Report to Congress Credit Rating Standardization Study

As Required by Section 939(h) of the Dodd-Frank Wall Street Reform and Consumer Protection Act



September 2012

This is a report of the staff of the U.S. Securities and Exchange Commission. The Commission has expressed no view regarding the analysis, findings, or conclusions contained in this report.

I. Executive Summary

The Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act")¹ was enacted on July 21, 2010. Title IX, Subtitle C of the Dodd-Frank Act, consisting of sections 931 through 939H and titled "Improvements to the Regulation of Credit Rating Agencies," amended the Securities Exchange Act of 1934 ("Exchange Act") to impose new self-executing requirements with respect to credit rating agencies registered with the U.S. Securities and Exchange Commission ("Commission") as nationally recognized statistical rating organizations ("NRSROs"), requires that the Commission adopt rules applicable to NRSROs in a number of areas, and requires the Commission to conduct certain studies.²

Section 939(h)(1) of the Dodd-Frank Act provides that the Commission shall undertake a study on the feasibility and desirability of:

- standardizing credit rating terminology, so that all credit rating agencies issue credit ratings using identical terms;
- standardizing the market stress conditions under which ratings are evaluated;
- requiring a quantitative correspondence between credit ratings and a range of default
 probabilities and loss expectations under standardized conditions of economic stress; and
- standardizing credit rating terminology across asset classes, so that named ratings
 correspond to a standard range of default probabilities and expected losses independent of asset class and issuing entity.³

Pub. L. 111-203, 124 Stat. 1376, H.R. 4173.

² See Pub. L. 111-203 §§ 931-939H.

See Pub. L. 111-203 § 939(h)(1). Section 938(a) of the Dodd-Frank Act provides, among other things, that the Commission shall require, by rule, each NRSRO to establish, maintain, and enforce policies and procedures that clearly define and disclose the meaning of any symbol used by the NRSRO to denote a credit rating and apply any such symbol in a manner that is consistent for all types of securities and money market instruments for which the symbol is used. See Pub. L. 111-203 § 938(a). The Commission has

Section 939(h)(2) of the Dodd-Frank Act provides that the Commission shall submit to Congress a report containing the findings of the study and the recommendations, if any, of the Commission with respect to the study.⁴ This report is submitted to Congress pursuant to section 939(h)(2).⁵

The Commission solicited public comment regarding the standardization that is the subject of this report, and Commission staff carefully reviewed the comments submitted by NRSROs, market participants, and others. Commission staff also reviewed publicly-available information on, among other things, the credit rating scales of NRSROs, and relevant studies and articles.

As an initial matter, several commenters argued that the Commission currently does not have the authority to require credit rating standardization because, by statute, the Commission may not regulate the methodologies NRSROs use to determine credit ratings. Regarding the subject matter of the study, commenters raised serious concerns about the feasibility and desirability of standardization and, in particular, most did not feel that standardization would lead to higher levels of accountability, transparency, and competition in the credit rating agency industry. Several commenters suggested that requiring increased transparency would be a more desirable alternative.

proposed rules to implement this mandate. See Nationally Recognized Statistical Rating Organizations, Exchange Act Release No. 64514 (May 18, 2011), 76 FR 33420 (Jun. 8, 2011) ("May 2011 Proposing Release") at 76 FR 33480-33481. In addition, pursuant to Section 932(a)(8) of the Dodd-Frank Act, the Commission has proposed, among other things, a standard definition of "default" to be used by NRSROs for purposes of generating the performance measurement statistics required to be disclosed in Exhibit 1 to Form NRSRO. See May 2011 Proposing Release, 76 FR 33433-33445. These rulemaking initiatives are discussed in Section V of this report.

⁴ See Pub. L. 111-203 § 939(h)(2).

The Commission approved the submission to Congress of this report. However, any views expressed in the report are those of the Commission staff and do not necessarily reflect the views of the Commission or the individual Commissioners.

With respect to the specific topics identified in section 939(h)(1) of the Dodd-Frank Act, ⁶ the staff found:

- Although NRSROs use similar scales and symbols to denote long-term credit ratings, the number of rating scales and the rating symbols used vary widely among NRSROs for other types of credit ratings. Standardizing credit rating terminology may facilitate comparing credit ratings across rating agencies and may result in fewer opportunities for manipulating credit rating scales to give the impression of accuracy. Requiring such standardization, however, may not be feasible given the number and uniqueness of rating scales and differences in credit rating methodologies used by credit rating agencies. Further, requiring standardized credit rating terminology may reduce incentives for credit rating agencies to improve their credit rating methodologies and surveillance procedures.
- Standardizing market stress conditions under which ratings are evaluated may not
 allow the stress conditions to be tailored to a particular type of credit rating or to be
 reevaluated and updated as appropriate. Different stress conditions may be
 appropriate for different asset classes.
- Requiring a correspondence between credit rating categories and a range of default probabilities and loss expectations could lead to greater accountability among credit rating agencies. However, NRSROs do not provide such a correspondence because they base their credit ratings on a range of qualitative, as well as quantitative, factors. One credit rating agency that is not registered as an NRSRO does provide a

See the list of topics above.

quantitative correspondence between credit rating categories and specified default probabilities.

- Most NRSROs appear to believe that it is desirable for a credit rating agency to have
 a standardized credit rating terminology that applies across at least some asset classes.
 However, some studies suggest that credit ratings have not historically been
 comparable across asset classes.
- Increasing transparency may be more feasible and desirable than implementing the standardization that is the subject of this study. In this regard, rulemaking initiatives mandated under the Dodd-Frank Act are designed to increase transparency with respect to the performance of credit ratings and the methodologies used to determine credit ratings.⁷

The staff, based on the findings above, recommends that the Commission not take any further action at this time with respect to: (1) standardizing credit rating terminology, so that all credit rating agencies issue credit ratings using identical terms; (2) standardizing the market stress conditions under which ratings are evaluated; (3) requiring a quantitative correspondence between credit ratings and a range of default probabilities and loss expectations under standardized conditions of economic stress; and (4) standardizing credit rating terminology across asset classes, so that named ratings correspond to a standard range of default probabilities and expected losses independent of asset class and issuing entity. In addition, given the difficulties commenters identified with respect to implementing the standardization that is the subject of the study, the staff believes it would be more efficient to

⁷ See May 2011 Proposing Release.

See Pub. L. 111-203 § 939(h)(1). The staff's recommendations are based on the findings described in this report. These recommendations could change in the future based on new information.

focus on the rulemaking initiatives mandated under the Dodd-Frank Act, which, among other things, are designed to promote transparency with respect to the performance of credit ratings and the methodologies used to determine credit ratings.

II. Background

The Commission has previously considered the issue of standardizing credit rating symbols. In 2003, the Commission issued a concept release seeking comment on various issues relating to credit rating agencies. One of the questions the Commission posed was, "[s]hould each NRSRO use uniform rating symbols, as a means of reducing the risk of marketplace confusion?" Several commenters who addressed the issue generally supported the idea of uniform rating symbols. For example, one commenter stated that "[a] basic set of rating symbols would provide a useful simplification and we advocate this." On the other hand, one credit rating agency commented that mandated uniformity of rating symbols could mislead investors into assuming that all NRSRO credit ratings are comparable and involve the same analytical judgments, ratings criteria, and methodologies. Another commenter suggested that rather than mandating uniform rating symbols, the Commission should require each NRSRO to annually disclose the definition and historic default rates for the rating symbols it uses. As discussed below, NRSROs now are required to make such disclosures.

Concept Release: Rating Agencies and the Use of Credit Ratings under the Federal Securities Laws, Securities Act Release No. 8236 (Jun. 4, 2003), 68 FR 35258 (Jun. 12, 2003) ("2003 Concept Release").

See 2003 Concept Release, Question 13.

The comment letters are available on the Commission's Internet website at http://www.sec.gov/rules/concept/s71203.shtml.

Letter from Richard Raeburn, Chief Executive, The Association of Corporate Treasurers, United Kingdom, to Jonathan G. Katz, Secretary, Commission (Aug. 8, 2003).

Letter from Leo C. O'Neill, President, Standard & Poor's Ratings Services, to Jonathan G. Katz, Secretary, Commission (Jul. 28, 2003).

Letter from James A. Kaitz, President and CEO, Association for Financial Professionals, to Jonathan G. Katz, Secretary, Commission (Jul. 28, 2003).

In 2005, the Commission proposed a definition of the term "nationally recognized statistical rating organization." ¹⁵ In that proposal, the Commission stated that it was not proposing to standardize the rating symbols used by NRSROs. However, the Commission noted that, while the symbols used by an NRSRO may technically differ both in form and in meaning from those used by other NRSROs, the similarities in NRSROs' rating symbols and rating categories suggested that there was a "market-based standard" for NRSROs' rating symbols and for NRSROs "to have a consistent number of rating categories for distinguishing securities of varying risks." ¹⁶

The Credit Rating Agency Reform Act of 2006 ("Rating Agency Act"), ¹⁷ among other things, added section 15E to the Exchange Act¹⁸ to establish self-executing requirements on credit rating agencies registered with the Commission as NRSROs and provided the Commission with the authority to implement a registration and oversight program for NRSROs. On June 5, 2007, the Commission approved rules implementing such a program. ¹⁹ Section 3(a)(62) of the

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Definition of Nationally Recognized Statistical Rating Organization, Securities Act Release No. 8570 (Apr. 19, 2005), 70 FR 21306 (Apr. 25, 2005) ("2005 Proposal"). The proposal was not adopted.

¹⁶ See 2005 Proposal, 70 FR 21317.

¹⁷ See Pub. L. 109-291, 120 Stat. 1327, S. 3850 (Sep. 29, 2006).

¹⁸ 15 U.S.C. 780-7.

See Oversight of Credit Rating Agencies Registered as Nationally Recognized Statistical Rating Organizations, Exchange Act Release No. 55857 (Jun. 5, 2007), 72 FR 33564 (Jun. 18, 2007). The implementing rules were Form NRSRO (17 CFR 249b.300) and Rules 17g-1through 17g-6 (17 CFR 240.17g-1 through 17g-6). The Commission has twice adopted amendments to some of these rules. See Amendments to Rules for Nationally Recognized Statistical Rating Organizations, Exchange Act Release No. 59342 (Feb. 2, 2009), 74 FR 6456 (Feb. 9, 2009); see also Amendments to Rules for Nationally Recognized Statistical Rating Organizations, Exchange Act Release No. 61050 (Nov. 23, 2009), 74 FR 63832 (Dec. 4, 2009). The Commission has also adopted new Rule 17g-7 (17 CFR 240.17g-7) in accordance with the Dodd-Frank Act. See Disclosure for Asset-Backed Securities Required by Section 943 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, Securities Act Release No. 9175 (Jan. 20, 2011), Exchange Act Release No. 63741 (Jan. 20, 2011), 76 FR 4515 (Jan. 26, 2011). In addition, in the May 2011 Proposing Release, the Commission proposed for comment rule amendments and new rules in accordance with the Dodd-Frank Act and to enhance oversight of NRSROs.

Exchange Act, ²⁰ added by the Rating Agency Act, defines a "nationally recognized statistical rating organization" as a credit rating agency that, among other things:

- Issues credit ratings with respect to: (i) financial institutions, brokers, or dealers; (ii) insurance companies; (iii) corporate issuers; (iv) issuers of asset-backed securities (as that term is defined in 17 CFR 229.1101(c)); (v) issuers of government securities, municipal securities, or securities issued by a foreign government; or (vi) a combination of one or more categories of obligors described in any of clauses (i) through (v); and
- Is registered with the Commission under section 15E.

The Commission has granted NRSRO registration to ten credit rating agencies, one of which subsequently withdrew from registration.²¹ The following table identifies, as of the date of this report, the nine NRSROs, the classes of credit ratings in which they are registered, and the date of their initial registration:

²⁰ 15 U.S.C. 78c(a)(62).

