Form NRSRO

| OMB APPROVAL |
| :--- |
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# APPLICATION FOR REGISTRATION AS A NATIONALLY RECOGNIZED STATISTICAL RATING ORGANIZATION (NRSRO) 

# APPLICATION FOR REGISTRATION AS A <br> NATIONALLY RECOGNIZED <br> STATISTICAL RATING ORGANIZATION (NRSRO) 

INITIAL APPLICATIONAPPLICATION TO ADD CLASS OF CREDIT RATINGSAPPLICATION SUPPLEMENT Items and/or Exhibits Supplemented:
$\square$ ANNUAL CERTIFICATION
$\square$ UPDATE OF REGISTRATION
Items and/or Exhibits Amended:
Items 3 and 8, and Exhibits 1, 3, 4, 6 and 7
$\square$ WITHDRAWAL FROM REGISTRATION

Important: Refer to Form NRSRO Instructions for General Instructions, Item-by-Item Instructions, an Explanation of Terms, and the Disclosure Reporting Page (NRSRO). "You" and "your" mean the person furnishing this Form NRSRO to the Commission. "Applicant" and "NRSRO" mean the person furnishing this Form NRSRO to the Commission and any credit rating affiliate identified in Item 3.

1. A. Your full name:

Moody's Investors Service, Inc.
B. (i) Name under which your credit rating business is primarily conducted, if different from Item 1A:

N/A
(ii) Any other name under which your credit rating business is conducted and where it is used (other than the name of a credit rating affiliate identified in Item 3):

## N/A

C. Address of your principal office (do not use a P.O. Box):

| 250 Greenwich Street | New York | New York | 10007 |
| :--- | :--- | :---: | :---: |
| (Number and Street) | (City) | (State/Country) | (Zip/Postal Code) |

D. Mailing address, if different:

N/A

| (Number and Street) (City) | (State/Country) |
| :--- | :--- | :--- | :--- |

E. Contact person (See Instructions):

Jeffrey R. Schwartz, Managing Director - Compliance

| (Number and Street) |  |  |  |
| :--- | :--- | :--- | :--- |
| 250 Greenwich Street | New York | New York | 10007 |
| (Number and Street) | (City) | (State/Country) | (Zip/Postal Code) |

## CERTIFICATION:

The undersigned has executed this Form NRSRO on behalf of, and on the authority of, the Applicant/NRSRO. The undersigned, on behalf of the Applicant/NRSRO, represents that the information and statements contained in this Form, including Exhibits and attachments, all of which are part of this Form, are accurate in all significant respects. If this is an ANNUAL CERTIFICATION, the undersigned, on behalf of the NRSRO, represents that the NRSRO's application on Form NRSRO, as amended, is accurate in all significant respects.

Moody's Investors Service, Inc.

| (Date) |  |
| :--- | :--- |
| $\mathrm{By}:$ | (Name of the Applicant/NRSRO) <br> (Signature) <br> Michel Madelain, President and Chief Operating Officer |
| (Print Name and Title) |  |

2. A. Your legal status:

- CorporationLimited Liability CompanyPartnershipOther (specify) $\qquad$
B. Month and day of your fiscal year end:


## December 31st

C. Place and date of your formation (i.e., state or country where you were incorporated, where your partnership agreement was filed, or where you otherwise were formed):

$$
\text { State/Country of formation: } \underline{\text { Delaware, USA } \quad \text { Date of formation: May 10, } 1968}
$$

3. Your credit rating affiliates (See Instructions):

Item 3 is attached and made a part of this Form NRSRO

| (Name) | (Address) |
| :--- | :--- |
| (Name) | (Address) |
| (Name) | (Address) |
| (Name) |  |
| (Name) | (Address) |

4. The designated compliance officer of the Applicant/NRSRO (See Instructions):

Jeffrey R. Schwartz, Managing Director - Compliance
(Name and Title)
250 Greenwich Street, New York, New York 10007
(Number and Street) (City) (State/Country) (Postal Code)
5. Describe in detail how this Form NRSRO and Exhibits 1 through 9 to this Form NRSRO will be made publicly available on Web site of the Applicant/NRSRO, or through another comparable, readily accessible means (See Instructions):

> Form NRSRO and its exhibits will be publicly available, free of charge, on the Regulatory Affairs page of our website, www.moodys.com

## 6. COMPLETE ITEM 6 ONLY IF THIS IS AN INITIAL APPLICATION, APPLICATION SUPPLEMENT, OR APPLICATION TO ADD A CLASS OF CREDIT RATINGS.

A. Indicate below the classes of credit ratings for which the Applicant/NRSRO is applying to be registered. For each class, indicate the approximate number of credit ratings the Applicant/NRSRO presently has outstanding in that class as of the date of this application and the approximate date the Applicant/NRSRO began issuing credit ratings as a "credit rating agency" in that class on a continuous basis through the present (See Instructions):

| Class of credit ratings | Applying for <br> registration | Approximate number <br> currently outstanding | Approximate date <br> issuance commenced |
| :--- | :---: | :---: | :---: |
| financial institutions as that term is defined in <br> section 3(a)(46) of the Exchange Act (15 U.S.C. <br> 78c(a)(46)), brokers as that term is defined in <br> section 3(a)(4) of the Exchange Act (15 U.S.C. <br> 78c(a)(4)), and dealers as that term is defined in <br> section 3(a)(5) of the Exchange Act (15 U.S.C. <br> 78c(a)(5)) |  |  |  |
| insurance companies as that term is defined in | $\square$ |  |  |
| section 3(a)(19) of the Exchange Act (15 U.S.C. <br> 78c(a)(19)) | $\square$ |  |  |


| corporate issuers | $\square$ |  |  |
| :--- | :---: | :--- | :--- |
| issuers of asset-backed securities as that term is <br> defined in 17 CFR 229.1101(c) | $\square$ |  |  |
| issuers of government securities as that term is <br> defined in section 3(a)(42) of the Exchange Act <br> (15 U.S.C. 78c(a)(42)), municipal securities as <br> that term is defined in section 3(a)(29) of the <br> Exchange Act (15 U.S.C. $78 \mathbf{( a ) ( 2 9 ) ) , ~ a n d ~ f o r e i g n ~}$ <br> government securities | $\square$ |  |  |

B. Briefly describe how the Applicant/NRSRO makes the credit ratings in the classes indicated in Item 6A readily accessible for free or for a reasonable fee (See Instructions):
C. Check the applicable box and attach certifications from qualified institutional buyers, if required (See Instructions):The Applicant/NRSRO is attaching $\qquad$ certifications from qualified institutional buyers to this application. Each is marked "Certification from Qualified Institutional Buyer."
$\square$ The Applicant/NRSRO is exempt from the requirement to submit certifications from qualified institutional buyers pursuant to section 15E(a)(1)(D) of the Exchange Act.

Note: You are not required to make a Certification from a Qualified Institutional Buyer submitted with this Form NRSRO publicly available on your Web site, or through another comparable, readily accessible means pursuant to Exchange Act Rule 17g-1(i). You may request that the Commission keep these certifications confidential by marking each page "Confidential Treatment" and complying with Commission rules governing confidential treatment. The Commission will keep the certifications confidential upon request to the extent permitted by law.

## 7. DO NOT COMPLETE ITEM 7 IF THIS IS AN INITIAL APPLICATION.

A. Indicate below the classes of credit ratings for which the NRSRO is currently registered. For each class, indicate the approximate number of credit ratings the NRSRO had outstanding in that class as of the most recent calendar year end and the approximate date the NRSRO began issuing credit ratings as a "credit rating agency" in that class on a continuous basis through the present (See Instructions):

| Class of credit rating | Currently registered | Approximate number outstanding as of the most recent calendar year end | Approximate date issuance commenced |
| :---: | :---: | :---: | :---: |
| financial institutions as that term is defined in section 3(a)(46) of the Exchange Act (15 U.S.C. 78c(a)(46)), brokers as that term is defined in section 3(a)(4) of the Exchange Act (15 U.S.C. 78c(a)(4)), and dealers as that term is defined in section 3(a)(5) of the Exchange Act (15 U.S.C. 78c(a)(5)) | $\nabla$ | 76,801 | 1974 |
| insurance companies as that term is defined in section 3(a)(19) of the Exchange Act (15 U.S.C. $78 \mathrm{c}(\mathrm{a})(19))$ | $\square$ | 5,455 | 1971 |
| corporate issuers | $\square$ | 31,008 | 1909 |


| issuers of asset-backed securities as that term is defined in 17 CFR 229.1101(c) | $\square$ | 106,337 | 1985 |
| :---: | :---: | :---: | :---: |
| issuers of government securities as that term is defined in section 3(a)(42) of the Act (15 U.S.C. $78 \mathrm{c}(\mathrm{a})(42)$ ), municipal securities as that term is defined in section 3(a)(29) of the Exchange Act (15 U.S.C. 78c(a)(29)), and foreign government securities | $\checkmark$ | 862,240 | 1918 |

B. Briefly describe how the NRSRO makes the credit ratings in the classes indicated in Item 7A readily accessible for free or for a reasonable fee (See Instructions):

## All public credit ratings are available, free of charge, on our website, www.moodys.com

| 8. Answer each question. Provide information that relates to a "Yes" answer on a Disclosure Reporting Page (NRSRO) and submit the Disclosure Reporting Page with this Form NRSRO (See Instructions). You are not required to make any disclosure reporting pages submitted with this Form publicly available on your Web site, or through another comparable, readily accessible means pursuant to Exchange Act Rule 17g-1(i). You may request that the Commission keep any disclosure reporting pages confidential by marking each page "Confidential Treatment" and complying with Commission rules governing confidential treatment. The Commission will keep the disclosure reporting pages confidential upon request to the extent permitted by law. | Item 8 supplement is attached and made a part of this Form NRSRO |
| :---: | :---: |
|  | YES NO |
| A. Has the Applicant/NRSRO or any person within the Applicant/NRSRO committed or omitted any act, or been subject to an order or finding, enumerated in subparagraphs (A), (D), (E), (G), or (H) of section 15(b)(4) of the Securities Exchange Act of 1934, been convicted of any offense specified in section 15(b)(4)(B) of the Securities Exchange Act of 1934, or been enjoined from any action, conduct, or practice specified in section $15(b)(4)(C)$ of the Securities Exchange Act of 1934 in the ten years preceding the date of the initial application of the Applicant/NRSRO for registration as an NRSRO or at any time thereafter? | $\square \square \square$ |
| B. Has the Applicant/NRSRO or any person within the Applicant/NRSRO been convicted of any crime that is punishable by imprisonment for 1 or more years, and that is not described in section 15(b)(4) of the Securities Exchange Act of 1934, or been convicted of a substantially equivalent crime by a foreign court of competent jurisdiction in the ten years preceding the date of the initial application of the Applicant/NRSRO for registration as an NRSRO or at any time thereafter? | $\square \quad \square$ |
| C. Is any person within the Applicant/NRSRO subject to any order of the Commission barring or suspending the right of the person to be associated with an NRSRO? | $\square \square$ |

9. Exhibits (See Instructions).

Exhibit 1. Credit ratings performance measurement statistics.
Exhibit 1 is attached and made a part of this Form NRSRO.

Exhibit 2. A description of the procedures and methodologies used in determining credit ratings.
Exhibit 2 is attached and made a part of Form NRSRO.

Exhibit 3. Policies or procedures adopted and implemented to prevent the misuse of material, nonpublic information.
Exhibit 3 is attached and made a part of this Form NRSRO.

Exhibit 4. Organizational structure.
Exhibit 4 is attached to and made a part of this Form NRSRO.

Exhibit 5. The code of ethics or a statement of the reasons why a code of ethics is not in effect.
Exhibit 5 is attached to and made a part of this Form NRSRO.

Exhibit 6. Identification of conflicts of interests relating to the issuance of credit ratings.
Exhibit 6 is attached to and made a part of this Form NRSRO.

Exhibit 7. Policies and procedures to address and manage conflicts of interest.
$\square$ Exhibit 7 is attached to and made a part of this Form NRSRO.

Exhibit 8. Certain information regarding the credit rating agency's credit analysts and credit analyst supervisors.
$\square$ Exhibit 8 is attached to and made a part of this Form NRSRO.

Exhibit 9. Certain information regarding the credit rating agency's designated compliance officer.
Exhibit 9 is attached to and made a part of this Form NRSRO.

Exhibit 10. A list of the largest users of credit rating services by the amount of net revenue earned from the user during the fiscal year ending immediately before the date of the initial application.
$\square \quad$ Exhibit 10 is attached to and made a part of this Form NRSRO.
Note: You are not required to make this Exhibit publicly available on your Web site, or through another comparable, readily accessible means pursuant to Exchange Act Rule 17g-1(i). You may request that the Commission keep this Exhibit confidential by marking each page "Confidential Treatment" and complying with Commission rules governing confidential treatment. The Commission will keep the information and documents in the Exhibit confidential upon request to the extent permitted by law.

Exhibit 11. Audited financial statements for each of the three fiscal or calendar years ending immediately before the date of the initial application.
$\square$ Exhibit 11 is attached to and made a part of this Form NRSRO.
Note: You are not required to make this Exhibit publicly available on your Web site, or through another comparable, readily accessible means pursuant to Exchange Act Rule 17g-1(i). You may request that the Commission keep this Exhibit confidential by marking each page "Confidential Treatment" and complying with Commission rules governing confidential treatment. The Commission will keep the information and documents in the Exhibit confidential upon request to the extent permitted by law.

Exhibit 12. Information regarding revenues for the fiscal or calendar year ending immediately before the date of the initial application.Exhibit 12 is attached to and made a part of this Form NRSRO.
Note: You are not required to make this Exhibit publicly available on your Web site, or through another comparable, readily accessible means pursuant to Exchange Act Rule $17 \mathrm{~g}-1$ (i). You may request that the Commission keep this Exhibit confidential by marking each page "Confidential Treatment" and complying with Commission rules governing confidential treatment. The Commission will keep the information and documents in the Exhibit confidential upon request to the extent permitted by law.

Exhibit 13. The total and median annual compensation of credit analysts.
$\square$ Exhibit 13 is attached and made a part of this Form NRSRO.
Note: You are not required to make this Exhibit publicly available on your Web site, or through another comparable, readily accessible means pursuant to Exchange Act Rule 17g-1(i). You may request that the Commission keep this Exhibit confidential by marking each page "Confidential Treatment" and complying with Commission rules governing confidential treatment. The Commission will keep the information and documents in the Exhibit confidential upon request to the extent permitted by law.

This Disclosure Reporting Page (DRP) is to be used to provide information concerning affirmative responses to Item 8 of Form NRSRO.

Submit a separate DRP for each person that: (a) has committed or omitted any act, or been subject to an order or finding, enumerated in subparagraphs (A), (D), (E), (G), or (H) of section 15(b)(4) of the Securities Exchange Act of 1934, has been convicted of any offense specified in section $15(\mathrm{~b})(4)(\mathrm{B})$ of the Securities Exchange Act of 1934, or has been enjoined from any action, conduct, or practice specified in section 15(b)(4)(C) of the Securities Exchange Act of 1934; (b) has been convicted of any crime that is punishable by imprisonment for 1 or more years, and that is not described in section 15(b)(4) of the Securities Exchange Act of 1934, or has been convicted of a substantially equivalent crime by a foreign court of competent jurisdiction; or (c) is subject to any order of the Commission barring or suspending the right of the person to be associated with an NRSRO.

Name of Applicant/NRSRO
Date
Moody's Investors Service, Inc.

