benefit from additional protections such as stronger security packages or covenant sets versus listed debt.</p> <p>Investors in unlisted equity may benefit from controlling shareholders rights that offer protections that may not be available to those investing in listed equity.</p> <p>Finally, basing an analysis solely on market data therefore risks not capturing a large portion of the infrastructure investment universe and giving the impression that infrastructure corporates are riskier than they actually are.</p> <p>b) If not, please provide a comprehensive justification and supporting evidence, including data, International Securities Identification</p>	<p>Please see the Feedback Statement sections on “Use of market prices” and “Representativeness of entities used for analysis”.</p> <p>EIOPA thanks the Investment Association for providing</p>

			Numbers (ISIN) codes and examples.	information on potential additional bonds and companies. Please see the Feedback Statement section on "Additional bonds and companies provided by stakeholders".
39.	The Association of Corporate Treasurers	Question 1.	<p>(a) No.</p> <p>(b) Single asset infrastructure entities are generally closely held by one of two groups of investors. These are either: expert sponsors engaged in the technology of the assets and which provide offtake, maintenance and supply contract to the project; or venture capital investors. Ownership is often governed by shareholders agreements, and funding by inter-creditor agreements. These agreements require analysis to assess the credit worthiness of each entity although the sponsors may obtain a credit rating to act as a proxy for this analysis. Where a rating is in issue, it may serve as a proxy for comparison to multi asset corporate listed businesses.</p> <p>Multiple asset, corporate infrastructure businesses may have listed equity or be held by private investors. For example, Thames Water Utilities has listed debt but the equity of its holding company is held off-market by a consortia of pension funds; Severn Trent Water has listed debt and is ultimately owned by a listed holding company Severn Trent Plc. The debt of each is rated and its issue requires an EU compliant Prospectus and can be compared to other similar listed corporate infrastructure and non-infrastructure businesses. Also the external credit ratings of each of these businesses enables comparison of their credit worthiness to similar rate non infrastructure businesses.</p>	<p>Noted. EIOPA considers that such entities may be able to qualify according to the revisions proposed to the qualifying criteria for "infrastructure projects".</p> <p>Noted.</p>
40.	Vahta	Question 1.	<p>We do not agree (arguments in the previous discussion). But we must appoint also that the question is stated in a very wrong manner. Starting from your position "<i>the data on listed entities analysed by EIOPA are an appropriate proxy</i>", based on explicitly stated lack of appropriate data, and making a question like the one you did (and inviting the others to provide data you don't have), cannot probably lead to anywhere else than into a confirmation of your thesis. You should ask another question first: In case of inappropriate/insufficient input data, should we use very aproximative data for risk evaluation? As speaking of risk, there is a too high risk in the use of aproximative data, that might hamper all the results.</p>	<p>Not agreed. EIOPA considers that its approach is reasonable which is to present its analysis and rationale and then ask for feedback on that approach. Since EIOPA has underlined that its analysis needs to be based on the data that is</p>

			<p>What we see in this document is a tendency to squeeze a problem into an existing methodology frame at any cost. As we are all aware that the results will be later used and have real world impact, we believe that the error that is being done for defining the procedure/methodology is too big to produce relevant results that reflect correct risks in the industry.</p>	<p>available, it is also considered reasonable to highlight the importance of respondents providing supporting evidence if they do not agree with EIOPA's findings.</p>
41.	IRSG	Section 6.1.	<p>Other indices suitable for EIOPA's analysis are available:</p> <p>UBS Global Infrastructure & Utilities Index: This index comprises several sub-components including:</p> <ul style="list-style-type: none"> - The UBS Global Infrastructure Index designed to track the performance of non-utility related global listed infrastructure (transportation & communication). - The UBS Global Utilities Index designed to track the performance of global utility companies (excluding sub-sector generation utilities). <p>UBS Global 50/50 Infrastructure & Utilities Index: The infrastructure sector and the utilities sector each have a 50% weighting in terms of free-float market capitalization, which removes the skew towards utilities found in the UBS Developed Infrastructure & Utilities Index. Constituents of the index are all listed in developed markets.</p> <p>NMX30 Infrastructure Global, Natural Monopoly Index, (ISIN (Total Return): CH0032212869): This index offers investors exposure to the 30 largest companies in the infrastructure sector worldwide. Regional sub-index focusing on Europe (ISIN: CH0032213941) is also available.</p> <p>FTSE Macquarie Global Infrastructure: The Macquarie Global Infrastructure Index (MGII) Series calculated by FTSE is designed to reflect the stock performance of companies worldwide within the infrastructure industry, principally those engaged in management, ownership and operation of infrastructure and utility assets. Components are listed companies such as Kinder Morgan, Duke Energy Corp, National Grid, Iberdrola...</p> <p>We also recommend looking at the equity performance of listed infra investor funds such as 3i infra fund, Hastings, and others.</p>	<p>Please see the Feedback Statement sections on "Analysis of listed infrastructure funds" and "Analysis of additional existing infrastructure equity indices".</p>
42.	AFME – ICMA	Section 6.1.	<p>Other indices suitable for EIOPA's analysis are available:</p> <p>UBS Global Infrastructure & Utilities Index: This index comprises several</p>	<p>Please see the Feedback Statement sections on</p>

			<p>sub-components including:</p> <ul style="list-style-type: none"> - The UBS Global Infrastructure Index designed to track the performance of non-utility related global listed infrastructure (transportation & communication). - The UBS Global Utilities Index designed to track the performance of global utility companies (excluding sub-sector generation utilities). <p>UBS Global 50/50 Infrastructure & Utilities Index: The infrastructure sector and the utilities sector each have a 50% weighting in terms of free-float market capitalization, which removes the skew towards utilities found in the UBS Developed Infrastructure & Utilities Index. Constituents of the index are all listed in developed markets.</p> <p>NMX30 Infrastructure Global, Natural Monopoly Index, (ISIN (Total Return): CH0032212869): This index offers investors exposure to the 30 largest companies in the infrastructure sector worldwide. Regional sub-index focusing on Europe (ISIN: CH0032213941) is also available.</p> <p>FTSE Macquarie Global Infrastructure: The Macquarie Global Infrastructure Index (MGII) Series calculated by FTSE is designed to reflect the stock performance of companies worldwide within the infrastructure industry, principally those engaged in management, ownership and operation of infrastructure and utility assets. Components are listed companies such as Kinder Morgan, Duke Energy Corp, National Grid, Iberdrola...</p> <p>We also recommend looking at the equity performance of listed infra investor funds such as 3i Infrastructure fund, Hastings, Brookfield Infrastructure Fund and others.</p>	<p>"Analysis of listed infrastructure funds" and "Analysis of additional existing infrastructure equity indices".</p>
43.	Insurance Europe	Section 6.1.	<p>Insurance Europe believes that EIOPA's analysis of the wide infrastructure spectrum would support follow-up work on the recalibration of infrastructure corporates that do not fulfill the definition and qualifying criteria, but that do, based on data, exhibit lower risk than other corporates. More specifically, EIOPA's ongoing analysis should be used to inform both:</p> <p>i) A more tailored, risk-based capital charge for non-qualifying infrastructure corporate equity, where "non-qualifying" should be read as non-qualifying with the revised set of criteria for project finance and corporates</p>	<p>Please see the response to comment 1.</p>

			<p>ii) A more tailored, risk-based capital charge for non-qualifying infrastructure corporate debt, where “non-qualifying” should be read as non-qualifying with the revised set of criteria for project finance and corporates</p> <p>Insurance Europe agrees with the suggestion by EIOPA that decisions to amend Solvency II will have to reflect a balance between changes in the capital requirements and complexity of the standard formula. Such an analysis would have to be considered once EIOPA finalises the necessary work.</p>	
44.	The Investment Association	Section 6.1.	<p>Other suitable indices would include:</p> <ul style="list-style-type: none"> • UBS Global Infrastructure & Utilities Index, comprising: <ul style="list-style-type: none"> ○ The UBS Global Infrastructure Index, tracking the performance of non-utility related global listed infrastructure ○ The UBS Global Utilities Index, tracking the performance of global utility companies (with the exception of sub-sector generation utilities) • UBS Global 50/50 Infrastructure & Utilities Index <ul style="list-style-type: none"> ○ The infrastructure sector and utilities sector each have 50% weighting in terms of free-float market capitalisation under this index, which removes the skew towards utilities found in the UBS Developed Infrastructure & Utilities Index. Constituents of the index are all listed in developed markets. • NMX30 Infrastructure Global Natural Monopoly Index (ISIN: CH0032212869) <ul style="list-style-type: none"> ○ Offers investors exposure to the 30 largest companies in the infrastructure sector worldwide. ○ A regional sub-index focusing on Europe (ISIN: CH0032213941). • FTSE Macquarie Global Infrastructure: <ul style="list-style-type: none"> ○ Calculated by FITSE to reflect the stock performance of companies worldwide within the infrastructure industry, principally those engaged in management, ownership and operation of infrastructure and utility assets. 	Please see the response to comment 41.
45.	Vahta	Section 6.1.	1.51 there is another issue that isn't being taken into account. Many of these utility companies that are being used as a sample have built their infrastructure	Not agreed. EIOPA is not clear how this affects the risk

			as state owned companies. Many of them still are owned by the governments. In this case, the desired equity return is much different than it would be if the companies were truly private owned, as public owners regularly pursue other goals beside profit. This generates an additional risk (a politics one).	based on the measures that are set out in the Solvency II framework. Apart from this one could also argue in the opposite direction that the state – due to its ownership – has an incentive to protect the revenues of the corporate.
46.	IRSG	Section 6.2.	<p>IRSG does not agree with the conclusion that the correlation between infrastructure corporates and other listed equity (MSCI World Index) seem to be equal to 100%, i.e. perfect correlation. In fact, the evidence in Figure 4 seem to suggest that the one-year correlation has varied historically between -45% and 97%. A more appropriate assumption would therefore be a correlation coefficient lower than 100%. IRSG therefore appreciates that EIOPA has not yet reached its final conclusion but will continue to analyse this issue (paragraph 1.70). However, IRSG finds it peculiar that EIOPA is ready to consider perfect correlation with both Type 1 equity and Type 2 equity as is stated in paragraph 1.71, especially since the correlation between these to asset sub groups have been set to 75%.</p> <p>It is not clear whether EIOPA has taken dividends into account. Given that insurers often argue that more stable, predictable and higher cash flow dividends is a key reason for investing in infrastructure (be it project or corporate), it may be appropriate that the analysis should (at least) take dividends into account.</p>	<p>Please see the Feedback Statement section "Correlations".</p> <p>Paragraph 1.71 of the CP reads: "the most likely outcome would be a treatment as type 1 (<i>i.e. correlation of +1 with type 1 and +0.75 with type 2</i>) or type 2 (<i>i.e. correlation of +1 with type 2 and +0.75 with type 1</i>)"</p> <p>The results do not substantially differ with or without dividends.</p>
47.	Insurance Europe	Section 6.2.	Insurance Europe does not agree with the conclusion that the correlation between infrastructure corporates and other listed equity (MSCI World Index) is equal to 100%, ie perfect correlation. In fact, the evidence in Figure 4 seems to suggest that the one-year correlation has varied between 45% and 97%. A more appropriate assumption would therefore be a correlation coefficient lower than 100%. Insurance Europe therefore appreciates the fact that EIOPA has not yet reached its final conclusion but will continue to analyse this issue (paragraph 1.70). However, Insurance Europe finds it peculiar that EIOPA is ready to consider perfect correlation with both Type 1 equity and Type 2 equity as stated in paragraph 1.71, especially as the correlation between these to asset sub	Please see the response to comment 46.

			<p>groups has been set at 75%.</p> <p>It is not clear whether EIOPA has taken dividends into account. Given that insurers often argue that more stable, predictable and higher cash flow dividends is a key reason for investing in infrastructure (be it project or corporate), Insurance Europe believes that the analysis should (at least) take dividends into account.</p>	
48.	Vahta	Section 6.2.	<p>1.61 Ypu have no telecommunication infrastructure in your evaluation model! You should consider that ithe telco industry is following the vertical separation effort, cutting the infrastructural part from the service part, mostly as two organisational units (wholesale and retail) within the same company, but also as two separate entities (see British Telecom and BT Openreach for example). There are also many pure infrastructure operators in Europe (see Axione or Stokab).</p> <p>1.64 Using a price/return indicator to evaluate the risk of infrastructural companies is very wrong. If you were doing it in a spreadsheet, it would give you a "circular cell" warning. The infrastructure is something that has extremely long lifespan, and daily changes of share prices do not in any case reflect changes in the risk of the infrastructure itself. Perhaps the daily changes reflect all the remaining risks, and you should strip the daily changes off to have a real picture over the real infrastructural risk.</p>	<p>Please see the Feedback Statement section "Scope and qualifying criteria"</p> <p>EIOPA does not understand the comparison with Excel. Please see the Feedback Statement section on "Use of market prices"</p>
49.	IRSG	Section 6.3.	<p>Listed private equity firms generally mark-to-market their portfolio companies as followed: at Year 1 of investment, investors will hold their investments at cost. In the following years, on an annual or semi-annual basis, NAVs will be calculated by using the CAPM and prior transaction multiples.</p> <p>In the UK, PPP and renewable funds (such as HICL (www.hicl.com/), JLIF (www.jlif.com), INPP (www.inpp.org.uk)), will usually disclose publicly their yearly NAV calculations.</p> <p>These fair valuations are considerably less volatile than a public equity stake, and reflect the consistent and predictable cash flows of these specific assets without bias to wider market events and noise.</p> <p>In addition to the two portfolios mentioned in the consultation paper, we have</p>	<p>Please see the Feedback Statement section on "Use of market prices".</p>

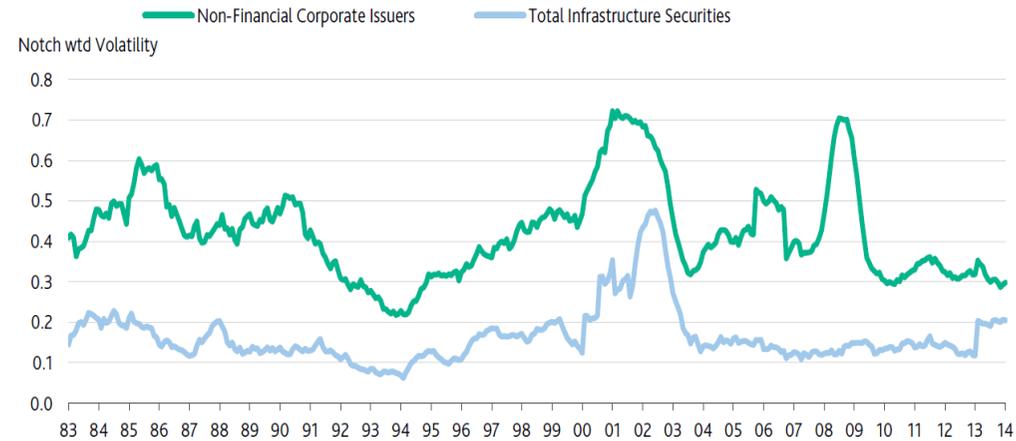
			<p>identified the following active funds with equity underlyings:</p> <p>UBS Equity fund – Infrastructure: 45% in EEA (ISIN: LU0366711900) Fund information available on UBS Fund Gate: https://fundgate.ubs.com/fioverview.do?lang=en&fmt=pdf&instid=64221&cty=L&rid=3</p> <p>Partners Group Listed Infrastructure: 42% in EEA (ISIN: LU0263854829)</p> <p>AMP Capital Global Listed Infrastructure Fund: 34% in EEA (ISIN: LU0995048385)</p> <p>CF Canlife Global Infrastructure Fund: 33% in EEA (ISIN: GB00B7XB4M82)</p> <p>Brookfield Global Listed Infrastructure Fund: 27% in EEA (ISIN: IE00B63LDC43)</p> <p>VT UK Infrastructure Fund: 100% UK (ISIN: GB00BYVB3N35)</p> <p>Lazard Global Listed Infrastructure Portfolio Fund information available on http://www.lazardnet.com/us/mutual-funds/lfi-open-end-funds/real-assets-portfolios/global-listed-infrastructure/#tab-perf-1</p>	Please see the Feedback Statement section "Analysis of listed infrastructure funds".
50.	AFME – ICMA	Section 6.3.	<p>Listed private equity firms generally mark-to-market their portfolio companies as follows: at Year 1 of investment, investors will hold their investments at cost. In the following years, on an annual or semi-annual basis, NAVs will be calculated by using the CAPM and prior transaction multiples.</p> <p>In the UK, PPP and renewable funds (such as HICL (www.hicl.com/), JLIF (www.jlif.com), INPP (www.inpp.org.uk)), will usually disclose publicly their yearly NAV calculations.</p> <p>These fair valuations are considerably less volatile than a public equity stake, and reflect the consistent and predictable cash flows of these specific assets without bias to wider market events and noise.</p> <p>In addition to the two portfolios mentioned in the consultation paper, we have identified the following active funds with equity underlyings:</p> <p>UBS Equity fund – Infrastructure: 45% in EEA (ISIN: LU0366711900) Fund information available on UBS Fund Gate:</p>	Please see the response to comment 49.

			https://fundgate.ubs.com/fioverview.do?lang=en&fmt=pdf&instid=64221&cty=LU&rid=3 Partners Group Listed Infrastructure: 42% in EEA (ISIN: LU0263854829) AMP Capital Global Listed Infrastructure Fund: 34% in EEA (ISIN: LU0995048385) CF Canlife Global Infrastructure Fund: 33% in EEA (ISIN: GB00B7XB4M82) Brookfield Global Listed Infrastructure Fund: 27% in EEA (ISIN: IE00B63LDC43) VT UK Infrastructure Fund: 100% UK (ISIN: GB00BYVB3N35) Lazard Global Listed Infrastructure Portfolio Fund information available on http://www.lazardnet.com/us/mutual-funds/lfi-open-end-funds/real-assets-portfolios/global-listed-infrastructure/#tab-perf-1	
51.	LTIIA	Section 6.4.	We encourage further analysis of the outcomes from EDHEC’s work in arriving at EIOPA’s final advice (Blanc-Brude F, Hasan M and Whittaker T, Revenue and dividend payouts in privately held infrastructure investments: Evidence from 15 years of UK data, Singapore: EDHEC-Risk Institute, 2016). Notwithstanding the limitations, the paper provides a clear quantitative evidence that infrastructure equities – whether in SPVs or in corporates – are featuring lower risk profile than equities in similar non-infrastructure firms.	Partially agreed. EIOPA has further analysed the paper referred to, but still considers that the findings presented in the CP to be appropriate.
52.	Vahta	Section 6.4.	1.77 Could seem funny, but could it be that Solvency II rules should be adapted to include a specifics like the infrastructural investments!?	Not agreed. This is outside of the scope of EIOPA’s advice on infrastructure.
53.	Insurance Europe	Section 7.1.	See comments in Section 6.1	Please see the response to comment 42.
54.	Vahta	Section 7.1.	1.88 Again, you missed the Telecommunication infrastructure.	Please see the Feedback Statement section “Scope and qualifying criteria”.
55.	IRSG	Section 7.2.	We note the study on bonds is ongoing but it is important that other currencies such as GBP are taken into account.	Please see the Feedback Statement section “Additional bonds and companies provided by stakeholders”.
56.	AFME – ICMA	Section 7.2.	We note the study on bonds is ongoing but it is important that other currencies such as GBP are taken into account.	Please see the response to comment 55.

