<table>
<tr><td colspan="2">Comments Template on EIOPA-CP-15-004
Consultation Paper on
the Call for Advice from the European Commission on the identification and calibration of infrastructure investment risk categories</td><td>Deadline
09.August.2015
23:59 CET</td></tr>
<tr><td>Company name:</td><td colspan="2">Moody’s Investors Service Ltd</td></tr>
<tr><td>Disclosure of comments:</td><td>EIOPA will make all comments available on its website, except where respondents specifically request that their comments remain confidential.

Please indicate if your comments on this CP should be treated as confidential, by deleting the word Public in the column to the right and by inserting the word Confidential.</td><td>Public</td></tr>
<tr><td></td><td colspan="2">Please follow the instructions for filling in the template:
⇨ <u>Do not change the numbering</u> in column “Reference”.
⇨ Please fill in your comment in the relevant row. If you have <u>no comment</u> on a paragraph, keep the row <u>empty</u>.
⇨ Our IT tool does not allow processing of comments which do not refer to the specific paragraph numbers below.
o If your comment refers to multiple paragraphs, please insert your comment at the first relevant paragraph and mention in your comment to which other paragraphs this also applies.
o If your comment refers to sub-bullets/sub-paragraphs, please indicate this in the comment itself.
Please send the completed template to CP-15-004@eiopa.europa.eu, <u>in MSWord Format</u>, (our IT tool does not allow processing of any other formats).

The paragraph numbers below correspond to Consultation Paper No. EIOPA-CP-15-004.</td></tr>
<tr><td>Reference</td><td colspan="2">Comment</td></tr>
<tr><td>General comments</td><td>For consistency with the Consultation Paper we adopt the following terminology in our comments further below:

• "Project Loan Study" refers to Moody's Special Comment: "Default and Recovery Rates for Project Finance Bank Loans, 1983-2013" March 2015</td><td></td></tr>
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<tr><td></td><td>• "Infrastructure Addendum Study" refers to Moody's Special Comment: "Default and Recovery Rates for Project Finance Bank Loans, 1983–2011 Addendum" October 2013</td><td></td></tr>
<tr><td>Section 1.1.</td><td></td><td></td></tr>
<tr><td>Section 1.2.</td><td></td><td></td></tr>
<tr><td>Section 1.3.</td><td></td><td></td></tr>
<tr><td>Section 1.4.</td><td></td><td></td></tr>
<tr><td>Section 1.5.</td><td></td><td></td></tr>
<tr><td>Section 2.1.</td><td></td><td></td></tr>
<tr><td>Section 2.2.</td><td>The Project Loan Study and the Infrastructure Addendum Study can be downloaded by non-subscribers (following registration) from the following link: http://www.moodys.com/Pages/PFSplashPage.aspx.</td><td></td></tr>
<tr><td>Section 2.3.</td><td></td><td></td></tr>
<tr><td>Section 2.3.1.</td><td></td><td></td></tr>
<tr><td>Section 2.3.2.</td><td></td><td></td></tr>
<tr><td>Section 2.3.3.</td><td>Minor clarifications with reference to Table 5 (reproduced from Exhibit 10 of the Infrastructure Addendum Study):
• Paragraph 1.36: The average ultimate recovery rate for broad infrastructure project finance in the OECD region is 88.2% (not 88.4%).
• Paragraph 1.39: The standard deviation of ultimate recovery rates for broad infrastructure project finance in the OECD region is 21.7% (not 21.2%).</td><td></td></tr>
<tr><td>Section 2.4.</td><td></td><td></td></tr>
<tr><td>Section 2.4.1.</td><td>While the statement at paragraph 1.40 that "Moody’s found no material dependency between the economic cycle at default and at emergence and the recovery rate" is correct, the additional context set out within the Project Loan Study is important.
In particular, the data set for the Project Loan Study included 58 defaults (based on the Basel II definition of default) that occurred within the Infrastructure industry sector between 2009-13, of</td><td></td></tr>
</table>

which only a few projects had emerged from default within the study period. When the remaining defaulted projects emerge from default and corresponding ultimate recovery rates can be determined, further evidence will become available about the relationship between default rates and ultimate recovery rates. It is possible that such evidence may reveal a meaningful correlation between default rates and ultimate recovery rates.

We reproduce below the following extract from Section 8.2 (Ultimate Recoveries by year of emergence (Basel II Definition of Default)) from the Project Loan Study:

QUOTE

Exhibit 26 displays average ultimate recovery rates for Ultimate Recoveries (BII) by year of emergence from default.