Check Item being responded to:Item 8AItem 8BItem 8C
Full name of the person for whom this DRP is being submitted:

## Moody's Investors Service, Inc.

If this DRP provides information relating to a "Yes" answer to Item 8A, describe the act(s) that was (were) committed or omitted; or the order(s) or finding(s); or the injunction(s) (provide the relevant statute(s) or regulation(s)) and provide jurisdiction(s) and date(s):

If this DRP provides information relating to a "Yes" answer to Item 8B, describe the crime(s) and provide jurisdiction(s) and date(s):

See Disclosure Reporting Page Appendix, which is attached and made a part of this Disclosure

If this DRP provides information relating to a "Yes" answer to Item 8C, attach the relevant Commission order(s) and provide the date(s):

## Moody's Investors Service, Inc.

## Item 3

## Credit Rating Affiliates

| Moody's Investors Service Ltd. <br> One Canada Square <br> Canary Wharf <br> London, E14 5FA, United Kingdom | Moody's América Latina Ltda. <br> Avenida Nações Unidas, 12.551 <br> 16th Floor, Room 1601 <br> São Paulo, SP 04578-903, Brazil |
| :---: | :---: |
| Moody's Interfax Rating Agency Limited, <br> $7^{\text {th }}$ FI, Four Winds Plaza, $1^{\text {st }}$ Tverskaya-Yamskaya St. 21 <br> Moscow, 125047, Russia | Moody's Latin America, Calificadora de Riesgo Cerrito 1186, 11th fl <br> Buenos Aires, C1010AAX, Argentina |
| Moody's Investors Service Hong Kong Ltd 24/F, One Pacific Place, 88 Queensway, Admiralty, Hong KongChina (Hong Kong S.A.R.) | Moody's Deutschland GmbH <br> An der Welle 5 <br> Frankfurt am Main, 60322, Germany |
| Moody's de México S.A. de C.V. <br> Ave. Paseo de las Palmas <br> No. 405-502 <br> Col. Lomas de Chapultepec <br> México, DF 11000 | Moody's Middle East Limited Dubai International Financial Centre Gate Village 4, Level 3 P.O. Box 113355, Dubai, UAE |
| Moody's Investors Service Cyprus Ltd. <br> Kanika Business Centre <br> 319 28th October Avenue <br> PO Box 53205 <br> Limassol, CY 3301, Cyprus | Moody's Investors Service South Africa (Pty) Ltd The Forum 2 Maude Street 2196 Sandton Johannesburg, South Africa |
| Moody's Investors Service España, S.A. Barbara de Braganza, 2 Madrid, 28004, Spain | Moody's Italia S.r.I. <br> Corso di Porta Romana 68 Milan, 20122, Italy |
| Moody's France S.A.S. 96 Boulevard Haussmann Paris, 75008, France | Moody's Japan K.K. <br> Atago Green Hills Mori Tower 20fl 2-5-1 Atago <br> Tokyo, Minato-ku 105-6220, Japan |
| Moody's Investors Service Pty. Ltd. <br> 1 O'Connell Street <br> Level 10 <br> Sydney, NSW 2000, Australia | Moody's Eastern Europe LLC 7th floor, Four Winds Plaza $1^{\text {st }}$ Tverskaya-Yamskaya St. 21 Moscow, 125047, Russia |
| Moody's Canada Inc. <br> 70 York Street <br> Suite 1400 <br> Toronto, Ontario M5J 1S9 Canada | Moody's Investors Service Singapore Pte. Ltd. 3 Church Street \#16-03/04 Samsung Hub Singapore, 049483 Singapore |

## Moody's Investors Service "MIS"

## Item 8 Supplement

In the United States, MIS's practice is to conduct background checks through a thirdparty vendor in connection with hiring employees. These checks include a criminal record search as well as verification of prior employment and education. We do not conduct criminal record checks for employees hired outside of the United States in all jurisdictions because in certain non-United States jurisdictions, legal constraints prevent us from doing so. Although in rare circumstances, MIS may hire an individual despite the fact that he/she has been convicted of a crime in the past because MIS believes that the offense is not relevant to the individual's employment, it is not of a serious enough nature to preclude his/her employment, and/or the offense occurred far enough in the past, MIS does not currently maintain records reflecting such circumstances. For these reasons, we cannot say with certainty that no person within MIS has been convicted of a crime or committed an offense enumerated in Section 15(b)(4) of the Securities Exchange Act of 1934 or other offense punishable by imprisonment for one or more years, or of a substantially equivalent crime by a foreign court of competent jurisdiction in the ten years preceding the date of our initial application for NRSRO registration, or at any time thereafter.

Please note, when responding to Item 8 (A)-(C), we have interpreted "any person within the Applicant/NRSRO" to include only persons currently employed by the Applicant.

## Moody’s Investors Service ("MIS")

## Disclosure Reporting Page Appendix

On April 10, 2001, MIS agreed to a settlement with the Antitrust Division of the U.S. Department of Justice arising from an incident in 1996 involving the destruction of documents. Under the terms of the settlement, MIS pleaded guilty to one count of obstruction of justice in violation of 18 U.S.C. § 1505 and agreed to pay a fine of $\$ 195,000$. The settlement and guilty plea arose out of an isolated incident in Mach 1996 in which an employee destroyed some copies of documents called for under a Civil Investigative Demand served on MIS by the Antitrust Division in connection with a civil investigation into alleged anticompetitive practices in the credit rating industry. The Antitrust Division ultimately closed the civil investigation in 1999 without taking any action against MIS.

One year transition rates, cohort ending December 31, 2009 (i.e., Jan 1, 2009 cohort)
Financial Institutions

| From/To: | Aaa | Aa | A | Baa | Ba | B | CaaC | WR |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Aaa | $69.12 \%$ | $26.47 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $4.41 \%$ |
| Aa | $0.00 \%$ | $72.92 \%$ | $21.88 \%$ | $1.46 \%$ | $0.21 \%$ | $0.00 \%$ | $0.00 \%$ | $3.54 \%$ |
| A | $0.00 \%$ | $0.54 \%$ | $71.51 \%$ | $18.55 \%$ | $1.08 \%$ | $0.27 \%$ | $0.00 \%$ | $8.06 \%$ |
| Baa | $0.00 \%$ | $0.00 \%$ | $3.77 \%$ | $70.75 \%$ | $8.49 \%$ | $0.00 \%$ | $0.00 \%$ | $16.98 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $3.85 \%$ | $60.26 \%$ | $12.82 \%$ | $1.28 \%$ | $21.79 \%$ |
| B | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $62.86 \%$ | $11.43 \%$ | $25.71 \%$ |
| Caa-C | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $14.29 \%$ | $42.86 \%$ | $42.86 \%$ |

Insurance

| From/To: | Aaa | Aa | A | Baa | Ba |  | CaaC | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aaa | 0.00\% | 80.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 20.00\% |
| Aa | 0.00\% | 28.13\% | 62.50\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 9.38\% |
| A | 0.00\% | 0.00\% | 77.88\% | 15.38\% | 0.00\% | 0.00\% | 0.00\% | 6.73\% |
| Baa | 0.00\% | 0.00\% | 1.15\% | 81.61\% | 4.60\% | 3.45\% | 1.15\% | 8.05\% |
| Ba | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 64.29\% | 7.14\% | 7.14\% | 21.43\% |
| B | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 52.38\% | 9.52\% | 38.10\% |
| Caa-C | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 11.11\% | 44.44\% | 44.44\% |

Corporates

| From/To: | Aaa | Aa | A | Baa | Ba | B | CaaC | WR |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Aaa | $60.00 \%$ | $37.50 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $2.50 \%$ |
| Aa | $0.00 \%$ | $82.44 \%$ | $9.16 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $8.40 \%$ |
| A | $0.00 \%$ | $0.00 \%$ | $85.67 \%$ | $8.73 \%$ | $0.16 \%$ | $0.82 \%$ | $0.00 \%$ | $4.61 \%$ |
| Baa | $0.00 \%$ | $0.12 \%$ | $0.61 \%$ | $88.49 \%$ | $4.53 \%$ | $0.37 \%$ | $0.00 \%$ | $5.88 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $3.97 \%$ | $74.19 \%$ | $13.65 \%$ | $0.74 \%$ | $7.44 \%$ |
| B | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $3.01 \%$ | $69.38 \%$ | $14.03 \%$ | $13.59 \%$ |
| Caa-C | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $5.33 \%$ | $52.66 \%$ | $42.01 \%$ |

LT US Municipals

| From/To: | Aaa | Aa | A | Baa | Ba | B | CaaC | WR |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Aaa | $85.88 \%$ | $2.06 \%$ | $0.58 \%$ | $0.50 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $10.98 \%$ |
| Aa | $0.04 \%$ | $93.83 \%$ | $1.73 \%$ | $0.17 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $4.23 \%$ |
| A | $0.02 \%$ | $0.91 \%$ | $92.91 \%$ | $1.81 \%$ | $0.05 \%$ | $0.01 \%$ | $0.01 \%$ | $4.28 \%$ |
| Baa | $0.04 \%$ | $0.04 \%$ | $3.22 \%$ | $87.55 \%$ | $1.34 \%$ | $0.08 \%$ | $0.04 \%$ | $7.69 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $6.61 \%$ | $73.55 \%$ | $6.61 \%$ | $0.00 \%$ | $13.22 \%$ |
| B | $0.00 \%$ | $5.88 \%$ | $0.00 \%$ | $0.00 \%$ | $2.94 \%$ | $52.94 \%$ | $29.41 \%$ | $8.82 \%$ |
| Caa-C | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $72.73 \%$ | $27.27 \%$ |

One year transition rates, cohort ending December 31, 2009 (i.e., Jan 1, 2009 cohort)
LT Structured Finance

| From/To: | Aaa | Aa | A | Baa | Ba | B | Caa-C | WR |
| :--- | ---: | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Aaa | $47.0 \%$ | $10.3 \%$ | $7.1 \%$ | $6.0 \%$ | $5.0 \%$ | $5.7 \%$ | $10.2 \%$ | $8.7 \%$ |
| Aa | $0.6 \%$ | $33.8 \%$ | $15.5 \%$ | $12.7 \%$ | $9.0 \%$ | $8.4 \%$ | $15.8 \%$ | $4.4 \%$ |
| A | $0.5 \%$ | $1.0 \%$ | $29.5 \%$ | $14.6 \%$ | $14.5 \%$ | $12.2 \%$ | $23.8 \%$ | $3.9 \%$ |
| Baa | $0.1 \%$ | $0.2 \%$ | $0.5 \%$ | $29.4 \%$ | $12.7 \%$ | $18.0 \%$ | $34.6 \%$ | $4.5 \%$ |
| Ba | $0.0 \%$ | $0.0 \%$ | $0.1 \%$ | $1.1 \%$ | $21.7 \%$ | $14.6 \%$ | $60.3 \%$ | $2.3 \%$ |
| B | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.1 \%$ | $0.2 \%$ | $18.2 \%$ | $79.1 \%$ | $2.4 \%$ |
| Caa-C | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $95.2 \%$ | $4.7 \%$ |

ST Structured Finance

| From/To: | P-1 | P-2 | P-3 | NP | WR |
| :--- | ---: | ---: | ---: | ---: | ---: |
| P-1 | $65.6 \%$ | $0.0 \%$ | $0.2 \%$ | $0.5 \%$ | $33.7 \%$ |
| P-2 | $0.0 \%$ | $50.0 \%$ | $0.0 \%$ | $0.0 \%$ | $50.0 \%$ |
| P-3 | NA | NA | NA | NA | NA |
| NP | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $70.0 \%$ | $30.0 \%$ |

## ST Commercial Paper

| From/To: | P-1 | P-2 | P-3 | NP | WR |
| :---: | ---: | ---: | ---: | ---: | ---: |
| P-1 | $85.22 \%$ | $9.21 \%$ | $0.42 \%$ | $0.14 \%$ | $5.02 \%$ |
| P-2 | $0.27 \%$ | $80.11 \%$ | $8.45 \%$ | $2.72 \%$ | $8.45 \%$ |
| P-3 | $3.23 \%$ | $3.23 \%$ | $74.19 \%$ | $6.45 \%$ | $12.90 \%$ |
| NP | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $78.57 \%$ | $21.43 \%$ |

## Sovereign

| From/To: | Aaa | Aa | A | Baa | Ba | B | CaaC | WR |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Aaa | $89.47 \%$ | $10.53 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Aa | $0.00 \%$ | $100.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| A | $0.00 \%$ | $0.00 \%$ | $84.21 \%$ | $15.79 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Baa | $0.00 \%$ | $0.00 \%$ | $6.67 \%$ | $86.67 \%$ | $6.67 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $11.76 \%$ | $82.35 \%$ | $5.88 \%$ | $0.00 \%$ | $0.00 \%$ |
| B | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $9.52 \%$ | $85.71 \%$ | $0.00 \%$ | $0.00 \%$ |
| Caa-C | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |

Int'I Public Finance

| From/To: | Aaa | Aa | A | Baa | Ba | B | CaaC | WR |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Aaa | $88.89 \%$ | $3.70 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $7.41 \%$ |
| Aa | $0.00 \%$ | $96.15 \%$ | $1.92 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $1.92 \%$ |
| A | $0.00 \%$ | $0.00 \%$ | $100.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Baa | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $71.43 \%$ | $14.29 \%$ | $0.00 \%$ | $0.00 \%$ | $14.29 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $90.91 \%$ | $0.00 \%$ | $0.00 \%$ | $9.09 \%$ |
| B | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $100.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Caa-C | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $100.00 \%$ | $0.00 \%$ |

One year transition rates, by alphanumeric rating, cohort ending December 31, 2009 (i.e., January 1, 2009 cohort

| Financia |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| From/To: | Aaa | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | Baa1 | Baa2 | Baa3 | Ba1 | Ba2 | ва3 | B1 | B2 | вз | Caa1 | Caa2 | Caa3 | Ca | c | WR |
| Aaa | 69.12\% | 17.65\% | 2.94\% | 5.88\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 4.41\% |
| Aa1 | 0.00\% | 56.52\% | 19.88\% | 14.91\% | 3.73\% | 0.62\% | 0.00\% | 0.62\% | 0.62\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 3.11\% |
| Aa2 | 0.00\% | 0.00\% | 42.77\% | 37.35\% | 7.23\% | 7.23\% | 0.60\% | 0.60\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 4.22\% |
| Aa3 | 0.00\% | 0.00\% | 1.31\% | 44.44\% | 29.41\% | 13.73\% | 4.58\% | 1.96\% | 0.00\% | 0.65\% | 0.00\% | 0.65\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 3.27\% |
| A1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.67\% | 24.00\% | 6.67\% | 8.00\% | 2.00\% | 0.67\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 8.00\% |
| A2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.65\% | 51.30\% | 24.03\% | 12.34\% | 1.30\% | 3.25\% | 0.65\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 6.49\% |
| A3 | 0.00\% | 0.00\% | 2.94\% | 0.00\% | 0.00\% | 0.00\% | 39.71\% | 19.12\% | 14.71\% | 5.88\% | 2.94\% | 0.00\% | 1.47\% | 0.00\% | 1.47\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 11.76\% |
| Baa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 12.90\% | 29.03\% | 19.35\% | 19.35\% | 0.00\% | 3.23\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 16.13\% |
| Baa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 6.52\% | 65.22\% | 4.35\% | 6.52\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 17.39\% |
| Baa3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 3.45\% | 44.83\% | 17.24\% | 3.45\% | 10.34\% | 3.45\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 17.24\% |
| Ba1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 7.14\% | 42.86\% | 17.86\% | 10.71\% | 3.57\% | 3.57\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 14.29\% |
| Ba2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 4.55\% | 4.55\% | 31.82\% | 36.36\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 4.55\% | 18.18\% |
| ваз | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 10.71\% | 28.57\% | 17.86\% | 10.71\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 32.14\% |
| B1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 41.67\% | 8.33\% | 16.67\% | 8.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 25.00\% |
| B2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 5.88\% | 47.06\% | 5.88\% | 17.65\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 23.53\% |
| B3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 66.67\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 33.33\% |
| Caa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 25.00\% | 0.00\% | 0.00\% | 25.00\% | 25.00\% | 0.00\% | 25.00\% |
| Caa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 33.33\% | 0.00\% | 66.67\% |
| Сaa3 | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Ca | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a | n/a |
| c | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Insurance |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| From/To: | Aaa | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | Baa1 | Baa2 | Baa3 | Ba1 | Ba2 | ваз | B1 | B2 | в3 | Caa1 | Caa2 | Caa3 | Ca | c | WR |
| Aaa | 0.00\% | 40.00\% | 40.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 20.00\% |
| Aa1 | 0.00\% | 33.33\% | 0.00\% | 16.67\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% |
| Aa2 | 0.00\% | 0.00\% | 7.14\% | 14.29\% | 71.43\% | 0.00\% | 7.14\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Aa3 | 0.00\% | 0.00\% | 0.00\% | 25.00\% | 66.67\% | 0.00\% | 8.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| A1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 44.00\% | 28.00\% | 12.00\% | 12.00\% | 4.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| A2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 66.67\% | 21.43\% | 2.38\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 9.52\% |
| A3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 62.16\% | 16.22\% | 8.11\% | 5.41\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 8.11\% |
| Baa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 3.33\% | 63.33\% | 13.33\% | 6.67\% | 0.00\% | 3.33\% | 0.00\% | 0.00\% | 0.00\% | 3.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 6.67\% |
| Baa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 67.65\% | 20.59\% | 2.94\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 2.94\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 5.88\% |
| Ваа3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 69.57\% | 4.35\% | 4.35\% | 0.00\% | 4.35\% | 0.00\% | 4.35\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 13.04\% |
| Ba1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 42.86\% | 0.00\% | 14.29\% | 0.00\% | 0.00\% | 14.29\% | 0.00\% | 0.00\% | 0.00\% | 14.29\% | 0.00\% | 14.29\% |
| Ba2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 66.67\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 33.33\% |
| ваз | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 75.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 25.00\% |
| B1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 28.57\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 71.43\% |
| B2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 40.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 60.00\% |
| в3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 11.11\% | 66.67\% | 11.11\% | 0.00\% | 11.11\% | 0.00\% | 0.00\% | 0.00\% |
| Caa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 33.33\% | 66.67\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Caa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 66.67\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 33.33\% |
| Сaa3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |
| Ca | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |
| c | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |

One year transition rates, by alphanumeric rating, cohort ending December 31, 2009 (i.e., January 1, 2009 cohort

| Corporates |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| From/To: | Aaa | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | Baa1 | Baa2 | Baa3 | Ba1 | Ba2 | Ba3 | B1 | B2 | B3 | Caa1 | Caa2 | Caa3 | Ca | c | WR |
| Aaa | 60.00\% | 17.50\% | 20.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 2.50\% |
| Aa1 | 0.00\% | 74.42\% | 2.33\% | 4.65\% | 4.65\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 13.95\% |
| Aa2 | 0.00\% | 0.00\% | 85.00\% | 15.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Aa3 | 0.00\% | 0.00\% | 0.00\% | 68.75\% | 18.75\% | 2.08\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 10.42\% |
| A1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 72.93\% | 13.53\% | 4.51\% | 0.75\% | 0.00\% | 0.00\% | 0.75\% | 0.00\% | 0.00\% | 3.01\% | 0.75\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 3.76\% |
| A2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 76.88\% | 18.09\% | 0.50\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 4.52\% |
| A3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.36\% | 0.73\% | 75.27\% | 10.91\% | 6.91\% | 0.73\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 5.09\% |
| Baa1 | 0.00\% | 0.00\% | 0.00\% | 0.36\% | 0.00\% | 0.00\% | 1.09\% | 75.64\% | 12.00\% | 3.64\% | 0.36\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.36\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 6.55\% |
| Baa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.63\% | 0.00\% | 5.70\% | 71.20\% | 14.87\% | 2.22\% | 0.32\% | 0.32\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 4.75\% |
| Ваа3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.88\% | 2.65\% | 76.99\% | 6.64\% | 4.42\% | 0.88\% | 0.88\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 6.64\% |
| Ba1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 2.33\% | 10.47\% | 60.47\% | 10.47\% | 2.33\% | 3.49\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 10.47\% |
| Ba2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 3.33\% | 5.33\% | 67.33\% | 10.00\% | 4.00\% | 3.33\% | 0.00\% | 0.00\% | 0.67\% | 0.00\% | 0.00\% | 0.00\% | 6.00\% |
| Ba3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.60\% | 4.19\% | 62.28\% | 15.57\% | 7.19\% | 1.80\% | 0.60\% | 0.60\% | 0.00\% | 0.00\% | 0.00\% | 7.19\% |
| B1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 1.30\% | 8.70\% | 58.70\% | 11.30\% | 7.39\% | 3.04\% | 0.43\% | 0.00\% | 0.00\% | 0.00\% | 9.13\% |
| B2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.34\% | 0.00\% | 1.03\% | 6.87\% | 52.92\% | 11.00\% | 9.62\% | 1.72\% | 0.00\% | 0.34\% | 0.00\% | 16.15\% |
| B3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.27\% | 4.77\% | 58.36\% | 14.32\% | 6.63\% | 0.80\% | 0.27\% | 0.27\% | 14.32\% |
| Caa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 3.02\% | 7.33\% | 39.22\% | 14.66\% | 7.76\% | 2.59\% | 0.00\% | 25.43\% |
| Caa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.70\% | 0.70\% | 3.52\% | 23.24\% | 16.90\% | 5.63\% | 2.82\% | 46.48\% |
| Caa3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 3.39\% | 18.64\% | 5.08\% | 10.17\% | 62.71\% |
| Ca | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 4.55\% | 2.27\% | 0.00\% | 15.91\% | 2.27\% | 75.00\% |
| c | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 9.09\% | 90.91\% |
| LT US Municipals |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| From/To: | Aaa | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | Baa1 | Baa2 | Baa3 | Ba1 | Ba2 | Ba3 | B1 | B2 | в3 | Caa1 | Caa2 | Caa3 | Ca | c | WR |
| Aaa | 85.88\% | 1.65\% | 0.33\% | 0.08\% | 0.08\% | 0.33\% | 0.17\% | 0.17\% | 0.17\% | 0.17\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 10.98\% |
| Aa1 | 0.14\% | 89.59\% | 3.92\% | 0.27\% | 0.14\% | 0.54\% | 0.54\% | 0.00\% | 0.14\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 4.73\% |
| Aa2 | 0.05\% | 1.01\% | 87.56\% | 5.32\% | 0.21\% | 0.16\% | 0.21\% | 0.11\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 5.37\% |
| Aa3 | 0.00\% | 0.00\% | 1.42\% | 92.38\% | 1.90\% | 0.55\% | 0.22\% | 0.11\% | 0.07\% | 0.04\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 3.32\% |
| A1 | 0.06\% | 0.09\% | 0.23\% | 1.89\% | 90.82\% | 1.87\% | 0.66\% | 0.20\% | 0.06\% | 0.00\% | 0.03\% | 0.06\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 4.05\% |
| A2 | 0.00\% | 0.03\% | 0.03\% | 0.12\% | 1.95\% | 90.31\% | 2.29\% | 0.84\% | 0.59\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.03\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 3.81\% |
| A3 | 0.00\% | 0.03\% | 0.00\% | 0.10\% | 0.31\% | 3.08\% | 87.14\% | 3.05\% | 0.66\% | 0.42\% | 0.07\% | 0.00\% | 0.00\% | 0.03\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 5.09\% |
| Baa1 | 0.00\% | 0.00\% | 0.00\% | 0.09\% | 0.09\% | 0.71\% | 5.04\% | 82.21\% | 3.63\% | 0.62\% | 0.18\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 7.43\% |
| Baa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.28\% | 0.69\% | 5.24\% | 83.72\% | 1.93\% | 0.97\% | 0.28\% | 0.00\% | 0.00\% | 0.00\% | 0.14\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 6.76\% |
| Baa3 | 0.19\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.74\% | 0.93\% | 6.49\% | 77.92\% | 2.23\% | 1.30\% | 0.37\% | 0.19\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.19\% | 9.46\% |
| Ba1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 2.27\% | 0.00\% | 2.27\% | 72.73\% | 2.27\% | 2.27\% | 4.55\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 13.64\% |
| Ba2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 10.00\% | 5.00\% | 0.00\% | 62.50\% | 12.50\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 10.00\% |
| Ba3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 2.70\% | 0.00\% | 64.86\% | 8.11\% | 8.11\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 16.22\% |
| B1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 7.69\% | 38.46\% | 15.38\% | 7.69\% | 0.00\% | 7.69\% | 0.00\% | 7.69\% | 0.00\% | 15.38\% |
| B2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 42.86\% | 14.29\% | 28.57\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 14.29\% |
| B3 | 0.00\% | 0.00\% | 0.00\% | 14.29\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 42.86\% | 21.43\% | 0.00\% | 7.14\% | 14.29\% | 0.00\% | 0.00\% |
| Caa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 66.67\% | 33.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Caa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% |
| Саa3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% | 0.00\% |
| Ca | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 33.33\% | 66.67\% |
| c | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% | 0.00\% |

One year transition rates, by alphanumeric rating, cohort ending December 31, 2009 (i.e., January 1, 2009 cohort
LT Structured Finance

| From/To: | Aaa | Aal | Aa2 | Аа3 | A1 | A2 | A3 | Baal | Baa2 | Baa3 | Bal | Ba2 | ваз | B1 | B2 | в3 | Caal | Caa2 | Caa3 | Ca | c | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aaa | 47.0\% | 3.0\% | 3.9\% | 3.4\% | 3.4\% | 1.8\% | 1.9\% | 2.1\% | 1.8\% | 2.2\% | 2.4\% | 1.1\% | 1.5\% | 1.0\% | 1.0\% | 3.7\% | 4.2\% | 2.7\% | 1.4\% | 1.7\% | 0.2\% | 8.7\% |
| Aal | 0.8\% | 26.5\% | 3.7\% | 4.7\% | 4.9\% | 3.8\% | 3.8\% | 2.9\% | 3.8\% | 3.7\% | 5.4\% | 2.9\% | 2.1\% | 2.3\% | 2.1\% | 3.5\% | 3.7\% | 3.0\% | 3.3\% | 7.9\% | 2.9\% | 2.1\% |
| Aa2 | 0.6\% | 0.1\% | 31.4\% | 3.8\% | 5.9\% | 6.5\% | 5.9\% | 5.8\% | 5.2\% | 3.5\% | 4.2\% | 1.9\% | 2.6\% | 1.3\% | 1.9\% | 2.8\% | 3.0\% | 2.6\% | 1.7\% | 2.3\% | 2.7\% | 4.2\% |
| Aa3 | 0.5\% | 0.3\% | 0.2\% | 30.1\% | 6.3\% | 3.4\% | 4.5\% | 3.7\% | 4.0\% | 4.3\% | 2.5\% | 2.5\% | 2.9\% | 4.1\% | 3.0\% | 5.1\% | 3.1\% | 5.2\% | 1.9\% | 2.9\% | 2.9\% | 6.5\% |
| A1 | 0.6\% | 0.1\% | 0.5\% | 1.5\% | 19.6\% | 2.3\% | 2.6\% | 3.6\% | 4.1\% | 5.4\% | 6.0\% | 4.2\% | 4.6\% | 4.0\% | 3.4\% | 7.1\% | 6.2\% | 7.4\% | 4.2\% | 4.7\% | 3.6\% | 4.2\% |
| A2 | 0.6\% | 0.1\% | 0.4\% | 0.3\% | 0.4\% | 32.3\% | 2.2\% | 4.4\% | 4.6\% | 7.1\% | 7.4\% | 4.2\% | 3.6\% | 2.8\% | 2.4\% | 4.1\% | 3.2\% | 4.7\% | 3.2\% | 4.5\% | 3.4\% | 4.2\% |
| Аз | 0.3\% | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 0.4\% | 23.2\% | 2.6\% | 4.6\% | 5.9\% | 5.0\% | 3.9\% | 4.1\% | 2.9\% | 3.7\% | 8.8\% | 5.9\% | 7.9\% | 3.4\% | 7.5\% | 6.5\% | 3.1\% |
| Baal | 0.2\% | 0.1\% | 0.2\% | 0.1\% | 0.1\% | 0.0\% | 0.2\% | 21.7\% | 3.8\% | 5.4\% | 4.5\% | 4.5\% | 4.7\% | 4.9\% | 2.8\% | 10.0\% | 4.0\% | 11.4\% | 2.9\% | 6.7\% | 6.6\% | 5.3\% |
| Baa2 | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 0.2\% | 0.2\% | 0.2\% | 1.3\% | 26.0\% | 2.6\% | 4.2\% | 3.8\% | 5.6\% | 7.6\% | 4.2\% | 6.7\% | 4.9\% | 6.0\% | 4.8\% | 8.2\% | 9.3\% | 3.9\% |
| вааз | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.3\% | 0.6\% | 0.2\% | 26.2\% | 2.4\% | 3.1\% | 4.5\% | 4.4\% | 4.6\% | 8.8\% | 5.0\% | 8.9\% | 5.4\% | 10.1\% | 10.7\% | 4.4\% |
| Bal | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 3.1\% | 22.3\% | 1.1\% | 2.9\% | 3.7\% | 3.6\% | 3.8\% | 6.4\% | 8.8\% | 8.8\% | 15.5\% | 16.8\% | 3.0\% |
| Ba2 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 18.9\% | 1.2\% | 2.7\% | 4.4\% | 11.8\% | 5.0\% | 10.1\% | 10.3\% | 17.2\% | 16.2\% | 1.8\% |
| ваз | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 18.8\% | 1.9\% | 2.5\% | 7.3\% | 4.2\% | 9.0\% | 10.4\% | 20.8\% | 22.9\% | 2.2\% |
| B1 | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 17.2\% | 1.4\% | 4.4\% | 2.8\% | 6.6\% | 6.5\% | 18.5\% | 39.4\% | 2.9\% |
| B2 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 15.7\% | 2.1\% | 2.4\% | 4.4\% | 9.9\% | 18.8\% | 43.7\% | 2.7\% |
| B3 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 15.1\% | 2.1\% | 3.3\% | 7.6\% | 15.6\% | 54.0\% | 1.9\% |
| Caal | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.3\% | 0.1\% | 14.2\% | 3.7\% | 7.5\% | 25.9\% | 45.8\% | 2.1\% |
| Caa2 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 11.2\% | 2.2\% | 18.1\% | 66.7\% | 1.5\% |
| Caa3 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 11.7\% | 23.9\% | 59.6\% | 4.4\% |
| Ca | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 21.5\% | 74.5\% | 4.0\% |
| c | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 94.1\% | 5.9\% |
| Sovereign |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| From/To: | Aaa | Aa1 | Aa2 | Аа3 | A1 | A2 | A3 | Baa1 | Baa2 | Вааз | Ba1 | Ba2 | ваз | B1 | B2 | вз | Caa1 | Caa2 | Caa3 | Ca | c | WR |
| Aaa | 89.47\% | 5.26\% | 5.26\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Aa1 | 0.00\% | 100.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Aa2 | 0.00\% | 0.00\% | 100.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Aa3 | 0.00\% | 0.00\% | 25.00\% | 75.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| A1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 77.78\% | 22.22\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| A2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 16.67\% | 66.67\% | 0.00\% | 16.67\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| A3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% | 25.00\% | 0.00\% | 25.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Baa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 14.29\% | 57.14\% | 14.29\% | 14.29\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Baa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 66.67\% | 33.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Ваа3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 80.00\% | 20.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Ba1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 25.00\% | 75.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Ba2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 60.00\% | 20.00\% | 20.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| ва3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 25.00\% | 75.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| B1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 22.22\% | 55.56\% | 11.11\% | 0.00\% | 11.11\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| B2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| B3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 33.33\% | 66.67\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Caa1 | n.a. | n.a. | n.a. | п.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | п.a. | n.a. | п.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Caa2 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Caa3 | n.a. | n.a. | п.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Ca | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| c | n.a. | n.a. | п.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |



3 year transition rates, cohort ending December 31, 2009 (i.e., Jan 1, 2007 cohort)
Financial Institutions

| From/To: | Aaa | Aa | A | Baa | Ba | B | CaaC | WR |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Aaa | $68.75 \%$ | $12.50 \%$ | $6.25 \%$ | $2.08 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $10.42 \%$ |
| Aa | $2.40 \%$ | $58.03 \%$ | $23.02 \%$ | $3.12 \%$ | $0.24 \%$ | $0.00 \%$ | $0.00 \%$ | $13.19 \%$ |
| A | $0.00 \%$ | $19.35 \%$ | $49.08 \%$ | $12.67 \%$ | $0.92 \%$ | $0.23 \%$ | $0.00 \%$ | $17.74 \%$ |
| Baa | $0.00 \%$ | $0.00 \%$ | $19.13 \%$ | $45.22 \%$ | $5.22 \%$ | $0.87 \%$ | $0.00 \%$ | $29.57 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $4.41 \%$ | $38.24 \%$ | $16.18 \%$ | $1.47 \%$ | $39.71 \%$ |
| B | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $3.45 \%$ | $17.24 \%$ | $17.24 \%$ | $6.90 \%$ | $55.17 \%$ |
| Caa-C | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

Insurance

| From/To: | Aaa | Aa | A | Baa | Ba | B | CaaC | WR |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Aaa | $0.00 \%$ | $80.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $20.00 \%$ |
| Aa | $0.00 \%$ | $15.22 \%$ | $60.87 \%$ | $6.52 \%$ | $2.17 \%$ | $0.00 \%$ | $2.17 \%$ | $13.04 \%$ |
| A | $0.00 \%$ | $0.00 \%$ | $58.33 \%$ | $19.44 \%$ | $0.93 \%$ | $2.78 \%$ | $0.00 \%$ | $18.52 \%$ |
| Baa | $0.00 \%$ | $0.00 \%$ | $7.79 \%$ | $74.03 \%$ | $1.30 \%$ | $1.30 \%$ | $0.00 \%$ | $15.58 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $13.33 \%$ | $40.00 \%$ | $0.00 \%$ | $0.00 \%$ | $46.67 \%$ |
| B | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $31.25 \%$ | $25.00 \%$ | $43.75 \%$ |
| Caa-C | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

Corporates

| From/To: | Aaa | Aa | A | Baa | Ba | B | CaaC | WR |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| Aaa | $41.51 \%$ | $39.62 \%$ | $0.00 \%$ | $1.89 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $16.98 \%$ |
| Aa | $0.00 \%$ | $53.68 \%$ | $25.00 \%$ | $2.94 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $18.38 \%$ |
| A | $0.00 \%$ | $2.13 \%$ | $68.09 \%$ | $14.73 \%$ | $0.16 \%$ | $0.00 \%$ | $0.00 \%$ | $14.89 \%$ |
| Baa | $0.00 \%$ | $0.24 \%$ | $5.29 \%$ | $65.29 \%$ | $7.41 \%$ | $1.88 \%$ | $0.35 \%$ | $19.53 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | $0.46 \%$ | $10.80 \%$ | $40.23 \%$ | $14.02 \%$ | $2.76 \%$ | $31.72 \%$ |
| B | $0.00 \%$ | $0.00 \%$ | $0.09 \%$ | $0.83 \%$ | $5.88 \%$ | $37.41 \%$ | $14.25 \%$ | $41.54 \%$ |
| Caa-C | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.94 \%$ | $11.56 \%$ | $25.94 \%$ | $61.56 \%$ |

LT US Municipals

| From/To: | Aaa | Aa | A | Baa | Ba | B | CaaC | WR |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Aaa | $71.92 \%$ | $2.57 \%$ | $1.64 \%$ | $1.01 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $22.85 \%$ |
| Aa | $0.84 \%$ | $83.71 \%$ | $5.53 \%$ | $0.33 \%$ | $0.02 \%$ | $0.00 \%$ | $0.06 \%$ | $9.51 \%$ |
| A | $0.07 \%$ | $4.31 \%$ | $82.92 \%$ | $2.28 \%$ | $0.10 \%$ | $0.04 \%$ | $0.02 \%$ | $10.26 \%$ |
| Baa | $0.15 \%$ | $0.27 \%$ | $8.68 \%$ | $70.24 \%$ | $1.56 \%$ | $0.15 \%$ | $0.00 \%$ | $18.95 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | $0.71 \%$ | $12.14 \%$ | $47.14 \%$ | $7.86 \%$ | $3.57 \%$ | $28.57 \%$ |
| B | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $13.79 \%$ | $31.03 \%$ | $17.24 \%$ | $37.93 \%$ |
| Caa-C | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $41.67 \%$ | $58.33 \%$ |

3 year transition rates, cohort ending December 31, 2009 (i.e., Jan 1, 2007 cohort)
LT Structured Finance

| From/To: | Aaa | Aa | A | Baa | Ba | B | Caa-C | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aaa | 32.1\% | 8.0\% | 6.4\% | 6.5\% | 5.6\% | 7.1\% | 13.7\% | 20.7\% |
| Aa | 2.8\% | 22.7\% | 10.5\% | 7.8\% | 5.9\% | 4.3\% | 34.0\% | 12.0\% |
| A | 0.7\% | 2.0\% | 20.0\% | 10.2\% | 8.6\% | 5.1\% | 39.6\% | 13.8\% |
| Baa | 0.3\% | 0.3\% | 1.5\% | 18.5\% | 7.4\% | 7.8\% | 48.1\% | 16.2\% |
| Ba | 0.2\% | 0.1\% | 0.1\% | 2.5\% | 19.7\% | 6.8\% | 48.9\% | 21.6\% |
| B | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.9\% | 37.6\% | 49.8\% | 11.2\% |
| Caa-C | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 74.7\% | 24.8\% |