57.	GDV	Section 7.3.	GDV does not agree with using observable spreads from listed infrastructure corporate bonds compared to other industries. Volatility in market spreads does only partially relate to credit risk. Other factors impacting spreads are for example central bank intervention, relative value to other asset classes and general market sentiment. As a consequence public corporate bond spreads are often more volatile than justified by observable default rates. Insurers as buy and hold investors, therefore, do not regard credit spread volatility as a good investment guide.	Please see the Feedback Statement section "Summary of main stakeholder comments on the calibration of debt and equity investments in general".
58.	Insurance Europe	Section 7.3.	Insurance Europe does not agree with using observable spreads from listed infrastructure corporate bonds. Volatility in market spreads only partially relates to credit risk. Other factors impacting spreads are, for example, central bank intervention, relative value to other asset classes and general market sentiment. As a consequence, public corporate bond spreads are often more volatile than justified by observable default rates. Insurers invest with the intention and ability to hold infrastructure long-term or until maturity and therefore do not regard credit spread volatility as a good investment guide.	Please see the Feedback Statement section on "Use of market prices".
59.	Moody's	Section 7.4.	<p>Para 1.111</p> <p>We highlight the following extracts from our report "Infrastructure Default and Recovery Rates, 1983-2014" which show that the rating volatility of Moody's-rated infrastructure corporates has been lower than that of non-financial corporates (NFCs), notably during 2008-09:</p> <ul style="list-style-type: none"> • <i>" ... Exhibit 8 compares the rating volatility for total infrastructure securities with that for global NFC issuers. The rating volatility, the sum of the notch-weighted upgrade and downgrade ratios, measures the gross average number of notches a portfolio of securities has changed over a twelve-month period. ..."</i> 	This was reflected in paragraph 1.109 of the CP.

EXHIBIT 8

Rating Volatility for Total Infrastructure Securities and Non-Financial Corporate Issuers



Source: Moody's

- " ... It is important to note that ratings for total infrastructure securities have been more stable throughout the study period and were notably more stable than those for NFC issuers in the 2008-2009 financial crisis and recession. As explained in a Moody's report published in September 2011, "infrastructure issuers tend to enjoy open and welcoming capital markets, and rarely experience trouble raising the necessary capital to meet their investment needs." However, individual sectors within infrastructure fared differently through crisis periods depending on their exposure to economic and commodity cycles and on the region(s) where the credits in that sector operate."
- " ... Exhibit 9 plots the time series of the rating drift for total infrastructure securities. The rating drift, defined as the notch-weighted upgrade ratio minus the notch-weighted downgrade ratio, is meant to capture the net average number of notches a portfolio of securities has changed over a twelve-month period. ..."

			<p>EXHIBIT 9 Rating Drift, Upgrade and Downgrade Ratios for Total Infrastructure Securities</p> <p>Source: Moody's</p>	
60.	Vahta	Section 8.2.	<p>1.121 “the risk for these entities is similar or even slightly higher than for corporates in general”, Here the obvious error from not knowing the industry was made. You should not look at the aggregated data of the telecom industry, as it comprises two very different sub-industries. The first one is infrastructural service (whose risk is not and cannot be higher than any other industry, or it should be even lower, given the current demand for that infrastructure), the second is the service providing industry, which is much more risky (as global competition and new services are being invented every day).</p>	Please see the Feedback Statement section “Scope and qualifying criteria”.
61.	IRSG	Question 2.	<p>(a) Do you agree with the assessment of the risks of telecom investments as evidenced by the historical price data?</p> <p>We generally agree with this assessment with respect to listed telecommunication companies, given that they typically include content and service provisioning businesses, which cannot be qualified as infrastructure but materially affect overall performance of the asset.</p> <p>However, we consider that some telecom investments (ownership and operation of telecom networks and infrastructure which have high barriers to entry) should be incorporated in the infrastructure corporate definition as set out in the EIOPA’s proposed definition set out in paragraph 1.132 of the consultation paper (see below, Section 8.4, second paragraph). We do not agree that telecom</p>	Please see the Feedback Statement section “Scope and qualifying criteria”.

			<p>operators operating under concession should not be treated as infrastructure corporates since their underlying activities can exhibit the same feature as the regulated infrastructure corporates.</p> <p>(b) Are there any segments within the telecom industry that are safer than other segments, which deserve further granular analysis? If yes, please provide a comprehensive justification and supporting evidence including data, ISIN codes and examples.</p> <p>Telecommunication assets that can be qualified as infrastructure include mobile telecommunication towers, wired signal distribution networks (backbone cables, fiber-to-home, etc) and satellite networks that service providers are renting in return for a stable fee, often subject to long-term contracts. TDF (France), portfolio of Communication Infrastructure Fund (the Netherlands) and Arqiva (UK) are examples of telecommunication infrastructure assets but the three of them are unlisted as are most of other similar assets in this sector.</p> <p>Some other infrastructure sectors are not listed because they usually don't have any publicly traded bonds or equities but this does not mean they are not part of the core infrastructure universe:</p> <ul style="list-style-type: none"> • Strategic electrical or non electrical energy storage • Water irrigation systems • Waste management <p>Please note that those proposed additional sectors are already covered by the project entity framework for SPVs only as long as they comply with the criteria.</p>	
62.	AB Stokab	Question 2.	<p>A) Do you agree with the assessment of the risks of telecom investments as evidenced by the historical price data?</p> <p>When assessing the telecom sector and telecom investments in terms of risk, it is necessary to distinguish between the different layers of the value chain, inter alia the infrastructure/wholesale level and the end consumer level, and, in this case, assess the infrastructure/wholesale level separately.</p> <p>To understand why this is the case, a short market description is needed. For</p>	Please see the Feedback Statement section "Scope and qualifying criteria".

		<p>example in Sweden, a large portion (at least 50 %) of Swedish telecom infrastructure is provided by a wholesale-only model where open access to the networks is fundamental for independent operators. This creates an asset-sharing situation that limits risk in the infrastructure business. As most of the access networks within the EU, the Swedish digital infrastructure sector is an access- and price regulated market. The analysis conducted by EIOPA however only assesses risk of vertically integrated companies, such as Telia AB; the Swedish telecom incumbent, as these corporations are listed entities and would be subject to EIOPA's analysis of traded equities. These companies offer a wide variety of services other than digital infrastructure. As such, they are subject to a greater amount of risk. This is not the case when considering the risk assessment of unlisted companies that only provide digital infrastructure. Such companies function in practice as a classic utility, e.g. as water supply or roads.</p> <p>Against this background, we therefore strongly urge EIOPA to carefully analyse (i) the infrastructure/wholesale level of the telecom value chain separately, not only as a part of the telecommunication industry as a whole, and (ii) the utility aspects of the Swedish digital infrastructure sector. As the Swedish digital infrastructure sector is characterised by a concentration of local, publicly controlled network corporations and a small amount of privately held unlisted companies competing on an access- and price-regulated market, the assessment of the telecom sector in the EIOPA study fails in providing the full picture when portraying risk.</p> <p>EIOPA states that telecom carriers have performed "slightly worse" than other infrastructure corporates. As most of the companies operating on this market in Sweden are either unlisted or owned by public authorities²⁵, the data on traded equities and bonds that form the basis for EIOPA's proposal does not provide a comprehensive fact base on risk assessment from a Swedish market perspective. This is something that must be addressed when moving forward with the risk assessment within the framework of Solvency II.</p> <p>Access to basic fibre infrastructure is a strategic necessity for the digital economy and investments into the infrastructure will have a fundamental impact</p>	
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²⁵ Svenska Stadsnättsföreningen , **Sweden's Local Fibre Networks:** creating competition and providing consumers and operators with freedom of choice (2014)

		<p>on the competitiveness of the EU for at least 20-30 years ahead. EU Member States are currently at a critical crossroads regarding how to enhance the incentives for increasing investments in fibre networks, and, not least, how to ensure that access to these networks can be provided on open, equal and competition neutral terms. These investments are crucial to the achievement of the goals set out in the EU Commission’s Digital Single Market Strategy on connectivity and network capacity, including the development of better mobile services, like 5G, which require access to a backbone fibre network due to the inherent high capacity requirements. To quote Europe’s digital Commissioner, Gunther Oettinger, in this regard: “In a nutshell, the advanced 5G infrastructure is expected to become the nervous system of the Digital Society and Digital Economy.”</p> <p>The deployment of digital infrastructure must remain a top priority for the EU. It is therefore important not to exclude this essential utility of the future, it should be treated in the same manner as water, electric grids etc. If telecom is treated differently in the risk assessment of these crucial investments there is substantial risk of creating, not only a political problem, but obstacles for the development of competitiveness and innovation in the EU.</p> <p>B) Are there any segments within the telecom industry that are safer than other segments, which deserve further granular analysis? If yes, please provide a comprehensive justification and supporting evidence including data, ISIN codes and examples.</p> <p>Considering the fact that digital infrastructure in Sweden should be considered a utility rather than as an infrastructure corporate sector, this segment is by definition safer than other areas. The following characteristics are all proof points on why digital infrastructure should be viewed as a utility rather than as an infrastructure corporate:</p> <ul style="list-style-type: none"> • The market is both price- and access regulated. • There are high barriers of entry on the market, due to its character of classic terrestrial infrastructure, such as water supply, electric grids or roads, with initial heavy investments and a long-term perspective. 	
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		<ul style="list-style-type: none"> • Contracts are long-term and provide stability and steady cash flows, which creates a better risk profile. • Partnership with local authorities provides low-risk investor guarantees. <p>The fibre network is the basis for a digitalised society and it is already forming the foundation for modern life and business in the Nordics. Access to fibre-based broadband is by most young people seen as an essential utility just like electricity. The Swedish Post and Telecoms Authority has credited the bottom-up network development in Sweden to the Metro Area Networks with a varying degree of geographical reach owned and operated by both a limited amount of private corporations and public authorities²⁶. This has also been an important element for boosting investments and bringing Sweden closer to the EU Commission’s goals of fibre net connectivity set out in the 2020 Digital Strategy. However, investments into digital infrastructure must remain a top priority for the Commission. By implicitly favouring other infrastructure sectors such as power grids or district heating over digital infrastructure, we risk setting back the development of the Digital Single Market, which will come at a high political price.</p> <p>Metro Area Networks owned by private corporations and Swedish authorities serve as the basis for operators and services that use the open access and neutral infrastructure to provide their services to private consumers and business-customers. One example hereof is the fact that thanks to the open and well built-out fibre network in Sweden, there are four 4G-operators on the, in international comparison, relatively small Swedish market. Competition neutrality and openness is furthermore a prerequisite for digital growth, in particular for SMEs who can gain access to the network to provide their services. These services are subject to a higher degree of risk, while the underlying fibre infrastructure is not. It is important to note that even though Metro Area Networks are to a large extent controlled by local authorities, the investments have been subjected to market-terms.</p> <p>The market model established by the privately and publicly owned Swedish</p>	
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²⁶ **The Digital Single Market Strategy**, The Nordic NRA’s viewpoints (2015)

		<p>Metro Area-networks is aimed at having as many users as possible of the same basic fibre infrastructure on equal terms. By leaving the fibre infrastructure open, the investment costs can be shared by all market actors using the infrastructure, thereby further reducing the risk. When new fibre networks are being expanded, the opportunity arises to separate the basic infrastructure from the services. This way, the same basic fibre infrastructure can be “frequented” by everyone, which also enables a lower cost for digital services and a more steady cash flow for the infrastructure provider, compared to multiple players supplying these services on their own networks.</p> <p>As an example, Swedish digital infrastructure company IP-Only has adopted an infrastructure-leasing model, meaning that fibre capacity is contracted to local authorities, enterprises and service providers on multi-year leases. Customers become long-term tenants on the infrastructure meaning that projects are typically low risk with an attractive targeted return on equity.</p> <p>Fibre broadband networks - a strategic necessity</p> <p>The EU Member States are currently going through a transition phase into the new digitised era. However, the full potential of the digitalisation is yet to be realised. In order to make it a reality, long-term investments into fibre net infrastructure are necessary. A robust digital infrastructure is essential for future digital services, like 5G mobile connections, that cannot work without fibre connections.</p> <p>Unlisted companies, such as IP-Only, and Swedish local authorities, almost exclusively do investments into open and neutral Metro Area Networks in Sweden. To build and operate these networks requires a long-term perspective as the new digital infrastructure currently being built needs to have a durability of 50- 100 years. The networks must be designed to carry an increase in digital services, especially as the public sector services such as welfare is becoming increasingly digitalised.</p> <p>Many metropolitan areas are also on the brink of taking the digital leap with many city services becoming completely digitalised, as part of the “Smart City” concept. This further increases the sense of urgency for investments, as the</p>	
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			<p>digital infrastructure must be robust to accommodate these services.</p> <p>Possible disruption of investments</p> <p>As pointed out by EIOPA in the consultation paper, the impact of a changed risk assessment will most likely affect the degree of investments in digital infrastructure. This will in turn have a negative impact on the expansion of the fibre broadband network on both a Swedish and a European level at a time when investment in fibre infrastructure is a necessity for competitiveness and growth in most Member States.</p> <p>If the fibre net expansion were to be delayed because of perceived increased risk in such investments, the political price will be high, as this is a top priority among several governments and the Commission. Therefore it is essential to understand the market structure of the telecom sector and thoroughly analyse the wholesale-only market level. As we understand, no companies with a wholesale-only model have been part of EIOPA’s risk assessment. This utility market consequently deserves further granular analysis.</p>	
63.	AFME – ICMA	Question 2.	<p>(a) Do you agree with the assessment of the risks of telecom investments as evidenced by the historical price data?</p> <p>We generally agree with this assessment with respect to listed telecommunication companies, given that they typically include content and service provisioning businesses, which cannot be qualified as infrastructure but materially affect overall performance of the asset.</p> <p>However, we consider that some telecom investments (ownership and operation of telecom networks and infrastructure which have high barriers to entry) should be incorporated in the infrastructure corporate definition as set out in the EIOPA’s proposed definition set out in paragraph 1.132 of the consultation paper (see below, Section 8.4, second paragraph). We do not agree that telecom operators operating under concession should not be treated as infrastructure corporates since their underlying activities can exhibit the same feature as the regulated infrastructure corporates.</p> <p>(b) Are there any segments within the telecom industry that are safer than other segments, which deserve further granular analysis? If yes,</p>	Please see the Feedback Statement section “Scope and qualifying criteria”.

			<p>please provide a comprehensive justification and supporting evidence including data, ISIN codes and examples.</p> <p>Telecommunication assets that can be qualified as infrastructure include mobile telecommunication towers, wired signal distribution networks (backbone cables, fiber-to-home, etc) and satellite networks that service providers are renting in return for a stable fee, often subject to long-term contracts. TDF (France), portfolio of Communication Infrastructure Fund (the Netherlands) and Arquiva (UK) are examples of telecommunication infrastructure assets but the three of them are unlisted as are many of other similar assets in this sector.</p> <p>Some other infrastructure sectors are not listed because they usually don't have any publicly traded bonds or equities but this does not mean they are not part of the core infrastructure universe:</p> <ul style="list-style-type: none"> • Strategic electrical or non electrical energy storage • Water irrigation systems • Waste management <p>Please note that those proposed additional sectors are already covered by the project entity framework for SPVs only as long as they comply with the criteria.</p>	
64.			<p>This comment was submitted as confidential by the stakeholder.</p>	
65.	AFG	Question 2.	<p>Question 2.a - Do you agree with the assessment of the risks of telecom investments as evidenced by the historical price data?</p> <p>Similarly to the example used for airports where airport operators risk is distinguished from airline risk we do not think that the telecom sector should be excluded from the infrastructure corporates.</p> <p>The Juncker Plan has put focus on infrastructure telecom assets, the sector will develop in the near future: the EFSI will support investments for the development and deployment of information and communication technologies (ICT), telecommunications and digital infrastructures. In France, for example in</p>	<p>Please see the Feedback Statement section "Scope and qualifying criteria".</p>

line with the Plan Très Haut Débit, the development of high speed networks will largely be done in subsidized areas (Réseau d'Initiatives Publiques "RIP"). As a consequence, these investments in RIP will imply a long term contract with a public entity (concessions contracts with protective clauses and specific public grants) and also regulated tariffs for the wholesale market (Ex : ARCEP in France).