» *Average ultimate recovery rates for project finance bank loans emerging from default between 1999-2009 were in the range of 76.7%-100.0% (BII) and 71.6%-100.0% (MDY), but were substantially independent both of the economic cycle at default and the economic cycle at emergence throughout this period. Calendar years 2010-13 and calendar years prior to 1999 are excluded from this observation on the basis that the number of projects emerging from default in each of those years is relatively small, although the average ultimate recovery rate (BII) of 29.4% for 2013 (see Exhibit 27) based on five projects that emerged from default appears to be unusually low.*

» *This observation contrasts with Moody's research on corporate loans and bonds which has previously found that ultimate recovery rates for defaulted corporate debt facilities are negatively correlated with default rates (i.e., ultimate recovery rates fall as default rates rise).*

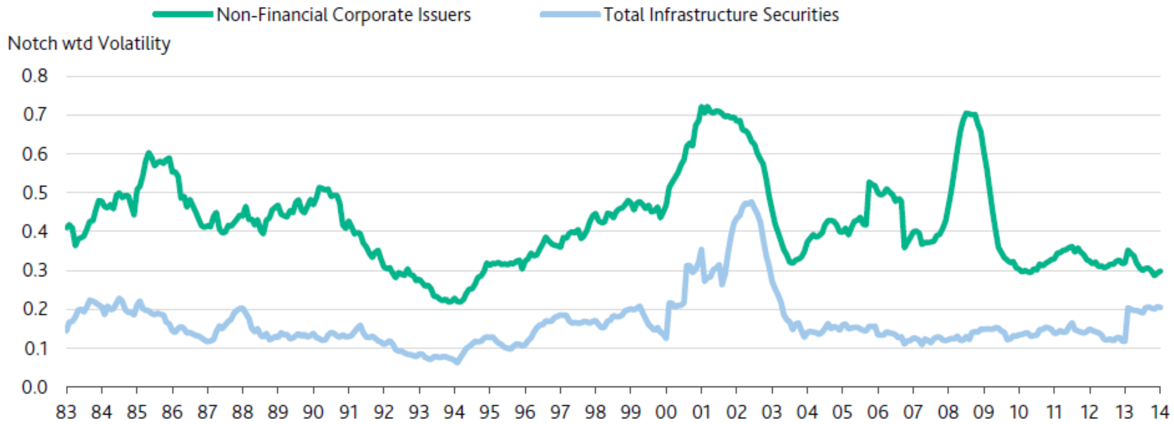
» *In section 7.4.3 above we highlighted the stress affecting the Infrastructure industry sector between 2009-13, as illustrated by the 58 Defaults (BII) reported during that period. Only a few of these defaulted projects have emerged from default, and we will monitor the relationship between default rates and ultimate recovery rates in this sector with interest.*

END QUOTE

	This comment also refers to the following sections/paragraphs: • Section 2.4.2/Paragraph 1.42 • Annex III, Section 3.1/Paragraph 1.256 • Annex III, Section 3.2.2/Paragraph 1.269	
Section 2.4.2.	See comments at Section 2.4.1/Paragraph 1.40	
Section 2.5.		
Section 2.5.1.		
Section 2.5.2.	Chart 3 reproduces Exhibit 6 of the Infrastructure Addendum Study. Paragraph 1.48 states that *"… In this case, the marginal default rates do not display a generally falling trend."* We highlight the following additional context provided within the Infrastructure Addendum Study: QUOTE *In Exhibit 6, the slight increase in marginal default rates in year 8 is due to a small number of projects defaulting in that year combined with the small size of the data set.* END QUOTE	
Section 2.5.3.		
Section 3.1.	Paragraph 1.52 (first bullet) states that "The available evidence suggests that the risk profiles of infrastructure corporates and other corporates are similar." We highlight the following extracts from Moody's Special Comment "Infrastructure Default and Recovery Rates, 1983-2014", March 2015, which shows that 10-year credit loss rates for corporate infrastructure debt securities are materially lower than for like-rated non-financial corporates (NFCs), due to the greater stability of infrastructure credit: • *" … 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. …"*	

EXHIBIT 8

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



Source: Moody's

- *" … For much of the study period, total infrastructure security ratings have been relatively stable, when compared with NFC issuers. Rating volatility in the US municipal infrastructure sector has been about one fifth the level exhibited by NFC issuers, while in corporate infrastructure it has been about four fifths the level of NFCs. …"*

- *" … Corporate infrastructure ratings are more stable and in particular less likely to be downgraded than NFC ratings. It is therefore generally not possible to match the entire multiple-year term structure of credit risk. In other words, if NFC and corporate infrastructure ratings are calibrated to achieve similar credit loss rates, on average, over short- or medium-term horizons, then they cannot simultaneously match at longer horizons. Conversely, if they are calibrated to match at very long horizons, then they cannot match at shorter horizons. This, of course, is a general result and not particular to* *infrastructure. …"*

- *" … Corporate infrastructure debt securities have, on average, higher recovery rates than do NFC issuers. …"*