ST Structured Finance

| From/To: | P-1 | P-2 | P-3 | NP | WR |
| :--- | ---: | ---: | ---: | ---: | ---: |
| P-1 | $37.3 \%$ | $0.0 \%$ | $0.2 \%$ | $1.5 \%$ | $61.1 \%$ |
| P-2 | $0.0 \%$ | $20.0 \%$ | $0.0 \%$ | $0.0 \%$ | $80.0 \%$ |
| P-3 | NA | NA | NA | NA | NA |
| NP | NA | NA | NA | NA | NA |

ST Commercial Paper

| From/To: | P-1 | P-2 | P-3 | NP | WR |
| :---: | ---: | ---: | ---: | ---: | :--- |
| P-1 | $71.12 \%$ | $12.81 \%$ | $0.95 \%$ | $1.09 \%$ | $14.03 \%$ |
| P-2 | $7.67 \%$ | $61.38 \%$ | $8.47 \%$ | $2.38 \%$ | $20.11 \%$ |
| P-3 | $0.00 \%$ | $15.63 \%$ | $43.75 \%$ | $6.25 \%$ | $34.38 \%$ |
| NP | $0.00 \%$ | $1.45 \%$ | $1.45 \%$ | $66.67 \%$ | $30.43 \%$ |

## Sovereign

| From/To: | Aaa | Aa | A | Baa | Ba | B | CaaC | WR |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| Aaa | $85.00 \%$ | $10.00 \%$ | $0.00 \%$ | $5.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Aa | $0.00 \%$ | $100.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| A | $0.00 \%$ | $13.64 \%$ | $72.73 \%$ | $13.64 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Baa | $0.00 \%$ | $0.00 \%$ | $7.14 \%$ | $85.71 \%$ | $7.14 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $13.33 \%$ | $80.00 \%$ | $6.67 \%$ | $0.00 \%$ | $0.00 \%$ |
| B | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $18.75 \%$ | $75.00 \%$ | $6.25 \%$ | $0.00 \%$ |
| Caa-C | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $100.00 \%$ | $0.00 \%$ | $0.00 \%$ |

Int'I Public Finance

| From/To: | Aaa | Aa | A | Baa | Ba | B | CaaC | WR |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Aaa | $84.00 \%$ | $4.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $12.00 \%$ |
| Aa | $0.00 \%$ | $90.48 \%$ | $4.76 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $4.76 \%$ |
| A | $0.00 \%$ | $0.00 \%$ | $100.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Baa | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $50.00 \%$ | $12.50 \%$ | $0.00 \%$ | $0.00 \%$ | $37.50 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $42.86 \%$ | $0.00 \%$ | $0.00 \%$ | $57.14 \%$ |
| B | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $83.33 \%$ | $0.00 \%$ | $16.67 \%$ |
| Caa-C | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $50.00 \%$ | $50.00 \%$ |


| Fina |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| From/To: | Aaa | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | Baa1 | Baa2 | Baa3 | Ba1 | Ba2 | Ba3 | B1 | B2 | B3 | Caa1 | Caa2 | Caa3 | Ca | C | WR |
| Aaa | 68.75\% | 2.08\% | 4.17\% | 6.25\% | 6.25\% | 0.00\% | 0.00\% | 2.08\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 10.42\% |
| Aa1 | 1.72\% | 25.86\% | 3.45\% | 32.76\% | 3.45\% | 6.90\% | 6.90\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 18.97\% |
| Aa2 | 4.41\% | 20.59\% | 24.26\% | 19.12\% | 8.09\% | 9.56\% | 0.00\% | 1.47\% | 0.74\% | 0.00\% | 0.74\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 11.03\% |
| Aa3 | 1.35\% | 15.25\% | 18.83\% | 19.28\% | 13.45\% | 8.97\% | 5.38\% | 2.69\% | 0.45\% | 1.35\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 13.00\% |
| A1 | 0.00\% | 1.16\% | 13.87\% | 24.28\% | 15.03\% | 9.83\% | 10.98\% | 3.47\% | 0.58\% | 1.73\% | 0.00\% | 0.58\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 18.50\% |
| A2 | 0.00\% | 0.00\% | 1.40\% | 8.39\% | 23.78\% | 25.87\% | 7.69\% | 12.59\% | 3.50\% | 0.70\% | 0.00\% | 0.00\% | 0.70\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 15.38\% |
| A3 | 0.00\% | 0.00\% | 1.69\% | 0.00\% | 17.80\% | 22.88\% | 17.80\% | 7.63\% | 6.78\% | 3.39\% | 1.69\% | 0.00\% | 0.00\% | 0.00\% | 0.85\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 19.49\% |
| Baa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 12.50\% | 16.07\% | 17.86\% | 8.93\% | 3.57\% | 1.79\% | 3.57\% | 1.79\% | 0.00\% | 1.79\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 32.14\% |
| Baa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 9.38\% | 0.00\% | 3.13\% | 46.88\% | 6.25\% | 0.00\% | 3.13\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 31.25\% |
| Baa3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 3.70\% | 0.00\% | 7.41\% | 11.11\% | 37.04\% | 14.81\% | 0.00\% | 3.70\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 22.22\% |
| Ba1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 11.76\% | 0.00\% | 17.65\% | 5.88\% | 11.76\% | 5.88\% | 5.88\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 41.18\% |
| Ba2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 4.76\% | 28.57\% | 9.52\% | 9.52\% | 14.29\% | 4.76\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 4.76\% | 23.81\% |
| Ba3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 6.67\% | 16.67\% | 10.00\% | 6.67\% | 10.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% |
| B1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 16.67\% | 16.67\% | 8.33\% | 0.00\% | 0.00\% | 8.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% |
| B2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 6.67\% | 0.00\% | 6.67\% | 0.00\% | 6.67\% | 0.00\% | 13.33\% | 6.67\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 60.00\% |
| B3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% |
| Caal | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ |
| Caa2 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Caa3 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Ca | n/a | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ |
| C | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Insurance |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| From/To: | Aaa | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | Baa1 | Baa2 | Baa3 | Ba1 | Ba2 | Ba3 | B1 | B2 | B3 | Caa1 | Caa2 | Caa3 | Ca | C | WR |
| Aaa | 0.00\% | 40.00\% | 40.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 20.00\% |
| Aa1 | 0.00\% | 33.33\% | 0.00\% | 16.67\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% |
| Aa2 | 0.00\% | 0.00\% | 0.00\% | 10.53\% | 36.84\% | 0.00\% | 31.58\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 5.26\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 5.26\% | 0.00\% | 10.53\% |
| Aa3 | 0.00\% | 0.00\% | 0.00\% | 9.52\% | 42.86\% | 19.05\% | 9.52\% | 9.52\% | 4.76\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 4.76\% |
| A1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 32.14\% | 14.29\% | 17.86\% | 3.57\% | 0.00\% | 10.71\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 7.14\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 14.29\% |
| A2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 2.70\% | 43.24\% | 18.92\% | 2.70\% | 0.00\% | 8.11\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 2.70\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 21.62\% |
| A3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 23.26\% | 25.58\% | 16.28\% | 13.95\% | 0.00\% | 0.00\% | 2.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 18.60\% |
| Baa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 14.71\% | 47.06\% | 11.76\% | 5.88\% | 0.00\% | 2.94\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 17.65\% |
| Baa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 4.76\% | 9.52\% | 47.62\% | 23.81\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 14.29\% |
| Baa3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 36.36\% | 45.45\% | 0.00\% | 0.00\% | 0.00\% | 4.55\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 13.64\% |
| Ba1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 40.00\% | 60.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Ba2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |
| Ba3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 28.57\% | 0.00\% | 14.29\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 57.14\% |
| B1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 20.00\% | 0.00\% | 0.00\% | 80.00\% |
| B2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 28.57\% | 14.29\% | 28.57\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 28.57\% |
| B3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% | 25.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 25.00\% |
| Caa1 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a |
| Caa2 | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a |
| Caa3 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ |
| Ca | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ |
| c | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |


| From/To: | Aaa | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | Baa1 | Baa2 | Baa3 | Ba1 | Ba2 | ва3 | B1 | B2 | B3 | Caa1 | Caa2 | Caa3 | Ca | c | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aaa | 41.51\% | 20.75\% | 16.98\% | 1.89\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 1.89\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 16.98\% |
| Aa1 | 0.00\% | 57.89\% | 2.63\% | 7.89\% | 5.26\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | .00\% | 26.32\% |
| Aa2 | 0.00\% | 10.81\% | 35.14\% | 16.22\% | 21.62\% | 2.70\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 13.51\% |
| Aa3 | 0.00\% | 0.00\% | 13.11\% | 26.23\% | 21.31\% | 16.39\% | 0.00\% | 6.56\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 16.39\% |
| A1 | 0.00\% | 0.76\% | 0.76\% | 3.79\% | 50.00\% | 12.88\% | 14.39\% | 1.52\% | 2.27\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 13.64\% |
| A2 | 0.00\% | 0.00\% | 0.00\% | 2.87\% | 3.83\% | 47.85\% | 23.92\% | 5.74\% | 0.96\% | 0.96\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 13.88\% |
| A3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.74\% | 8.52\% | 48.52\% | 13.70\% | 7.41\% | 4.44\% | 0.37\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 16.30\% |
| Baa1 | 0.00\% | 0.00\% | 0.00\% | 0.36\% | 0.00\% | 1.81\% | 12.27\% | 48.38\% | 12.27\% | 2.53\% | 0.72\% | 0.72\% | 0.00\% | 2.17\% | 0.00\% | 0.00\% | 0.36\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 18.41\% |
| Baa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.63\% | 1.27\% | 9.81\% | 48.10\% | 15.19\% | 3.48\% | 1.90\% | 0.63\% | 0.32\% | 0.32\% | 0.32\% | 0.00\% | 0.32\% | 0.00\% | 0.00\% | 0.00\% | 17.72\% |
| Baa3 | 0.00\% | 0.00\% | 0.00\% | 0.39\% | 0.00\% | 0.00\% | 0.00\% | 3.11\% | 14.40\% | 40.47\% | 7.78\% | 4.67\% | 3.11\% | 1.56\% | 1.17\% | 0.00\% | 0.39\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 22.96\% |
| Ba1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.97\% | 0.97\% | 0.97\% | 3.88\% | 18.45\% | 22.33\% | 7.77\% | 6.80\% | 3.88\% | 4.85\% | 0.97\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 28.16\% |
| Ba2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.68\% | 9.59\% | 6.85\% | 29.45\% | 6.16\% | 7.53\% | 2.74\% | 2.74\% | 2.05\% | 0.68\% | 0.00\% | 0.00\% | 0.00\% | 31.51\% |
| Ba3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.54\% | 3.76\% | 2.69\% | 11.83\% | 25.81\% | 6.99\% | 7.53\% | 2.69\% | 2.69\% | 1.61\% | 0.00\% | 0.00\% | 0.00\% | 33.87\% |
| B1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.37\% | 0.00\% | 0.37\% | 1.50\% | 0.75\% | 3.37\% | 10.86\% | 22.10\% | 9.36\% | 8.24\% | 4.87\% | 1.87\% | 1.12\% | 0.00\% | 1.12\% | 34.08\% |
| B2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.52\% | 0.26\% | 1.30\% | 3.63\% | 11.66\% | 18.39\% | 10.88\% | 5.44\% | 4.92\% | 0.52\% | 0.78\% | 0.78\% | 40.93\% |
| B3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.46\% | 0.00\% | 0.23\% | 0.69\% | 2.07\% | 8.74\% | 22.07\% | 11.03\% | 2.76\% | 3.22\% | 1.84\% | 0.23\% | 46.67\% |
| Caa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 1.03\% | 0.51\% | 3.08\% | 11.79\% | 13.33\% | 7.18\% | 3.59\% | 3.08\% | 0.51\% | 55.90\% |
| Caa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 1.16\% | 0.00\% | 0.00\% | 0.00\% | 2.33\% | 4.65\% | 5.81\% | 11.63\% | 8.14\% | 3.49\% | 1.16\% | 61.63\% |
| Caa3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 3.45\% | 0.00\% | 3.45\% | 0.00\% | 3.45\% | 0.00\% | 0.00\% | 89.66\% |
| Ca | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 11.11\% | 0.00\% | 0.00\% | 88.89\% |
| C | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |
| LT US Municipals |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| From/To: | Aaa | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | Baa1 | Baa2 | Baa3 | Ba1 | Ba2 | Ba3 | B1 | B2 | B3 | Caa1 | Caa2 | Caa3 | Ca | C | WR |
| Aaa | 71.92\% | 1.87\% | 0.47\% | 0.23\% | 0.16\% | 0.78\% | 0.70\% | 0.55\% | 0.16\% | 0.31\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 22.85\% |
| Aa1 | 3.23\% | 79.84\% | 5.32\% | 0.32\% | 0.65\% | 0.97\% | 0.32\% | 0.16\% | 0.16\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 9.03\% |
| Aa2 | 0.75\% | 5.67\% | 71.62\% | 9.35\% | 0.43\% | 0.32\% | 1.07\% | 0.43\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.05\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 10.32\% |
| Aa3 | 0.34\% | 0.27\% | 7.27\% | 73.68\% | 7.49\% | 0.91\% | 0.61\% | 0.19\% | 0.04\% | 0.04\% | 0.00\% | 0.04\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.04\% | 0.04\% | 0.00\% | 0.00\% | 0.00\% | 9.05\% |
| A1 | 0.06\% | 0.16\% | 0.56\% | 10.40\% | 75.57\% | 2.72\% | 1.35\% | 0.28\% | 0.03\% | 0.03\% | 0.03\% | 0.03\% | 0.00\% | 0.00\% | 0.00\% | 0.06\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 8.71\% |
| A2 | 0.03\% | 0.06\% | 0.06\% | 0.78\% | 10.54\% | 72.96\% | 3.42\% | 1.35\% | 0.69\% | 0.00\% | 0.00\% | 0.00\% | 0.03\% | 0.03\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 10.04\% |
| A3 | 0.11\% | 0.07\% | 0.00\% | 0.39\% | 1.42\% | 10.49\% | 70.21\% | 3.19\% | 1.13\% | 0.43\% | 0.14\% | 0.04\% | 0.04\% | 0.04\% | 0.00\% | 0.00\% | 0.04\% | 0.00\% | 0.00\% | 0.00\% | 0.04\% | 12.26\% |
| Baa1 | 0.17\% | 0.08\% | 0.00\% | 0.33\% | 0.33\% | 2.75\% | 12.26\% | 62.14\% | 3.75\% | 0.67\% | 0.08\% | 0.00\% | 0.08\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 17.35\% |
| Baa2 | 0.00\% | 0.00\% | 0.12\% | 0.00\% | 0.24\% | 0.73\% | 3.39\% | 10.76\% | 61.19\% | 2.66\% | 1.45\% | 0.24\% | 0.36\% | 0.00\% | 0.00\% | 0.12\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 18.74\% |
| Ваа3 | 0.33\% | 0.00\% | 0.17\% | 0.00\% | 0.17\% | 0.33\% | 0.83\% | 2.99\% | 9.97\% | 58.64\% | 2.16\% | 1.16\% | 0.33\% | 0.50\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 22.43\% |
| Ba1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 1.79\% | 1.79\% | 3.57\% | 7.14\% | 37.50\% | 8.93\% | 3.57\% | 0.00\% | 1.79\% | 1.79\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 32.14\% |
| Ba2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 8.89\% | 11.11\% | 4.44\% | 35.56\% | 8.89\% | 4.44\% | 2.22\% | 0.00\% | 4.44\% | 0.00\% | 0.00\% | 2.22\% | 0.00\% | 17.78\% |
| Ba3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 2.56\% | 0.00\% | 0.00\% | 2.56\% | 38.46\% | 7.69\% | 5.13\% | 2.56\% | 2.56\% | 0.00\% | 0.00\% | 2.56\% | 0.00\% | 35.90\% |
| B1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 16.67\% | 16.67\% | 16.67\% | 8.33\% | 0.00\% | 8.33\% | 0.00\% | 0.00\% | 0.00\% | 33.33\% |
| B2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 11.11\% | 11.11\% | 0.00\% | 11.11\% | 11.11\% | 0.00\% | 11.11\% | 11.11\% | 0.00\% | 0.00\% | 33.33\% |
| B3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 25.00\% | 12.50\% | 0.00\% | 0.00\% | 12.50\% | 0.00\% | 50.00\% |
| Caa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 33.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 66.67\% |
| Caa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 25.00\% | 75.00\% |
| Caa3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% | 50.00\% |
| Ca | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% | 50.00\% |
| c | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% | 0.00\% |