By way of empirical evidence of the resilience of such companies to the economical cycles, please see below examples of listed pure-play communication infrastructure companies and their stock performance vs the relevant national indices over the past 10 years (or their first date of quotation if more recent).

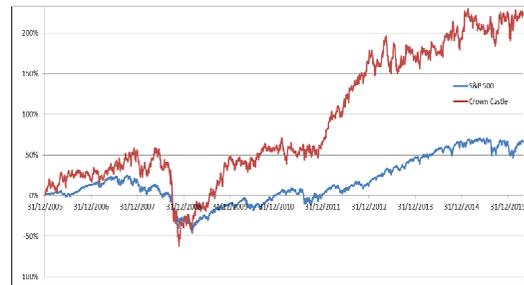
American tower vs S&P 500

01/01/2006 until 29/04/2016



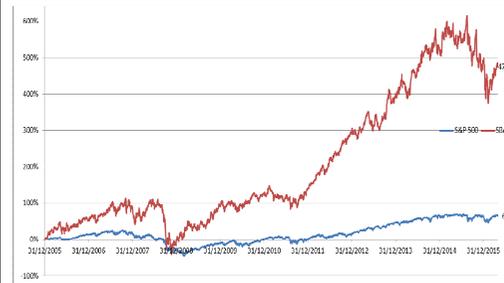
Crown Castle vs S&P 500

01/01/2006 until 29/04/2016



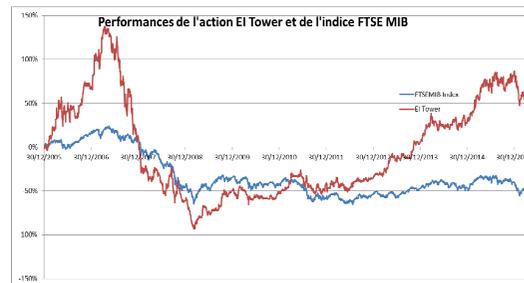
SBA vs S&P 500

01/01/2006 until 29/04/2016



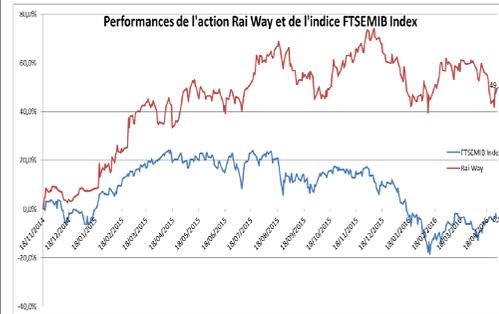
EI Tower vs FTSE MIB

01/01/2006 until 29/04/2016



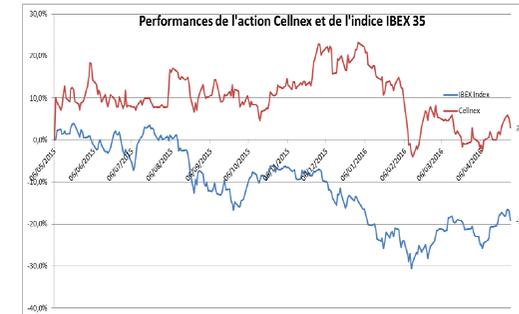
Rai Way vs S&P 500

28/11/2014 until 29/04/2016



Cellnex vs IBEX35

(06/05/2015 until 29/04/2016)



Question 2.b - Are there any segments within the telecom industry that are safer than other segments, which granular analysis? If yes, please provide a comprehensive justification deserve further and supporting evidence including data, ISIN codes and examples.

In the telecommunication sector, revenues may come from:

- The physical infrastructure in itself: e.g. towers, fixed line and fiber network (last mile & backbone / copper & fiber), cable network, data centers;
- The infrastructure management: operation and maintenance of the infrastructure, network operation center;
- Network services and related services: phone and data services, TV and radio stations, media content ...

The revenues generated by the physical infrastructure and the infrastructure management are typical of the infrastructure asset class and will fall within Infrastructure Project or Corporate Infrastructure Project depending on the way they are structured. The commercial risks from the network services and related services could be classified as corporate risk because they evolve in a competitive sector with lower level of predictability on future cash flows.

66.			This comment was submitted as confidential by the stakeholder.	
67.	FTTH Council Europe	Question 2.	<p>(a) In the view of the FTTH Council Europe, historical price data of telecom securities (presumably mostly incumbent operators and cablecos) are not a good proxy for telecom infrastructure in general. While we do not disagree with the derived result (ie. similar or even higher risk) we believe that this is merely the reflection of vertically integrated business models (content, services (even IT services), network operations and infrastructure), high leverage (in the case of cablecos) and aggressive and short-sighted M&A strategies. The risk assessment should therefore be seen as a reflection of the past, suffering from rearview mirror and selection bias effects. The risk assessment does not adequately take into consideration the profound effect of the invention and implementation of the Internet Protocol which has technically enabled the separation of services from the network. This has given rise to so-called Over-The-Top (OTT) business models. Examples are: Messaging services such as WhatsApp replacing SMS or Video Streaming services such as Netflix which have put pressure on the (IP)TV offering of cablecos and incumbent operators. In short, the analysis does not reflect the changes in the communications sector value chain. Most importantly, it would induce negative spill-over effects on companies that have developed a more focussed, wholesale-driven and infrastructure-based business model. (see (b) for examples)</p> <p>(b) From our standpoint, a more granular analysis of business models is necessary. This is also evidenced by recent trends in the industry. These have been triggered by two developments: 1) The introduction of the Internet Protocol (see above), and 2) the growing demand for higher data transmission speeds (both downlink, ie. to the subscriber, and uplink, e.g. into the cloud) with better quality of services (latency in particular). The latter is of particular importance to the Internet of Things (IoT). With regard to 2), we stress that this renders legacy copper networks ineffective to cope with existing and future service requirements. Hence, we believe that there are segments within the communications industry that feature infrastructure characteristics:</p> <p>(i) Mobile tower companies: US-listed companies such as Crown Castle (ISIN US2282V1017) are treated as Real Estate Investment Trusts (REITs). In Europe, integrated operators have recognised the potential for a value release: Telecom Italia decided to spin off its tower business (Inwit: ISIN IT0005090300). Also Telefonica decided to put a number of infrastructure assets (mobile towers, fibre optic networks) in a separate</p>	Please see the Feedback Statement section "Scope and qualifying criteria".

			<p>company called Telxius (not (yet) listed).</p> <p>(ii) Data Center companies: Likewise, some companies in the US are treated as REITs (examples: Digital Realty Trust ISIN US2538681030, Equinix ISIN US29444U5020, CoreSite Realty ISIN US21870Q1058)</p> <p>(iii) Wholesale Network Operators: Examples are UK-based Openreach (a BT subsidiary) which is functionally separated. The same applies to Skanova, the subsidiary of TeliaSonera. In the case of Openreach, the UK regulator attributes a lower WACC to Openreach compared to BT, its mother company. This illustrates that the regulator ascribes a better risk profile to the network operation. In a similar vein, we have witnessed the spin-off of Windstream's network operations in a separately listed company (CS&L, ISIN US20341J1043) and the first voluntary structural separation of an incumbent in the Czech Republic (the network company is now privately held while the services part has remained listed (ISIN CZ0009093209)). Likewise, we note that Italian utility Enel has announced to deploy a wholesale fibre broadband network in Italy. UK-based CityFibre (ISIN GB00BH581H10) has announced to build out more fibre networks in select cities in the UK. Another very interesting example is New Zealand based Chorus (ISIN NZCNU001S2), a wholesale access provider separated from the New Zealand incumbent. The Chorus example shows that volatility in the share depends on a number of factors: the business model (wholesale access) but also regulation. The Chorus share only recovered after the regulator introduced higher regulated prices. We also note that the regulator announced to introduce regulated-asset-base (RAB) regulation thereby abandoning price controls. Thus, a network infrastructure company will be treated similar to a water utility, for example. We think that granular analysis will necessitate a through analysis of the business model, the number and credit risk of wholesale customers and, last but not least, the regulatory system. This is something that cannot be inferred from regression analysis.</p>	
68.	GDV	Question 2.	<p>(a) GDV does not agree that telecom operators operating under concession should not be treated as infrastructure corporates since their underlying activities do exhibit the same features as the regulated infrastructure corporates. At first sight, some telecoms seem to have a higher risk than other infrastructure investments given the very competitive global environment. However, past volatility is an insufficient guidance for possible future volatility due to the development of the industry. Also, introducing a granular capital charge structure for different infrastructure industries would lead to a very</p>	Please see the Feedback Statement section "Scope and qualifying criteria".

			<p>complex setup blurring the benefits from a revised calibration.</p> <p>(b) Communication towers and other telecom such as optic fibre, mobile networks as well as satellite systems financing could be considered as core infrastructure assets.</p>	
69.	Insurance Europe	Question 2.	<p>(a) No.</p> <p>Insurance Europe does not agree that telecom operators operating under concession should not be treated as infrastructure corporates since their underlying activities exhibit the same features as the regulated infrastructure corporates. Insurance Europe believes that communication towers and other mass telecom networks, such as optic fibre and mobile networks, should be considered as core infrastructure assets and included in EIOPA’s analysis, in the same way that EIOPA has excluded airlines but included airports.</p> <p>In addition, past volatility is an insufficient guide to possible future volatility due to the development of the industry.</p> <p>Similarly, Insurance Europe does not agree with the idea that telecom investments bear a different risk to other infrastructure investments that justifies a different capital charge for telecoms. It strongly advises that EIOPA refrain from introducing a very granular capital charge structure where different kinds of infrastructure have different charges. It will lead to a very complex set-up, and the benefits are highly questionable.</p> <p>(b) Yes.</p> <p>Communication towers and other mass telecom (eg optic fibre, mobile) networks as well as satellite systems financing should be considered as core infrastructure assets.</p> <p>Some other infrastructure sectors are not listed because they usually do not have any publicly traded bonds or equities, but this does not mean they are not part of the core infrastructure universe. These include:</p> <ul style="list-style-type: none"> • Strategic electrical or non-electrical energy storage 	Please see the Feedback Statement section “Scope and qualifying criteria”.

			<ul style="list-style-type: none"> • Water irrigation systems • Waste management 	
70.	Invest Europe	Question 2.	<p>While there may be reasons to believe that certain telecoms should be excluded from the definition of 'infrastructure corporates' we think that there are telecom investments that should be included in EIOPA's consideration and able to benefit from a lower risk weight.</p> <p>Telecommunication is an established infrastructure sector and is suitable for incorporation in the scope of the proposed definition of infrastructure corporates. The wholesale exclusion of all telecom investments is overly restrictive and has not been justified.</p> <p>We believe that this blanket exclusion should be reconsidered and that EIOPA should allow investment into appropriate telecom infrastructure, particularly those whose business focuses on the provision of infrastructure as opposed to the provision of content (i.e. TV channels, data services, mobile plans, etc.), to fall under the definition of 'infrastructure corporates'.</p> <p>Telecom tower companies could be one example of telecom infrastructure suitable for the inclusion. Publicly traded telecom towers such as American Tower, Crown Castle, SBA Communications, Cellnex, Inwit, and El Towers should be able to provide EIOPA with sufficient evidence to justify overturning a wholesale exclusion of telecoms. Their business model is generally quite close to the profile of telecom infrastructure corporates.</p>	Please see the Feedback Statement section "Scope and qualifying criteria".
71.	LTIIA	Question 2.	<p>Yes, we generally agree with this assessment with respect to listed telecommunication companies, given that they typically include content and service provisioning businesses, which cannot be qualified as infrastructure but materially affect overall performance of the asset. Telecommunication assets that can be qualified as infrastructure include mobile telecommunication towers and wired signal distribution networks (backbone cables, fiber-to-home, etc) that service providers are renting in return for a stable fee, often subject to long-term contracts. TDF (France) and portfolio of Communication Infrastructure Fund (the Netherlands) are examples of telecommunication infrastructure assets but both of them are unlisted as are most of other similar assets in this sector.</p>	Please see the Feedback Statement section "Scope and qualifying criteria".
72.	The Investment Association	Question 2.	<p>a) Do you agree with the assessment of the risks of telecom investments as evidenced by the historical price data?</p> <p>Telecoms have a high social benefit. Certain broadband or smart-metering</p>	Please see the Feedback Statement section "Scope and qualifying criteria".

		<p>businesses, for example, could be considered to meet the definition of infrastructure, and are financed by investors on that basis. It is important that any criteria do not exclude such businesses.</p> <p>In general, The Investment Association would recommend that EIOPA avoid introducing a granular capital charge structure for different forms of infrastructure investment. Such a system would inevitably be extremely complex and risk constraining investment in certain infrastructure assets, even where there is a strong social benefit.</p> <p>b) Are there any segments within the telecom industry that are safer than other segments, which deserve further granular analysis? If yes, please provide a comprehensive justification and supporting evidence including data, ISIN codes and examples.</p> <p>While The Investment Association recognises that there are challenges as to how to separate regulated infrastructure activities (such as cable provision) from non-regulated business (such as phone contracts), it should be noted that there are Issuers who operate principally as providers of telecom infrastructure, such as Arqiva.</p> <p>The Investment Association therefore considers that communication towers and other mass telecom networks, such as optic fibre or mobile networks, could be considered as core infrastructure assets and included in EIOPA's analysis, in the same way that EIOPA has excluded airlines but included airports.</p> <p>For this reason The Investment Association recommends that EIOPA consider Arqiva's bonds in its analysis – see below.</p>	
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				Issuer Name	ISIN	CUSIP		
				Arqiva	XS1251096753	UV391804 Corp		
				Arqiva	XS0895820834	EJ555729 Corp		
				Arqiva	XS1024447010	EK036481 Corp		
				Arqiva	XS0895821055	EJ555989 Corp		
				Arqiva	XS0894469880	EJ567281 Corp		
				Arqiva	XS0894470110	EJ565185 Corp		
73.	The Association of Corporate Treasurers	Question 2.	<p>(a) Telecoms carriers are subject to a variety of forms of regulation, and in the case of mobile telephony carriers, differing degrees of market exposure. More information would be required as to which telecoms carriers are included in the data. We note that for example British Telecommunications plc and Orange SA, the major UK and French telecom carriers, and effectively monopolistic is not included in the portfolio</p> <p>(b) We recommend analysis is made between:</p> <ul style="list-style-type: none"> • Economically regulated listed utilities (for example, BTplc) • Mobile carriers which are generally exposed to market competitiveness • Telecom carriers subject to government relationships (Orange SA) 					Please see the Feedback Statement section "Scope and qualifying criteria".
74.	Vahta	Question 2.	<p>a) It's wrong to evaluate historic data to analyse telecom infrastructure risk, as historic data bears aggregated risks of infrastructure and services!</p> <p>b) Yes, of course, infrastructural part of the telecom industry is much different (and it's like half of the overall). The infrastructure's risk is much lower than the one of the service part.</p>					Please see the Feedback Statement section "Scope and qualifying criteria".
75.	IRSG	Question 3.	<p>(a) What is the volume of infrastructure corporates without an ECAI rating?</p> <p>IRSG believes that the majority of corporate infrastructure debt have an ECAI rating as most public debt issuance effectively requires such rating, however, it is not uncommon for lenders in private debt not to require a rating assessment.</p>					Please see the Feedback Statement section "Debt without an ECAI rating".

			<p>(b) What is the typical amount of a corporate debt issuance? How does this relate to the cost of obtaining an ECAI rating?</p> <p>It depends on sector and issuer. Typically the real minimum of c. £150m for a listed bond but more typically one would see £200m + per issue and in Europe for larger integrated utilities we would see €500m as a typical size for a larger corporate. In most cases, this is driven by the desire of issuers of public listed bonds to issue bonds that would be included in an index (e.g. iBoxx) to ensure liquidity. However, some smaller issuers such as small UK water companies, port companies or European utility businesses have issued privately placed notes for as low as £20m.</p> <p>(c) What criteria could be used to identify suitable debt without an ECAI rating and to eliminate unsuitable investments? Please provide specific proposals.</p> <p>Since the criteria for debt without an ECAI rating have already been developed for project debt, IRSG suggests adopting similar albeit tailored criteria to the context of corporates rather than imposing an ECAI rating for corporates as a qualification requirement. IRSG does not believe it is in the interest of long-term stability to tie all criteria to ECAI ratings. IRSG also strongly recommends that the ECAI be an appropriately EU-regulated ECAI.</p>	
76.	AFME – ICMA	Question 3.	<p>(a) What is the volume of infrastructure corporates without an ECAI rating?</p> <p>Our members believe that majority of corporate infrastructure debt has an ECAI rating as most public debt issuance effectively requires such a rating, however, it is not uncommon for lenders in private debt not to require a rating assessment.</p> <p>(b) What is the typical amount of a corporate debt issuance? How does this relate to the cost of obtaining an ECAI rating?</p>	Please see the Feedback Statement section “Debt without an ECAI rating”.