On October 13, 2011, Rating and Investment Information, Inc., which had been registered with the Commission as an NRSRO since September 24, 2007, furnished the Commission with a notice of withdrawal from registration as an NRSRO. The withdrawal became effective on November 27, 2011. See http://www.sec.gov/news/digest/2011/dig112811.htm.

NRSRO	Classes of Credit Ratings	Initial Registration
A.M. Best Company, Inc. ("A.M. Best")	Insurance companiesCorporate issuersIssuers of asset-backed securities	9/24/2007
DBRS, Inc. ("DBRS")	 Financial institutions Insurance companies Corporate issuers Issuers of asset-backed securities Issuers of government securities 	9/24/2007
Egan-Jones Ratings Co. ("EJR")	 Financial institutions Insurance companies Corporate issuers Issuers of asset-backed securities Issuers of government securities 	12/21/2007
Fitch, Inc. ("Fitch")	 Financial institutions Insurance companies Corporate issuers Issuers of asset-backed securities Issuers of government securities 	9/24/2007
Japan Credit Rating Agency, Ltd. ("JCR")	 Financial institutions Insurance companies Corporate issuers Issuers of government securities 	9/24/2007
Kroll Bond Rating Agency, Inc. ("KBRA") ²²	 Financial institutions Insurance companies Corporate issuers Issuers of asset-backed securities Issuers of government securities 	2/11/2008
Moody's Investors Service, Inc. ("Moody's")	 Financial institutions Insurance companies Corporate issuers Issuers of asset-backed securities Issuers of government securities 	9/24/2007
Morningstar Credit Ratings, LLC ("Morningstar") ²³	Issuers of asset-backed securities	6/23/2008
Standard & Poor's Ratings Services ("S&P")	 Financial institutions Insurance companies Corporate issuers Issuers of asset-backed securities Issuers of government securities 	9/24/2007

KBRA was formerly known as LACE Financial Corp.

Morningstar was formerly known as Realpoint LLC.

III. Overview of Comments

The Commission requested public comment to help inform the study mandated under section 939(h).²⁴ In particular, the Commission requested comment on each of the topics to be addressed under section 939(h) and, in addition, requested commenters' views on specific questions related to each topic. The Commission received sixteen comments; six from NRSROs²⁵ and ten from other interested parties, including associations that represent various types of securities market participants such as issuers and investors.²⁶ All comments are available on the Commission's Internet website.²⁷

In addition to requesting public comment, the Commission staff gathered information through a review of publicly-available information on, among other things, the credit rating scales and credit rating definitions of NRSROs and a review of relevant studies and articles.

A. Summary of comments

Most commenters stated that it was neither feasible nor desirable to standardize credit rating terminology and market stress conditions or to require correspondences between ratings and default probabilities and loss expectations. Some of the commenters stated that

See Credit Rating Standardization Study, Exchange Act Release No. 63573 (Dec. 17, 2010), 75 FR 80866 (Dec. 23, 2010).

See letter dated Feb. 7, 2011 from A.M. Best ("A.M. Best letter"), letter dated Feb. 7, 2011 from Mary Keogh, DBRS ("DBRS letter"), letter dated March 7, 2011 from John S. Olert, Fitch ("Fitch letter"), letter dated Feb. 18, 2011 from Farisa Zurin, Moody's ("Moody's letter"), letter dated Feb. 4, 2011 from Robert Dobilas, Realpoint LLC ("Morningstar letter"), and letter dated Feb. 7, 2011 from Deven Sharma, S&P ("S&P letter").

See letter dated Feb. 4, 2011 from Tom Deutsch, The American Securitization Forum ("ASF letter"), letter from Andrew Davidson, Andrew Davidson & Co. ("Davidson letter"), letter dated Feb. 7, 2011 from Lisa Pendergast and John D'Amico, The Commercial Real Estate Finance Council ("CREFC letter"), letter dated Feb. 7, 2011 from Richard M. Whiting, The Financial Services Roundtable ("FSR letter"), letter dated Feb. 7, 2011 from Gail Le Coz, The Institutional Money Market Funds Association (IMMFA letter"), letter dated Feb. 7, 2011 from Karrie McMillan, The Investment Company Institute ("ICI letter"), letter dated Feb. 7, 2011 from Suzanne C. Hutchinson, The Mortgage Insurance Companies of America ("MICA letter"), letter dated Feb. 4, 2011 from John A. Courson, The Mortgage Bankers Association ("MBA letter"), letter from Cate Long, Multiple-Markets ("M-M letter"), and letter dated Jan. 11, 2011 from Julia Mikulla ("Mikulla letter").

See http://www.sec.gov/comments/4-622/4-622.shtml.

standardization would lead to lower levels of competition and quality in the credit rating industry and would increase reliance on credit ratings. Several commenters suggested that increasing transparency through enhanced disclosure with respect to credit rating terminology and procedures would better serve users of credit ratings.

The six NRSROs that submitted comments did not favor standardization. For example, in the opinion of Moody's, standardization would lead to less diversity of rating opinions and would increase the risk of "system-wide disruption." Both S&P and Fitch commented that standardization would result in less competition in the ratings industry and might increase reliance on credit ratings. S&P and DBRS commented that standardization would not be desirable because it would eliminate the benefits of having a diversity of rating opinions. DBRS further commented that credit ratings are based, in part, on qualitative factors that would be difficult to standardize. Similarly, Morningstar commented that standardization would prohibit credit rating agencies from developing better rating procedures, eliminate innovation and competition, and increase costs. Several NRSROs, including DBRS and Fitch, suggested that increased disclosure would be a preferable alternative.

Among the non-NRSRO commenters, a majority were not in favor of standardization for many of the same reasons cited by the NRSROs. Andrew Davidson & Co. commented that credit ratings are qualitative judgments of rating committees and, therefore, are not amenable to

^{8 &}lt;u>See</u> Moody's letter.

See S&P letter and Fitch letter.

See DBRS letter.

See Morningstar letter.

See DBRS letter and Fitch letter.

standardization.³³ The American Securitization Forum commented that standardization would, in addition to depriving investors of a diversity of rating opinions, discourage competition and compromise the quality, accuracy, and usefulness of credit ratings in the securitization market.³⁴ The Mortgage Bankers Association also commented that standardization might lower the quality of credit ratings and, further, that it would not improve investors' understanding of securitizations.³⁵

The Institutional Money Market Funds Association commented that standardization "would negate the need for more than one [credit rating agency]" and that the "absence of a competitive market could then result in a subsequent lowering of standards and potentially market failure." ³⁶ The Investment Company Institute commented that standardization could lead to less innovation and competition among rating agencies, which could result in fewer rating agencies, "less pressure to ensure the quality of ratings," and "the commoditization of ratings and the transformation of credit rating agencies into government approved utilities." The Commercial Real Estate Finance Council characterized the concept of standardization as being of "questionable merit from a practical perspective." While reporting a split among its

See Davidson letter. According to its comment letter, Andrew Davidson & Co. is an analytics firm focused on structured products.

See ASF letter. According to its comment letter, the American Securitization Forum is an industry association comprised of participants in the securitization markets including, issuers, investors, servicers, financial intermediaries, credit rating agencies, financial guarantors, legal and accounting firms, and other professional organizations involved in securitization transactions.

See MBA letter. According to its comment letter, the Mortgage Bankers Association is an industry association comprised participants in the real estate finance markets, including mortgage companies, mortgage brokers, commercial banks, thrifts, Wall Street conduits, and life insurance companies.

See IMMFA letter. According to its comment letter, the Institutional Money Market Funds Association is an industry association comprised of European money-market funds.

See ICI letter. According to its comment letter, the Investment Company Institute in an industry association comprised of U.S. investment companies, including mutual funds, closed end funds, exchange traded funds, and unit investment trusts.

See CREFC letter. According to its comment letter, the Commercial Real Estate Finance Council is an industry association comprised of participants in the commercial real estate finance markets, including:

members with regard to the merits of standardizing credit rating meanings within asset classes, the Financial Services Roundtable more generally commented that "the diversity of rating methodologies among the different credit rating agencies adds a depth to the analysis of securities risks that would be lost if such methodologies were to become to homogenized."³⁹

On the other hand, one commenter, Julia Mikulla, commented that "[c]redit rating models should be standardized and publicly available." Another commenter, Multiple-Markets, commented that it would be "beneficial" for NRSROs to use comparable symbol sets but that such use should be voluntary. Finally, the Mortgage Insurance Companies of America, while not necessarily endorsing the standardization that is the subject of the study, urged the Commission "to play a direct role in establishing standards and ensuring compliance with them for new [credit rating agency] methodology and symbology."

B. Commission authority

A threshold issue is whether, even if feasible and desirable, the Commission presently has the authority to require that credit rating agencies adopt the standardization that is the subject of the study. In particular, section 15E(c)(2) of the Exchange Act, added by the Rating Agency Act, provides that Commission rules regarding NRSROs "shall be narrowly tailored to meet the requirements of [the Exchange Act] applicable to [NRSROs];" and that notwithstanding "any

commercial mortgage-backed security lenders and issuers; loan and bond investors such as insurance companies, pension funds and money managers; servicers; credit rating agencies; accounting firms; law firms; and other service providers.

See FSR letter. According to its comment letter, the Financial Services Roundtable represents 100 of the largest integrated financial services companies providing banking, insurance, and investment products and services.

See Mikulla letter.

See M-M letter. Multiple Markets stated in its comment letter that it has a patent "for the standardization of the various alphanumeric credit rating scales for use in market data, trading and portfolio systems for retail investors and registered representatives."

See MICA letter. According to its comment letter, the Mortgage Insurance Companies of America is an association of the private mortgage insurance industry.

other provision of [section 15E] or any other provision of law," the Commission may not "regulate the substance of credit ratings or the procedures and methodologies by which any nationally recognized statistical rating organization determines credit ratings." In addition, there are credit rating agencies that operate within and outside of the U.S. that are not registered with the Commission as NRSROs. These credit rating agencies are not subject to the Commission's NRSRO oversight program and, therefore, any Commission rules mandating standardization would not apply to them.

Several commenters raised the issue of authority. For example, S&P commented that "[s]tandardizing credit ratings terminology and practices would inevitably require some level of regulation directing credit rating agencies as to the rating symbols and terms to use, and defining to some extent the parameters within which credit rating agencies must conduct their evaluations. It is difficult to see how the Commission could mandate this consistently with the requirement in Exchange Act section 15E(c)(2) that the Commission may not 'regulate the substance of credit ratings or the procedures and methodologies by which any [NRSRO] determines credit ratings.'" Similarly, Fitch commented that the premise of the study "contradicts fundamental principles of NRSRO regulations—"that the Commission may not regulate either the substance [of] credit ratings or the procedures and methodologies by which the NRSROs determine credit ratings." DBRS also commented that the mandated standardization that is the subject of the study "could violate one of the fundamental principles of NRSRO regulation: that the Commission may not regulate either the substance of credit ratings or the procedures and

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^{43 &}lt;u>See</u> 15 U.S.C. 780-7(c).

See S&P letter.

See Fitch letter.

methodologies by which NRSROs determine credit ratings."⁴⁶ Moody's commented that rules requiring standardization "likely would interfere with the independence of the rating process by regulating the substance of rating opinions and methodologies."⁴⁷ The Mortgage Bankers Association questioned whether "the introduction of standardized terminology would go beyond the statutory authority of the Dodd-Frank Act by prescribing elements of ratings methodology."⁴⁸

Finally, S&P also commented that "[r]egulatory mandates concerning what ratings must mean and how credit rating agencies go about their work also raise serious First Amendment concerns."