3 year Rating Transition Rates, by alphanumeric rating, cohort ending December 31, 2009 (i.e. January 1, 2007 cohort)
LT Structured Finance

| From/To: | Aaa | Aal | Aa2 | Аа3 | A1 | A2 | АЗ | Baal | Baa2 | Baa3 | Bal | Ba2 | ва3 | B1 | B2 | B3 | Caal | Caa2 | Caa3 | Ca | c | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aaa | 32.1\% | 2.1\% | 2.9\% | 3.1\% | 2.9\% | 1.7\% | 1.7\% | 2.2\% | 1.9\% | 2.3\% | 2.7\% | 1.3\% | 1.6\% | 1.5\% | 1.3\% | 4.4\% | 3.9\% | 3.7\% | 1.5\% | 3.5\% | 1.2\% | 20.7\% |
| Aal | 3.7\% | 17.5\% | 1.7\% | 3.5\% | 2.9\% | 2.4\% | 2.2\% | 1.7\% | 2.5\% | 1.9\% | 3.1\% | 2.4\% | 2.5\% | 2.0\% | 1.7\% | 2.1\% | 1.4\% | 2.1\% | 1.1\% | 13.6\% | 20.0\% | 8.2\% |
| Aa2 | 2.5\% | 1.2\% | 20.1\% | 2.1\% | 5.4\% | 4.4\% | 3.6\% | 3.5\% | 3.5\% | 2.4\% | 2.4\% | 1.2\% | 1.6\% | 1.2\% | 1.1\% | 1.1\% | 1.3\% | 1.7\% | 1.5\% | 4.5\% | 20.8\% | 12.9\% |
| Ааз | 2.4\% | 1.1\% | 1.4\% | 18.5\% | 1.7\% | 2.7\% | 3.1\% | 2.5\% | 1.8\% | 2.3\% | 1.6\% | 1.5\% | 1.8\% | 1.6\% | 1.8\% | 1.1\% | 0.4\% | 2.0\% | 1.1\% | 4.9\% | 30.1\% | 14.6\% |
| A1 | 1.6\% | 0.8\% | 1.2\% | 1.5\% | 13.9\% | 1.8\% | 2.7\% | 2.7\% | 3.3\% | 3.1\% | 2.4\% | 1.7\% | 1.6\% | 1.3\% | 1.1\% | 1.5\% | 0.8\% | 2.5\% | 1.2\% | 2.9\% | 34.1\% | 16.2\% |
| A2 | 0.5\% | 0.3\% | 0.7\% | 0.8\% | 1.0\% | 20.4\% | 1.5\% | 2.8\% | 3.5\% | 4.4\% | 4.8\% | 3.1\% | 2.3\% | 1.6\% | 1.3\% | 2.4\% | 1.4\% | 1.8\% | 1.9\% | 6.0\% | 23.5\% | 13.8\% |
| A3 | 0.5\% | 0.2\% | 0.7\% | 0.4\% | 1.0\% | 1.3\% | 12.9\% | 1.8\% | 3.6\% | 4.4\% | 2.8\% | 2.2\% | 2.4\% | 1.9\% | 1.9\% | 1.7\% | 1.0\% | 2.2\% | 1.8\% | 6.4\% | 37.2\% | 11.8\% |
| Baal | 0.5\% | 0.0\% | 0.1\% | 0.2\% | 0.5\% | 1.0\% | 1.5\% | 17.4\% | 1.2\% | 3.4\% | 3.0\% | 3.2\% | 2.2\% | 2.2\% | 1.1\% | 1.5\% | 0.9\% | 1.8\% | 1.5\% | 5.6\% | 37.8\% | 13.4\% |
| Baa2 | 0.2\% | 0.0\% | 0.1\% | 0.1\% | 0.3\% | 0.6\% | 0.5\% | 1.4\% | 14.4\% | 1.7\% | 2.6\% | 2.3\% | 2.8\% | 3.8\% | 2.4\% | 2.7\% | 2.0\% | 2.4\% | 3.0\% | 6.4\% | 33.5\% | 16.7\% |
| Baa3 | 0.4\% | 0.1\% | 0.2\% | 0.1\% | 0.0\% | 0.2\% | 0.3\% | 0.5\% | 0.9\% | 15.8\% | 1.6\% | 1.9\% | 2.4\% | 2.5\% | 2.5\% | 3.2\% | 1.5\% | 2.1\% | 1.7\% | 5.3\% | 39.1\% | 17.8\% |
| Ba1 | 0.3\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 0.1\% | 0.3\% | 0.8\% | 4.4\% | 15.1\% | 0.6\% | 1.2\% | 1.9\% | 1.8\% | 1.4\% | 2.6\% | 2.0\% | 1.8\% | 4.5\% | 35.9\% | 25.0\% |
| Ba2 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.5\% | 0.2\% | 0.9\% | 16.3\% | 1.0\% | 2.1\% | 2.0\% | 3.5\% | 3.0\% | 5.1\% | 6.5\% | 10.6\% | 27.2\% | 20.7\% |
| ваз | 0.3\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.1\% | 0.7\% | 0.3\% | 1.1\% | 28.7\% | 2.7\% | 1.7\% | 3.6\% | 4.6\% | 6.4\% | 8.5\% | 8.0\% | 15.4\% | 17.4\% |
| B1 | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 0.7\% | 0.5\% | 0.2\% | 35.1\% | 4.1\% | 6.3\% | 3.6\% | 7.5\% | 9.2\% | 7.5\% | 9.4\% | 14.5\% |
| B2 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.2\% | 0.6\% | 27.7\% | 3.0\% | 4.1\% | 4.2\% | 11.3\% | 13.1\% | 25.9\% | 9.3\% |
| вз | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 39.4\% | 8.1\% | 5.7\% | 15.7\% | 8.9\% | 9.9\% | 10.7\% |
| Caal | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.7\% | 37.1\% | 3.3\% | 7.9\% | 21.9\% | 13.9\% | 14.6\% |
| Caa2 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 1.3\% | 0.0\% | 37.1\% | 6.6\% | 21.9\% | 17.2\% | 15.2\% |
| Саa3 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 1.0\% | 22.9\% | 25.7\% | 30.5\% | 19.0\% |
| Ca | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 52.1\% | 31.6\% | 16.3\% |
| c | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 61.6\% | 38.4\% |

Sovereign
From/To:
Aaa Aa2
Aa3 Aa3 A1 A2
A3
Baad Baa1
Baa2 Baa2
Baa3 Baa3
Ba1 Ba 1

Ba 2 | Ba3 |
| :--- |
| B1 |

B1
B2

B3
Caa1
Caa1
Caa2
Ca
$\begin{array}{lccccc}\text { Aaa } & \text { Aa1 } & \text { Aa2 } & \text { Aa3 } & \text { A1 } & \text { A2 } \\ 85.00 \% & 5.00 \% & 5.00 \% & 0.00 \% & 0.00 \% & 0.00 \% \\ 0.00 \% & 100.00 \% & 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \%\end{array}$
0.00\% $\quad 100.00 \% \quad 50$
$0.00 \% \quad 0.00$

| $0.00 \%$ | 0.0 |
| :--- | :--- |
| $0.00 \%$ | $0.02 \%$ |


|  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: |
|  | $0.00 \%$ | $0.00 \%$ | $10.00 \%$ | $10.67 \%$ |
| $0.00 \%$ | $50.00 \%$ |  |  |  |
| $0.00 \%$ |  |  |  |  |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $16.67 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |  |$0.00 \%$

$0.00 \%$$\begin{array}{llllll} & 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% \\ 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% \\ 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \%\end{array}$$\begin{array}{llllll} & 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% \\ 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% \\ 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% & \\ 0.00\end{array}$$\begin{array}{lllll}0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% \\ 0.00 \% & 0.00 \% & 0.00 \% \\ 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \%\end{array}$$\begin{array}{llllll}0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% \\ 0.00 \% & 0.00 \% \\ 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% & 0.00 \% & \\ 0.0 .0\end{array}$
n.a. n.a.
n.a.
n.a.A1

|  | A2 | A3 |
| :---: | :---: | :---: |
| .00\% | 0.00\% | 0.00\% |
| .00\% | 0.00\% | 0.00\% |
| \% | 0.00\% | 0.00\% |
| .00\% | 0.00\% | 0.00\% |
| .00\% | 33.33\% | 0.00\% |
| \% | 10.00\% | 0.00\% |
| .67\% | 50.00\% | 33.33\% |
| .00\% | 0.00\% | 20.00\% |
| .00\% | 0.00\% | 0.00\% |
| .00\% | 0.00\% | 0.00\% |
| .00\% | 0.00\% | 0.00\% |
| .00\% | 0.00\% | 0.00\% |
| .00\% | 0.00\% | 0.00\% |
| .00\% | 0.00\% | 0.00\% |
| .00\% | 0.00\% | 0.00\% |
| .00\% | 0.00\% | 0.00\% |
| .00\% | 0.00\% | 0.00\% |
| .a. | n.a. | n.a. |
| n.a. | n.a. | n.a. |
| n.a. | n.a. | n.a |


| n.a. | n.a. | n.a. |
| :--- | :--- | :--- |
| n.a. | n.a. |  |

$\qquad$ .00\% 0.00
0.00\%
$0.00 \%$
$20.00 \%$

| $0.00 \%$ | $0.00 \%$ |
| ---: | ---: |
| $0.00 \%$ | $20.00 \%$ |

$0.00 \%$
$0.00 \%$

Caa2
$0.00 \%$

$\qquad$ Ba2 $\begin{array}{llllll}\text { Ba2 } & \text { Ba3 } & \text { B1 } & \text { B2 } & \text { B3 } & \text { Caa } \\ 0.00 \% & 0.0 \% & & \end{array}$ |  |  |  |  |
| :--- | :--- | :--- | :--- |
| $0.00 \%$ | Ba3 | B1 | B2 |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |  |
| $0.00 \%$ | $0.00 \%$ | $0.0 \%$ | $0.00 \%$ |

0.0
$\begin{array}{rr}25.00 \% & 50 \\ 0.00 \% & 0 \\ 0.00 \% & 0.0\end{array}$
$\begin{array}{ll}0.00 \% & 0.00 \% \\ 0.00 \% & \end{array}$
$\begin{array}{lr}.00 \% & 2.0 \\ .00 \% & 10.0\end{array}$

| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| :--- | :--- | :--- |
| $0.00 \%$ |  |  |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |


| $0.00 \%$ | $0.00 \%$ | $25.00 \%$ |
| :--- | :--- | :--- |
| $0.00 \%$ | $0.00 \%$ |  |

$\begin{array}{llr}0.00 \% & 0.00 \% & 25.00 \% \\ 0.00 \% & 0.00 \% & 0.00 \% \\ 0.00 \% & 0.00 \% & 0.0\end{array}$

| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| :--- | :--- | :--- |
| $.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ |  |
| $0.0 .00 \%$ | $0.00 \%$ |  |


| 0.00\% | 0.00\% | 0.00\% |
| :---: | :---: | :---: |
| 0.00\% | 0.00\% | 0.00\% |
| 0.00\% | 0.00\% | 0.00\% |
| 0.00\% | 0.00\% | 0.00\% |
| 0.00\% | 0.00\% | 0.00\% |
| 0.00\% | 0.00\% | 0.00\% |
| 0.00\% | 0.00\% | 0.00\% |
| 0.00\% | 0.00\% | 0.00\% |
| 0.00\% | 0.00\% | 0.00\% |
| 0.00\% | 0.00\% | 0.00\% |
| 0.00\% | 0.00\% | 0.00\% |
| 0.00\% | 16.67\% | 0.00\% |
| 75.00\% | 0.00\% | 0.00\% |
| 25.00\% | 25.00\% | 12.50\% |
| 0.00\% | 0.00\% | 100.00\% |
| 0.00\% | 0.00\% | 50.00\% |
| 0.00\% | 0.00\% | 0.00\% |
| n.a. | n.a. | n.a. |
| n.a. | n.a. | n.a. |
| n.a. | n.a. | n.a. |


|  | Ca, |
| :---: | :---: |
| 0.00\% | 0.00\% |
| 0.00\% | 0.00\% |
| 0.00\% | 0.00\% |
| 0.00\% | 0.00\% |
| 0.00\% | 0.00\% |
| 0.00\% | 0.00\% |
| 0.00\% | 0.00\% |
| 0.00\% | 0.00\% |
| 0.00\% | 0.00\% |
| 0.00\% | 0.00\% |
| 0.00\% | 0.00\% |
| 0.00\% | 0.00\% |
| 2.50\% | 12.50\% |
| 0.00\% | 0.00\% |
| 50.00\% | 0.00\% |
| 0.00\% | 0.00\% |
| n.a. | n.a. |
| n.a. | n.a. |
| n.a. | n.a. |


| Caa3 | Ca | C | WR |
| :---: | :--- | :--- | :--- |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| n.a. | n.a. | n.a. | n.a. |
| n.a. | n.a. | n.a. | n.a. |
| n.a. | n.a. | n.a. | n.a. |
| n.a. | n.a. | n.a. | n.a. |

Moody's Investors Service - Form NRSRO - Exhibit 1 - December 2010

3 year Rating Transition Rates, by alphanumeric rating, cohort ending December 31, 2009 (i.e. January 1, 2007 cohort)

| From/To: | Aaa | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | Baa1 | Baa2 | Baa3 | Ba1 | Ba2 | Ba3 | B1 | B2 | B3 | Caa1 | Caa2 | Caa3 | Ca | C | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aaa | 84.00\% | 4.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 12.00\% |
| Aa1 | 0.00\% | 88.24\% | 11.76\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | .00\% |
| Aa2 | 0.00\% | 0.00\% | 81.25\% | 12.50\% | 6.25\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Aa3 | 0.00\% | 0.00\% | 0.00\% | 66.67\% | 11.11\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 22.22\% |
| A1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% | 33.33\% | 16.67\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| A2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| A3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Baa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Baa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% |
| Baa3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 40.00\% | 20.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 40.00\% |
| Ba1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 33.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 66.67\% |
| Ba2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% |
| Ba3 | n.a. | n.a. | n.a. | n.a. | п.a. | n.a. | n.a. | п.a. | п.a. | п.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | п.a. | n.a. | n.a. | n.a |
| B1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% |
| B2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 33.33\% | 66.67\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| B3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Caa1 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Caa2 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a | n.a. | n.a. | n.a. | n.a. | п.a. | n.a | n.a. | n.a | n.a. |
| Caa3 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a | n.a. | n.a. | n.a | n.a | n.a. | n.a. | a. | n.a. | n.a. | n.a. | .a. | n.a. |
| Ca | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| c | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |

10-year rating transition rates, cohort ending December 31, 2009 (i.e., January 1, 2000 cohort)

## Financial Institutions

| From/To: | Aaa | Aa | A | Baa | Ba | B | CaaC | WR |
| :--- | ---: | ---: | ---: | ---: | :--- | :--- | :--- | :--- |
| Aaa | $69.44 \%$ | $5.56 \%$ | $2.78 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $22.22 \%$ |
| Aa | $2.11 \%$ | $36.62 \%$ | $22.54 \%$ | $2.82 \%$ | $0.35 \%$ | $0.00 \%$ | $0.00 \%$ | $35.56 \%$ |
| A | $0.33 \%$ | $23.61 \%$ | $23.28 \%$ | $3.93 \%$ | $0.98 \%$ | $0.33 \%$ | $0.00 \%$ | $47.54 \%$ |
| Baa | $0.00 \%$ | $14.60 \%$ | $14.60 \%$ | $10.22 \%$ | $0.73 \%$ | $0.73 \%$ | $0.73 \%$ | $58.39 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | $14.12 \%$ | $4.71 \%$ | $1.18 \%$ | $1.18 \%$ | $0.00 \%$ | $78.82 \%$ |
| B | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $8.70 \%$ | $0.00 \%$ | $1.45 \%$ | $0.00 \%$ | $89.86 \%$ |
| Caa-C | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $100.00 \%$ |

## Insurance

| From/To: | Aaa | Aa | A | Baa | Ba | B | CaaC | WR |
| :--- | ---: | :--- | ---: | ---: | :--- | :--- | :--- | :--- |
| Aaa | $0.00 \%$ | $0.00 \%$ | $30.77 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $69.23 \%$ |
| Aa | $0.00 \%$ | $8.62 \%$ | $37.93 \%$ | $5.17 \%$ | $1.72 \%$ | $0.00 \%$ | $1.72 \%$ | $44.83 \%$ |
| A | $0.00 \%$ | $0.00 \%$ | $29.17 \%$ | $25.00 \%$ | $4.17 \%$ | $1.39 \%$ | $0.00 \%$ | $40.28 \%$ |
| Baa | $0.00 \%$ | $0.00 \%$ | $11.11 \%$ | $30.56 \%$ | $2.78 \%$ | $0.00 \%$ | $0.00 \%$ | $55.56 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $28.57 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $71.43 \%$ |
| B | $0.00 \%$ | $0.00 \%$ | $14.29 \%$ | $14.29 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $71.43 \%$ |
| Caa-C | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $100.00 \%$ |

## Corporates

| From/To: | Aaa | Aa | A | Baa | Ba | B | CaaC | WR |
| :--- | ---: | ---: | ---: | ---: | :--- | :--- | :--- | :--- |
| Aaa | $19.57 \%$ | $28.26 \%$ | $17.39 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $34.78 \%$ |
| Aa | $0.88 \%$ | $18.50 \%$ | $26.87 \%$ | $11.45 \%$ | $0.44 \%$ | $0.00 \%$ | $0.00 \%$ | $41.85 \%$ |
| A | $0.00 \%$ | $2.00 \%$ | $26.90 \%$ | $23.18 \%$ | $3.00 \%$ | $1.86 \%$ | $0.72 \%$ | $42.35 \%$ |
| Baa | $0.13 \%$ | $0.63 \%$ | $5.70 \%$ | $26.84 \%$ | $6.71 \%$ | $2.66 \%$ | $1.14 \%$ | $56.20 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | $1.34 \%$ | $6.90 \%$ | $8.69 \%$ | $7.35 \%$ | $1.78 \%$ | $73.94 \%$ |
| B | $0.00 \%$ | $0.00 \%$ | $0.10 \%$ | $0.79 \%$ | $1.98 \%$ | $6.42 \%$ | $1.98 \%$ | $88.74 \%$ |
| Caa-C | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.39 \%$ | $0.00 \%$ | $0.77 \%$ | $98.84 \%$ |