			<p>It depends on sector and issuer. Typically the real minimum of c. £150m for a listed bond but more typically one would see £200m + per issue and in Europe for larger integrated utilities we would see €500m as a typical size for a larger corporate. In most cases, this is driven by the desire of issuers of public listed bonds to issue bonds that would be included in an index (e.g. iBoxx) to ensure liquidity. However, some smaller issuers such as small UK water companies, port companies or European utility businesses have issued privately placed notes for as low as £20m.</p> <p>It is not just the cost of an ECAI rating which is important to a borrower/issuer. The requirement to interact with a third party is, along with price, something which can make bank debt more attractive than more natural longer-dated capital.</p> <p>(c) What criteria could be used to identify suitable debt without an ECAI rating and to eliminate unsuitable investments? Please provide specific proposals.</p> <p>Since the criteria for debt without an ECAI rating have already been developed for project debt, the WG suggests adopting similar albeit tailored criteria to the context of corporates rather than imposing an ECAI rating for corporates as a qualification requirement. The WG does not believe it is in the interest of long-term stability to tie all criteria to ECAI ratings.</p>	
77.	GDV	Question 3.	(c) GDV believes that compliance with the criteria for infrastructure project finance including necessary adjustments would be sufficient.	Please see the Feedback Statement section "Debt without an ECAI rating".
78.	Insurance Europe	Question 3.	(c) Insurance Europe believes that compliance with the additional criteria (revised to allow the inclusion of corporates) is enough and no further criteria are needed.	Please see the Feedback Statement section "Debt without an ECAI rating".
79.	LTIIA	Question 3.	Our members believe that majority of corporate infrastructure debt has an ECAI rating, however, is not uncommon for lenders in certain sectors not to require a rating assessment. For example, it is the case for port and terminal assets that	Please see the Feedback Statement section "Debt without an ECAI rating".

			are often credited by specialized banks. Since the criteria for debt without an ECAI rating have already been developed for project debt, we would suggest adopting those criteria to the context of corporates rather than imposing an ECAI rating for corporates as a qualification requirement.	
80.	The Investment Association	Question 3.	<p>a) What is the volume of infrastructure corporates without an ECAI rating?</p> <p>Investors would not normally expect to see a credit rating for a corporate with an issuance size of below £250m, and many infrastructure corporates are not large – for example most regional airports are unrated. However, it is not uncommon for corporates to decide against getting a rating even for issuance sizes of £300m to £400m, partly as a result of the costs associated with a rating but also because issuers may want to avoid the addition of a third party to the process.</p> <p>It is also not uncommon for some large corporates to issue both public and private unlisted debt. In such an instance, their unrated unlisted debt will nonetheless often be considered ‘safer’ than the rated listed debt of a smaller corporate.</p> <p>b) What is the typical amount of a corporate debt issuance? How does this relate to the cost of obtaining an ECAI rating?</p> <p>Aside from the initial cost of obtaining a rating (which can cost hundreds of thousands of pounds), there are significant ongoing fees. The initial cost tends not to vary across issuances of different sizes. However, ongoing fees will be based on a percentage of the issuance size, and as a result these fees will be larger for larger issuances.</p> <p>In addition, some corporates will seek multiple ratings. This will result in a multiplication of costs.</p> <p>c) What criteria could be used to identify suitable debt without an ECAI rating and to eliminate unsuitable investments? Please provide specific proposals.</p>	Please see the Feedback Statement section “Debt without an ECAI rating”.

			Investors typically consider the credit quality of an asset before assessing the capital structure. The credit profile (i.e. business risk) will highlight to investors whether or not an investment falls into the definition of "infrastructure". The capital structure will then, in part, drive the likely rating of the asset.	
81.	The Association of Corporate Treasurers	Question 3.	<p>(a)</p> <p>(b) The benefit of a rating is to enable easier access to markets and investors and these benefits should be considered against the cost. The cost of maintaining a rating is a combination of the rating agency fees and management time and distraction to explain their business model and maintain information flow to agencies. The cost of doing so for extant, multi assets businesses with available public oversight will be materially less relative to debt volumes than that required for a new, single asset entity.</p> <p>(c) The main criteria should be the public availability of shareholder and inter-creditor agreements, coupled with major supplier and offtake agreements. This disclosure has requirement been a barrier to listing and rating of project finance debt where promoters would be disclosing discrete, project based commercial information.</p>	Please see the Feedback Statement section "Debt without an ECAI rating".
82.	Vahta	Question 3.	In the telecom sector, probably all of them have no ECAI rating. In terms of infrastructure, probably half of their overall turnover, less than half of their profit, and less than half of their risk should be accounted.	Please see the Feedback Statement section "Debt without an ECAI rating".
83.	Vahta	Section 8.3.	1.128 "The criteria should ensure that the risk of the qualifying infrastructure investments is comparable to the entities which were used for the calibration." This requirement is a very restrictive one, and probably inappropriate. As already said, trying to squeeze any industry (telecom infrastructure for example) in a model that originally was made for others is not a methodologically correct way to proceed.	Not agreed. EIOPA considers it to be appropriate to base its recommendations on the available evidence. Nevertheless, as explained in the CP, EIOPA has aimed to strike a balance between risk-sensitivity and undue complexity.
84.	IRSG	Section 8.4.	<p>Paragraph 1.132: Definition</p> <p>IRSG feels strongly that basing a definition on "vast majority" is unworkable, and is not consistent with policymakers' intent to include corporate infrastructure transactions which include a substantially similar risk profile as project finance infrastructure. As an alternative to a "vast</p>	Please see the Feedback Statement section "Scope and qualifying criteria" regarding the comments on the definition.

		<p>majority" definition we propose "substantial majority". In our view that is consistent with (and more easily understood as complying with) EIOPA's criteria described at paragraph 1.166 that "the proportion of infrastructure activities needs to be well above 50%". For example, members are aware of an investment-side association [check with the association as to whether their name and data can be released publicly] which defines, for their investor members "substantially", "principally" and "significant" as describing a minimum of 80%.</p> <p>In our view the definition should include "owning and operating telecoms networks or infrastructure". In the same way as for airline businesses versus airports, the intention is to exclude telecoms businesses but include telecoms infrastructure corporates.</p> <p>We note that there are businesses that may be categorised as "infrastructure corporates", such as Thames Tideway Tunnel, that would not satisfy the requirement that "the infrastructure corporate has been active in these lines of business for at least five years". In addition, there are a number of spin-off/privatisation businesses (particularly in continental Europe) that would fail to satisfy this criterion because of the change of legal ownership structure. To partially address these points we recommend amending to "the infrastructure corporate (<u>or the business of that infrastructure corporate</u>) has been active in these lines of business for at least five years". This is to avoid an infrastructure corporate business being ineligible simply because of a change in legal structure.</p> <p>Also, we do not see why corporates operating in OECD should be excluded. In this way, the drafting would follow that used for project financings.</p> <p>Paragraph 1.139: Revenue predictability</p> <p>The conditions set for revenue predictability would appear to exclude toll roads. We consider that this may be the effect of the criteria but think that in principle toll roads should not necessarily be excluded. We note that banded tolls can significantly mitigate the impact of traffic risk on revenues.</p>	<p>Not agreed. Where there are not regulated or contractually fixed revenues EIOPA's considers that it is important for the revenues to be "sufficiently predictable as a result of low demand risk". This condition is also part of the qualifying criteria for</p>
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			<p>Under limb 2 where the revenues are not funded by payments from a large number of users, none of (i)-(iv) address situations in which the offtake is a local council. The same issue arises in the original drafting for project finance transactions with the upshot that education PFIs or availability-based roads based on payments from a European municipality are not included. This would not seem to be the overarching intention.</p> <p>The third requirement (<i>3. The revenues shall be diversified in terms of activities, geographical location, or payers, unless the revenues are subject to a rate-of-return regulation</i>) is unnecessarily restrictive and would disqualify almost any investment. In fact, the requirement goes beyond the requirements of the Solvency II Directive which is based on the prudent person principle. It is not consistent with the Directive to set up separate requirements for individual</p>	<p>infrastructure projects. EIOPA believes that this condition could also be met in the case of toll roads.</p> <p>Not agreed. EIOPA considers that the current approach is appropriate for both projects and for corporates. Given the importance of this counterparty where revenues are not paid by a large number of users, and the likelihood of severe losses for the project or corporate should they default, EIOPA considers that its advice is appropriate (see also the Final Report to CP 15/004). Furthermore, it can be mentioned as well that point (iv) of the requirement regarding the possibility for it to be demonstrated that the entity is replaceable without an undue impact is considered to provide an appropriate degree of flexibility.</p> <p>Please see the Feedback Statement section "Scope and qualifying criteria". EIOPA does not agree that this requirement would disqualify almost any investment. The</p>
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			<p>assets or even for a sub group of assets, as it is done here. Besides, from a risk perspective it is more important to consider diversification for the asset portfolio as whole, and not for separate assets or assets classes.</p>	<p>requirement for diversified revenues is in relation to any one of the three areas, activities, geographical location or payers. The use of the term diversified is intended to capture that there is not reliance on one single source of revenue. This means that a corporate may not be eligible if it is a single asset entity with a single counterparty or off-taker. In this case, there are risks arising from this, which can for example be compensated by other controls such as the security package. Thus, in such single asset / single payer cases it is considered more appropriate for the asset to be subject to the "infrastructure project" criteria.</p> <p>In addition, regarding the interpretation of the term "diversified", depending on the particular circumstances, it may be possible to satisfy the requirement where there is simply more than one activity, location or payer.</p> <p>Finally, EIOPA does not agree that there is any inconsistency with the Solvency II Directive. EIOPA considers this requirement to be comparable to any other</p>
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			<p>Paragraph 1.148: Financial structure</p> <p>We assume it is the intention that the phrase "very robust assumptions based on an analysis of the relevant financial ratios" is intended to be equivalent to the assumptions that would be used by an appropriately EU regulated ECAI for purposes of assigning to an infrastructure corporate a credit quality step of at least 3. We suggest clarifying this.</p>	<p>qualifying criteria within the SCR standard formula for a particular asset class that needs to be met for a certain capital treatment to be received.</p> <p>Partially agreed. This requirement provides an alternative where an ECAI rating is not available. However, EIOPA does not consider the requirement regarding the analysis of relevant financial ratios to be equivalent to an ECAI rating assessment. As EIOPA stated in the CP the aim of the requirement is to minimise the risk arising from the financial structure. An external rating reflects many risk factors that are also relevant for the equity investors. Where an ECAI rating exists, this provides a straightforward means of demonstrating that there is not undue risk arising from the financial structure.</p> <p>At the same time EIOPA has revised the requirement to state "conservative assumptions" instead of "very robust assumptions". This is intended to clarify that the analysis is not expected to cover for example different</p>
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				stress scenarios (as is required for the stress analysis requirement for "infrastructure projects"). Instead the intention is that conservative or prudent assumptions (e.g. regarding revenue projections) are used when analysing the relevant financial ratios.
85.	AFME – ICMA	Section 8.4.	<p>Paragraph 1.132: Definition</p> <p>The WG feels strongly that basing a definition on "vast majority" is not sufficiently clear, and is not consistent with policymakers' intent to include corporate infrastructure transactions which include a substantially similar risk profile as project finance infrastructure. As an alternative to a "vast majority" definition we propose "substantial majority". In our view that is consistent with (and more easily understood as complying with) EIOPA's criteria described at paragraph 1.166 that "the proportion of infrastructure activities needs to be well above 50%". For example, members are aware of an investment-side association which defines, for their investor members "substantially", "principally" and "significant" as describing a minimum of 80%.</p> <p>In our view the definition should include "owning and operating telecoms networks or infrastructure". In the same way as for airline businesses versus airports, the intention is to exclude telecoms businesses but include telecoms infrastructure corporates.</p> <ul style="list-style-type: none"> We note that there are businesses that may be categorised as "infrastructure corporates", such as Thames Tideway Tunnel, that would not satisfy the requirement that "the infrastructure corporate has been active in these lines of business for at least five years". In addition, there are a number of spin-off/privatisation businesses (particularly in continental Europe) that would fail to satisfy this criterion because of the change of legal ownership structure. To partially address these points we recommend amending to "the infrastructure corporate (or the business of that infrastructure corporate) has been active in these lines of business for at least five years". This is to avoid an infrastructure corporate business being ineligible simply because of a change in legal structure. 	Please see the response to comment 84.

			<p>Also, we do not see why corporates operating in OECD should be excluded. In this way, the drafting would follow that used for project financings.</p> <p>Paragraph 1.139: Revenue predictability</p> <p>The conditions set for revenue predictability would appear to exclude toll roads. We consider that this may be the effect of the criteria but think that in principle toll roads should not necessarily be excluded. We note that banded tolls can significantly mitigate the impact of traffic risk on revenues.</p> <p>Under limb 2 where the revenues are not funded by payments from a large number of users, none of (i)-(iv) address situations in which the offtake is a local council. The same issue arises in the original drafting for project finance transactions with the upshot that education PFIs or availability-based road transactions based on payments from a European municipality are not included. To exclude these would not seem to be the overarching intention of the Commission and EIOPA.</p> <p>Paragraph 1.148: Financial structure</p> <p>We assume it is the intention that the phrase "very robust assumptions based on an analysis of the relevant financial ratios" is intended to be equivalent to the assumptions that would be used by an ECAI for purposes of assigning to an infrastructure corporate a credit quality step of at least 3. We suggest clarifying this.</p>	
86.			This comment was submitted as confidential by the stakeholder.	
87.	Insurance Europe	Section 8.4.	<p><i>Definition</i></p> <p>ECAI credit quality step 3 should be considered only for lenders, not at equity level.</p>	Not agreed, as stated in the CP an ECAI rating reflects many risk factors that are also relevant for the equity investors.

			<p>Regarding paragraphs 1.134&1.138, Insurance Europe seeks clarification on why the reference to OECD has been removed, as this approach does not seem consistent with the project entities approach in terms of geographical scope.</p> <p>Insurance Europe does not support requirement 3 (ie The revenues shall be diversified in terms of activities, geographical location, or payers, unless the revenues are subject to a rate-of-return regulation), as it is unnecessarily restrictive and would disqualify almost any investment. In fact, the requirement goes beyond the requirements of the Solvency II Directive which is based on the prudent person principle. It is not consistent with the Directive to set up separate requirements for individual assets or even for a sub-group of assets, as is done here. Besides, from a risk perspective, it is more important to consider diversification for the asset portfolio as a whole, and not for separate assets or assets classes.</p> <p><i>Financial structure:</i></p> <p>Regarding paragraph 1.151, Insurance Europe seeks clarification on the rationale for equity investors, namely why EIOPA considers that a higher grade debt would make an equity investment safer.</p>	<p>Please see the Feedback Statement section "Scope and qualifying criteria".</p> <p>Please see the response to comment 84.</p> <p>The claims of shareholders are subordinated to those of debt providers. It is therefore not obvious how lower risk for equity investors can be reconciled with an elevated risk for creditors.</p>
88.	Vahta	Section 8.4.	<p>1.132 The statement "which derives the vast majority of its revenues from owning, financing, developing, or operating infrastructure assets" is very problematic! Putting those companies who develop, finance and operate infrastructures in the same group mixex everything. It's true, every infrastructure must first be developed, then designed, then built, and then operated, but each and every phase is connected with a specific risk. This means that risk on the infrastructure changes during it's lifetime. We usually separate at list two phases, the construction phase (involving development, design and building) and operational phase (which includes operation of infrastructure). The switching point between two phases is when the newly built infrastructure</p>	<p>Not agreed. Whilst EIOPA is aware that the risks may be different during the construction compared to the operating phase, EIOPA has sought to define criteria that identify suitable investment irrespective of the stage of development.</p>

			<p>connects enough users to go over the break even point (at list with the operating expenses). We say the infrastructure project is mature then (as it does not bear the investment risk anymore). Mixing all phases together will bring confused results, but most importantly, will treat mature infrastructure project as more risky than they really are!</p> <p>„following lines of business: generation, transmission or distribution of electrical energy; distribution or transmission of natural or petroleum gas; provision of water, wastewater or recycling services; transport networks or the operation of transport assets; social infrastructure.“</p> <p>Aware oft he problems, we suggest telecom infrastructure should be involved too.</p> <p>1.139 „The revenues shall be diversified in terms of activities, geographical location, or payers, unless the revenues are subject to a rate_of_return regulation.“ The request is conceptually wrong in case of special purpose vehicles, as this kind of infrastructural project are single infrastructure. They are not riskier for that!</p> <p>1.141 Again, do not forget that the figures that are available are the result of a current regulatory system (which limits the prices) and are not fixed in time and are not the same (on the contrary, they are very diverse between member states) geographically.</p>	<p>Not agreed. The criteria for “infrastructure projects” are designed for single assets financed via special purpose vehicles.</p> <p>Not agreed. The comment is not clear.</p>
89.	IRSG	Question 4.	<p>(a) Do you have specific examples of infrastructure sectors and corporate structures that would inadvertently fall outside this definition?</p> <p>Telecommunication infrastructure as set out in answering Question 2 above. See also comments to paragraph 1.132 and 1.139 above. Notably, the following sectors would fall outside the current scope and could instead be included in the scope:</p> <ul style="list-style-type: none"> • Communication towers and other mass telecom (ex: optic fibre, mobile) networks as well as satellite systems financing should be considered as core infrastructure assets • Strategic electrical or non electrical energy storage 	<p>Please see the Feedback Statement section “Scope and qualifying criteria”.</p>

- Water irrigation system
- Waste management

(b) What volumes would such examples represent?