IV. Discussion of Topics Enumerated in Section 939(h)

As stated above, section 939(h)(1) of the Dodd-Frank Act requires the Commission to conduct a study on the feasibility and desirability of: (1) standardizing credit rating terminology, so that all credit rating agencies issue credit ratings using identical terms; (2) standardizing the market stress conditions under which ratings are evaluated; (3) requiring a quantitative correspondence between credit ratings and a range of default probabilities and loss expectations under standardized conditions of economic stress; and (4) standardizing credit rating terminology across asset classes, so that named ratings correspond to a standard range of default probabilities and expected losses independent of asset class and issuing entity. The following sections address these questions.

A. Is it feasible or desirable to standardize credit rating terminology so that all credit rating agencies issue credit ratings using identical terms?

See Moody's letter.

See DBRS letter.

⁴⁸ See MBA letter.

See S&P letter.

1. Background

Credit rating agencies generally establish rank ordering credit rating scales to communicate their opinion of the relative credit risk of a particular obligor or debt instrument.

Credit rating agencies use symbols to denote credit rating categories, from the highest to the lowest ratings, in their rating scales. NRSROs are required to publicly disclose the definitions of their credit rating categories. 51

A standardized credit rating terminology could include standard rating symbols and definitions of each symbol for general categories of credit rating (for example, ratings of long-term obligations) or could include standard rating symbols and definitions for more specific classes of credit ratings (for example, ratings of issuers of asset-backed securities). The standardized symbols and definitions could be those currently used by one or more credit rating agencies or they could be an entirely new set of symbols or definitions.

As used throughout this study, the term credit rating "category" refers to a distinct level in a rating scale represented by a unique symbol, number, or score. For example, AAA, AA, A, and BBB each would be a category in a rating scale. Some NRSROs also use modifiers to denote gradations within a category. A.M. Best, EJR, Fitch, JCR, KBRA, Morningstar, and S&P use "+" or "-" modifiers; DBRS uses "high" or "low" modifiers; and Moody's uses "1," "2," or "3" modifiers. For example, AA+, AA, and AA- would be three gradations within the AA category with AA+ being the highest gradation and AA- being the lowest gradation in terms of relative creditworthiness. If a rating scale has gradations within a category, the category and each gradation would constitute a "notch" in the rating scale. For example, the symbols AA+, AA, and AA- would each represent a notch in the rating scale.

The instructions to Exhibit 1 to Form NRSRO require an NRSRO to "define the credit rating categories, notches, grades, and rankings" used by the NRSRO. Rule 17g-1(i) requires NRSROs to make Form NRSRO and Exhibits 1 through 9 publicly available. All NRSROs make this information available on their websites. As of the date of this report, the links to Form NRSRO were as follows: A.M. Best, http://www.ambest.com/nrsro/index.html; DBRS, http://dbrs.com/about/regulatoryAffairs; EJR, http://www.egan-jones.com/nrsro.aspx; Fitch, http://www.fitchratings.com/web/en/dynamic/about-us/regulatory-disclosures-and-commentary.jsp; JCR, http://www.jcr.co.jp/english/nrsro/index.html; KBRA, http://www.krollbondratings.com/regulatory.php; Moody's, http://v3.moodys.com/Pages/reg001002.aspx; Morningstar, https://ratingagency.morningstar.com/RPLogin.aspx; S&P, http://www.standardandpoors.com/ratings/form-nrsro/en/us.

As discussed above, the Commission stated in 2005 that similarities in the scales and symbols used by NRSROs "suggests the existence of a market-based standard." The following table illustrates that this observation continues to hold true with respect to rating scales used by NRSROs for long-term obligations: ⁵³

A.M. Best	DBRS	EJR	Fitch	JCR	KBRA	Moody's	Morningstar	S&P
Aaa	AAA	AAA	AAA	AAA	AAA	Aaa	AAA	AAA
Aa	AA	AA	AA	AA	AA	Aa	AA	AA
A	A	A	A	A	A	A	A	A
Bbb	BBB	BBB	BBB	BBB	BBB	Baa	BBB	BBB
Bb	BB	BB	BB	BB	BB	Ba	BB	BB
В	В	В	В	В	В	В	В	В
Ccc	CCC	CCC	CCC	CCC	CCC	Caa	CCC	CCC
Сс	CC	CC	CC	CC	CC	Ca	CC	CC
С	С	С	С	С	С	С	С	
D	D	D		D	D		D	SD/D
Rs								R
Total number	Total number of notches ⁵⁴							
23	26	22	19	20	22	21	20	22

The definitions of the symbols used by NRSROs to denote the categories in their longterm rating scales generally consist of a qualitative description of the degree of credit risk

52 <u>See</u> 2005 Proposal, 70 FR 21317.

Some NRSROs have various long-term rating scales. Fitch, for example, has long-term rating scales for issuer credit ratings, corporate finance obligations, and structured, project, and public finance obligations. Unless stated otherwise, the information in this section is taken from the current Form NRSROs of the nine NRSROs.

As stated above, A.M. Best, EJR, Fitch, JCR, KBRA, Morningstar, and S&P use "+" or "-" modifiers; DBRS uses "high" or "low" modifiers; and Moody's uses "1," "2," or "3" modifiers to denote subcategories. Categories that are shaded contain such subcategories.

associated with the symbol. ⁵⁵ For example, DBRS's highest long-term rating, "AAA," is defined as: "Highest credit quality. The capacity for the payment of financial obligations is exceptionally high and unlikely to be adversely affected by future events." On the other hand, a DBRS rating of "B" is defined as: "Highly speculative quality. There is a high level of uncertainty as to the capacity to meet financial obligations." A.M. Best defines its highest long-term rating – which is in the "aaa" category in its rating scale – as "Exceptional—assigned to an issuer where, in our opinion, the issuer has an exceptional ability to meet the terms of its obligations." A.M. Best defines a rating in the "b" category in its rating scale as: "Marginal—assigned to an issuer where, in our opinion, the issuer has marginal credit characteristics, generally due to a modest margin of principal and interest payment protection and extreme vulnerability to economic changes."

The following table compares the definitions used by NRSROs for the AAA, BBB, and B categories:

	AAA	BBB	В
A.M. Best	Exceptional - Assigned to an issuer where, in our opinion, the issuer has an exceptional ability to meet the terms of its obligations.	Good - Assigned to an issuer where, in our opinion, the issuer has a good ability to meet the terms of its obligations; however, the issuer is more susceptible to changes in economic or other conditions.	Marginal - Assigned to an issuer where, in our opinion, the issuer has marginal credit characteristics, generally due to a modest margin of principal and interest payment protection and extreme vulnerability to economic changes.
DBRS	Highest credit quality. The capacity for the payment of financial obligations is exceptionally high and unlikely to be adversely affected by future events.	Adequate credit quality. The capacity for the payment of financial obligations is considered acceptable. May be vulnerable to future events.	Highly speculative credit quality. There is a high level of uncertainty as to the capacity to meet financial obligations.
EJR	An obligation rated "AAA" has the highest rating assigned by Egan Jones. The obligor's capacity to meet its financial commitment on the obligation is extremely strong.	An obligation rated "BBB" exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the	An obligation rated "B" is more vulnerable to non-payment than obligations rated "BB" but the obligor currently has the capacity to meet its financial commitment on the obligation. In the event of adverse business, financial, or economic

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Definitions of NRSROs' long-term rating categories are provided in Appendix A to this report.

		obligor to meet its financial commitment on the obligation.	conditions, the obligor is not likely to have the capacity to meet its financial commitment on the obligation.
Fitch	Highest credit quality - 'AAA' ratings denote the lowest expectation of credit risk. They are assigned only in cases of exceptionally strong capacity for payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.	Good credit quality - 'BBB' ratings indicate that expectations of credit risk are currently low. The capacity for payment of financial commitments is considered adequate but adverse business or economic conditions are more likely to impair this capacity.	Highly speculative - 'B' ratings indicate that material credit risk is present.
JCR	The highest level of capacity of the obligor to honor its financial commitment on the obligation.	An adequate level of capacity to honor the financial commitment on the obligation. However, this capacity is more likely to diminish in the future than in the cases of the higher rating categories.	A low level of capacity to honor the financial commitment on the obligation, having cause for concern.
KBRA	Determined to have almost no risk of loss due to credit-related events. Assigned only to the very highest quality obligors and obligations able to survive extremely challenging economic events.	Determined to be of medium quality with some risk of loss due to credit-related events. Such issuers and obligations may experience credit losses during stress environments.	Determined to be of very low quality with high risk of loss due to credit-related events. These issuers and obligations contain many fundamental shortcomings that create significant credit risk.
Moody's	Obligations rated Aaa are judged to be of the highest quality, with minimal credit risk.	Obligations rated Baa are subject to moderate credit risk. They are considered medium grade and as such may possess certain speculative characteristics.	Obligations rated B are considered speculative and are subject to high credit risk.
Morningstar	A rating of 'AAA' is the highest letter-grade rating assigned by Morningstar. Securities rated 'AAA' have an extremely strong ability to make timely interest payments and ultimate principal payments on or prior to a rated final distribution date.	A rating of 'BBB' indicates the securities should be able to meet their obligation to make timely payments of interest and ultimate payment of principal on or prior to a rated final distribution date, but that ability could be impacted by adverse changes in circumstances or conditions, such as adverse business or economic conditions.	A rating of 'B' indicates a default has not yet occurred but the securities are vulnerable to a challenging or changes in environment, conditions or circumstances. Securities rated 'B' are more vulnerable to nonpayment of timely interest and ultimate payment of principal on or prior to a rated final distribution date than higher rated securities.
S&P	An obligor rated 'AAA' has extremely strong capacity to meet its financial commitments. 'AAA' is the highest issuer credit rating assigned by Standard & Poor's.	An obligor rated 'BBB' has adequate capacity to meet its financial commitments. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitments.	An obligor rated 'B' is more vulnerable than the obligors rated 'BB', but the obligor currently has the capacity to meet its financial commitments. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitments.

NRSROs also may indicate, through issuing "rating outlooks" or "rating trends," that the rating of an obligor or issuer is at a higher than usual risk of change. The outlook may be described using terms such as "positive," "stable," "negative," or "developing." To indicate the potential for a more immediate rating change, the NRSRO may issue a "rating watch" or "credit watch," or the rating may be placed on a "watchlist" or "under review." For example, Moody's states that it "supplements its long-term ratings with additional credit signals that provide information on our developing views on credit risk." Moody's further states that it "may assign an Outlook (Positive, Negative, Stable) to a rated obligation" to indicate its view "regarding the likely direction of an issuer's rating over the medium term" and that "a rating will be placed on Watchlist to indicate that the rating is on review in the short term for upgrade, downgrade, or occasionally with 'direction uncertain."

NRSROs use a separate rating scale for short-term obligations. With the exception of S&P and EJR, each NRSRO has a unique short-term rating scale. The following table compares the rating scales used by the eight NRSROs that issue ratings on short-term obligations.⁵⁷

A.M. Best	DBRS	EJR	Fitch	JCR	KBRA	Moody's	S&P
AMB-1	R-1	A-1	F1	J-1	K1	P-1	A-1
AMB-2	R-2	A-2	F2	J-2	K2	P-2	A-2
AMB-3	R-3	A-3	F3	J-3	K3	P-3	A-3
AMB-4	R-4	В	В	NJ	В	NP	В
D	R-5	B-1	C		C		B-1
	D	B-2	RD		D		B-2
		B-3	D				B-3
		C					C
		D					D

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See Moody's letter.

Source: Internet websites of the NRSROs. The highest category for A.M. Best, EJR, Fitch, JCR, KBRA, and S&P can be modified with a plus sign. DBRS's R-1 and R-2 categories can be modified by the terms "high," "middle," and "low." Morningstar does not issue ratings on short-term obligations.