LT US Municipals

| From/To: | Aaa | Aa | A | Baa | Ba | B | CaaC | WR |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| Aaa | $44.06 \%$ | $2.99 \%$ | $4.49 \%$ | $4.22 \%$ | $0.09 \%$ | $0.00 \%$ | $0.00 \%$ | $44.15 \%$ |
| Aa | $4.73 \%$ | $59.48 \%$ | $10.62 \%$ | $0.50 \%$ | $0.03 \%$ | $0.00 \%$ | $0.00 \%$ | $24.64 \%$ |
| A | $0.13 \%$ | $13.89 \%$ | $52.89 \%$ | $3.11 \%$ | $0.21 \%$ | $0.06 \%$ | $0.03 \%$ | $29.68 \%$ |
| Baa | $0.23 \%$ | $1.33 \%$ | $18.73 \%$ | $31.45 \%$ | $1.69 \%$ | $0.33 \%$ | $0.10 \%$ | $46.15 \%$ |
| Ba | $0.00 \%$ | $1.15 \%$ | $5.75 \%$ | $27.59 \%$ | $10.34 \%$ | $2.30 \%$ | $1.15 \%$ | $51.72 \%$ |
| B | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $19.05 \%$ | $4.76 \%$ | $0.00 \%$ | $9.52 \%$ | $66.67 \%$ |
| Caa-C | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $11.11 \%$ | $0.00 \%$ | $11.11 \%$ | $77.78 \%$ |

10-year rating transition rates, cohort ending December 31, 2009 (i.e., January 1, 2000 cohort)

LT Structured Finance

| From/To: | Aaa | Aa | A | Baa | Ba | B | Caa-C | WR |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | ---: | :---: |
| Aaa | $7.6 \%$ | $1.1 \%$ | $1.2 \%$ | $0.7 \%$ | $0.5 \%$ | $0.6 \%$ | $0.3 \%$ | $88.1 \%$ |
| Aa | $2.6 \%$ | $8.4 \%$ | $1.2 \%$ | $0.9 \%$ | $0.8 \%$ | $0.7 \%$ | $2.6 \%$ | $83.0 \%$ |
| A | $2.1 \%$ | $1.1 \%$ | $7.4 \%$ | $1.7 \%$ | $0.3 \%$ | $0.5 \%$ | $3.2 \%$ | $83.7 \%$ |
| Baa | $3.7 \%$ | $1.4 \%$ | $1.5 \%$ | $6.9 \%$ | $1.6 \%$ | $1.5 \%$ | $11.1 \%$ | $72.3 \%$ |
| Ba | $1.8 \%$ | $1.0 \%$ | $2.3 \%$ | $2.3 \%$ | $7.5 \%$ | $2.2 \%$ | $16.3 \%$ | $66.7 \%$ |
| B | $0.0 \%$ | $0.6 \%$ | $0.3 \%$ | $0.9 \%$ | $1.7 \%$ | $8.7 \%$ | $26.5 \%$ | $61.3 \%$ |
| Caa-C | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.6 \%$ | $22.5 \%$ | $76.9 \%$ |

ST Structured Finance

| From/To: | P-1 | P-2 | P-3 | NP | WR |
| :--- | ---: | ---: | ---: | ---: | ---: |
| P-1 | $19.2 \%$ | $0.0 \%$ | $0.0 \%$ | $0.2 \%$ | $80.6 \%$ |
| P-2 | $7.1 \%$ | $3.6 \%$ | $0.0 \%$ | $0.0 \%$ | $89.3 \%$ |
| P-3 | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $100.0 \%$ |
| NP | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $100.0 \%$ |

## ST Commercial Paper

| From/To: | P-1 | P-2 | P-3 | NP | WR |
| :---: | ---: | ---: | ---: | :--- | :--- |
| P-1 | $31.23 \%$ | $15.46 \%$ | $1.63 \%$ | $2.85 \%$ | $48.83 \%$ |
| P-2 | $6.82 \%$ | $18.12 \%$ | $4.00 \%$ | $4.71 \%$ | $66.35 \%$ |
| P-3 | $11.63 \%$ | $9.30 \%$ | $2.33 \%$ | $0.00 \%$ | $76.74 \%$ |
| NP | $8.45 \%$ | $7.04 \%$ | $1.41 \%$ | $4.23 \%$ | $78.87 \%$ |

Sovereign

| From/To: | Aaa | Aa | A | Baa | Ba | B | CaaC | WR |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Aaa | $92.31 \%$ | $7.69 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Aa | $38.46 \%$ | $46.15 \%$ | $0.00 \%$ | $7.69 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $7.69 \%$ |
| A | $0.00 \%$ | $50.00 \%$ | $50.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Baa | $0.00 \%$ | $5.26 \%$ | $42.11 \%$ | $26.32 \%$ | $10.53 \%$ | $0.00 \%$ | $0.00 \%$ | $15.79 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | $10.00 \%$ | $35.00 \%$ | $40.00 \%$ | $5.00 \%$ | $5.00 \%$ | $5.00 \%$ |
| B | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $23.08 \%$ | $7.69 \%$ | $69.23 \%$ | $0.00 \%$ | $0.00 \%$ |
| Caa-C | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $33.33 \%$ | $0.00 \%$ | $0.00 \%$ | $66.67 \%$ | $0.00 \%$ |

Int'I Public Finance

| From/To: | Aaa | Aa | A | Baa | Ba | B | CaaC | WR |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Aaa | $66.67 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $33.33 \%$ |
| Aa | $29.79 \%$ | $34.04 \%$ | $4.26 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $31.91 \%$ |
| A | $0.00 \%$ | $40.00 \%$ | $13.33 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $46.67 \%$ |
| Baa | $0.00 \%$ | $28.57 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $71.43 \%$ |
| Ba | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| B | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $80.00 \%$ | $0.00 \%$ | $20.00 \%$ |
| Caa-C | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $20.00 \%$ | $80.00 \%$ |

10 -year rating transition rates, by alphanumeric rating, cohort ending December 31, 2009 (i.e., January 1, 2000 cohort)

| Financial In | ns |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| From/To: | Aaa | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | Baa1 | Baa2 | Baa3 | Ba1 | Ba2 | Ba3 | B1 | B2 | B3 | Caa1 | Caa2 | Caa3 | Ca | C | WR |
| Aaa | 69.44\% | 2.78\% | 2.78\% | 0.00\% | 2.78\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 22.22\% |
| Aa1 | 2.27\% | 20.45\% | 2.27\% | 22.73\% | 2.27\% | 2.27\% | 2.27\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 45.45\% |
| Aa2 | 3.70\% | 11.11\% | 7.41\% | 14.81\% | 17.28\% | 11.11\% | 4.94\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 29.63\% |
| Aa3 | 1.26\% | 13.84\% | 10.06\% | 11.95\% | 9.43\% | 7.55\% | 4.40\% | 2.52\% | 1.89\% | 0.63\% | 0.00\% | 0.63\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 35.85\% |
| A1 | 0.70\% | 5.63\% | 8.45\% | 12.68\% | 11.27\% | 2.11\% | 4.93\% | 2.82\% | 0.00\% | 1.41\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% |
| A2 | 0.00\% | 1.12\% | 6.74\% | 8.99\% | 12.36\% | 10.11\% | 5.62\% | 2.25\% | 1.12\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 1.12\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.56\% |
| A3 | 0.00\% | 6.76\% | 10.81\% | 8.11\% | 8.11\% | 10.81\% | 8.11\% | 4.05\% | 0.00\% | 0.00\% | 2.70\% | 0.00\% | 1.35\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 39.19\% |
| Baa1 | 0.00\% | 0.00\% | 0.00\% | 5.71\% | 11.43\% | 11.43\% | 0.00\% | 0.00\% | 2.86\% | 11.43\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 57.14\% |
| Baa2 | 0.00\% | 0.00\% | 5.80\% | 14.49\% | 5.80\% | 8.70\% | 0.00\% | 4.35\% | 5.80\% | 0.00\% | 0.00\% | 1.45\% | 0.00\% | 1.45\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 52.17\% |
| Baa3 | 0.00\% | 0.00\% | 0.00\% | 12.12\% | 0.00\% | 3.03\% | 3.03\% | 3.03\% | 3.03\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 3.03\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 72.73\% |
| Ba1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 5.41\% | 13.51\% | 0.00\% | 5.41\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 75.68\% |
| Ba2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 10.00\% | 0.00\% | 0.00\% | 5.00\% | 0.00\% | 0.00\% | 5.00\% | 0.00\% | 0.00\% | 5.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 75.00\% |
| Ва3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 3.57\% | 7.14\% | 3.57\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 85.71\% |
| B1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 3.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 3.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 93.33\% |
| B2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 13.51\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 86.49\% |
| B3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |
| Caa1 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Caa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |
| Caa3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |
| Ca | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |
| c | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Insurance |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| From/To: | Aaa | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | Baa1 | Baa2 | Baa3 | Ba1 | Ba2 | Ba3 | B1 | B2 | B3 | Caa1 | Caa2 | Caa3 | Ca | C | WR |
| Aaa | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 7.69\% | 0.00\% | 23.08\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 69.23\% |
| Aa1 | 0.00\% | 10.00\% | 0.00\% | 20.00\% | 0.00\% | 20.00\% | 10.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 40.00\% |
| Aa2 | 0.00\% | 5.56\% | 0.00\% | 5.56\% | 0.00\% | 16.67\% | 5.56\% | 11.11\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 5.56\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 5.56\% | 0.00\% | 44.44\% |
| Aa3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 20.00\% | 20.00\% | 10.00\% | 0.00\% | 0.00\% | 3.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 46.67\% |
| A1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 10.71\% | 17.86\% | 10.71\% | 10.71\% | 0.00\% | 3.57\% | 0.00\% | 3.57\% | 0.00\% | 0.00\% | 0.00\% | 3.57\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 39.29\% |
| A2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 5.00\% | 20.00\% | 15.00\% | 5.00\% | 10.00\% | 15.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 30.00\% |
| A3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 4.17\% | 0.00\% | 4.17\% | 8.33\% | 20.83\% | 4.17\% | 8.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% |
| Baa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 9.09\% | 18.18\% | 9.09\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 63.64\% |
| Baa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 11.76\% | 5.88\% | 0.00\% | 17.65\% | 17.65\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 47.06\% |
| Baa3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 12.50\% | 12.50\% | 0.00\% | 0.00\% | 12.50\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 62.50\% |
| Ba1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 28.57\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 71.43\% |
| Ba2 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ |
| Ba3 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| B1 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| B2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 25.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 75.00\% |
| B3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 33.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 66.67\% |
| Caa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |
| Caa2 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ |
| Caa3 | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ |
| Ca | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ |
| c | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a | n/a | n/a |


| Corporates |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| From/To: | Aaa | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | Baa1 | Baa2 | Baa3 | Ba1 | Ba2 | Ba3 | B1 | B2 | B3 | Caa1 | Caa2 | Caa3 | Ca | C | WR |
| Aaa | 19.57\% | 6.52\% | 15.22\% | 6.52\% | 8.70\% | 8.70\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 34.78\% |
| Aa1 | 4.26\% | 27.66\% | 4.26\% | 0.00\% | 4.26\% | 8.51\% | 0.00\% | 0.00\% | 4.26\% | 4.26\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 42.55\% |
| Aa2 | 0.00\% | 4.29\% | 7.14\% | 7.14\% | 2.86\% | 14.29\% | 12.86\% | 10.00\% | 2.86\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 38.57\% |
| Aa3 | 0.00\% | 2.73\% | 1.82\% | 8.18\% | 11.82\% | 10.00\% | 9.09\% | 9.09\% | 0.91\% | 1.82\% | 0.00\% | 0.00\% | 0.91\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 43.64\% |
| A1 | 0.00\% | 0.57\% | 1.15\% | 2.30\% | 6.32\% | 8.62\% | 24.71\% | 4.02\% | 5.75\% | 4.60\% | 0.00\% | 0.00\% | 0.00\% | 1.15\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 40.80\% |
| A2 | 0.00\% | 0.68\% | 0.00\% | 0.34\% | 3.73\% | 10.85\% | 11.53\% | 11.19\% | 8.81\% | 4.07\% | 2.03\% | 1.02\% | 0.34\% | 1.02\% | 0.34\% | 0.00\% | 0.34\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 43.73\% |
| A3 | 0.00\% | 0.00\% | 0.43\% | 1.30\% | 3.48\% | 5.65\% | 9.13\% | 8.70\% | 10.43\% | 9.57\% | 2.17\% | 1.30\% | 1.30\% | 1.74\% | 1.30\% | 0.00\% | 1.30\% | 0.00\% | 0.43\% | 0.00\% | 0.00\% | 41.74\% |
| Baa1 | 0.00\% | 0.36\% | 0.36\% | 0.00\% | 0.72\% | 1.44\% | 5.05\% | 15.16\% | 10.47\% | 11.19\% | 2.53\% | 2.17\% | 2.17\% | 0.36\% | 0.36\% | 0.36\% | 1.08\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 46.21\% |
| Baa2 | 0.36\% | 0.00\% | 0.00\% | 1.09\% | 1.09\% | 1.46\% | 2.92\% | 5.84\% | 8.76\% | 7.66\% | 1.82\% | 3.28\% | 3.65\% | 1.46\% | 1.09\% | 1.46\% | 1.09\% | 0.36\% | 0.00\% | 0.00\% | 0.00\% | 56.57\% |
| Baa3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 1.26\% | 1.26\% | 1.67\% | 4.18\% | 9.21\% | 7.11\% | 1.67\% | 1.67\% | 0.84\% | 1.26\% | 0.84\% | 0.84\% | 0.42\% | 0.42\% | 0.00\% | 0.00\% | 0.00\% | 67.36\% |
| Ba1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.69\% | 0.69\% | 2.76\% | 2.76\% | 5.52\% | 5.52\% | 2.76\% | 1.38\% | 2.07\% | 2.76\% | 1.38\% | 0.69\% | 0.69\% | 0.69\% | 0.00\% | 0.00\% | 0.00\% | 69.66\% |
| Ba2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.78\% | 1.55\% | 0.00\% | 3.10\% | 2.33\% | 7.75\% | 4.65\% | 0.78\% | 2.33\% | 2.33\% | 0.78\% | 0.00\% | 0.00\% | 0.00\% | 73.64\% |
| Ba3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 1.14\% | 3.43\% | 2.29\% | 3.43\% | 1.71\% | 3.43\% | 2.29\% | 3.43\% | 1.14\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 77.71\% |
| B1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.60\% | 0.60\% | 0.00\% | 1.81\% | 1.81\% | 3.02\% | 3.02\% | 2.42\% | 1.81\% | 0.60\% | 0.60\% | 0.00\% | 0.00\% | 83.69\% |
| B2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.24\% | 0.00\% | 0.00\% | 0.71\% | 0.00\% | 0.00\% | 0.94\% | 1.65\% | 3.07\% | 3.07\% | 0.47\% | 0.47\% | 0.24\% | 0.47\% | 0.00\% | 88.68\% |
| B3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.39\% | 0.00\% | 0.78\% | 0.78\% | 0.78\% | 0.00\% | 0.78\% | 0.78\% | 0.39\% | 0.00\% | 0.00\% | 0.00\% | 95.33\% |
| Caa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.69\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.69\% | 0.00\% | 0.00\% | 0.00\% | 98.62\% |
| Caa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 1.43\% | 0.00\% | 0.00\% | 0.00\% | 98.57\% |
| Caa3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |
| Ca | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |
| C | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |
| LT US Municipals |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| From/To: | Aaa | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | Baa1 | Baa2 | Baa3 | Ba1 | Ba2 | Ba3 | B1 | B2 | B3 | Caal | Caa2 | Caa3 | Ca | C | WR |
| Aaa | 44.06\% | 2.11\% | 0.44\% | 0.44\% | 1.06\% | 1.23\% | 2.20\% | 1.93\% | 1.32\% | 0.97\% | 0.09\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 44.15\% |
| Aa1 | 15.91\% | 30.38\% | 16.64\% | 7.78\% | 1.45\% | 2.17\% | 1.81\% | 0.36\% | 0.54\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 22.97\% |
| Aa2 | 3.51\% | 11.58\% | 33.79\% | 5.27\% | 13.58\% | 2.48\% | 1.04\% | 0.40\% | 0.08\% | 0.16\% | 0.08\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 28.04\% |
| Aa3 | 1.31\% | 2.63\% | 18.70\% | 48.14\% | 4.53\% | 1.68\% | 0.58\% | 0.22\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 22.21\% |
| A1 | 0.19\% | 1.12\% | 4.99\% | 23.15\% | 33.09\% | 5.18\% | 1.70\% | 0.43\% | 0.27\% | 0.04\% | 0.04\% | 0.04\% | 0.00\% | 0.08\% | 0.00\% | 0.00\% | 0.04\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 29.65\% |
| A2 | 0.09\% | 0.35\% | 1.16\% | 6.60\% | 18.42\% | 35.68\% | 5.05\% | 1.34\% | 0.73\% | 0.17\% | 0.00\% | 0.00\% | 0.17\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 30.24\% |
| A3 | 0.09\% | 0.09\% | 0.32\% | 1.46\% | 6.93\% | 22.93\% | 31.68\% | 4.33\% | 2.01\% | 0.50\% | 0.14\% | 0.18\% | 0.09\% | 0.05\% | 0.00\% | 0.05\% | 0.05\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 29.12\% |
| Baa1 | 0.13\% | 0.13\% | 0.44\% | 1.27\% | 3.05\% | 6.54\% | 17.22\% | 19.44\% | 3.30\% | 1.46\% | 0.32\% | 0.19\% | 0.25\% | 0.00\% | 0.00\% | 0.06\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.06\% | 46.12\% |
| Baa2 | 0.25\% | 0.00\% | 0.25\% | 0.12\% | 1.49\% | 3.96\% | 8.29\% | 14.98\% | 21.04\% | 2.85\% | 1.11\% | 0.50\% | 0.62\% | 0.12\% | 0.12\% | 0.37\% | 0.00\% | 0.00\% | 0.00\% | 0.12\% | 0.00\% | 43.81\% |
| Baa3 | 0.43\% | 0.14\% | 1.01\% | 0.14\% | 0.72\% | 1.44\% | 4.04\% | 7.50\% | 12.41\% | 19.34\% | 2.02\% | 1.01\% | 0.14\% | 0.14\% | 0.29\% | 0.14\% | 0.00\% | 0.14\% | 0.00\% | 0.00\% | 0.00\% | 48.92\% |
| Ba1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 2.50\% | 5.00\% | 0.00\% | 12.50\% | 25.00\% | 2.50\% | 0.00\% | 2.50\% | 0.00\% | 2.50\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 47.50\% |
| Ba2 | 0.00\% | 0.00\% | 2.94\% | 0.00\% | 5.88\% | 0.00\% | 0.00\% | 2.94\% | 0.00\% | 17.65\% | 0.00\% | 8.82\% | 5.88\% | 2.94\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 2.94\% | 50.00\% |
| Ba3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 15.38\% | 0.00\% | 7.69\% | 0.00\% | 7.69\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 69.23\% |
| B1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 14.29\% | 14.29\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 71.43\% |
| B2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 12.50\% | 12.50\% | 0.00\% | 12.50\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 62.50\% |
| B3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 16.67\% | 0.00\% | 16.67\% | 66.67\% |
| Caa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 20.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 20.00\% | 60.00\% |
| Caa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |
| Caa3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |
| Ca | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |
| c | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