The volume of telecommunication infrastructure is not significant at this time but may grow as telecommunication companies continue separating their infrastructure and service businesses.

Corporate telecommunication infrastructures include Arquiva (UK), Shere Group Transmission (NL) and Coyage Telecom Network (FR).

(c) Regarding the requirement for a minimum number of years of operation or for an external credit assessment specifically, are there cases where would this lead to the exclusion of safer infrastructure corporates? If so, how would you propose to appropriately limit the construction or operating risks; would the requirements for infrastructure projects be appropriate for example?

This would exclude privately placed debt for unrated transactions such as those for OFTO's, to the extent EIOPA takes this approach. In most cases infrastructure corporates will have a rating of some sort or will have 5 years of operations. New projects such as the Thames Tideway, with significant regulatory support would fall outside of the definition if they did not have a rating (which they do).

There are a number of deals e.g. in the Ports sector which have private ratings.

There have been recent examples of built solar generation debt issuance which does not have a rating and has less than 5 years operational history. This is a growing asset class which appeals to insurers not only for its potential for stability but also for its environmental benefits.

More broadly, IRSG believes that the definition should be extended to include tests on predictability of cash flows similar to those used for infrastructure projects. The five-year test in the current definition can be problematic as it leads to exclusion of new enterprises and also of existing businesses post recent M&A activity. Also, we do not see why corporates operating in OECD should be

			<p>excluded. Their exposure to country risk is similar to those with exposures to EEA only. In addition, the Commission’s delegated regulation on infrastructure projects (Article 146a(1)(f)(i)) considers infrastructure projects located in the EEA or OECD to be relevant. We consider that the infrastructure corporate should be treated similarly.</p> <p>See also response to paragraph 1.132 above.</p>	
90.	AB Stokab	Question 4.	<p>Do you have specific examples of infrastructure sectors and corporate structures that would inadvertently fall outside this definition?</p> <p>A long tradition of co-using terrestrial infrastructure has moulded the Swedish view on fibre networks. Fibre networks are regarded as any other utility, such as roads and railways. This further emphasises the necessity to reevaluate the risk assessment of digital infrastructure.</p> <p>A wholesale-only model provides a large portion of Swedish telecom infrastructure where open access to the networks is fundamental for independent operators. This creates an asset-sharing situation that further limits risk in the infrastructure business.</p> <p>The analysis conducted by EIOPA only assesses risk of vertically integrated companies, such as Telia AB; the Swedish telecom incumbent, as these corporations are listed entities and would be subject to EIOPA’s analysis of traded equities. These companies offer a wide variety of services other than digital infrastructure. As such, they are subject to a greater amount of risk.</p> <p>By analysing digital infrastructure using the same metrics as listed, vertically integrated telecom companies, the risk profile becomes significantly higher than for providers of open-access networks. Therefore the wholesale-only market within the telecom sector has fallen outside of the analysis made by EIOPA. In Sweden this sector accounts for around 50% of all fibre accesses provided.</p> <p>As an asset-sharing, access- and price-regulated market, the digital</p>	<p>Please see the Feedback Statement section “Scope and qualifying criteria”.</p>

			infrastructure sector has much more in common with other utilities such as power grids. Being a wholesale-only model with open access for independent operators, the sector creates the foundation for a modern society through cooperation between the public and private sector.	
91.	AFME – ICMA	Question 4.	<p>(a) Do you have specific examples of infrastructure sectors and corporate structures that would inadvertently fall outside this definition?</p> <p>Telecommunication infrastructure as set out in answering Question 2 above. See also comments to paragraph 1.132 and 1.139 above. Notably, the following sectors would fall outside the current scope and should instead be included in the scope:</p> <ul style="list-style-type: none"> • Communication towers and other mass telecom (ex: optic fibre, mobile) networks as well as satellite systems financing could be considered as core infrastructure assets • Strategic electrical or non electrical energy storage • Water irrigation systems • Waste management <p>(b) What volumes would such examples represent?</p> <p>The volume of telecommunication infrastructure is not significant at this time but may grow as telecommunication companies continue separating their infrastructure and service businesses.</p> <p>Corporate telecommunication infrastructures include Arquiva (UK), Shere Group Transmission (NL), TdF (FR) and Coyage Telecom Network (FR).</p> <p>(c) Regarding the requirement for a minimum number of years of operation or for an external credit assessment specifically, are there cases where would this lead to the exclusion of safer infrastructure corporates? If so, how would you propose to appropriately limit the construction or operating risks; would the requirements for infrastructure projects be appropriate for example?</p> <p>This would exclude privately placed debt for unrated transactions such as those for OFTOs, to the extent EIOPA takes this approach. In most but certainly not all cases infrastructure corporates will have a rating of some sort or will have 5</p>	Please see the Feedback Statement section "Scope and qualifying criteria".

			<p>years of operations. New projects such as the Thames Tideway, with significant regulatory support would fall outside of the definition if they did not have a rating (which it does).</p> <p>We are aware of a number of deals e.g. in the Ports sector which have private ratings.</p> <p>There have been recent examples of built solar and wind generation debt issuance which does not have a rating and has less than 5 years operational history. Renewable energy generation is a growing asset class which appeals to insurers not only for its potential for stability but also for its environmental benefits.</p> <p>More broadly, the WG believes that the definition should be extended to include tests on predictability of cash flows similar to those used for infrastructure projects. The five-year test in the current definition can be problematic as it leads to exclusion of new enterprises and also of existing businesses post recent M&A activity. Also, we do not see why corporates operating in OECD should be excluded. Their exposure to country risk is similar to those with exposures to EEA only. In addition, the Commission's delegated regulation on infrastructure projects (Article 146a(1)(f)(i)) considers infrastructure projects located in the EEA or OECD to be relevant. We consider that the infrastructure corporate should be treated similarly.</p> <p>See also response to paragraph 1.132 above.</p>	
92.			This comment was submitted as confidential by the stakeholder.	
93.	AFG	Question 4.	<p>Question 4.a - Do you have specific examples of infrastructure sectors and corporate structures that would inadvertently fall outside this definition?</p> <p>We are convinced that the regulatory framework that applies to insurance companies should not exclusively focus on infrastructures types that have been financed in the past even though analysing historical data provide relevant statistical information on the risk profile of the infrastructure investments. The regulatory framework should be flexible enough to take into account new types</p>	Please see the Feedback Statement section "Scope and qualifying criteria".

		<p>of infrastructures with less historical data available such as energy transition, transportation, telecommunications investments in order to avoid insurers being prevented to invest in those types of infrastructures that will have to be financed in the near future.</p> <p>We believe that the following sectors should be included:</p> <ul style="list-style-type: none"> • Telecom infrastructure assets where revenues are regulated or contracted, in particular high speed broadband networks, the development of which is a key component of the Juncker plan. They are often developed and operated within a concession framework, with features that meet the eligibility criteria proposed for infrastructure projects. • Heating networks, that often feature characteristics that meet the eligibility criteria (including contracted or regulated revenues). This sector is also instrumental for many EU members efforts in the field of energy efficiency. • Storage of gas or oil and oil derivative products. <p>We also believe that the definition should be broadened to all EEA or OECD countries, similar to what is proposed for corporate projects.</p> <p>(c) Regarding the requirement for a minimum number of years of operation or for an external credit assessment specifically, are there cases where would this lead to the exclusion of safer infrastructure corporates? If so, how would you propose to appropriately limit the construction or operating risks; would the requirements for infrastructure projects be appropriate for example?</p> <p>While we agree that, as a general rule, there should be a minimal number of operating years, we believe that a 3 year period is adequate. In our opinion, the criteria should also address situations where the corporate entity with a shorter existence than required results from an event like the merger or the spin off of activities which individually meet the criteria.</p> <p>As a matter of conclusion, we propose to make the following amendments to the</p>	<p>Please see the Feedback Statement section "Scope and qualifying criteria".</p> <p>Please see the Feedback Statement section "Scope and qualifying criteria".</p>
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proposed definition:

"Definition

'Infrastructure corporate' means an entity or group which derives the vast majority of its revenues from owning, financing, developing, or operating infrastructure assets in the EEA **or in the OECD** in the following lines of business:

- generation, transmission, **storage** or distribution of electrical energy **(including gas, power, heat, oil and oil derivative products)**;
- ~~distribution or transmission of natural or petroleum gas;~~
- provision of water, wastewater, **waste treatment** or recycling services;
- transport networks or the operation of transport assets;
- **Telecommunications networks and infrastructures**;
- social infrastructure.

The assessment whether the conditions above are met should be based on the last reporting period for which figures are available or a financing proposal. In case a general credit assessment or an assessment for senior unsecured exposures issued by an ECAI for the infrastructure corporate exists it shall be assigned to a credit quality step of at least 3. Otherwise, the infrastructure corporate has been active in these lines of business for at least ~~five~~ **three** years **unless the infrastructure corporate results from a corporate operation such as an asset carve out, a merger, a spin-off of activities or businesses existing for at least three years.**

Revenue predictability

The revenues generated by the infrastructure assets shall meet the following conditions:

1. One of the following criteria is met:
 - (i) The revenues are availability-based;
 - (ii) The revenues are subject to a rate-of-return regulation;
 - (iii) The revenues are subject to a take-or-pay contract;
 - (iv) The level of output or the usage and the price shall independently meet one of the following criteria:
 - a. it is regulated;
 - b. it is contractually fixed;
 - c. it is sufficiently predictable as a result of low demand risk;

			<p>2. Where the revenues are not funded by payments from a large number of users of the service, the party which agrees to purchase the goods or services provided by the infrastructure corporate shall be at least one of the following:</p> <p>(i) an entity listed in Article 180(2) of this Regulation;</p> <p>(ii) a regional government or local authority listed in the Regulation adopted pursuant to Article 109a(2)(a) of Directive 2014/51/EU;</p> <p>(iii) an entity with an ECAI rating with a credit quality step of at least 3 <u>or an entity whose capital structure allows it to meet its financial obligations with regards to the purchase of goods and services provided by the infrastructure project under very robust assumptions based on an analysis of the counterparty risk;</u></p> <p>(iv) an entity that is replaceable without a significant change in the level and timing of revenues.</p> <p>3. The revenues shall be diversified in terms of activities, geographical location, or payers, unless the revenues are subject to a rate-of-return regulation <u>or the infrastructure corporate provides an essential service with significant barriers to entry.</u>"</p>	<p>Please see the response to comment 84.</p> <p>Please see the response to comments 84 and 110.</p>
94.			This comment was submitted as confidential by the stakeholder.	
95.	GDV	Question 4.	<p>(a) Corporate structures that would inadvertently fall outside the definitions include for example a recent renewable spin-off of a large utility that would not have the sufficient long history of operations.</p> <p>GDV believes that the following sectors should be included in the scope:</p> <ul style="list-style-type: none"> - Telecom operators operating under concession; - Communication infrastructure such as towers and other mass telecom; - Electrical or non electrical energy storage; - Corporates which generate, transmit or distribute heat; - Water and waste management irrigation systems. <p>Given that district heating is more energy efficient, reduces carbon emission (solar or geothermal sourced heat) and is indirectly incorporated in the European</p>	Please see the Feedback Statement section "Scope and qualifying criteria".

			<p>Union energy policy via the Combined Heat and Power (CHP) Directive, GDV would consider the inclusion of district heating coherent with wider EU objectives. GDV has no figures on volumes. However, private investment opportunities in Finland and France have been observed. The risk profile is viewed as very low since pipe system are needed to distribute the heat (monopoly).</p>	
96.	Insurance Europe	Question 4.	<p>(a) Yes.</p> <p>The following sectors would fall outside the current scope but should be included:</p> <ul style="list-style-type: none"> • Telecom operators operating under concession • Communication infrastructure such as towers and other mass telecom (eg optic fibre, mobile) networks as well as satellite systems financing should be considered as core infrastructure assets • Strategic electrical or non electrical energy storage • Corporates that generate, transmit or distribute heat • Water irrigation systems • Waste management <p>Insurance Europe supports the inclusion of social infrastructure in its broadest sense in the scope of the work. More specifically, social infrastructure should include both social housing and other types of social infrastructure like national stadiums, parks.</p>	Please see the Feedback Statement section "Scope and qualifying criteria".
97.	Invest Europe	Question 4.	<p>The definition of 'infrastructure corporate' should be sufficiently broad to capture a wide range of corporate entities but at the same time it should concentrate on entities whose primary business is the ownership and operation of infrastructure assets. In principle it should not capture infrastructure corporates that are simply 'service providers' and have a high commodity element built into their business.</p> <p>We think however that the new definition and certain criteria proposed in the consultation paper are overly restrictive and might exclude infrastructure corporates that we believe represent suitable infrastructure businesses to qualify as 'infrastructure corporates'.</p> <p>For example the list of activities provided in the definition is too narrow and might fail to capture some (important) parts of the infrastructure universe (see also our response to Question 2). In our opinion the list should only act as a</p>	Please see the Feedback Statement section "Scope and qualifying criteria".

		<p>guiding principle and not as a definitive list of sectors/activities that can qualify as infrastructure corporates.</p> <p>The five-year test, which is required in the absence of an ECAI rating, might also be problematic as it excludes new enterprises, also those of already existing infrastructure businesses. For example some infrastructure funds carve out infrastructure assets from larger organisations that they have invested in and put them in a standalone entity or build a platform, which then they grow over time. While those entities have all the characteristics of infrastructure corporates they would fall outside of the definition if they don't have a relevant rating. We do not believe this is justified and maintain that that proposed definition should provide some degree of flexibility to also capture such cases.</p> <p>Also the proposed requirement for infrastructure corporate assets to be located in EEA countries is too restrictive and we do not consider it justified.</p> <p>Although we appreciate EIOPA's explanation and its reference to the policy objective of the CMU action plan to promote investments in Europe, such an approach would discriminate against infrastructure corporates which have substantially the same characteristics, are of equivalent quality, but are simply not located in EEA countries. In our view the mere fact that assets are not located in the EEA should not determine whether they can fall within the definition of infrastructure corporate or not. Such inclusion should be based on other, objective qualifying criteria.</p> <p>We therefore encourage EIOPA to follow the same approach that is already foreseen for infrastructure projects and for type 1 equities under the current Solvency II rules and to extend the geographical scope of the definition of infrastructure corporate to assets located in OECD countries. If this clear precedent is not to be followed then EIOPA needs to give a clear explanation of the justifications for such discriminatory treatment and for the narrower geographic scope for this set of assets.</p> <p>Moreover, we would like to reiterate that all infrastructure assets (both corporates and projects) that are subject to a robust, long-term and stable (EU or national) regulatory framework such as renewable energy projects that are backed by a state's overall emissions reduction targets, should by definition qualify as 'infrastructure' under the Solvency II delegated act. We are concerned however that the consultation paper (but equally the current text of the Commission Delegated Regulation) does not provide enough clarity around this issue and we fear that such renewable assets could be left outside the scope of the proposed definitions, which we think should not be the case. To this end, we</p>	<p>Not agreed. EIOPA's intention is to develop criteria to identify suitable high quality infrastructure investments based on their risk profile. This applies to renewable energy projects as well as other types of infrastructure projects.</p>
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			would welcome clarification on whether such assets could meet the definition and criteria currently proposed for both infrastructure projects and corporates. At the same time we appreciate EIOPA’s amendments to the definition of ‘infrastructure projects’ and to the relevant qualifying criteria that intend to capture certain type of infrastructure corporates.	
98.	LTIIA	Question 4.	(a) Telecommunication infrastructure as set out in answering Question 2 above falls out of the draft definition. (b) The volume of telecommunication infrastructure is not significant at this time but may grow as telecommunication companies continue separating their infrastructure and service businesses. (c) We think the definition should be extended to include tests on predictability of cash flows similar to those used for infrastructure projects. The five-year test in the current definition can be problematic as it leads to exclusion of new enterprises and also of existing businesses post recent M&A activity. Also, we do not see why corporates operating in OECD should be excluded. Their exposure to country risk is similar to those with exposures to EEA only.	Please see the Feedback Statement section “Scope and qualifying criteria”.
99.	The Investment Association	Question 4.	a) Do you have specific examples of infrastructure sectors and corporate structures that would inadvertently fall outside this definition? The Investment Association notes that the currently proposed definition of ‘infrastructure corporate’ would exclude: <ul style="list-style-type: none"> • Infrastructure assets operating in OECD countries that are not in the EEA – the definition refers only to infrastructure assets in the EEA. This is despite the fact that EIOPA’s portfolio analysis included entities which earned a meaningful part of their revenues from countries within the EEA <i>or</i> OECD. This definition would exclude, for example, Australian airports which issue sterling bonds. • Electricity and gas storage facilities – The definition refers only to generation, transmission or distribution of electricity and gas, and excludes storage facilities, which are an integral part of the network. • Waste management services – While recycling services are included, other forms of waste management are currently excluded. • Telecoms – As noted in the response to question 2, The 	Please see the Feedback Statement section “Scope and qualifying criteria”.