In addition to rating scales for long-term and short-term obligations, NRSROs also publish a variety of other types of credit ratings and assessments using various scales and measures. Each of the three largest NRSROs has dozens of rating scales. For example, Fitch, among other rating scales, has rating scales for bank ratings (A, B, C, D, E, and F); international fund volatility ratings (V-1. V-2, V-3, V-4, V-5, V-6, and V-NR); short-term insurer financial strength ratings (F1, F2, F3, B, and C); and asset management ratings (M1 through M5). Fitch also publishes Structured Finance Loss Severity Ratings (LS-1 through LS-5), which provide "an assessment of the relative loss severity of an individual tranche within a structured finance transaction, in the event that the tranche experiences a default." These ratings are assigned to tranches in the B category and above. ⁵⁸

Moody's, among other rating scales, has rating scales for short-term municipal obligations (MIG1, MIG 2, MIG 3, and SG), speculative grade liquidity ratings (SGL-1 through SGL-4), bank financial strength ratings (A, B, C, D, and E), national scale short-term ratings (for example, for Brazil: BR-1 through BR-4), mutual fund market risk ratings (MR1 through MR5), and hedge fund operational quality ratings (OQ1 through OQ5). Moody's also publishes loss given default assessments, which are "opinions about expected loss given default on fixed income obligations expressed as a percent of principal and accrued interest at the resolution of the default." The highest such assessment is "LGD1," which represents a loss range of between 0 and 10%. The lowest assessment is "LGD6," which represents a loss range of between 90% and 100%. ⁵⁹

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See Exhibit 1 to Fitch's latest Form NRSRO.

See Exhibit 1 to Moody's latest Form NRSRO.

S&P, among other rating scales, has structured finance servicer evaluations (Strong, Above Average, Average, Below Average, Weak), fund volatility ratings (S1 through S6), short-term insurer financial strength ratings (A-1, A-2, A-3, B, C, and R), bank fundamental strength ratings (A, B, C, D, E, and NR), and national short-term ratings (for example, for Mexico: mxA-1, mxA-2, mxA-3, mxB, mxC, and mxD).⁶⁰

Differences in rating symbols, scales, and definitions among NRSROs may reflect differences in approaches to analyzing credit risk. For example, Moody's states that its credit ratings "address the probability that a financial obligation will not be honored as promised (i.e., probability of default, or "PD"), and any financial loss suffered in the event of default." The firm further states that its "analysis of these two factors together forms the basis of [Moody's] expected loss ("EL") approach to credit risk." On the other hand, S&P states that it may focus more (although not exclusively) on likelihood of default. This difference is reflected in the definitions of Moody's and S&P's rating categories. Moody's lowest long-term corporate obligation credit rating is "C," which is defined as obligations that are "the lowest rated class of bonds and are typically in default, with little prospect for recovery of principal and interest." The next highest rating "Ca" is defined as obligations that are "highly speculative and are likely in, or very near, default, with some prospect of recovery of principal and interest." On the other hand, S&P's lowest rating is "D," which is defined as obligations "in payment default." The next highest rating - "C" – is defined as obligations that are "currently highly vulnerable to

See Exhibit 1 to S&P's latest Form NRSRO.

See Moody's letter.

See Moody's letter.

See S&P letter.

nonpayment."⁶⁴ Consequently, Moody's has two potential categories for assigning a credit rating to a defaulted corporate issuer to differentiate "some" prospect from "little" prospect of recovery of principal and interest. Empirical evidence suggests that differences in approaches to analyzing credit risk could result in different credit ratings assigned to the same obligation.⁶⁵

2. Discussion

A few commenters expressed some level of support for standardizing credit rating terminology. For example, the Mortgage Insurance Companies of America urged the Commission to "play a direct role in establishing standards and ensuring compliance with them for new [credit rating agency] methodology and symbology...." The Institutional Money Market Funds Association commented that although "variance in the symbologies used . . . should be retained," it does support "consistent levels of granularity" in ratings so that, for example, what constitutes the two highest rating categories is consistent across rating agencies (currently, Fitch and S&P use a "+" modifier in their highest category for short-term fixed income ratings, while Moody's does not). 67

In addition, in a comment in response to the Commission's general solicitation of comment on Title IX, Subtitle C of the Dodd-Frank Act, two commenters submitted a paper which states that rating agencies often change the meaning of their credit rating symbols and that

See Exhibit 1 to Moody's latest Form NRSRO and Exhibt 1 to S&P's latest Form NRSRO.

A 2010 study by Livingston, Wei, and Zhou compared the U.S. corporate bond ratings of Moody's and S&P and found that their ratings were different for 48% of the bonds examined. In most cases, however, where there was a difference, the ratings were within one notch and there were very few observations of differences that were more than two notches apart. On average, the ratings of the two NRSROs were within 0.14 notches of each other. The study included nearly 14,000 fixed rate U.S. domestic, nonfinancial public companies issued between 1983 and 2008. See Miles Livingston, Jie (Diana) Wei, & Lei Zhou, Moody's and S&P Ratings: Are They Equivalent? Conservative Ratings and Split Rated Bond Yields, 42 J. Money, Credit and Banking 1267 (2010).

See MICA letter.

See IMMFA letter.

they may be tempted to "manipulate the ratings scale to preserve the impression of accuracy." The authors stated that "a government authority such as the SEC, for example, should define a ten-level (C)redit (R)isk scale, say, CR1, CR2, . . . CR10 based on clearly spelled out risk parameters..." The paper further states that credit risk could be measured, for example, using the probability of default of the asset, or a combination of probability of default and loss given default.

Most commenters that addressed the issue, however, did not believe that standardizing credit rating terminology was feasible or desirable. Among the NRSRO commenters, there were no supporters of such standardization. Morningstar, for example, commented that standardized rating symbols would have the same meaning across credit rating agencies only if the rating agencies used standardized rating methodologies, including surveillance policies and procedures, and that standardizing rating methodologies could create disincentives for credit rating agencies to improve their methodologies. Similarly, A.M. Best commented that standardized terminology could reduce transparency and the quality of credit ratings and prevent the firm from providing "detailed and informative surveillance and reports." S&P commented that "because the nature of their opinions varies, rating agencies should be encouraged to adopt distinctive symbols."

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See Arturo Cifuentes & Jose Miguel Cruz, White Paper on Rating Agency Reform, Department of Industrial Engineering, University of Chile, May 2010. The comment letter containing this paper is available on the Commission's Internet website at http://www.sec.gov/comments/df-title-ix/credit-rating-agencies/creditratingagencies-5.pdf.

⁶⁹ Id.

Id.; see also the discussion below concerning the Commission's proposal to prescribe a standard definition of "default" for purposes of the credit rating performance measurement statistics that NRSROs must disclose in Exhibit 1 to Form NRSRO.

⁷¹ See Morningstar letter.

See A.M. Best letter.

See S&P letter.

The majority of non-NRSRO commenters that addressed the issue also did not support standardization of credit rating terminology. For example, the American Securitization Forum commented that "different credit ratings terminology appropriately reflects the differences that exist among quantitative models and qualitative assessments" among credit rating agencies and that "standardization of ratings terminology could suggest to investors that there is a uniformity of views that is neither intended nor desired . . . uniformity would compromise the quality, accuracy and usefulness of credit ratings." The Commercial Real Estate Finance Council commented that "any comparisons of ratings across rating agencies may be more easily facilitated for investors through transparency in reports accompanying ratings."

Multiple-Markets commented that although it would be "beneficial for NRSROs to use comparable symbol sets so their ratings may be used in conjunction with other NRSROs," it does not believe that "NRSROs should be mandated by legislation or Commission rulemaking to use identical symbol sets." Instead, it believes that "[i]t should be voluntary for NRSROs to either adopt comparable symbol sets or map their ratings to a standardized scale."

In sum, the staff found that although NRSROs use similar rating scales and symbols to denote long-term credit ratings, the number of rating scales and the rating symbols used vary widely among NRSROs for other types of credit ratings. Standardizing credit rating terminology may facilitate comparing credit ratings across rating agencies and may result in fewer opportunities for manipulating credit rating scales to give the impression of accuracy.

See ASF letter.

⁷⁵ <u>See</u> CREFC letter.

See M-M letter. Multiple-Markets stated in its comment letter that investors often use credit ratings from two or more NRSROs, so that an NRSRO that chooses a symbol set that does not compare to other NRSROs might "find the audience for its opinions diminished as the investor would have to map the nonstandard symbols to the scales of the dominant NRSROs."

⁷⁷ Id.

Requiring such standardization except for long term ratings, however, may not be feasible given the number and uniqueness of rating scales and differences in credit rating methodologies used by credit rating agencies. Further, requiring standardized credit rating terminology may reduce incentives for credit rating agencies to improve their credit rating methodologies and surveillance procedures. Consequently, the staff recommends that the Commission not take any further action at this time with respect to standardizing credit rating terminology, so that all credit rating agencies issue credit ratings using identical terms.⁷⁸

B. Is it feasible or desirable to standardize the market stress conditions under which ratings are evaluated?

1. Background

NRSROs typically assess an obligor's ability to withstand future economic or market stress and expect higher rated obligors to be able to withstand greater stress. For example, S&P states that it "uses a common set of general macro-economic stress scenarios as part of calibrating its criteria across different sections." S&P defines the scenarios broadly—by reference to gross domestic product, unemployment, and equity markets—and does not use those stress scenarios as part of its analysis of individual issuers and obligations. Obligors rated at Fitch's highest rating categories should be able to withstand a "Great Depression type scenario," which it defines in terms of unemployment and gross domestic product levels. Morningstar "constantly reevaluates historical benchmarks to use to develop stress conditions and whether its stress levels should be updated for changes in market conditions or other changes warranted by

⁷⁸ See Pub. L. 111-203 § 939(h)(1).

See S&P letter.

⁸⁰ Id

See Fitch Ratings, Ratings Comparability (Jun. 21, 2010).

the analysis of historical or empirical data."⁸² Moody's takes into account "a common, central macro-economic scenario and alternative risk scenarios that are developed by [Moody's] Macro-Economic Board on a semi-annual basis."⁸³

There are a number of approaches that could be used to standardize market stresses. One approach might be to define particular macro-economic conditions that obligors would need to be able to withstand at different credit rating categories in the credit rating scale. These conditions might be developed in cooperation with economists and might include references to historical events and/or economic variables including, for example, unemployment levels and gross domestic product. Under this approach, each rating agency would consider how best to incorporate these conditions into its rating methodologies.

A second approach to standardizing market stresses might involve standardization of some or all of the particular stresses to be used in methodologies for specific asset classes. Standardized scenarios, however, could require the creation and mapping out of thousands of assumptions to achieve relevancy for each asset class, industry, geographic region, and rating category and notch within the rating scale.

2. Discussion

One commenter, the Mortgage Insurance Companies of America, pointed to "robust" stress tests for large banks "stipulated" by the Board of Governors of the Federal Reserve System in 2009 that addressed "both idiosyncratic and market factors." It recommended that this model be adopted for credit rating agencies. In particular, it commented that "[s]tandard

See Morningstar letter.

See Moody's letter.

See MICA letter.

⁸⁵ Id.

assumptions should be applied to all claims paying insurers, asset classes and issuers for factors germane to them (e.g., leverage ratios, loss reserves, etc.), with these idiosyncratic factors then judged in the broader context of market events such as various unemployment scenarios and house price appreciation or depreciation. ⁸⁶ The stress scenarios used to evaluate claims paying ability should be published and should reflect actual economic events. ⁸⁷ It further commented that the Commission "should play a strong role not only in stipulating ongoing stress tests that are updated as idiosyncratic and/or market factors change, but also ensure [credit rating agency] compliance with these criteria and provide useful disclosures of test results. ⁸⁸

Most commenters, however, were not in favor of standardizing market stress conditions. Among the NRSROs that addressed the issue, Morningstar, for example, commented that "[i]f stress levels were standardized, [credit rating agencies] would have no incentive to review and evaluate, and attempt to develop more accurate, stress levels" and that this "would reduce competition among [credit rating agencies]." ⁸⁹ Morningstar further commented that potential liability issues might render credit rating agencies unwilling to issue ratings based on standardized stresses with which they disagree and that stress conditions need to be constantly reevaluated. ⁹⁰ Moody's commented that "if [credit rating agencies] are required to use the same market stress scenarios, this could require them to base their ratings on factors that they do not consider most relevant to the rating in question." ⁹¹ S&P commented that its analysis uses projections or forecasts of sector-specific economic factors (for example, projected oil prices

<u>Id.</u>

^{87 &}lt;u>Id.</u>

⁸⁸ Id.