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%

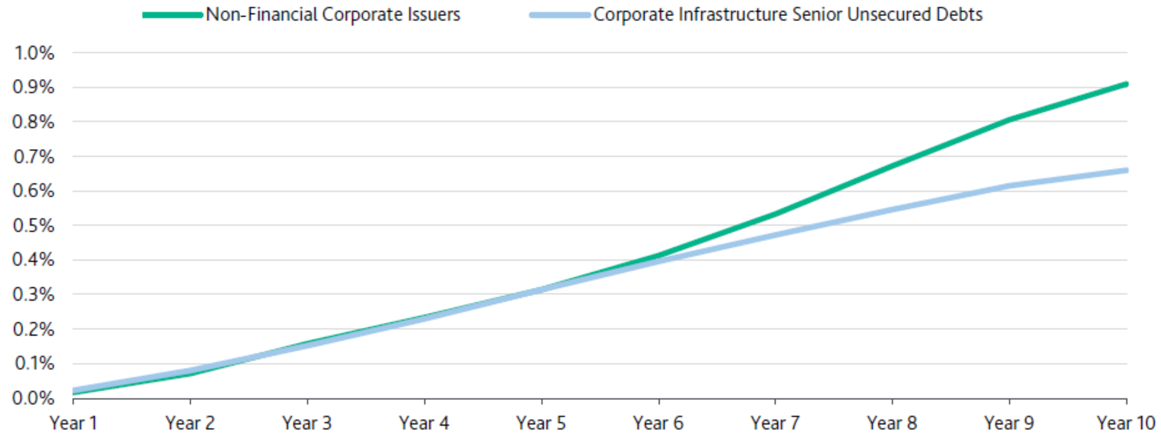
Source: Moody's

- *" … Corporate infrastructure and NFC ratings imply similar credit loss rates for horizons up to about five years. Beyond that, the greater stability of infrastructure credit results in lower loss rates than are observed for like-rated NFC issuers. This, again, is unavoidable: if ratings are set to reflect credit risk over a horizon of about three to five years, and the volatility of two populations is very different, then very long run performances will consequently differ. …"*

- *" … Exhibit 18 shows that single-A senior unsecured credit loss rates for NFC issuers and corporate infrastructure are very similar. …"*
Note: Over the study period 1983-2014, on average 30.7% of Moody's-rated corporate infrastructure debt securities were rated single-A

EXHIBIT 18

Single-A Credit Loss Rates

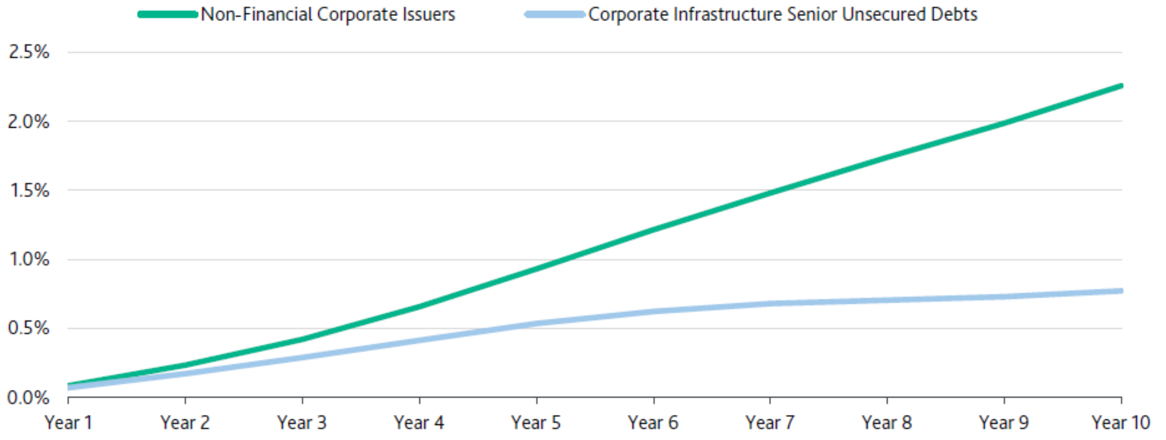


Source: Moody's

- *" … Credit loss rates for senior unsecured Baa-corporate infrastructure debt securities are very similar for short horizons, but start to differ at longer horizons (Exhibit 19). …"*
  Note: Over the study period 1983-2014, on average 39.9% of Moody's-rated corporate infrastructure debt securities were rated Baa