			<p>Investment Association considers that telecoms infrastructure has a strong social benefit, and that it is often possible to separate regulated infrastructure activities from non-regulated consumer goods business.</p> <p>The Investment Association is also concerned that the requirement for unrated corporates to have a five-year track record is overly broad. As it currently stands it would exclude all new infrastructure corporates, even where there is some record of past performance. For example, the wording would exclude:</p> <ul style="list-style-type: none"> • A waste management corporate moving into waste incineration; • Assets sold off by the government to form a new corporate. <p>The requirement could also exclude high-performing corporates or corporates with strong regulatory support who have only been operating for a short period of time, such as Arqiva or Thames Tideway.</p> <p>The current definition would also risk discouraging innovation and investment in new technologies - there have been recent examples of solar generation debt issuance which does not have a rating and has less than five years of operational history.</p> <p>With regards to the need for an ECAI rating, most ratings of infrastructure corporates will be senior secured ratings, while the definition currently only refers to an assessment for senior unsecured exposures. Where only a senior secured exposure issued by an ECAI for the infrastructure corporate exists, it should be used.</p> <p>Finally, the requirement for an infrastructure corporate to derive "<i>the vast majority</i> of its revenues from owning, financing, developing or operating infrastructure assets" is potentially problematic as it is unclear what a "vast</p>	<p>Agreed. EIOPA has amended the requirement to reflect this point. The previous text was based on Article 5 of the Delegated Regulation, but EIOPA agrees that in the case of infrastructure secured ratings should also be taken into account.</p> <p>Please see the Feedback Statement section "Scope and qualifying criteria".</p>
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			<p>majority” would represent. This could be interpreted to mean that any infrastructure corporate with more than <i>de minimis</i> ancillary revenues could be excluded, which The Investment Association considers to be overly restrictive.</p> <p>While The Investment Association understands from paragraph 1.166 that EIOPA is concerned that the use of the word ‘predominantly’, rather than ‘the vast majority’, could in theory allow investments to qualify that only conducted just over 50% infrastructure business, in the investment world this phrase is usually taken to indicate a figure in the region of 75-80%. The phrase “significant majority” could also be used as an alternative.</p> <p>b) What volumes would such examples represent?</p> <p>c) Regarding the requirement for a minimum number of years of operation or for an external credit assessment specifically, are there cases where would this lead to the exclusion of safer infrastructure corporates? If so, how would you propose to appropriately limit the construction or operating risks; would the requirements for infrastructure projects be appropriate for example?</p> <p>Infrastructure projects and corporates have different structures, and the criteria for projects will not necessarily be fully applicable to corporates. It is more difficult to limit construction and operating risk for infrastructure corporates when compared to infrastructure projects, in part because management has greater discretion and corporates are more likely have a larger range of alternative businesses.</p> <p>Nonetheless, in the regulated space capital expenditure is subject to regulatory approval, while business limitation covenants are used by investors to require a strict cap on non-infrastructure business, requiring a majority of income to come from regulated activities.</p>	
100.	The Association of Corporate Treasurers	Question 4.	<p>(a)We disagree with the restatement of the definition Article 1, 55(b) proposed in Annex VI. This change removes the differentiation between finance sought for a single asset, and finance sought for multi asset operating infrastructure entities. By making this change, all other proposed changes affect many of the entities listed in Annex III.</p>	<p>Please see the Feedback Statement section “Scope and qualifying criteria” for EIOPA’s response to comments on the this requirement.</p> <p>Not agreed. As explained in the CP the intention is to remove the differentiation between single and multi-asset infrastructure. In terms</p>

			<p>We do not believe the qualification proposed for Article 164(a), 1(c)(a) alleviates this concern. The first leg is capable of applying to a single asset infrastructure plant, while the second leg does not apply to all listed infrastructure utilities across the EU due to differing types of Member State regulation of utilities.</p> <p>We recognise that these qualifications may be of assistance in evaluating unrated new projects which have no economic track record.</p> <p>(a) No answer</p> <p>(b) Yes, the definitions as proposed could lead to exclusion of Corporate infrastructure entities and hence our call in section (a) above to have the definition changed from that proposed. Such entities are able to disclose their risks as required by the Prospectus Directive plus supplements where appropriate.</p> <p>Abnormal concentration of project type risks would form part of this disclosure. A corporate infrastructure entity may have many separate projects. The diversity becomes the risk mitigation.</p>	<p>of the entities in Annex III, the proposed qualifying criteria for "infrastructure corporates" are not covered by Annex VI.</p> <p>Not agreed. The change is not intended to capture all listed infrastructure, but only those subject to a "rate of return" regulatory framework.</p> <p>Not agreed. EIOPA does not consider that it is sufficient to rely on disclosure requirements.</p>
101.	Vahta	Question 4.	<p>a) Yes, pure telecom infrastructure.</p> <p>b) Many billions of EUR at the EU level.</p> <p>c) Yes, this would harm the projects that are done via project financing procedures through a special purpose vehicle (such a company doesn't have a history).</p>	<p>Please see the Feedback Statement section "Scope and qualifying criteria". In addition the qualifying criteria proposed for "infrastructure corporates" are not intended to capture the risk of projects financing procedures through a special purpose vehicle, but of more "general" corporates.</p>
102.	IRSG	Question 5.	Are there other criteria not covered by this section (Section 8.4) that are	

			<p>used by investors to identify safer infrastructure corporates?</p> <p>Although we are not proposing additional criteria other than in connection with adjusting the definition as per the previous answer, we want to highlight that investors, as part of their overall credit decision, should be aware of other risks which may arise during the life of the investment. This should include country-specific risks, regulatory risks, political risks, environmental risk and other risks.</p> <p>IRSG believes that criterion 3 (diversification of revenue) should be clarified to also exclude revenues which are availability-based or subject to take-or-pay contract – with the same rationale as stated in Sec 1.143. See also response to paragraphs 1.132 and 1.139 above.</p>	<p>Agreed.</p> <p>Please see the Feedback Statement section “Scope and qualifying criteria”.</p>
103.	AFME – ICMA	Question 5.	<p>Are there other criteria not covered by this section (Section 8.4) that are used by investors to identify safer infrastructure corporates?</p> <p>Although we are not proposing additional criteria other than in connection with adjusting the definition as per the previous answer, we want to highlight that investors, as part of their overall credit decision, should be aware of other risks which may arise during the life of the investment. This should include country-specific risks, regulatory risks, political risks, environmental risk and other risks.</p> <p>The WG believes that criterion 3 (diversification of revenue) should be clarified to also exclude revenues which are availability-based or subject to take-or-pay contracts – with the same rationale as stated in Sec 1.143.</p> <p>See also response to paragraphs 1.132 and 1.139 above.</p>	<p>Please see the response to comment 102.</p>
104.	Invest Europe	Question 5.	<p>See answer to Question 4</p>	<p>Noted.</p>
105.	LTIIA	Question 5.	<p>No, we are not proposing additional criteria other than in connection with adjusting the definition as per the previous answer. We believe that criterion 3 (diversification of revenue) should be clarified to also exclude revenues which are availability-based or subject to take-or-pay contract – with the same rationale as stated in Sec 1.143.</p>	<p>Please see the response to comment 102.</p>

106.	Vahta	Question 5.	Yes, an important thing is forgotten: performance derives from people, mechanistic approach without evaluation of persons who lead is simpler to do, but wrong.	Partially agreed. EIOPA recognises that the capabilities of those involved in the infrastructure are vital and should be considered by investors. However, EIOPA did not consider that it was appropriate to prescribe regulatory requirements to address this issue. Since no proposal has been made as to how such regulations could be formulated, EIOPA does not consider that there are reasons to change its approach on this point.
107.	Moody's	Section 9.1.	<p>Para 1.157</p> <p>Para 1.157 cites as evidence, Moody's report "Default and Recovery Rates for Project Finance Bank Loans, 1983-2013", (March 2015)</p> <ul style="list-style-type: none"> • In March 2016 we published an updated report "Default and Recovery Rates for Project Finance Bank Loans, 1983-2014". Our expanded and updated study now covers 5,880 unrated project finance transactions originated globally during the period 1983 to 2014, an increase of 11% in the size of the study data set. In general, our findings are consistent with those of our previous study published in March 2015, however the updated study provides additional insight into default experience during the period 2008-14. • In September 2015 we published our report "Default and Recovery Rates for Project Finance Bank Loans, 1983-2013 Addendum". This report provides additional information about the performance of projects within the Infrastructure industry sector, based on the study data set 1983-2013. It is similar in scope to an addendum to a previous version of our project finance bank loan default study for the period 1983-2011, that was referenced by EIOPA in its previous consultation paper CP-15-004. • Our latest reports are freely available to all interested parties at www.moodys.com (including non-subscribers, following registration). 	EIOPA is very grateful for the support provided by Moody's. EIOPA has reviewed the latest reports and considers that they support the analysis and findings presented in the CP.
108.	IRSG	Section 9.2.	We agree with the necessity to be able to identify the various sources of revenues of a given infrastructure corporate. However, it is not sensible to	Not agreed regarding the proposal to change the stress

			<p>remove all the revenues coming from the ancillary activities as they are also generating operating and potential capital expenses that have to be taken into account to measure the robustness and sustainability of a balance sheet. Securities and covenants provided to the lenders on such non infrastructure activities should be enough to protect the lenders/shareholders in case of very adverse scenarios. If not, the investment may not qualify as an infrastructure corporate.</p>	<p>testing requirement. EIOPA considers that this an important safeguard to ensure that the revenues and sustainability of the project is based on its infrastructure activities. Since the project should be engaged principally in infrastructure activities, this restriction should not have a material impact.</p>
109.	AFME – ICMA	Section 9.2.	<p>We agree with the necessity to be able to identify the various sources of revenues of a given infrastructure corporate. However, it is not sensible to remove all the revenues coming from the ancillary activities as they are also generating operating and potential capital expenses that have to be taken into account to measure the robustness and sustainability of a balance sheet. Licence restrictions or securities and covenants provided in many cases to the lenders on such non infrastructure activities should protect the lenders/shareholders in case of very adverse scenarios.</p>	<p>Please see the response to comment 108.</p>
110.	AFG	Section 9.2.	<p>We welcome the amendments to the Delegated Regulation amendment of 30 September 2015 suggested by the EIOPA which extend the scope of infrastructure project to “project like” corporates.</p> <p>We still have, however, the following comments on the suggested amendments:</p> <p><u>Article 1 - Amending provisions</u></p> <p><u>Definition of “infrastructure assets”</u> – the definition shall not be restricted to “public services” which could be interpreted as providing services to governmental entities exclusively whereas services can be provided to private parties (either retail or corporates)</p> <p><i>“Infrastructure assets’ means physical assets, structures or facilities, systems and networks that provide or support essential public services <u>to retail or corporate users.</u>”</i></p>	<p>Not agreed. As EIOPA explained when it consulted on its previous advice on infrastructure (see EIOPA CP-15-004) the term “essential public services” is not considered to exclude services provided by non-governmental entities, but to capture core infrastructure activities (see paragraph 1.71 of that paper).</p>

		<p><u>Article 164a – Qualifying infrastructure investments</u></p> <p>(c) (a) –termination clauses which provide protection to debt or equity providers are limited to specific contractual arrangements with public entities (in compliance with the local applicable laws). It narrows significantly the scope of the infrastructure projects. We appreciate the exclusion of infrastructure where revenues are funded by payments from a large number of users or subject to a rate of return regulation.</p> <p>We, however, strongly recommend to add another exclusion where the infrastructure competitive environment provides a monopolistic situation or significant barriers to entry which is one of the main characteristics qualifying an infrastructure asset (e.g. case of corporate unbundling their infrastructure assets from their operations). The sale of transmission grids by European utilities resulting from the 2nd and 3d Liberalization European directives (2003 and 2007 respectively) is symptomatic of the unbundling between energy generation and marketing activities. The latter can be subject to intense competition (Operating Company “OpCo”) while the company providing the infrastructure (the “InfraCo”) is by nature a monopolistic activity. What started as an EU-directive driven push to boost competition in the utility space, has inspired numerous replications across a number of different industries, the most obvious examples being (i) the creation of mobile telecom tower companies in Europe or (ii) the disposal of offshore gas pipelines by energy majors to infrastructure funds.</p> <p><i>“(c) the infrastructure project is governed by a regulatory or contractual framework that provides debt providers and equity investors with a high degree of protection including the following:</i></p> <p><i>(a) provisions that effectively protect debt providers and equity investors against losses resulting from the termination of the project by the party which agrees to purchase the goods or services provided by the infrastructure project entity unless one of the following conditions is met;</i></p> <p><i>(i) the revenues are funded by payments from a large number of users</i></p>	<p>Not agreed. EIOPA still considers this to be a relevant mechanism to identify suitable high quality investments. The drafting is also not prescriptive on the precise nature of the termination clauses. Further, a specification has been added to the text to clarify that the provisions should cover the case that the counterparty decides to terminate the project, rather than for example that the project is terminated as a result of the default of the counterparty. This is because the creditworthiness of this counterparty is already covered by the requirement on the predictability of cash flows (paragraph b). The proposal provided in the comment is considered to extend the exemption in a way that would undermine the provision; “essential service” is already a requirement of the definition of “infrastructure assets” and “significant barriers to entry” are considered to be a very common feature of infrastructure.</p>
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			<p><i>(ii) the revenues are subject to a rate-of-return regulation</i></p> <p><u><i>(iii) The infrastructure project entity provides an essential services with significant barriers to entry</i></u></p> <p><i>(b) there are sufficient reserve funds or other financial arrangements to cover the contingency funding and working capital requirements of the project;"</i></p> <p>(c) (b) We suggest the following amendment in relation to the security package for investment in bond or in loans (see further explanations in question 7 below).</p> <p><i>(i) debt providers have directly or indirectly the benefit security to the extent permitted by applicable law in all assets and contracts that are critical to the operation of the project;</i></p> <p><i>(ii) Notwithstanding paragraph 1(i), where undertakings can demonstrate that security in all assets and contracts is not essential for debt providers to effectively protect or recover the vast majority of their investment, other security mechanisms may be used. In that case, the other security mechanisms shall comprise of one or more of the following:</i></p> <ul style="list-style-type: none"> <i>(a) pledge of shares,</i> <i>(b) step-in rights,</i> <i>(c) lien over bank accounts,</i> <i>(d) control over cash flows,</i> <i>(e) provisions for assignment of contracts</i> 	<p>Partially agreed. The text proposed of "benefit of security" was intended to capture both direct and indirect arrangements. However, the drafting has been revised to "security or benefit of security" to clarify this point.</p>
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			<p>We suggest the following clarifications in 1. (f) (ii).</p> <p><i>"(ii) where the infrastructure project entity is in the construction phase the following criteria shall be fulfilled by the equity investor, or where there is more than one equity investor, the following criteria shall be fulfilled by a group of equity investors as a whole:</i></p> <ul style="list-style-type: none"> <i>- the equity investors have a history of successfully overseeing infrastructure projects and the relevant expertise;</i> <i>- the equity investors have a low risk of default, or there is a low risk of material losses for the infrastructure project entity as a result of the their default;</i> <i>- the <u>interests of</u> equity investors are incentivised to protect the interests of <u>aligned with those of debt</u> investors <u>with regards to mitigation of the construction risk;</u>"</i> <p>We strongly recommend to take into account the case where the counterparty is not a public entity and is not rated subject to the performance of a counterparty analysis to confirm its ability to meet its financial obligations. We suggest the following clarifications in 2. (b) which is in line with the financial structure wording proposed for qualifying the financial structure of infrastructure corporates.</p> <p><i>(b) where the revenues are not funded by payments from a large number of users, the party which agrees to purchase the goods or services provided by the infrastructure project shall be one of the following:</i></p> <ul style="list-style-type: none"> <i>(i) an entity listed in Article 180(2) of this Regulation;</i> 	<p>Not agreed. EIOPA considers that the proposal may unduly narrow the scope of the requirement, which is intended to provide for appropriate support by the "project sponsor".</p> <p>Not agreed. Given the importance of this counterparty where revenues are not paid by a large number of users, and the likelihood of severe losses for the project should they default, EIOPA considers that its advice is appropriate (see also the Final Report to CP 15/004). Further, it can be mentioned that point (iv) of the requirement, regarding the possibility for it to be demonstrated that the entity</p>
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			<p><i>(ii) a regional government or local authority listed in the Regulation adopted pursuant to Article 109a(2)(a) of Directive 2009/138/EC;</i></p> <p><i>(iii) an entity with an ECAI rating with a credit quality step of at least 3 <u>or an entity whose capital structure allows it to meet its financial obligations with regards to the purchase of goods and services provided by the infrastructure project under very robust assumptions based on an analysis of the counterparty risk;</u></i></p> <p><i>(iv) an entity that is replaceable without a significant change in the level and timing of revenues.”</i></p>	is replaceable without an undue impact, is considered to provide an appropriate degree of flexibility.
111.	GDV	Section 9.2.	GDV agrees with the necessity to distinguish between various sources of revenues of a given infrastructure corporate. Especially for large utility companies it is often not easy to properly distinguish between revenues stemming from infrastructure and revenues from non-infrastructure activities. However revenues from ancillary activities are generating operating and capital expenses and can therefore improve the robustness and sustainability of a balance sheet.	Please see the response to comment 108. It is also necessary for the undertaking to be able to distinguish between infrastructure and non-infrastructure revenues in order to demonstrate that the investment complies with the definition of “infrastructure project”.
112.	Insurance Europe	Section 9.2.	Insurance Europe agrees with the need to be able to identify the various sources of revenues of a given infrastructure corporate. Especially for large utility companies, it is often not easy to properly distinguish between revenues stemming from infrastructure and revenues from non-infrastructure activities. However, it is not sensible to remove all the revenues coming from the ancillary activities as they are also generating operating and potential capital expenses that have to be taken into account to measure the robustness and sustainability of a balance sheet. Securities and covenants provided to the lenders on such non-infrastructure activities should be enough to protect the lenders/shareholders in case of very adverse scenarios. If not, the investment may not qualify as an infrastructure corporate.	Please see the responses to comments 108 and 111.
113.	Moody’s	Section 9.2.	Para 1.175 See comments at Section 9.1/Paragraph 1.157	Please see the response to comment 107.