10 -year rating transition rates, by alphanumeric rating, cohort ending December 31, 2009 (i.e., January 1, 2000 cohort)
LT Structured Finance

| From/To: | Aaa | Aal | Aa2 | Аа3 | A1 | A2 | A3 | Baal | Baa2 | Вааз | Bal | Ba2 | ваз | B1 | B2 | B3 | Caal | Caa2 | Caa3 | Ca | c | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aaa | 7.6\% | 0.2\% | 0.3\% | 0.6\% | 0.2\% | 0.6\% | 0.4\% | 0.4\% | 0.2\% | 0.1\% | 0.2\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.4\% | 0.1\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 88.1\% |
| Aal | 1.2\% | 2.2\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 96.0\% |
| Aa2 | 3.6\% | 0.2\% | 9.9\% | 0.4\% | 0.3\% | 0.4\% | 0.3\% | 0.4\% | 0.1\% | 0.5\% | 0.4\% | 0.1\% | 0.6\% | 0.4\% | 0.3\% | 0.2\% | 0.4\% | 0.3\% | 0.1\% | 0.7\% | 0.2\% | 80.2\% |
| Ааз | 1.8\% | 1.0\% | 0.3\% | 9.5\% | 0.5\% | 1.5\% | 1.5\% | 1.0\% | 0.5\% | 0.3\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.3\% | 0.8\% | 1.0\% | 1.3\% | 0.8\% | 4.3\% | 1.8\% | 71.4\% |
| A1 | 0.5\% | 0.0\% | 0.5\% | 2.6\% | 2.6\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 0.5\% | 0.5\% | 90.8\% |
| A2 | 2.4\% | 0.1\% | 0.2\% | 0.2\% | 0.3\% | 9.0\% | 0.6\% | 1.1\% | 0.3\% | 0.3\% | 0.2\% | 0.0\% | 0.1\% | 0.1\% | 0.3\% | 0.2\% | 0.4\% | 0.3\% | 0.3\% | 0.8\% | 1.4\% | 81.3\% |
| A3 | 3.0\% | 0.3\% | 0.0\% | 0.3\% | 0.3\% | 0.3\% | 3.3\% | 1.5\% | 0.6\% | 0.3\% | 0.0\% | 0.6\% | 0.3\% | 0.3\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.9\% | 1.8\% | 2.1\% | 83.4\% |
| Baal | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 8.9\% | 0.0\% | 0.0\% | 1.1\% | 1.1\% | 0.0\% | 1.1\% | 0.0\% | 1.7\% | 2.2\% | 0.6\% | 0.0\% | 1.1\% | 10.1\% | 70.9\% |
| Baa2 | 4.3\% | 0.6\% | 0.6\% | 0.4\% | 0.5\% | 0.5\% | 0.5\% | 2.8\% | 4.4\% | 0.4\% | 0.5\% | 0.4\% | 0.5\% | 0.3\% | 0.5\% | 0.5\% | 1.0\% | 0.3\% | 0.4\% | 3.9\% | 4.4\% | 72.5\% |
| Baa3 | 3.8\% | 0.3\% | 0.5\% | 0.6\% | 0.5\% | 0.8\% | 0.5\% | 0.2\% | 0.2\% | 5.2\% | 0.5\% | 0.8\% | 0.5\% | 0.5\% | 0.3\% | 0.6\% | 1.1\% | 0.9\% | 1.1\% | 5.2\% | 3.5\% | 72.6\% |
| Ba1 | 6.5\% | 0.0\% | 1.1\% | 0.0\% | 2.2\% | 2.2\% | 1.1\% | 1.1\% | 0.0\% | 2.2\% | 3.2\% | 0.0\% | 1.1\% | 1.1\% | 1.1\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 5.4\% | 4.3\% | 66.7\% |
| Ba2 | 1.5\% | 0.0\% | 0.9\% | 0.6\% | 1.2\% | 0.3\% | 0.6\% | 0.6\% | 0.3\% | 1.2\% | 1.5\% | 5.8\% | 0.3\% | 0.3\% | 0.6\% | 0.3\% | 1.5\% | 2.1\% | 0.6\% | 3.0\% | 8.5\% | 68.2\% |
| ваз | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.6\% | 0.6\% | 1.7\% | 0.0\% | 0.0\% | 2.2\% | 6.7\% | 1.7\% | 1.7\% | 0.6\% | 1.7\% | 0.6\% | 2.2\% | 1.1\% | 14.4\% | 63.9\% |
| B1 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.8\% | 0.0\% | 5.5\% | 1.4\% | 1.4\% | 0.0\% | 2.7\% | 23.3\% | 57.5\% |
| B2 | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.6\% | 0.0\% | 0.0\% | 3.0\% | 0.6\% | 0.0\% | 4.2\% | 3.6\% | 1.8\% | 3.0\% | 2.4\% | 3.6\% | 11.5\% | 64.2\% |
| B3 | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.5\% | 5.7\% | 3.8\% | 3.8\% | 7.5\% | 10.4\% | 59.4\% |
| Caal | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 38.5\% | 0.0\% | 0.0\% | 0.0\% | 3.8\% | 53.8\% |
| Caa2 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.4\% | 4.5\% | 4.5\% | 11.4\% | 68.2\% |
| Caa3 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 100.0\% |
| Ca | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.7\% | 9.6\% | 82.7\% |
| c | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.5\% | 87.5\% |


| From/To: | Aaa | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | Baa1 | Baa2 | Baa3 | Ba1 | Ba2 | Ba3 | B1 | B2 | B3 | Caa1 | Caa2 | Caa3 | Ca | C | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aaa | 92.31\% | 7.69\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Aa1 | 20.00\% | 20.00\% | 40.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 20.00\% |
| Aa2 | 80.00\% | 0.00\% | 20.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Aa3 | 0.00\% | 0.00\% | 33.33\% | 33.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 33.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| A1 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | п.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| A2 | 0.00\% | 0.00\% | 33.33\% | 33.33\% | 0.00\% | 33.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| A3 | 0.00\% | 0.00\% | 28.57\% | 14.29\% | 42.86\% | 0.00\% | 14.29\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Baa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 42.86\% | 14.29\% | 0.00\% | 14.29\% | 0.00\% | 0.00\% | 14.29\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 14.29\% |
| Baa2 | 0.00\% | 0.00\% | 16.67\% | 0.00\% | 0.00\% | 16.67\% | 0.00\% | 0.00\% | 33.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 33.33\% |
| Baa3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 16.67\% | 33.33\% | 0.00\% | 0.00\% | 33.33\% | 16.67\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Ba1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 16.67\% | 0.00\% | 0.00\% | 33.33\% | 0.00\% | 8.33\% | 25.00\% | 0.00\% | 8.33\% | 8.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Ba2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 20.00\% | 60.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 20.00\% |
| Ba3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 66.67\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 33.33\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| B1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 14.29\% | 0.00\% | 0.00\% | 0.00\% | 14.29\% | 42.86\% | 28.57\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| B2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 25.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% | 25.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| B3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Caa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Caa2 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a |
| Caa3 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Ca | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% | 0.00\% | 0.00\% |
| c | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |

10 -year rating transition rates, by alphanumeric rating, cohort ending December 31, 2009 (i.e., January 1, 2000 cohort)

| From/To: | Aaa | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | Baa1 | Baa2 | Baa3 | Ba1 | Ba2 | Ba3 | B1 | B2 | B3 | Caa1 | Caa2 | Caa3 | Ca | C | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aaa | 66.67\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 33.33\% |
| Aa1 | 50.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% |
| Aa2 | 42.11\% | 15.79\% | 10.53\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 31.58\% |
| Aa3 | 10.00\% | 25.00\% | 15.00\% | 15.00\% | 0.00\% | 5.00\% | 5.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 25.00\% |
| A1 | 0.00\% | 12.50\% | 12.50\% | 0.00\% | 25.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 50.00\% |
| A2 | 0.00\% | 20.00\% | 20.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 60.00\% |
| A3 | 0.00\% | 0.00\% | 100.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Baa1 | 0.00\% | 20.00\% | 20.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 60.00\% |
| Baa2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |
| Baa3 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | п.a. | n.a. | n.a. | n.a. | n.a. |
| Ba1 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Ba2 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | п.a. | n.a. | n.a. | n.a. |
| Ba3 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | п.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | п.a. | n.a. | n.a. | п.a. | n.a. | n.a. | n.a. | n.a. |
| B1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| B2 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| B3 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 100.00\% |
| Caa1 | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 20.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 80.00\% |
| Caa2 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | п.a. | n.a. | n.a. | n.a. | n.a. |
| Caa3 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | п.a. | n.a. | n.a. | n.a. | n.a. |
| Ca | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | п.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| , | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | п.a. | п.a. | п.a. | n.a. | п.a. | n.a. | n.a. | п.a. | п.a. |

1, 3 and 10 year default rates, cohort ending December 31, 2009
(* January 1, 2009 is the cohort used for the one-year horizon;
January 1, 2007 for the three-year horizon; January 1, 2000 for the ten-year horizon)

Financial Institutions

| Rating | 1 | 3 | 10 |
| :--- | ---: | ---: | ---: |
| Aaa | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Aa | $0.00 \%$ | $0.24 \%$ | $0.00 \%$ |
| A | $0.56 \%$ | $2.82 \%$ | $2.94 \%$ |
| Baa | $3.05 \%$ | $3.98 \%$ | $3.28 \%$ |
| Ba | $9.59 \%$ | $9.09 \%$ | $3.70 \%$ |
| B | $9.38 \%$ | $20.22 \%$ | $8.82 \%$ |
| Caa-C | $30.77 \%$ | n/a | $0.00 \%$ |

Insurance

| Rating | 1 | 3 | 10 |
| :--- | ---: | ---: | ---: |
| Aaa | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Aa | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| A | $0.00 \%$ | $0.00 \%$ | $3.12 \%$ |
| Baa | $0.00 \%$ | $0.00 \%$ | $7.13 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | $20.00 \%$ |
| B | $0.00 \%$ | $7.41 \%$ | $33.33 \%$ |
| Caa-C | $13.33 \%$ | n/a | n/a |

Corporates

| Rating | 1 | 3 | 10 |
| :--- | ---: | ---: | ---: |
| Aaa | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Aa | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| A | $0.00 \%$ | $0.00 \%$ | $2.12 \%$ |
| Baa | $0.00 \%$ | $0.54 \%$ | $6.33 \%$ |
| Ba | $1.03 \%$ | $6.89 \%$ | $22.82 \%$ |
| B | $7.03 \%$ | $16.81 \%$ | $52.13 \%$ |
| Caa-C | $34.90 \%$ | $41.96 \%$ | $80.99 \%$ |

## LT US Municipals

| Rating | 1 | 3 | 10 |
| :--- | ---: | ---: | ---: |
| Aaa | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Aa | $0.00 \%$ | $0.02 \%$ | $0.00 \%$ |
| A | $0.00 \%$ | $0.01 \%$ | $0.02 \%$ |
| Baa | $0.04 \%$ | $0.04 \%$ | $0.41 \%$ |
| Ba | $0.00 \%$ | $1.59 \%$ | $0.00 \%$ |
| B | $0.00 \%$ | $5.00 \%$ | $15.67 \%$ |
| Caa-C | $10.00 \%$ | $18.84 \%$ | $0.00 \%$ |

1, 3 and 10 year default rates, cohort ending December 31, 2009
(* January 1, 2009 is the cohort used for the one-year horizon;
January 1, 2007 for the three-year horizon; January 1, 2000 for the ten-year horizon)

## ST Structured Finance

| Rating | $1-\mathrm{yr}$ | $3-\mathrm{yr}$ | $10-\mathrm{yr}$ |
| :--- | ---: | ---: | ---: |
| P-1 | $0.3 \%$ | $3.1 \%$ | $1.0 \%$ |
| P-2 | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ |
| P-3 | NA | NA | NA |
| NP | $0.0 \%$ | NA | NA |

## ST Commercial Paper

| Rating | 1 Year | 3 Years | 10 Years |
| :--- | ---: | ---: | ---: |
| P-1 | $0.00 \%$ | $0.58 \%$ | $0.35 \%$ |
| P-2 | $0.00 \%$ | $0.00 \%$ | $1.18 \%$ |
| P-3 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| NP | $3.25 \%$ | $3.85 \%$ | $0.00 \%$ |

Sovereign

| Rating | 1 | 3 | 10 |
| :--- | ---: | ---: | ---: |
| Aaa | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Aa | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| A | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Baa | $0.00 \%$ | $0.00 \%$ | $5.71 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | $5.26 \%$ |
| B | $0.00 \%$ | $0.00 \%$ | $15.38 \%$ |
| Caa-C | n.a. | $0.00 \%$ | $66.67 \%$ |

Int'I Public Finance

| Rating | 1 | 3 | 10 |
| :--- | ---: | ---: | ---: |
| Aaa | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Aa | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| A | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Baa | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Ba | $0.00 \%$ | $0.00 \%$ | n.a. |
| B | $0.00 \%$ | $0.00 \%$ | n.a. |
| Caa-C | $0.00 \%$ | $0.00 \%$ | n.a. |

1, 3 and 10 year default rates, by alphanumeric rating, cohort ending December 31, 2009
(* January 1, 2009 is the cohort used for the one-year horizon; January 1, 2007 for the three-year horizon; January 1, 2000 for the ten-year horizon)

| Financial Institutions |  |  |  |
| :---: | :---: | :---: | :---: |
| Rating | 1 | 3 | 10 |
| Aaa | 0.00\% | 0.00\% | 0.00\% |
| Aa1 | 0.00\% | 0.00\% | 0.00\% |
| Aa2 | 0.00\% | 0.00\% | 0.00\% |
| Aa3 | 0.00\% | 0.51\% | 0.00\% |
| A1 | 0.00\% | 3.74\% | 0.85\% |
| A2 | 0.00\% | 1.49\% | 3.61\% |
| A3 | 3.08\% | 2.81\% | 4.05\% |
| Baa1 | 3.45\% | 3.74\% | 0.00\% |
| Baa2 | 4.65\% | 0.00\% | 0.00\% |
| Baa3 | 0.00\% | 8.51\% | 16.95\% |
| Ba1 | 7.41\% | 21.25\% | 3.28\% |
| Ba2 | 4.88\% | 9.76\% | 0.00\% |
| Вa3 | 15.69\% | 0.00\% | 16.67\% |
| B1 | 9.09\% | 18.18\% | 10.53\% |
| B2 | 6.45\% | 19.79\% | 5.71\% |
| B3 | 18.18\% | 50.00\% | n/a |
| Caa1 | 0.00\% | n/a | n/a |
| Caa2 | 66.67\% |  | 0.00\% |
| Caa3 | n/a | n/a | 0.00\% |
| Ca | n/a | n/a | n/a |
| C | n/a | n/a | n/a |
| Insurance |  |  |  |
| Rating | 1 | 3 | 10 |
| Aaa | 0.00\% | 0.00\% | 0.00\% |
| Aa1 | 0.00\% | 0.00\% | 0.00\% |
| Aa2 | 0.00\% | 0.00\% | 0.00\% |
| Aa3 | 0.00\% | 0.00\% | 0.00\% |
| A1 | 0.00\% | 0.00\% | 4.65\% |
| A2 | 0.00\% | 0.00\% | 0.00\% |
| A3 | 0.00\% | 0.00\% | 4.44\% |
| Baa1 | 0.00\% | 0.00\% | 0.00\% |
| Baa2 | 0.00\% | 0.00\% | 0.00\% |
| Baa3 | 0.00\% | 0.00\% | 31.43\% |
| Ba1 | 0.00\% | 0.00\% | 20.00\% |
| Ba2 | 0.00\% | 0.00\% | n/a |
| Ba3 | 0.00\% | 0.00\% | n/a |
| B1 | 0.00\% | 25.00\% | n/a |
| B2 | 0.00\% | 0.00\% | 50.00\% |
| B3 | 0.00\% | 0.00\% | 50.00\% |
| Caa1 | 0.00\% | n/a | n/a |
| Caa2 | 0.00\% | n/a | n/a |
| Caa3 | 0.00\% | n/a | n/a |
| Ca | 0.00\% | n/a | n/a |
| C | 100.00\% | n/a | n/a |
| Corporates |  |  |  |
| Rating | 1 | 3 | 10 |
| Aaa | 0.00\% | 0.00\% | 0.00\% |
| Aa1 | 0.00\% | 0.00\% | 0.00\% |
| Aa2 | 0.00\% | 0.00\% | 0.00\% |
| Aa3 | 0.00\% | 0.00\% | 0.00\% |
| A1 | 0.00\% | 0.00\% | 0.94\% |
| A2 | 0.00\% | 0.00\% | 3.18\% |
| A3 | 0.00\% | 0.00\% | 1.66\% |
| Baa1 | 0.00\% | 0.00\% | 3.22\% |
| Baa2 | 0.00\% | 0.71\% | 5.76\% |
| Baa3 | 0.00\% | 0.93\% | 11.70\% |
| Ba1 | 1.22\% | 8.41\% | 15.34\% |
| Ba2 | 0.00\% | 3.67\% | 17.02\% |
| Ba3 | 1.85\% | 8.50\% | 33.50\% |
| B1 | 3.58\% | 8.90\% | 42.78\% |
| B2 | 8.24\% | 16.12\% | 51.03\% |
| B3 | 8.22\% | 22.47\% | 68.22\% |
| Caa1 | 17.98\% | 34.19\% | 83.02\% |
| Caa2 | 38.52\% | 43.22\% | 65.06\% |
| Caa3 | 57.89\% | 79.68\% | n/a |
| Ca | 69.05\% | 87.06\% | n/a |
| C | 85.71\% | n/a | n/a |