See Morningstar letter.

⁹⁰ Id.

See Moody's letter.

may be important for an energy producer or an airline, while population growth may be important for a school district), so that it would not be feasible or useful to develop standardized scenarios for the thousands of issuers and issues it rates. ⁹² In S&P's opinion, credit rating agencies may reasonably differ in how they associate industry- or sector-specific stress factors with macro-level stresses. ⁹³

Commenters that are not NRSROs also were opposed to standardization of market stress conditions. For example, the Commercial Real Estate Finance Council commented that "standardization of market stress conditions . . . would be unworkable and undesirable, particularly for commercial mortgages, because commercial real estate is so strongly influenced by local conditions" and that "[s]tandardizing market stress conditions (or other parts of rating methodology, for that matter) will prevent [credit rating agencies] from innovating, and will also make it difficult for [credit rating agencies] to improve the rating process."94 The American Securitization Forum commented that "uniformity of market stress conditions . . . may undermine the value that different [credit rating agencies] bring to credit ratings through the application of differing economic views and models."95 The Institutional Money Market Funds Association commented that the "establishment of minimum standards and the reliance upon such as the input into a rating decision would provide insufficient flexibility to the rating process, which would be unable to adapt and reflect changes in markets, instruments and criteria." The Mortgage Bankers Association commented that "standardizing economic and market stress conditions would have a homogenization effect on the proprietary ratings methodologies that

See S&P letter.

⁹³ Id.

⁹⁴ See CREFC letter.

⁹⁵ See ASF letter.

⁹⁶ See IMMFA letter.

NRSRO's [sic] use to compete and distinguish themselves against each other" and harmonization for market and stress conditions would prevent NRSROs from controlling key data inputs for their ratings models." Multiple-Markets commented that defining market stress conditions across different industry sectors and geographic regions would be "difficult and require constant monitoring and adjustment. Generally regulators would always be playing catch-up." 98

In sum, the staff found, based on the comments received, that standardizing market stress conditions under which ratings are evaluated may not allow the stress conditions to be tailored to a particular type of credit rating or to be reevaluated and updated as appropriate. Different stress conditions may be appropriate for different asset classes. Consequently, the staff recommends that the Commission not take any further action at this time with respect to standardizing the market stress conditions under which ratings are evaluated. ⁹⁹

C. Is it feasible or desirable to require a quantitative correspondence between credit ratings and a range of default probabilities and loss expectations under standardized conditions of economic stress?

1. Background

NRSROs' credit ratings are generally intended to indicate the relative degree of credit risk of an obligor or debt instrument rather than reflect a measure of a specific default probability or loss expectation. For example, according to S&P, "ratings should not be viewed as assurances of credit quality or exact measures of the likelihood of default." Similarly, Fitch states that "[c]redit ratings are opinions on relative credit quality and not a

See M-M letter.

^{97 &}lt;u>See MBA letter.</u>

⁹⁹ See Pub. L. 111-203 § 939(h)(1).

See, S&P, Guide to Credit Rating Essentials, http://img.en25.com/Web/StandardandPoors/SP_CreditRatingsGuide.pdf.

predictive measure of specific default probability."¹⁰¹ Fitch also commented that "[r]atings are intended to be rank orderings and reflect judgment, debate, and the output of a committee process, not precise mathematical equations. Moody's commented that its rating system is a "relative (or ordinal), rather than an absolute (or cardinal) ranking system." Rather than assigning a specific expected loss or expected loss range to an obligation, Moody's commented that its ratings communicate that it believes that a higher-rated security "likely has a lower expected loss" than a lower-rated one. ¹⁰⁴

However, one credit rating agency that is not registered as an NRSRO, Rapid Ratings, does seek to provide a correspondence between credit rating categories and specified default probabilities. Rapid Ratings publishes "Financial Health Ratings," which use 62 financial ratios, each of which is weighted according to "its significance in predicting success and failure in each global industry." Rapid Ratings states that its Financial Health Rating scores are highly correlated with probabilities of default, and it provides tables correlating Financial Health Ratios (as well as S&P and Moody's rating categories) with estimated probabilities of default. Health Ratings, 95-100, "Minimal Risk of non-payment and insolvency," is correlated with an

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See, Fitch, Definitions of Ratings and Other Forms of Opinion, http://www.fitchratings.com/web content/ratings/fitch ratings definitions and scales.pdf.

See Fitch letter.

See Moody's letter.

¹⁰⁴ Id

See Rapid Ratings, Financial Health Ratings, http://www.rapidratings.com/page.php?35.

See Rapid Ratings, Sample Financial Health Ratings: Ford Motor Co. (2011), http://www.rapidratings.com/images/custom/ford_motor_co,_11_07_2011.fhr.pdf. According to its tables, the estimated probabilities of default "for each rating notch represent a seventeen year average (1991-2007) and may be adjusted by Rapid Ratings customers to reflect temporal assumptions." Rapid Ratings states that "While we are confident that there is a reasonable degree of accuracy across the rating levels that we have aligned, the approach is not scientific and it could be argued that there are other similar or proximate alignments that might also be acceptable."

estimated probability of default of .0006%, an S&P rating of AAA, and a Moody's rating of Aaa. Its eighth highest category, 60-64, "Moderate Risk that can worsen with market conditions," is correlated with a .42% estimated probability of default, an S&P rating of BB+, and a Moody's rating of Ba1. Rapid Ratings uses a "proprietary quantitative system" to produce its ratings. ¹⁰⁷

In contrast to the approach used by Rapid Ratings, NRSROs generally use qualitative, as well as quantitative, analysis to derive their credit ratings, though the balance between the two can vary widely among NRSROs and among different classes of credit ratings within an NRSRO. As explained by S&P, analysts may consider qualitative factors because quantitative factors may not capture all risks. ¹⁰⁸

For example, S&P states that when it assigns ratings on corporate entities, the quantitative side of the analysis focuses primarily on financial analysis and may include an evaluation of an obligor's accounting principles and practices, as well as key financial indicators such as profitability, leverage, cash flow adequacy, liquidity, and financial flexibility; while on the qualitative side, the analytical focus includes country risk, industry characteristics, and entity-specific factors and also reflects S&P's meetings with corporate management, operating and financial plans, management policies, and other credit factors that have an impact on the rating. ¹⁰⁹

DBRS states that in forming an opinion of a corporation's credit risks, a DBRS analyst will prepare a business risk profile and a financial risk profile. ¹¹⁰ The business risk profile

See Rapid Ratings, http://www.rapidratings.com/page.php?23.

See, e.g., S&P, Principles of Credit Ratings (Feb.16, 2011).

See S&P, 2008 Corporate Criteria: Our Rating Process (Apr. 16, 2008).

<u>See</u> DBRS, General Rating Methodology for Non-Financial Companies (Nov. 2008), http://www.dbrs.com/research/224480/general-rating-methodology-for-non-financial-companies-archived.pdf.

includes a qualitative analysis of the effectiveness of the firm's management team, the competitive environment of its industry, the regulatory environment, and the effectiveness of the firm's corporate governance. The financial risk profile is a quantitative analysis that focuses on earnings, cash flow, and financial flexibility. Moody's ratings are determined by majority vote in rating committees, and Moody's states that its ratings ultimately are subjective opinions of the members of the committee. ¹¹¹

2. Discussion

The Mortgage Insurance Companies of America commented that credit rating agencies should be required to disclose the probabilities of default and losses given default "on which ratings are based under the stress scenarios used to determine creditworthiness ratings."

Further, one observer has suggested that for regulatory purposes, NRSRO ratings should link letter grades to specific estimates of the probability of default and expected loss given default. The author believes that regulators should require that all credit rating agencies wishing to qualify as NRSROs submit ratings for regulatory purposes that link letter grades to specific numerical estimates of the probability of default and the expected loss given default. He argues that regulators can specify regulatory limits and capital requirements that are linked to estimated probabilities of default and losses given default (which have concrete meaning), rather than vaguely defined letter grades. He further argues

See Moody's letter.

See MICA letter.

¹¹³ Charles W. Calomiris. The Deba

Charles W. Calomiris, <u>The Debasement of Ratings: What's Wrong and How We Can Fix It</u>, http://www0.gsb.columbia.edu/faculty/ccalomiris/RatingAgenciesE21.pdf.

that once ratings are objectified in this way, rating agencies could be held accountable for their ratings. 114

However, commenters generally were not in favor of requiring a quantitative correspondence between credit ratings and a range of default probabilities and loss expectations under standardized conditions of economic stress. For example, Morningstar commented that "although there is a correlation between a rating and the related quantitative modeling results of the probability of default, loss given default or other risks . . . that correlation may not be constant based on qualitative analysis of other factors."

Moody's commented that "any prescribed, quantitative correspondence between credit ratings and a range of default probabilities or expected losses would produce a simplistic measure" because "establishing a single quantitative interpretation is difficult." Moreover, Moody's commented that a single-dimensioned definition likely would result in greater ratings volatility, which could adversely affect the stability of the financial system. 117

S&P commented that "it is impractical to adopt a quantitative correspondence between credit ratings and default probabilities or expected losses" and assessing default probabilities conditional on specific scenarios is unrealistic in that it both connotes a false precision and marginalizes other dimensions of credit quality. S&P argued that other factors, such as payment priority, can significantly influence creditworthiness. 119

Id. at 10-11.

See Morningstar letter.

See Moody's letter.

¹¹⁷ Id.

See S&P letter.

¹¹⁹ Id.

Among commenters that are not NRSROs, the American Securitization Forum commented that "the application of different methodologies makes the standardization of quantitative correspondence between credit ratings and a range of default probabilities or loss expectations difficult, if not impossible." ¹²⁰

In sum, the staff found that one credit rating agency that is not registered as an NRSRO does provide a quantitative correspondence between credit rating categories and specified default probabilities. Requiring a quantitative correspondence between credit rating categories and a range of default probabilities and loss expectations could lead to greater accountability among credit rating agencies. However, NRSROs currently base their ratings on a range of qualitative, as well as quantitative, factors. Requiring a quantitative correspondence between credit rating categories and specified default probabilities could interfere with the methodologies NRSROs use to determine credit ratings by requiring them to give less affect to qualitative factors. For the reasons discussed above, the staff recommends that the Commission not take any further action at this time with respect to requiring a quantitative correspondence between credit ratings and a range of default probabilities and loss expectations under standardized conditions of economic stress. ¹²¹

D. Is it feasible or desirable to standardize credit rating terminology across asset classes so that named ratings correspond to a standard range of default probabilities and expected losses independent of asset class and issuing entity?

1. Background

NRSROs have stated that their credit ratings are, over time, generally comparable across asset classes. S&P, for example, commented that it "strives to make its rating symbols reflect a

See Pub. L. 111-203 § 939(h)(1).

See ASF letter.

broadly comparable view of creditworthiness wherever they appear . . . maximizing comparability makes [S&P]'s ratings more useful to investors" so that when S&P "assigns a given rating symbol to multiple issuers, it intends to connote roughly the same opinion of creditworthiness, irrespective of whether the issuers are a Canadian mining company, a Japanese financial institution, an Illinois school district, a British mortgage-backed security, or a sovereign nation." Similarly, Morningstar commented that "it is both feasible and desirable to have a single rating scale for structured finance products, corporate debt securities and municipal bonds." The Commercial Real Estate Finance Council commented that "[a]s investors presently understand credit ratings, a [credit rating agency's] particular rating is comparable across asset classes because the underlying assessment is the same regardless of asset class—that is, the likelihood that the bond obligations will be repaid in accordance with their terms."