114.	IRSG	Question 6.	<p>Do you envisage any difficulties to distinguish between revenues stemming from infrastructure compared to non-infrastructure activities? Please justify your response.</p> <p>Practical difficulties may arise in some situations – for example, when ‘infrastructure’ and ‘non-infrastructure’ revenues are included in the same contract. It is, however, customary for infrastructure corporates to separate different types of revenue through their managerial reporting to the extent sufficient for making infrastructure vs non-infrastructure distinction.</p> <p>We would expect that financial statement reporting does not necessarily mean it is always possible to distinguish between revenues stemming from infrastructure compared to non-infrastructure activities. We suggest that the criteria should accommodate equivalent arrangements whereby there are creditor covenant restrictions in relation to the nature and levels and non-core/ancillary business activities.</p>	<p>Partially agreed. Most respondents to the consultation considered the ability to distinguish between different revenues to be both feasible and necessary. EIOPA therefore continues to consider the stress testing requirement appropriate. Please also see the responses to comments 108 and 111.</p> <p>Not agreed. It seems possible that a creditor covenant may be sufficient to demonstrate compliance with the definition of “infrastructure project” that sufficient revenues are derived from infrastructure assets. However, it is not clear how this would be sufficient to comply with the stress testing requirement.</p>
115.	AFME – ICMA	Question 6.	<p>Do you envisage any difficulties to distinguish between revenues stemming from infrastructure compared to non-infrastructure activities? Please justify your response.</p> <p>Practical difficulties may arise in some situations – for example, when ‘infrastructure’ and ‘non-infrastructure’ revenues are included in the same contract. It is, however, customary for infrastructure corporates to separate different types of revenue through their managerial reporting to the extent sufficient for making infrastructure vs non-infrastructure distinction.</p>	<p>Please see the response to comment 114.</p>

			We would expect that financial statement reporting does not necessarily mean it is always possible to distinguish between revenues stemming from infrastructure compared to non-infrastructure activities. We suggest that the criteria should accommodate equivalent arrangements whereby there are creditor covenant or other restrictions in relation to the nature and levels of non-core/ancillary business activities.	
116.	AFG	Question 6.	<p>Do you envisage any difficulties to distinguish between revenues stemming from infrastructure compared to non)infrastructure activities? Please justify your response.</p> <p>We believe that such distinction should be achievable when the basic rule is to consider that revenues stemming from infrastructure are those revenues that are directly related to the operation of the infrastructure assets and that would not have been made possible without the existence and the operation of such assets. Non-infrastructure activities should therefore cover businesses that a corporate would have been able to undertake regardless of the existence of the infrastructure asset.</p>	Partially agreed. EIOPA generally considers this description to be reasonable and is not currently aware of examples where this description would not be appropriate. Nevertheless, EIOPA cannot confirm that it is appropriate in all cases.
117.	GDV	Question 6.	Especially for large utility companies it is often not easy to properly distinguish between revenues stemming from infrastructure and revenues from non-infrastructure activities. Stress testing should be suitable to ensure that the robustness of the primary infrastructure activities is not put at risk by ancillary activities.	Please see the response to comments 108, 111 and 114.
118.	Insurance Europe	Question 6.	<p>No.</p> <p>Insurance Europe believes that having a clear understanding of the various sources of revenue for a given infrastructure corporate is even a strong prerequisite before investing. A set of stress tests will be applied in order to ensure that the robustness of the primary infrastructure activity(ies) is not jeopardised by any of the ancillary activities.</p>	Please see the response to comments 108 111, and 114.
119.	LTIIA	Question 6.	Practical difficulties may arise in some situations – for example, when when 'infrastructure' and 'non-infrastructure' revenues are included in the same contract. It is, however, customary for infrastructure corporates to separate different types of revenue through their managerial reporting to the extent sufficient for making infrastructure vs non-infrastructure distinction.	Please see the response to comments 108, 110 and 114.

120.	The Investment Association	Question 6.	<p>Do you envisage any difficulties to distinguish between revenues stemming from infrastructure compared to non-infrastructure activities? Please justify your response.</p> <p>For infrastructure corporates, this will be largely dependent on how ring-fencing of infrastructure activities has been set up. Investors will often require infrastructure corporates to have business limitation covenants in place, although a small amount of non-infrastructure revenue is usually accepted. For example, a covenant may require 85% of revenue to come from regulated activities.</p> <p>Infrastructure projects are not likely to have significant non-regulated business activities, although there may be circumstances in which investors will permit a <i>de minimis</i> portion of revenue to come from such activities. For example, a hospital may receive income from attached shops, or a school from an attached daycare.</p>	Please see the response to comments 108, 111, and 114.
121.	The Association of Corporate Treasurers	Question 6.	We recommend the use of accounting data to provide sectoral risk analysis with the revised wording specifying IFRS as a common accounting standard.	Not agreed. The accounting standards used by infrastructure projects are considered to be out of the scope of EIOPA's advice.
122.	Vahta	Question 6.	There should be no problems in that.	Noted.
123.	IRSG	Question 7.	<p>(a) Would option 1 (compared to option 2) lead to the exclusion of arrangements which provide an equivalent level of protection to asset security and an equity pledge? Please provide specific reasons and examples.</p> <p>In many jurisdictions it cannot be assumed that a security provider will grant full fixed and floating (or equivalent) security. Rather a decision is required as to the level of security that is necessary and proportionate (taking into account the expected enforcement procedures of creditors and therefore not incurring unnecessary stamp duty/registration costs for granting security that is of no expected value). Accordingly, in our view, Option 2 is preferable and consistent with market practice in many jurisdictions. See also response to paragraph 1.186 above which applies equally to infrastructure corporates.</p>	Please see the Feedback Statement section "Scope and qualifying criteria" regarding option 1 and option 2.

			<p>Please change "in the form agreed" to "save in accordance with and as permitted under the finance documents", which we assume is the intention. Certain permitted additional debt may be regulated under the finance documents or creditor consent may be required for any new indebtedness.</p> <p>(b) Do you consider that a "negative pledge" clause can provides equivalent protection to the security arrangements required by the proposals in Section 9.3? See also response to paragraph 1.186 above which applies equally to infrastructure corporates.</p> <p>(c) If yes, please provide specific reasons and examples of infrastructure sectors and countries where a "negative pledge" should be allowed without compromising the safety and recovery of your investment. See also response to paragraph 1.186 above which applies equally to infrastructure corporates.</p>	<p>Partially agreed, EIOPA clarified in the CP that consent can be provided in different forms, and has added the term "in the form agreed <u>with them</u>" to try to remove any doubt.</p>
124.	AFME – ICMA	Question 7.	<p>(a) Would option 1 (compared to option 2) lead to the exclusion of arrangements which provide an equivalent level of protection to asset security and an equity pledge? Please provide specific reasons and examples.</p> <p>In many jurisdictions it cannot be assumed that a security provider can or will grant full fixed and floating (or equivalent) security. Rather a decision is required as to the level of security that is necessary and proportionate (taking into account the expected enforcement procedures of creditors and therefore not incurring unnecessary stamp duty/registration costs for granting security that is of no expected value). Accordingly, in our view, Option 2 is preferable and consistent with market practice in many jurisdictions.</p> <p>Please change "in the form agreed" to "save in accordance with and as permitted under the finance documents", which we assume is the intention. Certain permitted additional debt may be regulated under the finance documents or creditor consent may be required for any new indebtedness.</p>	<p>Please see the response to comment 123.</p>

			<p>(b) Do you consider that a "negative pledge" clause can provides equivalent protection to the security arrangements required by the proposals in Section 9.3?</p> <p>(c) If yes, please provide specific reasons and examples of infrastructure sectors and countries where a "negative pledge" should be allowed without compromising the safety and recovery of your investment.</p>	
125.	AFG	Question 7.	<p>Question 7.a Would option 1 (compared to option 2) lead to the exclusion of arrangements which provide an equivalent level of protection to asset security and an equity pledge? Please provide specific reasons and examples.</p> <p>We consider Option 1 would indeed lead to the exclusion of arrangements which provide an equivalent level of protection to asset security and an equity pledge. For the same reason, Option 2 is a more suitable solution as explained below.</p> <p>The modifications proposed in Option 1 and Option 2 (i) ("benefit of" security and "critical" instead of "necessary") are fully appreciated as they provide for some flexibility. However, in some cases, this condition may still not be applicable.</p> <p>For example, in the case of a Holdco financing, if there is no debt owned by the lenders at the Opco level, the lenders cannot have directly the "benefit of security" on the assets.</p> <p>In that case they usually benefit from other security mechanisms (that are described in Option 2 (ii)) and only benefit <u>indirectly</u> from security on critical assets and contracts. This may be done through a pledge over the Opcos' critical assets and contracts in favour of the Holdco combined with an assignment of the Holdco/Opcos intercompany loans in favour of the Lenders.</p> <p>Another example would be a "fiducie" where the lenders only benefit indirectly from security on assets and contracts.</p>	<p>Please see the response to comments 110 and 123.</p> <p>Further, the term "benefit of security" is intended to cover situations where the security is provided to someone other than the undertaking where they are a debt provider. For example, the security may be provided to the trustee of a bonds issue or to the financial company or holding company where they are the lender on record, etc. In these examples, the benefit of security should be available to the undertaking through the fiduciary role of the trustee or through the provisions of the structured finance transaction.</p>

		<p>In order to take this into account, we would suggest the proposed updated wording in (i) :</p> <p style="padding-left: 40px;">“Debt providers have <u>directly or indirectly</u> the benefit of security to the extent permitted by applicable law in all assets and contracts that are critical to the operation of the infrastructure project.”</p> <p>In addition, in Option 1 (ii), it is stated that “debt providers are able to take control of the operation of the infrastructure project prior to default” <u>which is not authorized under French law</u>. This is even more the case if we consider a “default” and not a “payment default”.</p> <p>Question 7.b - Do you consider that a "negative pledge" clause can provides equivalent protection to the security arrangements required by the proposals in Section 9.3?</p> <p>A “negative pledge” clause cannot provide equivalent protection to the security arrangements required by the proposals in Section 9.3 <u>on a stand-alone basis</u>.</p> <p>As a matter of fact, the negative pledge clause is usually <u>combined</u> with other types of clauses (described in Option 2 (ii)) in order to provide equivalent protection.</p> <p>For example, this is the case in countries where mortgage is very costly (Italy for example).</p> <p>In that context, Option 2 is again a more suitable solution as it offers the usual legal options that are available to secure the lenders.</p>	<p>Agreed. The text of “prior to default” has been replaced with “at the relevant default event”.</p> <p>Regarding option 2, please see the response to comment 123.</p> <p>EIOPA agrees regarding the negative pledge clause, as in paragraph 1.176 of the CP, EIOPA also considered it to provide a lower level of security. However, EIOPA considered that it was relevant to ask for feedback on this point given previous representations made by some stakeholders. Similar views that a negative pledge does not provide an equivalent level of protection and that such a pledge would normally be used in</p>
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				combination with other security mechanisms have been provided by most of the respondents to this public consultation.
126.			This comment was submitted as confidential by the stakeholder.	
127.	GDV	Question 7.	GDV believes that option 1 is too tight. A direct pledge of equity is not always granted or legally permitted in infrastructure projects in particular in Continental Europe which makes option 2 more adequate with some fine tuning. Option 2 also provides more flexibility.	<p>Please see the response to comment 123.</p> <p>In addition, the text proposed allows for other controls to be used besides a direct pledge of equity where it can be shown that they provide an equivalent outcome, in terms of the ability of the debt investor to “step-in” at the relevant time in the case that the project encounters financial difficulties.</p>
128.	Insurance Europe	Question 7.	<p>a) Not necessarily, but Option 2 should be preferred.</p> <p>Insurance Europe is of the view that Option 2 should be preferred, as a direct pledge of equity is not always granted or legally permitted in infrastructure projects, in particular in continental Europe. In addition, the “security package” does not prevent an infrastructure project going into default (perversely a too extensive security rights package could induce higher leverage levels at the expense of financial stability) and there are various remedies that could be put in place to protect debt holders and help improve the expected recovery rates in case of default. The other conditions of Qualifying Infrastructure in Article 164a, such as cash flows being sustainable under stressed conditions, and the predictability of cash-flows, are good ways to reduce the probability of default of the asset class, which is key to allowing for a reduced capital charge under Solvency II.</p>	<p>Please see the response to comment 123.</p> <p>In addition, not agreed regarding the appropriateness of the security package requirement in general. Whilst EIOPA acknowledges that the security package cannot prevent all cases of default, EIOPA considers there to be convincing evidence regarding the relevance of security, (further rationale is provided for example in paragraphs 1.34, 1.110 and 1.175 of the CP as</p>

			<p>Insurance Europe also supports the flexibility provided by option 2, as it introduces different remedies. Option 2 in particular allows for the financing to be considered in the context of the local jurisdiction in which the Qualifying Infrastructure operates.</p> <p>b) No.</p> <p>A negative pledge per se is a good covenant, but should be combined with some privileged access right to the underlying assets/cash flows or contracts or indebtedness limitations/controlling rights depending on the nature of the underlying infrastructure activity.</p>	<p>well as EIOPA's previous advice on infrastructure).</p> <p>Please see the response to comment 125.</p>
129.	LTIIA	Question 7.	<p>According to S&P Global Ratings, the option 2 is more consistent with what one can see in transactions for infrastructure companies. That said, most of the companies rated by S&P, especially the ones rated above BBB-, would have a negative pledge clause that states (for the majority of cases) that: As long as any of the notes remain outstanding, the Issuer will not create or permit to subsist any mortgage, charge, pledge, lien or other security interest upon the whole or any part of its assets, present or future, to secure any present or future Relevant Indebtedness incurred or guaranteed by it unless the Issuer's obligations under the Notes, Receipts and Coupons are equally and rateably secured therewith.</p> <p>In the link attached you will see the typical language used in the debt documentation for rated infrastructure companies (page 30). http://en.sites.vinci-autoroutes.com/en/page/asf-investors</p>	<p>Please see the response to comment 123.</p>
130.	The Investment Association	Question 7.	<p>a) Would option 1 (compared to option 2) lead to the exclusion of arrangements which provide an equivalent level of protection to asset security and an equity pledge? Please provide specific reasons and examples.</p> <p>There has been a lack of consensus amongst Investment Association members on this issue. Some investors are supportive of option 1, which they feel has the advantage of being simpler while at the same time providing adequate protection to investors. Investors with a preference for option 1 are also concerned that under option 2 there is a risk of different interpretations by different member state supervisory authorities.</p> <p>However, other investors have noted that in many jurisdictions it cannot be</p>	<p>Please see the response to comment 123.</p>

			<p>assumed that direct pledge of equity would be granted as required under option 1. Rather a decision is required as to the level of security that is necessary, proportionate and beneficial. Accordingly, these investors consider that option 2 is preferable and consistent with market practice in many jurisdictions.</p> <p>In addition these investors are concerned that the requirement for a comprehensive security package under option 1 could exclude infrastructure corporates without such a package but which would nonetheless normally be treated as 'safe' infrastructure investments as a result of additional regulatory protections.</p> <p>Finally option 1 as currently worded requires debt providers to be "<i>able to take control of the operation of the infrastructure project prior to default.</i>" Investors have noted that it is not possible to step in prior to a default occurring, as to do so could compromise their ability to enforce their security.</p> <p>The Investment Association considers that decisions on contractual terms should largely be left to the investor and the corporate, with minimal regulatory involvement.</p> <p>b) Do you consider that a "negative pledge" clause can provides equivalent protection to the security arrangements required by the proposals in Section 9.3?</p> <p>No. While a negative pledge clause may be a covenant that investors wish to include in the contractual terms, it should be combined with some sort of controlling rights, privileged access to the underlying assets or cash flows, or contracts, depending on the nature of the underlying infrastructure activity.</p> <p>c) If yes, please provide specific reasons and examples of infrastructure sectors and countries where a "negative pledge" should be allowed without compromising the safety and recovery of your investment.</p>	<p>Please see the response to comment 125.</p> <p>Please see the response to comment 125.</p>
131.	The Association of Corporate	Question 7.	<p>(a) The negative pledge is designed to ensure the assets cannot be secured elsewhere. Leg (ii) of Option 1 is the extension on which project finance lenders would normally rely in order to take control of the revenue attached to the asset. We would however expect project finance lenders to require a charge over equity</p>	<p>Please see the response to comment 125. EIOPA also agrees that an equity pledge can be an appropriate</p>