1, 3 and 10 year default rates, by alphanumeric rating, cohort ending December 31, 2009
(* January 1, 2009 is the cohort used for the one-year horizon; January 1, 2007 for the three-year horizon; January 1, 2000 for the ten-year horizon)

| LT US Municipals |  |  |  |
| :--- | ---: | ---: | ---: |
| Rating | 1 | 3 | 10 |
| Aaa | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Aa1 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Aa2 | $0.00 \%$ | $0.06 \%$ | $0.00 \%$ |
| Aa3 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| A1 | $0.00 \%$ | $0.00 \%$ | $0.05 \%$ |
| A2 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| A3 | $0.00 \%$ | $0.04 \%$ | $0.00 \%$ |
| Baa1 | $0.09 \%$ | $0.00 \%$ | $0.27 \%$ |
| Baa2 | $0.00 \%$ | $0.00 \%$ | $0.73 \%$ |
| Baa3 | $0.00 \%$ | $0.20 \%$ | $0.55 \%$ |
| Ba1 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Ba2 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Ba3 | $0.00 \%$ | $6.34 \%$ | $0.00 \%$ |
| B1 | $0.00 \%$ | $9.09 \%$ | $40.00 \%$ |
| B2 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| B3 | $0.00 \%$ | $0.00 \%$ | $16.67 \%$ |
| Caa1 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Caa2 | $50.00 \%$ | $55.00 \%$ | n/a |
| Caa3 | $0.00 \%$ | $0.00 \%$ | $n / a$ |
| Ca | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| C | n/a | n/a | n/a |


| Sovereign |  |  |  |
| :--- | ---: | ---: | ---: |
| Rating | 1 | 3 | 10 |
|  |  |  |  |
| Aaa | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Aa1 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Aa2 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Aa3 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| A1 | $0.00 \%$ | $0.00 \%$ | n.a. |
| A2 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| A3 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Baa1 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Baa2 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Baa3 | $0.00 \%$ | $0.00 \%$ | $16.67 \%$ |
| Ba1 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Ba2 | $0.00 \%$ | $0.00 \%$ | $25.00 \%$ |
| Ba3 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| B1 | $0.00 \%$ | $0.00 \%$ | $28.57 \%$ |
| B2 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| B3 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Caa1 | n.a. | $0.00 \%$ | $50.00 \%$ |
| Caa2 | n.a. | n.a. | n.a. |
| Caa3 | n.a. | n.a. | n.a. |
| Ca | n.a. | n.a. | n.a. |
| C | n.a. | n.a. | n.a. |


| Int'I Public Finance |  |  |  |
| :--- | ---: | ---: | ---: |
| Rating | 1 | 3 | 10 |
|  |  |  |  |
| Aaa | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Aa1 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Aa2 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Aa3 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| A1 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| A2 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| A3 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Baa1 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| Baa2 | $0.00 \%$ | $0.00 \%$ | n.a. |
| Baa3 | $0.00 \%$ | $0.00 \%$ | n.a. |
| Ba1 | $0.00 \%$ | $0.00 \%$ | n.a. |
| Ba2 | $0.00 \%$ | $0.00 \%$ | n.a. |
| Ba3 | $0.00 \%$ | n.a. | n.a. |
| B1 | $0.00 \%$ | $0.00 \%$ | n.a. |
| B2 | $0.00 \%$ | $0.00 \%$ | n.a. |
| B3 | $0.00 \%$ | $0.00 \%$ | n.a. |
| Caa1 | n.a. | n.a. | n.a. |
| Caa2 | $0.00 \%$ | n.a. | n.a. |
| Caa3 | n.a. | n.a. | n.a. |
| Caa3 | n.a. | $0.00 \%$ | n.a. |
| Ca | n.a. | $0.00 \%$ | n.a. |
| C |  |  |  |

1,3 and 10 year material impairment rates, cohort ending December 31, 2009
(* January 1, 2009 is the cohort used for the one-year horizon; January 1, 2007 for the three-year horizon; January 1, 2000 for the ten-year horizon)

## LT Structured Finance

| Rating | $1-\mathrm{yr}$ | $3-\mathrm{yr}$ | $10-\mathrm{yr}$ |
| :--- | ---: | ---: | ---: |
| Aaa | $2.1 \%$ | $6.6 \%$ | $0.9 \%$ |
| Aa | $7.5 \%$ | $34.6 \%$ | $9.6 \%$ |
| A | $10.8 \%$ | $41.5 \%$ | $9.4 \%$ |
| Baa | $18.5 \%$ | $52.7 \%$ | $27.6 \%$ |
| Ba | $37.9 \%$ | $53.1 \%$ | $36.1 \%$ |
| B | $67.3 \%$ | $37.5 \%$ | $58.3 \%$ |
| Caa | $85.6 \%$ | $65.9 \%$ | $90.2 \%$ |


| LT Structured Finance |  |  |  |
| :--- | ---: | ---: | ---: |
| Rating | 1 -yr | $3-\mathrm{yr}$ | $10-\mathrm{yr}$ |
| Aaa | $2.1 \%$ | $6.6 \%$ | $0.9 \%$ |
| Aa1 | $11.3 \%$ | $36.6 \%$ | $2.6 \%$ |
| Aa2 | $5.8 \%$ | $30.2 \%$ | $7.1 \%$ |
| Aa3 | $6.6 \%$ | $41.7 \%$ | $17.6 \%$ |
| A1 | $9.7 \%$ | $44.6 \%$ | $6.5 \%$ |
| A2 | $9.0 \%$ | $35.6 \%$ | $8.9 \%$ |
| A3 | $15.9 \%$ | $51.2 \%$ | $14.6 \%$ |
| Baa1 | $14.2 \%$ | $52.3 \%$ | $25.0 \%$ |
| Baa2 | $18.9 \%$ | $50.0 \%$ | $22.6 \%$ |
| Baa3 | $22.8 \%$ | $57.6 \%$ | $34.3 \%$ |
| Ba1 | $34.7 \%$ | $61.1 \%$ | $24.6 \%$ |
| Ba2 | $35.2 \%$ | $53.9 \%$ | $40.1 \%$ |
| Ba3 | $45.9 \%$ | $33.1 \%$ | $35.1 \%$ |
| B1 | $61.3 \%$ | $28.2 \%$ | $54.2 \%$ |
| B2 | $65.2 \%$ | $47.8 \%$ | $53.4 \%$ |
| B3 | $73.0 \%$ | $29.3 \%$ | $66.4 \%$ |
| Caa1 | $77.5 \%$ | $59.4 \%$ | NA |
| Caa2 | $88.9 \%$ | $58.5 \%$ | $90.6 \%$ |
| Caa3 | $90.5 \%$ | $84.8 \%$ | NA |

A structured finance security is materially impaired if it has:

- Sustained an interest shortfall or principal write-down/loss that has not been cured;
- Been downgraded to Ca or C, and hence is expected to suffer a significant level of payment losses in the future; or
- Been subject to a distressed exchange.

The impairment status of a security may change as it goes from cured (i.e. all outstanding shortfalls and losses were repaid in full) to uncured (i.e. positive interest shortfalls or principal losses outstanding), or vice versa. If a security downgraded to Ca or C, but not in payment shortfall, is subsequently upgraded, then it is no longer in material impairment. Securities downgraded to $C$ a or $C$ that are not upgraded are in material impairment even if their payment shortfalls have been cured. Finally, securities with very minor shortfalls or losses are excluded.

For further discussion on the definition of material impairment, see Moody's Special Comment, "Payment Defaults And Material Impairments Of U.S. Structured Finance Securities: 1993-2002."

The impairment rates are calculated with the information available at the time of the filing and are subject to change. For example, due to a lag in the receipt and processing of trustee reports for the transactions, the list of impairments can be historically revised to reflect the addition of past payment shortfalls. Moreover, securities that cure their payment shortfalls and are not rated $\mathrm{Ca} / \mathrm{C}$ are removed from the impairment list.

## Moody’s Investors Service ("MIS")

## Exhibit 3

## Policies to Prevent the Misuse of Material, Nonpublic Information

MIS has the following policies to prevent the misuse of material, nonpublic information. These policies can be found on our website via the web addresses listed below.

1. Moody’s Corporation Code of Business Conduct, August 2010 http://www.moodys.com/business_conduct
2. Moody's Corporation Code of Ethics for Chief Executive Officer and Senior Financial Officers, February 24, 2004
http://www.moodys.com/ethics_code_ceo_cf
3. Moody’s Investors Service Core Principles for the Conduct of Rating Committees, April 2006
http://www.moodys.com/rating_committee_principles
4. Moody's Corporation Policy Regarding the Independence of Ratings and Disclosure of Affiliations of Moody's Directors and Shareholders with Rated Entities, March 22, 2010
http://www.moodys.com/directors_policy
5. Moody’s Investors Service Best Practices Guidance for the Credit Rating Process, October 29, 2010
http://www.moodys.com/best_practices_guidance_credit_rating_process
6. Moody's Corporation Revised Securities Trading Policy and Reporting

Procedures, August 16, 2010
http://www.moodys.com/securities_trading_policy
7. Moody’s Investors Service EU Market Abuse Directive Policy, December 1, 2010 http://www.moodys.com/insider_list_policy_and_procedure


## Moody's Corporation

Global Legal Structure as of September 30, 2010


An oval indicates a branch.

## Moody's Investors Service ("MIS")

## Exhibit 6

## Conflicts of Interest Related to the Issuance of Credit Ratings

MIS has identified the following types of conflicts of interest related to the issuance of credit ratings:

1. MIS is paid by issuers or underwriters to determine credit ratings with respect to securities or money market instruments they issue or underwrite.
2. MIS is paid by obligors to determine credit ratings of the obligors.
3. MIS is paid by investors to determine credit ratings with respect to securities or money market instruments.
4. MIS is paid for services in addition to determining credit ratings by issuers, underwriters, or obligors that have paid MIS to determine a credit rating.
5. MIS allows persons within MIS to directly own securities or money market instruments of, or have other direct ownership interests in, obligors or issuers subject to a credit rating determined by MIS as long as they do not participate in or otherwise influence the credit rating.
6. MIS allows persons within MIS to have business relationships that are more than arms length ordinary course business relationships with obligors or issuers subject to a credit rating determined by MIS as long as they do not participate in or otherwise influence the credit rating.
7. Members of the Board of Directors of Moody's Corporation (the parent of MIS) may be affiliated with obligors or issuers subject to a credit rating determined by MIS.
8. MIS may issue credit ratings covering, and/or requested by, entities which may have significant shareholdings ( $5 \%$ or more of outstanding shares) in Moody's Corporation (MCO), MIS's parent company.
9. MIS has a non-rating affiliate, Moody's Analytics (MA), which does not engage in credit rating activities. Customers of MA may be parties to whom MIS provides credit rating services.
10. Moody's Corporation, and/or its affiliates, may engage underwriters or investment bankers in connection with acquisitions, joint ventures and/or the sale by Moody's Corporation of debt or other securities. Moody's Corporation also has commercial relationships with numerous corporations from which it purchases goods or services (e.g., utilities, travel, technology hardware or software, office supplies, etc.). The parties with which Moody's Corporation has such business relationships may be entities about which, or to which, MIS provides credit ratings.

## Moody’s Investors Service ("MIS")

## Exhibit 7

## Policies to Address and Manage Conflicts of Interest

MIS has the following policies and procedures to address and manage conflicts of interest related to the issuance of credit ratings. These policies and procedures can be found on our website via the web addresses listed below.

1. Moody’s Corporation Code of Business Conduct, August 2010 http://www.moodys.com/business_conduct
2. Moody's Corporation Policy Regarding the Independence of Ratings and Disclosure of Affiliations of Moody's Directors and Shareholders with Rated Entities, March 22, 2010 http://www.moodys.com/directors_policy
3. Moody's Corporation Code of Ethics for Chief Executive Officer and Senior Financial Officers, February 24, 2004
http://www.moodys.com/ethics_code_ceo_cf
4. Moody’s Investors Service Code of Professional Conduct, October 2010 http://www.moodys.com/professional_conduct
5. Moody’s Investors Service Core Principles for the Conduct of Rating Committees, April 2006
http://www.moodys.com/rating_committee_principles
6. Moody’s Investors Service Ancillary and Other Permissible Services Policy, August 16, 2010
http://www.moodys.com/ancillary_services_policy
7. Moody's Investors Service Ancillary and Other Permissible Services Annex, November 29, 2010
http://www.moodys.com/ancillary_policy_annex
8. Moody's Investors Service Best Practices Guidance for the Credit Rating Process, October 29, 2010
http://www.moodys.com/best_practices_guidance_credit_rating_process
9. Moody's Corporation Revised Securities Trading Policy and Reporting Procedures, August 16, 2010
http://www.moodys.com/securities_trading_policy
10. Moody’s Corporation Separation Policy -- Moody’s Investors Service and Moody’s Analytics, March 23, 2010 http://www.moodys.com/separation_policy_mis_ma
11. Moody's Investors Service EU Ancillary and Other Permissible Services Procedures, November 29, 2010 http://www.moodys.com/ancillary_services_eu_procedure
12. Moody’s Investors Service Ban on Recommendations Procedure, November 29, 2010 http://www.moodys.com/ban_on_recommendations_procedure
13. Moody's Investors Service Procedure for Receipt, Resolution and Retention of Complaints, August 16, 2010 http://www.moodys.com/complaints_procedure
14. Moody's Investors Service Credit Rating Action Conflict of Interest Certification Procedure, September 6, 2010 http://www.moodys.com/conflict_of_interest_certification_procedure
15. Moody’s Investors Service Guidelines on Fee Discussions, July 2009 http://www.moodys.com/fee_discussion_policy
16. Moody's Investors Service Procedure -- Fee Discussions, August 16, 2010 http://www.moodys.com/fee_discussion_procedure
17. Moody’s Investors Service Policy on Solicitation or Acceptance of Money, Gifts, Favors, or Entertainment, August 16, 2010 http://www.moodys.com/gift_policy
18. Moody’s Investors Service policy on Designating Issuers That Do Not Participate in the Rating Process, August 16, 2010
http://www.moodys.com/policy_on_designating_issuers_that_do_notparticipate_in_rating_process
19. Moody’s Investors Service Non-Participating Issuers Procedure, August 16, 2010 http://www.moodys.com/non-participating_issuers_procedure
20. Moody’s Investors Service Post Employment Policy, August 1, 2010 http://www.moodys.com/post-employment_policy
21. Moody's Investors Service Credit Rating Refusal Policy, August 16, 2010 http://www.moodys.com/refusal_to_rate_policy
22. Moody's Investors Service policy on Designating Unsolicited Credit Ratings in the European Union, September 8, 2010
http://moodys.com/unsolicted_ratings_policy_eu
23. Moody’s Investors Service MIS-EU Unsolicited Credit Ratings Procedures, September 6, 2010
http://www.moodys.com/unsolicted_ratings_procedure_eu
24. Moody’s Investors Service Policy and Procedures for Analyst Rotation for Ratings Issued by MIS EU CRAs, November 1, 2010 http://moodys.com/analyst_rotation_policy_eu
25. Moody’s Corporation Policy -- Material Non-Public Information, August 16, 2010 http://www.moodys.com/policy_on_material_non-public_information
26. Moody's Investors Service Policy and Procedure -- Withdrawal of Credit Ratings, December 13, 2010 http://www.moodys.com/withdrawal_of_ratings_policy
27. Moody’s Investors Service EU Market Abuse Directive Policy, December 1, 2010 http://www.moodys.com/insider_list_policy_and_procedure
28. Procedure on Annual Report of MIS Designated Compliance Officer, November 10, 2010 http://www.moodys.com/dco_annual_report_procedure
29. Policy on Compensation of MIS Designated Compliance Officer, November 10, 2010 http://www.moodys.com/dco_compensation_policy
30. Policy on Independence of MIS Compliance Department, November 10, 2010 http://www.moodys.com/compliance_independence_policy