However, the authors of a 2011 study state that for credit ratings issued between 1980 and 2010, credit ratings have not historically been comparable across asset classes and that "relative to traditional corporate bond ratings [for industrials and transportation firms], municipal and sovereign issuers have been rated more harshly and structured products have been rated more generously." The authors state that their results do not necessarily imply that ratings should be (or even could be) standardized across asset classes. However, they believe the results imply that reliance on ratings without standardization likely results in over-allocation of regulated funds in higher risk assets with under-allocation to less risky assets such as municipal bonds. The authors also noted that in their sample, "corporates rated AAA defaulted more

See S&P letter.

See Morningstar letter.

See CREFC letter (footnote omitted).

See Jess Cornaggia, Kimberly J. Cornaggia, & John Hund, <u>Credit Ratings across Asset Classes</u>: A≡A?
 (2011), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1909091.

frequently than municipal bonds with a single A rating."¹²⁶ Another commentator stated that as of December 2005, one large credit rating agency published data showing that the five-year probability of default for Baa-rated collateralized debt obligation tranches had a 20% five-year probability of default, while Baa-rated corporate debt had a 2% five-year probability of default. ¹²⁷

2. Discussion

Although they felt that such standardization was desirable, NRSROs generally were opposed to mandating the standardization of credit ratings across asset classes. S&P, for example, commented that "[w]hile each credit rating agency should pursue such comparability [across asset classes] in our view, we do not believe that mandating standardized ratings terminology across rating agencies furthers this goal . . . such standardization is not desirable and ultimately would reduce the usefulness of credit information provided to the market by rating agencies." ¹²⁸

Realpoint commented that although "it is both feasible and desirable to have a single rating scale for structured finance products, corporate debt securities and municipal bonds," with appropriate levels of disclosure of rating procedures so that investors can better understand the ratings and compare ratings of assets of different asset classes, "standardization is not the answer." ¹²⁹

¹²⁶ Id.

See Charles W. Calomiris, The Debasement of Ratings: What's Wrong and How We Can Fix It, at 4. See also Regulation no. 1060/2009 of the European Parliament and the Council of 16 September 2009 on credit rating agencies, Article 10.3 (requiring credit rating agencies located in the European Union to ensure that rating categories that are attributed to structured finance instruments are clearly differentiated using an additional symbol that distinguishes them from rating categories used for any other entities, financial instruments or financial obligations).

See S&P letter.

See Realpoint letter.

According to Fitch, "differences among sectors and structures make it impractical to aspire to achieve comparability on [loss given default] within all its long-term ratings" and "long-term ratings in different sectors and regions have and will demonstrate varying levels of transition, default, and recovery, depending on the historical period considered or the impact of systemic or idiosyncratic factors on a given rated entity." ¹³⁰

Commenters that are not NRSROs generally did not support mandated standardization across asset classes. The American Securitization Forum commented that requiring credit rating agencies "to apply a singular risk analysis to different asset classes may ignore or downplay asset-specific credit risks and may compromise the quality and accuracy of credit ratings applicable to an asset class." ¹³¹

Multiple-Markets commented that standardizing credit rating terminology across asset classes "might be difficult to do immediately since there may not be enough ratings history for every class of securities." Multiple-Markets also commented that any "cross asset standardization should be done by each NRSRO. It would be difficult to impose this by rule from the Commission." Finally, Multiple-Markets commented that because underwriters and issuers are continually developing new structures for fixed income securities, "it would be hard to fix and standardize the credit rating process." 134

The Mortgage Insurance Companies of America commented that there should be separate ratings for traditional mortgage-backed securities and structured finance instruments as "[f]ailure to differentiate ratings for structured finance would repeat past history, in which certain

See Fitch, Ratings Comparability (Jun. 21, 2010).

See ASF letter.

See M-M letter.

^{133 &}lt;u>Id.</u>

¹³⁴ Id.

structured instruments were represented as largely consisting of a single asset class or risk bucket, but in fact resulted in very different risk."¹³⁵

In sum, although most NRSROs appear to believe that it is desirable for a credit rating agency to have a standardized credit rating terminology that applies across at least some asset classes, the staff found that credit ratings historically have not been comparable across asset classes and it may not be feasible to attain this comparability. Consequently, the staff recommends that the Commission not take any further action at this time with respect to standardizing credit rating terminology across asset classes, so that named ratings correspond to a standard range of default probabilities and expected losses independent of asset class and issuing entity. 136 Further, it is important that users of credit ratings understand the limits to achieving comparability and that there are potential ways to assess whether the credit ratings of a particular credit rating agency are comparable across asset classes. For example, one potential way to assess comparability is to review the performance statistics of credit rating agencies. NRSROs are required to publish performance statistics for each class of credit rating for which they are registered with the Commission. 136 As discussed in more detail below, the Commission has taken steps to enhance this disclosure requirement to make the disclosures more comparable across NRSROs. 137

V. Alternatives to standardized approaches

One alternative to requiring standardization of rating symbols and definitions is for NRSROs to publish a mapping of their ratings to a standardized scale while also maintaining

136 <u>See</u> Pub. L. 111-203 § 939(h)(1).

See MICA letter.

See Exhibit 1 to Form NRSRO.

¹³⁷ See May 2011 Proposing Release, 76 FR 33433-33452.

their own rating scales. For example, Multiple-Markets believes that it is "desirable and often feasible to map the alphanumeric scales of most NRSROs to a standardized symbol set." ¹³⁸

Commenters identified transparency as another alternative to standardization. Moody's, for example, commented that transparency can help users of credit ratings to evaluate the performance of credit rating agencies and to determine whether a particular rating system or opinion is useful to their credit analysis, as well as to foster "competition based on quality in the [credit rating agency] industry without intruding upon the independence of [credit rating agency] decisions." The Institutional Money Market Funds Association commented that "[w]here differences exist in the rating process, the criteria considered or the quantitative definition of the rating, greater benefit can be provided to the market and the users of ratings via further enhancements to the transparency and clarity of the rating process." ¹⁴⁰ The Mortgage Bankers Association suggested that the Commission "compile and place in a publicly available website, a document that contains a side by side listing of NRSRO rating definitions and economic and market stress conditions in their ratings models [so that investors could] identify the NRSRO whose methodology and approach was most appropriate." The Commercial Real Estate Finance Council commented that "a more productive approach is to support initiatives designed to ensure that investors have the information they need to make informed investment decisions." ¹⁴² Similarly, the American Securitization Forum commented that "measures . . . that

1.

See M-M letter.

See Moody's letter.

See IMMFA letter.

See MBA letter.

See CREFC letter.

foster transparency of methodology used to derive credit ratings for ABS [asset-backed securities] will . . . better serve investors." 143

The Commission has recently proposed requiring that NRSROs provide enhanced public disclosure regarding their credit ratings, the performance of their credit ratings, and the methodologies they use to determine credit ratings. Many of these proposals were mandated by the Dodd-Frank Act. In particular, section 932(a)(8) of the Dodd-Frank Act added sections 15E(q), (r), and (s) to the Exchange Act. 144 These sections of the Exchange Act contain provisions designed to enhance transparency in the credit rating industry. 145 Under section 15E(q), the Commission must issue rules requiring an NRSRO to make clear, informative public disclosure of certain information on its initial credit ratings and any subsequent changes to the credit ratings, for the purpose of allowing users of credit ratings to evaluate the accuracy of ratings and compare the performance of ratings by different NRSROs. 146

In substantial part in response to this mandate, the Commission has proposed significantly enhancing the requirements for generating and disclosing this information by amending the instructions for Exhibit 1 to Form NRSRO and amending Rule 17g-1, Rule 17g-2, and Rule 17g-7. 147 Currently, the Commission's rules require NRSROs to publish two types of information about the performance of their credit ratings: (1) performance statistics; ¹⁴⁸ and (2)

¹⁴³ See ASF letter.

¹⁴⁴ See Pub. L. 111-203 § 932(a)(8).

¹⁴⁵ 15 U.S.C. 780-7(q), (r), and (s).

¹⁴⁶ See 15 U.S.C. 780-7(q).

¹⁴⁷ See May 2011 Proposing Release, 76 FR 33433-33452.

¹⁴⁸ See the instructions for Exhibit 1 to Form NRSRO. This type of disclosure shows the performance of an NRSRO's credit ratings in the aggregate. Performance statistics consist of the percent of rated obligors, securities, and money market instruments in each category of credit rating in the NRSRO's rating scale that, over a given time period, were downgraded or upgraded to another credit rating category or went into default. The goal is to provide a mechanism for users of credit ratings to compare the performance of credit ratings across NRSROs.

ratings histories.¹⁴⁹ The Commission has proposed to amend the instructions for Exhibit 1 to standardize the production and presentation of transition and default performance statistics, which would prescribe a standard definition of "default" for purposes of the credit rating performance measurement statistics that applicants for registration as NRSROs and NRSROs must disclose in Exhibit 1.¹⁵⁰ In addition, the Commission is proposing to add new paragraph (b) to Rule 17g-7, which would broaden the scope of credit ratings subject to the public disclosure requirements and would increase the scope of information that must be disclosed about a rating action.¹⁵¹

Section 15E(r), among other things, requires the Commission to issue rules requiring an NRSRO to have procedures to notify users of credit ratings of the version of a procedure or methodology used with respect to a particular credit rating, when a material change is made to a procedure or methodology, when a significant error is identified in a procedure or methodology that may result in credit rating actions, and of the likelihood of a material change resulting in a change in current credit ratings. To implement section 15E(r), the Commission has proposed paragraph (a) of new Rule 17g-8, which would, among other things, require an NRSRO to have

See 17 CFR 240.17g-2(d). This type of disclosure consists of the credit rating history of an obligor, security, or money market instrument rated by an NRSRO. A credit rating history includes the initial credit rating and all subsequent modifications to the credit rating (such as upgrades, downgrades, and placements on watch) and the dates of such actions. The goal is to allow users of credit ratings to compare how different NRSROs rated an individual obligor, security, or money market instrument and how and when those ratings were changed over time. The disclosure of ratings histories also is designed to provide "raw data" that can be used by third parties to generate independent performance statistics such as transition and default rates.

See May 2011 Proposing Release, 76 FR 33433-33445. Under the proposed definition, an obligor, security, or money market instrument would have to be classified as having gone into default if either or both of the following conditions are met: (1) The obligor failed to timely pay principal or interest due according to the terms of an obligation during the applicable period or the issuer of the security or money market instrument failed to timely pay principal or interest due according to the terms of the security or money market instrument during the applicable period; or (2) The applicant or NRSRO classified the obligor, security, or money market instrument as having gone into default using its own definition of "default" during the applicable period.

See May 2011 Proposing Release, 76 FR 33446-33451.

¹⁵² See 15 U.S.C. 780-7(r).

policies and procedures with respect to the procedures and methodologies the NRSRO uses to determine credit ratings that are reasonably designed to ensure that the NRSRO promptly publishes on an easily accessible portion of its website material changes to the procedures and methodologies, the reason for the changes, and the likelihood the changes will result in changes to any current ratings and significant errors identified in a procedure or methodology that may result in a change in current credit ratings; and that it discloses the version of a credit rating procedure or methodology, used with respect to a particular credit rating. ¹⁵³

Section 15E(s), among other things, requires the Commission to issue rules requiring an NRSRO to accompany the publication of each credit rating with a form that discloses information relating to the credit rating that is easy to use and helpful for users of credit ratings to understand the information contained in the report and is comparable across types of securities. 154 The form must contain specific types of qualitative and quantitative information. 155 In response, the Commission has proposed adding new paragraph (a) to Rule 17g-7, which would require an NRSRO when taking a rating action to publish a form containing information about the credit rating resulting from or subject to the rating action and any certification of a provider of third-party due diligence services received by the NRSRO that relates to the credit rating. 156

Finally, section 938(a) of the Dodd-Frank Act provides that the Commission shall require, by rule, each NRSRO to establish, maintain, and enforce written policies and procedures that: (1) assess the probability that an issuer of a security or money market instrument will

153 See May 2011 Proposing Release, 76 FR 33452-33455.

¹⁵⁴ See 15 U.S.C. 780-7(s).