	Treasurers		<p>as well as the negative pledge. This is attractive where there is not a clear regulatory structure for the lender to rely on. Otherwise the lender should look through the security arrangements to the powers of the regulator which may include administrative rights which over-ride lender rights. Typically in the UK, the retention of a licence granted by a regulator is a prime covenant for lenders.</p> <p>As noted in answers above, clarity is required as to the difference EIOPA sees in the terms "corporate infrastructure" and "project infrastructure" with our preference being that the latter is pursued but that corporate infrastructure remains valued for capital purposes as it is now.</p> <p>We would expect finance over specific assets to be arranged through an SPV even if solely owned by a corporate infrastructure group thereby enabling the negative pledge and share pledge to be applied only to that SPV. Other lenders to the corporate infrastructure group would be required to accept terms carving out the SPV debt from the larger group debt for which the trade-off is that the SPV's debt is solely reliant on the performance of its assets.</p> <p>(b) Our concern is that focus is being shifted to the broader use of negative pledge security for all infrastructure lending and away from the regulatory framework which in the case of UK regulated infrastructure debt is counter intuitive because it is the regulation which ensures sustainable finance for the debt issuer where that is the regulated entity.</p>	<p>mechanism for project finance lenders.</p> <p>Not agreed. EIOPA considers that this issue was addressed during the CP.</p> <p>Partially agreed. EIOPA also understood this to normally be the case and this was the basis for its previous advice on infrastructure published in September 2015. However, based on feedback from a range of stakeholders that different financing structures may be used, EIOPA proposed some revisions to the approach in order to not prejudice one type of structure over another, provided that an equivalent level of risk can be achieved.</p> <p>Please see the response to comment 125.</p>
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			<p>The way the proposal is drafted favours Whole Business Securitisation (WBS) class B type debt (or debt with those characteristics), instead of debt in regular corporate structures which are typically held by a listed holding company. WBS corporate capital structures are usually more heavily indebted structure than their listed counterparts, that being one of the main drivers for WBS to lower cost-of-capital.</p> <p>(c) The question for the lender to the corporate infrastructure entity which has a project financed project entity is the degree to which the revenues and assets outside of the SPV support the corporate debt giving regard to cash ICR ratios and the regulatory framework. A difficulty within the EU is that different member states have differing infrastructure regulation, and that regulation can differ within a member state for different types of infrastructure. For example, the UK has tariff dependent financing for Water, and subsidised tariffs for rail. External ratings may be a simpler means of credit analysis, but only because the rating agencies take on the role of analysing these different regulatory and contractual structures.</p>	<p>Partially agreed. For "infrastructure corporates" the qualifying criteria recommended by EIOPA do not include requirements relating to the security package, but address instead the revenue predictability and financial structure. An external rating, though not mandatory, is also considered to be a relevant indicator of credit quality.</p>
132.			This comment was submitted as confidential by the stakeholder.	
133.			This comment was submitted as confidential by the stakeholder.	
134.	GDV	Section 9.3.	<p><u>Predictability of Cash Flows:</u> Supply risks are not mentioned. GDV however believes that EIOPA should not be stricter here than with infrastructure projects where supply risks also might be a topic in few cases.</p>	<p>Partially agreed. The predictability of cash flows criterion provides specification on the appropriate revenues mechanisms, since this is considered to be one of the most critical issues that distinguishes high quality infrastructure assets from other types of investments. However, EIOPA agrees that</p>

			<p><u>Contractual framework:</u> Generally a pledge of shares might be provided for BBB infrastructure corporates. Sometimes more if the leverage is run at a higher level. But this requirement would only make highly leveraged infrastructure corporates eligible. Option 2 would require some fine-tuning especially with regard to iii), the use of net operating cash flow might be restricted if certain trigger levels are reached. More explanation is needed here. iv): Generally, the indebtedness can be limited to leverage levels (FFO/debt, Debt/RAB or EBITDA multiples). However a lender consent will almost never be achieved.</p>	<p>other risks also need to be considered, including supply risks. This is captured by the general principle that cash flows are predictable, as well as by the stress testing requirement.</p> <p>Not agreed. Please see the response to comments 123 and 127 regarding the pledge of shares. In addition, please see the response to comment 131 that the security criterion is not applied to "infrastructure corporates".</p> <p>In terms of the requirement regarding the use of net operating cash flows, it should first be clarified this this was not part of option 2 of the security requirement (only the italicised text in the CP was part of option 2). Second, it is not agreed regarding the need for "fine-tuning"; however the requirement does not prohibit the use of such cash flows being restricted with reference to certain trigger levels, where appropriate.</p> <p>Regarding point (iv) on the issuance of new debt, EIOPA clarified both in its previous advice (see Final Report to CP-15-004) and in the</p>
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			<p><u>Financial risk:</u> GDV would see a clarification as helpful, that the debt can be pari passu with other senior debt but that no other debt is senior.</p>	<p>consultation paper that consent can be provided in different forms. In addition, EIOPA has now proposed to add the term "in the form agreed <i>with them</i>", to try to remove any doubt.</p> <p>Agreed. EIOPA has made an amendment to the advice with the intention of allowing for any new debt that is issued in accordance with point (iv) of the contractual framework requirements to be pari passu with the existing debt instrument.</p>
135.	Insurance Europe	Section 9.3.	<p><i>Contractual framework</i></p> <p>Insurance Europe believes that option 1 is too tight. Generally a pledge of shares might be provided for BBB infrastructure corporates, especially in cases where leverage is high. But this requirement would only make highly leveraged infrastructure corporates eligible.</p> <p>Option 2 would require some fine-tuning, especially with regard to:</p> <ul style="list-style-type: none"> • iii) the use of net operating cash flow might be restricted if certain trigger levels are reached — Insurance Europe would welcome more clarity on this requirement • iv) this criterion needs refinement as, while the indebtedness can often be limited to leverage levels (FFO/debt, Debt/RAB or EBITDA multiples), a lender consent will almost never be achieved. <p><i>Financial risk</i></p>	<p>Please see the response to comment 134.</p> <p>Please see the response to comment 134.</p> <p>Please see the response to</p>

			Insurance Europe would welcome clarification that the debt can be pari passu with other senior debt but that no other debt is senior.	comment 134.
136.	IRSG	Question 8.	<p>(a) In view of the proposed change to the scope of the infrastructure project asset class, do you agree that the risk management requirements remain appropriate? Yes, the WG believes that that same risk management requirements are appropriate for infrastructure SPVs and corporates.</p> <p>(b) In particular, will the information required to comply with the risk management requirements for infrastructure projects be available to insurers?</p> <p>(c) If not, how would an insurer satisfy itself regarding the safety of the investment, without an excessive or mechanistic reliance upon external ratings?</p>	Agreed.
137.	AFME – ICMA	Question 8.	<p>(a) In view of the proposed change to the scope of the infrastructure project asset class, do you agree that the risk management requirements remain appropriate?</p> <p>Yes, the WG believes that that same risk management requirements are appropriate for infrastructure SPVs and corporates.</p> <p>(b) In particular, will the information required to comply with the risk management requirements for infrastructure projects be available to insurers?</p> <p>(c) If not, how would an insurer satisfy itself regarding the safety of the investment, without an excessive or mechanistic reliance upon external ratings?</p>	Agreed.
138.	GDV	Question 8.	(a) GDV agrees that the risk management requirements remain appropriate.	Agreed.

			<p>(b) For example considering large utility companies in certain instances it could be difficult to receive detailed financial models for future operations in order to conduct e.g. stress tests on the cash flows and collateral values. If in such individual cases specific data is not available the insurer should be able to argue why the investment nevertheless qualifies for a preferential capital treatment.</p>	<p>Partially agreed. The requirement in paragraph 1(b) only applies where such a financial model exists. The stress testing requirement in paragraph 2 should also be applied in a proportionate manner. However, undertakings will need to demonstrate how they comply with the requirement in Article 132 of Directive 2009/138/EC (the prudent person principle), to "identify, measure, monitor, manage, control and report" on the risks of the investments assets and instruments that they invest in, which requires sufficient information on the nature of the investment.</p> <p>Regarding the capital treatment, there is not a direct connection between this and the risk management requirement. In order to receive the capital treatment undertakings will need to satisfy the qualifying criteria set out in Section 8.4 of the CP. Separately undertakings will need to comply with the risk management requirements.</p>
139.	Insurance Europe	Question 8.	<p>(a) Yes, Insurance Europe agrees that the risk management requirements remain appropriate.</p>	Agreed.

140.	Invest Europe	Question 8.	<p>We think that some elements of the risk management system such as the validation process of financial models and cash flow stress testing raise some practical questions given that it is not clear how this process will work in practice. For example the text does not provide sufficient clarity on whether an independent assessment would need to be commissioned by insurance companies to validate their internal financial models or by infrastructure fund managers who then report to their insurance investors. In our opinion the former should be the case and the validation process should not lead to a situation where a third party entity must start to review the financial models of infrastructure funds/infrastructure corporates in which insurers have invested. This would not be justified and too burdensome.</p> <p>In general we believe that insurers will have sufficient information to assess their infrastructure investments. Nonetheless we believe that it is important to ensure that there is a workable reporting framework in place that would facilitate exchange of necessary data/information between insurers and their relevant counterparts but at the same time could be implemented with due consideration of costs and benefits.</p> <p>Typically, all investors (or 'limited partners' in the language used by private equity and infrastructure funds) that have equity stakes in infrastructure funds receive, on a regular basis (i.e. quarterly), information providing details about funds' underlying assets and their on-going performance.</p> <p>The European fund industry has developed reporting guidelines that are designed to provide 'best practice' advice to fund managers on how to report to their investors. These Guidelines - produced by the Invest Europe Professional Standards Committee - are widely used across the industry and are reviewed and updated regularly to ensure that they remain appropriate and to take account of changing circumstances, including the changing needs of investors.</p> <p>As Invest Europe's membership includes fund managers ('GPs') and investors ('LPs') these Guidelines benefit from detailed input from both constituencies, both from those GPs and LPs on the Professional Standards Committee and from consultation of the wider membership. In October 2015 Invest Europe published a revised version of its Investor Reporting Guidelines.</p> <p>Before investors make the decision to invest in an infrastructure fund, they conduct detailed due diligence on the investment manager and investment strategy to be pursued. This will, among other things, include receiving information about the fund's strategy and its investment parameters (e.g. how</p>	<p>Not agreed regarding the need for further clarification of the risk management requirements. Please see the final report to EIOPA's previous advice on infrastructure (Final Report to CP 16-004) where EIOPA explained its expectations regarding this requirement (page 21-22).</p> <p>In the case of investment funds or collective investment undertakings, the insurance or reinsurance undertaking would need to be able to demonstrate that the underlying investment satisfies the qualifying criteria via the "look-through approach" in order to receive the corresponding risk charge for "infrastructure projects" or "infrastructure corporates".</p>
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			much of the fund's assets will be invested in OECD countries, how much outside OECD, how much will be invested in core/non-core infrastructure activities, etc.) and checking and analysing the fund manager's previous track record. Detailed information about the actual investments made by the fund and regular information about how the investments are performing only become available once the fund starts investing. Investors will also follow their own internal procedures for monitoring and managing their portfolio of infrastructure funds, which will include assessing the risks of portfolio and the place of these investments in the in investor's overall investment strategy.	
141.	LTIIA	Question 8.	Yes, we believe that that same risk management requirements are appropriate for infrastructure SPVs and corporates.	Agreed.
142.	The Investment Association	Question 8.	<p>a) In view of the proposed change to the scope of the infrastructure project asset class, do you agree that the risk management requirements remain appropriate? Yes, the WG believes that that same risk management requirements are appropriate for infrastructure SPVs and corporates.</p> <p>The risk management requirements for infrastructure projects remain appropriate.</p> <p>b) In particular, will the information required to comply with the risk management requirements for infrastructure projects be available to insurers?</p> <p>c) If not, how would an insurer satisfy itself regarding the safety of the investment, without an excessive or mechanistic reliance upon external ratings?</p>	Agreed.
143.	The Association of Corporate Treasurers	Question 8.	<p>(a) Assuming this is the 'Infrastructure assets" defined in Annex VI, subject to answers above, we believe the risk management framework is appropriate.</p> <p>(b) The question is: what information do insurers require to meet the risk management requirements? Project finance borrowers already comply with the information requirements of bank lenders. The main difference to a bond lender is that each party would expect the frequency of reporting to reduce once the mobilisation (construction) phase of the project ceases.</p> <p>(c) See above.</p>	<p>Agreed.</p> <p>Noted. It can be mentioned that the risk management requirements include provisions for active monitoring during the construction phase (see paragraph 3 of the advice on risk management).</p>

144.	IRSG	Annex I Questions	<p>1. Do you agree with the assessment of benefits? Are there other benefits that have not been identified?</p> <p>2. Do you agree with the assessment of costs? Are there other costs that have not been identified?</p> <p>3. Regarding policy issue 1, what would be the volume of qualifying infrastructure investments under the different policy options?</p>	
145.	AFME – ICMA	Annex I Questions	<p>1. Do you agree with the assessment of benefits? Are there other benefits that have not been identified?</p> <p>2. Do you agree with the assessment of costs? Are there other costs that have not been identified?</p> <p>3. Regarding policy issue 1, what would be the volume of qualifying infrastructure investments under the different policy options?</p>	
146.	AFG	Annex I Questions	<p>Do you agree with the assessment of benefits? Are there other benefits that have not been identified?</p> <p>As asset managers our members are in contact with investors that are keen to reinforce their exposure to infrastructure projects and are worried that the present regulation looks like an impediment on their way. We strongly believe it is essential from both a financial stability and an economic and growth point of view to finance infrastructures and long term projects with long term money that can accept the lack of liquidity of the investment, provided that the expected return is adequate. We further think that employment will also be very favourably impacted by the creation and thereafter the existence of useful infrastructures in many different sectors. Thus, we urge authorities to organise for an appropriate framework that would not only not penalize but positively encourage relevant projects to be financed by long term investors. We consider that the present consultation is an interesting step in the right direction, the more so because authorities do not overlook the need for a fair assessment of the quality of the infrastructure projects and project companies. The final calibration may however need some further flexibility.</p>	<p>Partially agreed. Whilst considering the mandate provided by the European Commission in support of the Capitals Markets Union, EIOPA has sought to evaluate the evidence available and provide recommendations which can be justified on a prudential basis, considering also its overall regulatory objectives, including the protection of policy holders.</p>

147.	Insurance Europe	Annex I Questions	Insurance Europe seeks further clarity on the assessment of costs and the related outcome highlighting that listed infrastructure companies' equities should remain under the existing Type 1 listed equities calibration.	Not agreed that further clarity is needed. Regarding the costs arising from the case that equity in listed infrastructure companies remains under the existing Type 1 listed equities calibration this represents the existing treatment under the Standard Formula and thus the Baseline scenario. The purpose of the Impact Assessment is to analyse the costs and benefits of a change to this Baseline scenario. In Section 5 under policy issue 1, the impact assessment outlines the costs (and benefits) associated with a change to the current standard formula treatment of listed infrastructure corporate equity, referring for example to potential additional costs arising from the need to require additional information to be reported by undertakings. In Section 6, it is argued that these costs are outweighed by the benefits arising from more sensitive capital requirements.
148.	IRSG	Annex VI	We recommend the removal of the word "project" from the reference to the "Infrastructure project entity" in the Delegated Regulation. Given the perception of a temporary nature/limited lifetime of a "project", which in fact fully makes sense when one is referring to the financing of the construction/development of an infrastructure asset, it seems sensible to remove this word when it comes to the operating of such assets over a very long period of time, where anyway the	Please see the response to comment 1.

			word "project" is not meaningful.	
149.	AFME – ICMA	Annex VI	We recommend the removal of the word "project" from the reference to the "Infrastructure project entity" in the Delegated Regulation. Given the perception of a temporary nature/limited lifetime of a "project", which makes sense when one is referring to the financing of the construction/development of an infrastructure asset, it seems sensible to remove this word when it comes to the operating of such assets over a very long period of time, where the word "project" does not add anything to the meaning.	Please see the response to comment 1.
150.	GDV	Annex VI	GDV recommends the removal of the word "project" from the reference to the "Infrastructure project entity" in the Delegated Regulation given the perception of a temporary nature/limited lifetime of a "project". This would not be adequate when it comes to the operating of such assets over a very long period of time. Similarly, in article 164a "project" should be removed. In paragraph c), "infrastructure project" should be replaced by "infrastructure underlying assets".	Please see the response to comment 1.
151.	Insurance Europe	Annex VI	<p>Insurance Europe recommends the removal of the word "project" from the reference to the "Infrastructure project entity" in the Delegated Regulation. Given the perception of the temporary nature/limited lifetime of a "project", which in fact fully makes sense when one is referring to the financing of the construction/development of an infrastructure asset, it seems sensible to remove this word when it comes to the operating of such assets over a very long period of time, where anyway the word "project" is not meaningful. Insurance Europe therefore proposes the following definition (55b):</p> <p>"Infrastructure entity means an entity or group that derives the vast majority of its revenues from owning, developing or operating infrastructure assets."</p> <p>Similarly, in article 164a, Insurance Europe proposes the removal of "project".</p> <p>In addition, the revenues of ancillary activities should also be included in the stress testing, next to the risk and the associated costs.</p> <p>Finally, in paragraph c), "infrastructure project" should be replaced by "infrastructure underlying assets".</p>	<p>Please see the response to comment 1.</p> <p>Please see the response to comments 1, 108, 111 and 114.</p> <p>Not agreed. EIOPA does not consider that this change provides any additional clarity or benefit.</p>

Annex VIII: Disclaimer regarding the analysis of Markit Indices

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