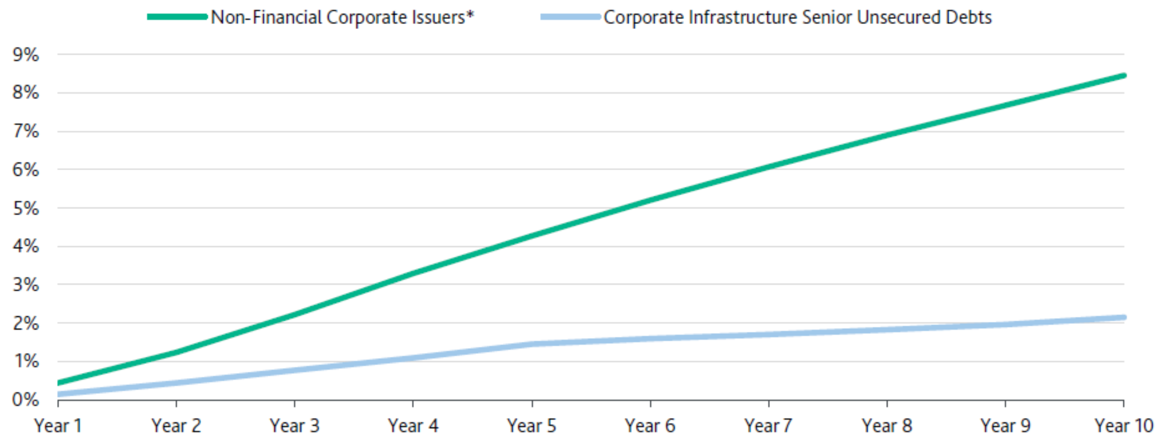
EXHIBIT 19

Baa Credit Loss Rates



Source: Moody's

- *" … Credit loss rates for Ba-rated overall corporate infrastructure debt securities are lower than similarly rated NFC issuers, driven by both lower default rates and higher recovery rates (Exhibit 20). …"*
  Note: Over the study period 1983-2014, on average only 11.6% of Moody's-rated corporate infrastructure debt securities were rated Ba and therefore caution should be used when drawing conclusions from an analysis of a smaller data set

	EXHIBIT 20 Ba Credit Loss Rates  * Because the rating distributions within the Ba rating class are very different for NFC issuers (44% of all Ba-rated issuers are rated Ba3) and corporate infrastructure senior unsecured debt securities (50% of all Ba-rated debt securities are rated Ba1 and only 24% Ba3), Ba CDRs for NFC have been calculated imposing the alpha-numeric rating distribution of corporate infrastructure senior unsecured debt securities. *Source: Moody's*	
Section 3.2.		
Section 3.2.1.		
Section 3.2.2.		
Section 3.2.3.		
Section 3.3.		
Section 3.3.1.		
Section 3.3.2.		
Section 3.3.2.1.		
Section 3.3.2.2.		

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Section 3.3.3.		
Section 3.3.4..		
Section 3.3.4.1.		
Section 3.3.4.2.		
Section 3.3.4.3.		
Section 3.3.4.4.		
Section 3.3.4.5.		
Section 3.3.4.6.		
Section 4.1.		
Section 4.2.		
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Section 4.2.4.3.		
Section 4.2.4.4.		
Section 4.2.4.5.		
Section 4.2.5.		
Section 4.2.5.1.		
Section 4.2.5.2.		
Section 4.2.5.3.		
Section 4.2.5.4.		

Section 4.3.		
Section 4.3.1.		
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Section 5.1.		
Section 5.2.		
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Section 6.1.		
Section 6.2.		
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Section 7.1.		
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Section 7.3.		
Section 8.		
Annex I	Table 11 is reproduced from Moody's Special Comment "Infrastructure Default and Recovery Rates, 1983-2012H1", March 2013. Our most recent study of the credit performance of Moody's-rated infrastructure debt is "Infrastructure Default and Recovery Rates, 1983-2014", March 2015. Although the findings of both studies are consistent, the study data sets are different and the results are necessarily different too. See comments at Section 3.1	
Annex II		
Annex III Sections:		

	Comments Template on EIOPA-CP-15-004 **Consultation Paper on** **the Call for Advice from the European Commission on the identification and calibration of infrastructure investment risk categories**	**Deadline** **09.August.2015** **23:59 CET**
Section 1.		
Section 2.		
Section 2.1.		
Section 2.2.		
Section 2.3.		
Section 3.		
Section 3.1.	Paragraph 1.256 states that *"… according to the Moody's study on project finance the recovery rates for project debt were uncorrelated to the economic cycle."* See comments at Section 2.4.1/Paragraph 1.40	
Section 3.2.		
Section 3.2.1.		
Section 3.2.2.	Paragraph 1.269 states that *"… For infrastructure project debt there is no evidence for a correlation different from zero".* See comments at Section 2.4.1/Paragraph 1.40	
Section 4.		
Section 4.1.		
Section 4.2.		
Section 4.3.		
Section 4.4.		
Section 4.5.		
Section 5.		
Annex IV		
Annex V		