Id.

¹⁵⁵

See May 2011 Proposing Release, 76 FR 33456-33457.

default, fail to make timely payments, or otherwise not make payments to investors in accordance with the terms of the security or money market instrument; (2) clearly define and disclose the meaning of any symbol used by the NRSRO to denote a credit rating; and (3) apply any symbol described in item (2) in a manner that is consistent for all types of securities and money market instruments for which the symbol is used. Section 938(b) of the Dodd-Frank Act provides that nothing in section 938 shall prohibit an NRSRO from using distinct sets of symbols to denote credit ratings for different types of securities or money market instruments. The Commission has proposed implementing section 938(a) of the Dodd-Frank Act by proposing paragraph (b) of new Rule 17g-8.

The staff believes that increasing transparency is more feasible and desirable than implementing the standardization that is the subject of this study. In this regard, the rulemaking initiatives described above in response to the Dodd-Frank Act are designed to increase transparency with respect to the performance of credit ratings and the methodologies used to determine credit ratings. Consequently, the staff believes that it is appropriate to focus the Commission's efforts and resources on these rulemaking initiatives under the Dodd-Frank Act, rather than pursuing the standardization items identified in section 939(h)(1) of the Dodd-Frank Act.

VI. Conclusion

Commenters, including NRSROs and other market participants, raised serious concerns about the feasibility and desirability of the standardization that is the subject of this study and, in

¹⁵⁷ See Pub. L. 111-203 § 938(a).

¹⁵⁸ See Pub. L. 111-203 § 938(b).

¹⁵⁹ <u>See May 2011 Proposing Release, 76 FR 33480-81.</u>

particular, most did not feel that such standardization would lead to higher levels of accountability, transparency, and competition in the credit rating agency industry. Even if such a regime were feasible and desirable, however, commenters questioned whether the Commission would have the authority to implement it.

For all the reasons discussed above, the staff recommends that the Commission not take any further action at this time with respect to: (1) standardizing credit rating terminology, so that all credit rating agencies issue credit ratings using identical terms; (2) standardizing the market stress conditions under which ratings are evaluated; (3) requiring a quantitative correspondence between credit ratings and a range of default probabilities and loss expectations under standardized conditions of economic stress; and (4) standardizing credit rating terminology across asset classes, so that named ratings correspond to a standard range of default probabilities and expected losses independent of asset class and issuing entity. ¹⁶⁰ In addition, given the difficulties commenters identified with respect to implementing the standardization that is the subject of the study, the staff believes it would be more efficient to focus on the rulemaking initiatives mandated under the Dodd-Frank Act, which, among other things, are designed to promote transparency with respect to the performance of credit ratings and the methodologies used to determine credit ratings.

160

See Pub. L. 111-203 § 939(h)(1).

Appendix A – NRSRO Long-term Rating Category Definitions.

Source: Exhibit 1 to Form NRSRO

 \mathbf{C}

A.M. Best

A.M. Best's long-term rating scale for insurance company issuer credit ratings (A.M. Best has another scale for non-insurance company ratings) is an independent opinion of an issuer/entity's ability to meet its ongoing senior financial obligations. Ratings from "aa" to "ccc" may be enhanced with a "+" (plus) or "-" (minus) to indicate whether credit quality is near the top or bottom of a category.

contoni of a category.	
aaa	Exceptional - Assigned to an issuer where, in our opinion, the issuer has
	an exceptional ability to meet the terms of its obligations.
aa	Superior - Assigned to an issuer where, in our opinion, the issuer has a
	superior ability to meet the terms of its obligations.
a	Excellent - Assigned to an issuer where, in our opinion, the issuer has an
	excellent ability to meet the terms of its obligations.
bbb	Good - Assigned to an issuer where, in our opinion, the issuer has a good
	ability to meet the terms of its obligations; however, the issuer is more
	susceptible to changes in economic or other conditions.
bb	Fair - Assigned to an issuer where, in our opinion, the issuer has fair credit
	characteristics, generally due to a moderate margin of principal and
	interest payment protection and vulnerability to economic changes.
b	Marginal - Assigned to an issuer where, in our opinion, the issuer has
	marginal credit characteristics, generally due to a modest margin of
	principal and interest payment protection and extreme vulnerability to
	economic changes.
ccc, cc	Weak - Assigned to an issuer where, in our opinion, the issuer has weak
	credit characteristics, generally due to a minimal margin of principal and
	interest payment protection and/or limited ability to withstand adverse

Poor - Assigned to an issuer where, in our opinion, the issuer has poor

credit characteristics, generally due to a minimal margin of principal and

changes in economic or other conditions.

interest payment protection and/or limited ability to withstand adverse changes in economic or other conditions.

rs (used for the long term issuer credit ratings scale only)

Regulatory Supervision/Liquidation - Assigned to an issuer where, in our opinion, the issuer has been placed under a significant form of regulatory supervision, control or restraint - including cease and desist orders, conservatorship or rehabilitation, but not liquidation - that prevents conduct of normal, ongoing insurance operations.

D (used in the corporate and the ABS scales)

Assigned to issues in default on payment of principal, interest or other terms and conditions, or when a bankruptcy petition or similar action has been filed.

DBRS

The DBRS long-term rating scale provides an opinion on the risk that an issuer will fail to satisfy its financial obligations in accordance with the terms under which an obligation has been issued. All rating categories other than AAA and D also contain subcategories "(high)" and "(low)". The absence of either a "(high)" or "(low)" designation indicates the rating is in the middle of the category.

AAA	Highest credit quality. The capacity for the payment of financial
	obligations is exceptionally high and unlikely to be adversely affected by
	future events.
AA	Superior credit quality. The capacity for the payment of financial
	obligations is considered high. Credit quality differs from AAA only to a
	small degree. Unlikely to be significantly vulnerable to future events.
A	Good credit quality. The capacity for the payment of financial obligations
	is substantial, but of lesser credit quality than AA. May be vulnerable to
	future events, but qualifying negative factors are considered manageable.
BBB	Adequate credit quality. The capacity for the payment of financial

obligations is considered acceptable. May be vulnerable to future events.

BB Speculative, non investment-grade credit quality. The capacity for the

payment of financial obligations is uncertain. Vulnerable to future events.

B Highly speculative credit quality. There is a high level of uncertainty as to

the capacity to meet financial obligations.

CCC / CC / C Very highly speculative credit quality. In danger of defaulting on financial

obligations. There is little difference between these three categories,

although CC and C ratings are normally applied to obligations that are

seen as highly likely to default, or subordinated to obligations rated in the

CCC to B range. Obligations in respect of which default has not

technically taken place but is considered inevitable may be rated in the C

category.

D A financial obligation has not been met or it is clear that a financial

obligation will not be met in the near future or a debt instrument has been

subject to a distressed exchange. A downgrade to D may not immediately

follow an insolvency or restructuring filing as grace periods or extenuating

circumstances may exist.

EJR

An Egan Jones's credit rating is a current opinion of the creditworthiness of an obligor. Egan Jones bases its long term ratings on the following factors:

- 1. Likelihood of payment capacity and willingness of the obligor to meet its financial commitment in accordance with the terms of the obligation.
- 2. Nature and provisions of the obligation.
- 3. Protection afforded by, and relative position of, the obligation in the event of the bankruptcy, reorganization, or other arrangements under the laws of the bankruptcy and other laws affecting creditors.

The credit rating definitions are expressed in terms of default risk. Ratings from "AA" to "CCC" may be modified with a plus ("+") or minus ("-") sign to show relative standing within the rating category.

AAA	An obligation rated "AAA" has the highest rating assigned by Egan
	Jones. The obligor's capacity to meet its financial commitment on the
	obligation is extremely strong.
AA	An obligor rated "AA" differs from the highest rated obligations only by a
	small degree. The obligor's capacity to meet its financial commitment on
	the obligation is very strong.
A	An obligation rated "A" is somewhat more susceptible to the adverse
	affects of changes in the circumstances and economic conditions than
	obligations in higher rated categories. However, the obligor's capacity to
	meet its financial commitment is still strong.
BBB	An obligation rated "BBB" exhibits adequate protection parameters.
	However, adverse economic conditions or changing circumstances are
	more likely to lead to a weakened capacity of the obligor to meet its
	financial commitment on the obligation.
BB	An obligation rated "BB" is less vulnerable to non-payment than other
	speculative issues. However, it faces major ongoing uncertainties or
	exposure to adverse business, financial, or economic conditions that could
	lead to the obligor's inadequate capacity to meet its financial commitment.
В	An obligation rated "B" is more vulnerable to non-payment than
	obligations rated "BB" but the obligor currently has the capacity to meet
	its financial commitment on the obligation. In the event of adverse
	business, financial, or economic conditions, the obligor is not likely to
	have the capacity to meet its financial commitment on the obligation.
CCC	An obligation rated "CCC" is currently vulnerable to non-payment and is
	dependent upon favorable business, financial, and economic conditions for
	the obligor to meet its financial commitment on the obligation.
CC	An obligation rated "CC" is currently highly vulnerable to nonpayment.
C	A subordinate debt or preferred stock obligation rated "C" is currently
	highly vulnerable to nonpayment. A "C" rating may be used to cover a

situation where a bankruptcy petition has been filed or similar action taken, but payments in this obligation are being continued.

D

An obligation rated "D" is in payment default. The "D" rating category is used when payments on an obligation are not made on the date due even if the applicable grace period has not expired, unless Egan Jones believes such payments will be made during such grace period. The "D" rating will also be used upon the filing of a bankruptcy petition or the taking of similar actions.

Fitch

Ratings of individual securities or financial obligations of a corporate issuer address relative vulnerability to default on an ordinal scale. In addition, for financial obligations in corporate finance, a measure of recovery given default on that liability is also included in the rating assessment. The modifiers "+" or "-" may be appended to a rating to denote relative status within major rating categories. Such suffixes are not added to the 'AAA' obligation rating category, or to corporate finance obligation ratings in the categories below 'B'.

AAA Highest credit quality - 'AAA' ratings denote the lowest expectation of credit risk. They are assigned only in cases of exceptionally strong capacity for payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.

Very high credit quality - 'AA' ratings denote expectations of very low credit risk. They indicate very strong capacity for payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.

High credit quality - 'A' ratings denote expectations of low credit risk.

The capacity for payment of financial commitments is considered strong.

This capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings.

Good credit quality - 'BBB' ratings indicate that expectations of credit risk are currently low. The capacity for payment of financial commitments

AA

A

BBB

is considered adequate but adverse business or economic conditions are more likely to impair this capacity.

BB Speculative - 'BB' ratings indicate an elevated vulnerability to credit risk,

particularly in the event of adverse changes in business or economic

conditions over time; however, business or financial alternatives may be

available to allow financial commitments to be met.

B Highly speculative - 'B' ratings indicate that material credit risk is present.

CCC Substantial credit risk - 'CCC' ratings indicate that substantial credit risk

is present.

CC Very high levels of credit risk - 'CC' ratings indicate very high levels of

credit risk.

C Exceptionally high levels of credit risk - 'C' indicates exceptionally high

levels of credit risk.

Defaulted obligations typically are not assigned 'D' ratings, but are instead rated in the 'B' to 'C' rating categories, depending upon their recovery prospects and other relevant characteristics.

This approach better aligns obligations that have comparable overall expected loss but varying vulnerability to default and loss.

JCR

JCR's long-term ratings are gradings that enable comparisons to be made of obligors' capacity to honor the financial commitments on obligations of more than one year as contracted. A plus (+) or minus (-) sign may be added to the rating symbols from 'AA' to 'B', to indicate relative standing within each of those rating categories.

AAA The highest level of capacity of the obligor to honor its financial

commitment on the obligation.

AA A very high level of capacity to honor the financial commitment on the

obligation.

A high level of capacity to honor the financial commitment on the

obligation.

BBB An adequate level of capacity to honor the financial commitment on the

obligation. However, this capacity is more likely to diminish in the future

than in the cases of the higher rating categories.

BB Although the level of capacity to honor the financial commitment on the

obligation is not considered problematic at present, this capacity may not

persist in the future.

B A low level of capacity to honor the financial commitment on the

obligation, having cause for concern.

CCC There are factors of uncertainty that the financial commitment on the

obligation will be honored, and a possibility of default.

CC A high default risk.

C A very high default risk.

D In default.

KBRA

Kroll Bond Rating Agency assigns credit ratings to issuers and their obligations using the same rating scale. In either case, KBRA's credit ratings are intended to reflect both the probability of default and severity of loss in the event of default, with greater emphasis on probability of default at higher rating categories. For obligations, the determination of expected loss severity is, among other things, a function of the seniority of the claim. Generally speaking, issuer-level ratings assume a loss severity consistent with a senior unsecured claim. KBRA appends an (sf) indicator to ratings on structured finance obligations. KBRA may append + or – modifiers to ratings in categories AA through CCC to indicate, respectively, upper and lower risk levels within the broader category.

AAA Determined to have almost no risk of loss due to credit-related events.

Assigned only to the very highest quality obligors and obligations able to

survive extremely challenging economic events.

AA Determined to have minimal risk of loss due to credit-related events. Such

obligors and obligations are deemed very high quality.

A	Determined to be of high quality with a small risk of loss due to credit-
	related events. Issuers and obligations in this category are expected to
	weather difficult times with low credit losses.
BBB	Determined to be of medium quality with some risk of loss due to credit-
	related events. Such issuers and obligations may experience credit losses
	during stress environments.
BB	Determined to be of low quality with moderate risk of loss due to credit-
	related events. Such issuers and obligations have fundamental weaknesses
	that create moderate credit risk.
В	Determined to be of very low quality with high risk of loss due to credit-
	related events. These issuers and obligations contain many fundamental
	shortcomings that create significant credit risk.
CCC	Determined to be at substantial risk of loss due to credit-related events, or
	currently in default with high recovery expectations.
CC	Determined to be near default or in default with average recovery
	expectations.
C	Determined to be near default or in default with low recovery
	expectations.
D	In default.

Moody's

Moody's long-term ratings are opinions of the relative credit risk of financial obligations with an original maturity of one year or more. They address the possibility that a financial obligation will not be honored as promised. Such ratings use Moody's Global Scale and reflect both the likelihood of default and any financial loss suffered in the event of default. Moody's appends numerical modifiers 1, 2, and 3 to each generic rating classification from Aa through Caa. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category; the

modifier 2 indicates a mid-range ranking; and the modifier 3 indicates a ranking in the lower end of that generic rating category.

Aaa Obligations rated Aaa are judged to be of the highest quality, with

minimal credit risk.

Aa Obligations rated Aa are judged to be of high quality and are subject to

very low credit risk.

A Obligations rated A are considered upper-medium grade and are subject to

low credit risk.

Baa Obligations rated Baa are subject to moderate credit risk. They are

considered medium grade and as such may possess certain speculative

characteristics.

Ba Obligations rated Ba are judged to have speculative elements and are

subject to substantial credit risk.

B Obligations rated B are considered speculative and are subject to high

credit risk.

Caa Obligations rated Caa are judged to be of poor standing and are subject to

very high credit risk.

Ca Obligations rated Ca are highly speculative and are likely in, or very near,

default, with some prospect of recovery of principal and interest.

C Obligations rated C are the lowest rated class and are typically in default,

with little prospect for recovery of principal or interest.

Morningstar

A Morningstar letter-grade credit rating is only an opinion on the ability of the collateral to support timely interest payments and to repay principal by the rated final distribution date according to the terms of the transaction and subject to the various qualifications, caveats and considerations enumerated in the respective ratings letters, pre-sale report, deal report and/or Morningstar's website. Morningstar also provides finer gradations of the ratings ranging from 'AA' to 'CCC' by adding a plus or minus sign to indicate relative strength within the rating categories

AAA

A rating of 'AAA' is the highest letter-grade rating assigned by Morningstar.

Securities rated 'AAA' have an extremely strong ability to make timely interest payments and ultimate principal payments on or prior to a rated final distribution date.

AA

A rating of 'AA' indicates the securities have a very strong ability to make timely interest and ultimate principal payments on or prior to a rated final distribution date.

A

A rating of 'A' indicates the securities have a strong ability to make timely interest and ultimate principal payments on or prior to a rated final distribution date, but that ability could be influenced by adverse changes in circumstances or conditions, such as adverse business or economic conditions.

BBB

A rating of 'BBB' indicates the securities should be able to meet their obligation to make timely payments of interest and ultimate payment of principal on or prior to a rated final distribution date, but that ability could be impacted by adverse changes in circumstances or conditions, such as adverse business or economic conditions.

BB

A rating of 'BB' indicates the securities should be able to meet their obligation to make timely payments of interest and ultimate payment of principal on or prior to a rated final distribution date in the absence of various adverse circumstances or conditions such as adverse business or economic conditions. The vulnerability of securities rated 'BB' to the previously mentioned conditions is greater than higher rated securities.

В

A rating of 'B' indicates a default has not yet occurred but the securities are vulnerable to a challenging or changes in environment, conditions or circumstances. Securities rated 'B' are more vulnerable to nonpayment of timely interest and ultimate payment of principal on or prior to a rated final distribution date than higher rated securities.

CCC A rating of 'CCC' indicates a material likelihood of default in the long

term (generally, twenty-four months or longer). Forecasted or actual losses

may erode, but have not yet eliminated, credit support provided by

subordinate securities.

CC and C Beginning in 2009, no ratings are issued by Morningstar in the 'CC' or 'C'

category.

D A rating of 'D' indicates a default has occurred or there is a substantial

likelihood of default in the short term (generally, within twenty-four months). Forecasted losses are expected to reduce and/or actual losses

have reduced the principal balance of the 'D' rated security.

N.R. (non-rated) A 'N.R.' designation is issued by Morningstar for situations where

Morningstar (i) is not rating the security and (ii) in accordance with

Morningstar policies and procedures, determines to expressly provide a

N.R. designation.

S&P

A Standard & Poor's issuer credit rating is a forward-looking opinion about an obligor's overall financial capacity (its creditworthiness) to pay its financial obligations. This opinion focuses on the obligor's capacity and willingness to meet its financial commitments as they come due. The ratings from 'AA' to 'CCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

AAA An obligor rated 'AAA' has extremely strong capacity to meet its financial

commitments. 'AAA' is the highest issuer credit rating assigned by

Standard & Poor's.

AA An obligor rated 'AA' has very strong capacity to meet its financial

commitments. It differs from the highest-rated obligors only to a small

degree.

A An obligor rated 'A' has strong capacity to meet its financial commitments

but is somewhat more susceptible to the adverse effects of changes in

circumstances and economic conditions than obligors in higher-rated categories.

BBB

An obligor rated 'BBB' has adequate capacity to meet its financial commitments. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitments.

BB, B, CCC, and CC Obligors rated 'BB', 'B', 'CCC', and 'CC' are regarded as having significant speculative characteristics. 'BB' indicates the least degree of speculation and 'CC' the highest. While such obligors will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposures to adverse conditions.

BB

An obligor rated 'BB' is less vulnerable in the near term than other lowerrated obligors. However, it faces major ongoing uncertainties and exposure to adverse business, financial, or economic conditions which could lead to the obligor's inadequate capacity to meet its financial commitments.

В

An obligor rated 'B' is more vulnerable than the obligors rated 'BB', but the obligor currently has the capacity to meet its financial commitments. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitments.

CCC

An obligor rated 'CCC' is currently vulnerable, and is dependent upon favorable business, financial, and economic conditions to meet its financial commitments.

CC

An obligor rated 'CC' is currently highly vulnerable.

R

An obligor rated 'R' is under regulatory supervision owing to its financial condition. During the pendency of the regulatory supervision the regulators may have the power to favor one class of obligations over others or pay some obligations and not others. Please see Standard & Poor's issue credit ratings for a more detailed description of the effects of regulatory supervision on specific issues or classes of obligations.

SD and D

An obligor rated 'SD' (selective default) or 'D' has failed to pay one or more of its financial obligations (rated or unrated) when it came due. A 'D' rating is assigned when Standard & Poor's believes that the default will be a general default and that the obligor will fail to pay all or substantially all of its obligations as they come due. An 'SD' rating is assigned when Standard & Poor's believes that the obligor has selectively defaulted on a specific issue or class of obligations, excluding those that qualify as regulatory capital, but it will continue to meet its payment obligations on other issues or classes of obligations in a timely manner. A selective default includes the completion of a distressed exchange offer, whereby one or more financial obligation is either repurchased for an amount of cash or replaced by other instruments having a total value that is less than par.

NR

An issuer designated NR is not rated.

Appendix B—S&P's Economic Stress Scenarios

Source: S & P's Internet website at:

http://www.standardandpoors.com/prot/ratings/articles/en/us/?articleType=HTML&assetID=124 5319385017

'AAA' stress scenario. An issuer or obligation rated 'AAA' should be able to withstand an extreme level of stress and still meet its financial obligations. A historical example of such a scenario is the Great Depression in the U.S. In that episode, real GDP for the U.S. declined by 26.5% from 1929 through 1933. U.S. unemployment peaked at 24.9% in 1933 and was above 20% from 1932 through 1935. U.S. industrial production declined by 47% and home building dropped by 80% from 1929 through 1932. The stock market dropped by 85% from September 1929 to July 1932 (as measured by the Dow Jones Industrial Average). The U.S. experienced deflation of roughly 25%. Real GDP did not recover to its 1929 level until 1935. Nominal GDP did not recover until 1940. We consider conditions such as these to reflect extreme stress. The 'AAA' stress scenario envisions a widespread collapse of consumer confidence. The financial system suffers major dislocations. Economic decline propagates around the globe.

'AA' stress scenario. An issuer or obligation rated 'AA' should be able to withstand a severe level of stress and still meet its financial obligations. Such a scenario could include GDP declines of up to 15%, unemployment levels of up to 20%, and stock market declines of up to 70%.

'A' stress scenario. An issuer or obligation rated 'A' should be able to withstand a substantial level of stress and still meet its financial obligations. In such a scenario, GDP could decline by as much as 6% and unemployment could reach up to 15%. The stock market could drop by up to 60%.

'BBB' stress scenario. An issuer or obligation rated 'BBB' should be able to withstand a moderate level of stress and still meet its financial obligations. A GDP decline of as much as 3% and unemployment at 10% would be reflective of a moderate stress scenario. A drop in the stock market by up to 50% would similarly indicate moderate stress.

'BB' stress scenario. An issuer or obligation rated 'BB' should be able to withstand a modest level of stress and still meet its financial obligations. For example, GDP might decline by as much as 1% and unemployment might reach 8%. The stock market could drop by up to 25%.

'B' stress scenario. An issuer or obligation rated 'B' should be able to withstand a mild level of stress and still meet its financial obligations. Scenarios in which GDP is flat or declines by as much as 0.5% and unemployment is in the area of 6% or less could be viewed as mild stress scenarios. A flat stock market or a drop by up to 10% would be another indicator of such a scenario.