

## DATA REPORT

15 February 2018

Rate this Research



### TABLE OF CONTENTS

SPREADS	1
CDS MOVERS	2
ISSUANCE	4
EMERGING MARKET CREDIT SPREADS	5
MEDIAN CREDIT SPREADS	6
MEDIAN 5-YEAR CDS SPREADS	7

### CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

### ABOUT CAPITAL MARKETS RESEARCH

Analyses from Moody's Capital Markets Research, Inc. (CMR) focus on explaining signals from the credit and equity markets. The publications address whether market signals, in the opinion of the group's analysts, accurately reflect the risks and investment opportunities associated with issuers and sectors. CMR research thus complements the fundamentally-oriented research offered by Moody's Investors Service (MIS), the rating agency.

CMR is part of Moody's Analytics, which is one of the two operating businesses of Moody's Corporation. Moody's Analytics (including CMR) is legally and organizationally separated from Moody's Investors Service and operates on an arm's length basis from the ratings business. CMR does not provide investment advisory services or products.

[View the CMR FAQ](#)

[Contact the CMR team](#)

[Follow us on Twitter](#)

Cross-Sector

## Market Data Highlights

The latest market data from Weekly Market Outlook. Click [here](#) for access to the full WMO.

### SPREADS

Figure 1: 5-Year Median Spreads-Global Data (High Grade)

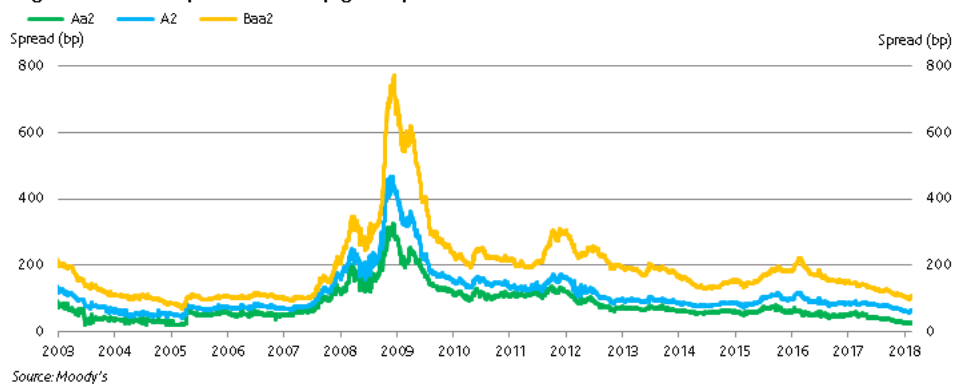
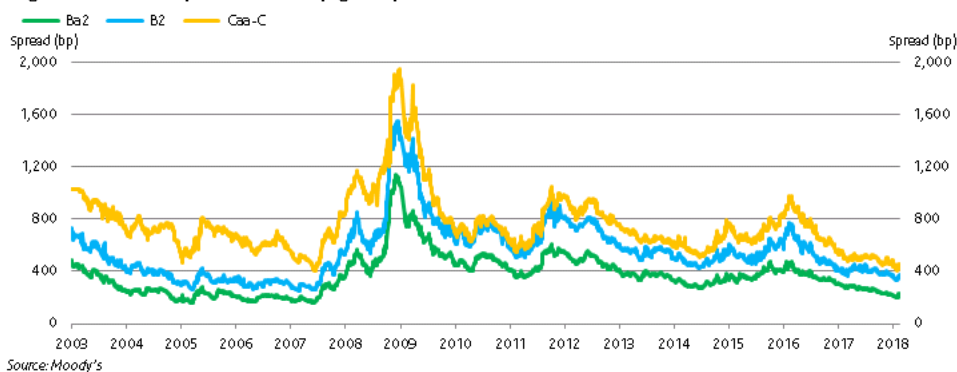


Figure 2: 5-Year Median Spreads-Global Data (High Yield)



Moody's Analytics markets and distributes all Moody's Capital Markets Research, Inc. materials. Moody's Capital Markets Research, Inc. is a subsidiary of Moody's Corporation. Moody's Analytics does not provide investment advisory services or products. For further detail, please see the last page.

## CDS MOVERS

Figure 3. CDS Movers - US (February 7, 2018 – February 14, 2018)

## CDS Implied Rating Rises

Issuer	CDS Implied Ratings		Senior Ratings
	Feb. 14	Feb. 7	
Kimberly-Clark Corporation	Aa2	A1	A2
Verizon Communications Inc.	Baa2	Baa3	Baa1
Ford Motor Credit Company LLC	Ba1	Ba2	Baa2
Oracle Corporation	A2	A3	A1
Coca-Cola Company (The)	Aa1	Aa2	Aa3
Wal-Mart Stores, Inc.	Aa1	Aa2	Aa2
Exxon Mobil Corporation	Aa3	A1	Aaa
Bank of New York Mellon Corporation (The)	A2	A3	A1
United Technologies Corporation	Aa3	A1	A3
Merck & Co., Inc.	Aa2	Aa3	A1

## CDS Implied Rating Declines

Issuer	CDS Implied Ratings		Senior Ratings
	Feb. 14	Feb. 7	
Colgate-Palmolive Company	A1	Aa2	Aa3
Expedia, Inc.	Ba2	Baa3	Ba1
Burlington Resources, Inc.	Baa1	A2	Baa1
Citigroup Inc.	Baa1	A3	Baa1
Bank of America Corporation	Baa1	A3	A3
Bank of America, N.A.	A3	A2	Aa3
John Deere Capital Corporation	A3	A2	A2
Comcast Corporation	A2	A1	A3
HCA, Inc.	Ba3	Ba2	B1
Procter & Gamble Company (The)	Aa2	Aa1	Aa3

## CDS Spread Increases

Issuer	Senior Ratings	CDS Spreads		
		Feb. 14	Feb. 7	Spread Diff
Nine West Holdings, Inc.	C	31,544	25,372	6,172
Windstream Services, LLC	B3	2,593	2,326	267
Neiman Marcus Group LTD LLC	Caa3	1,385	1,175	210
Sears Roebuck Acceptance Corp.	C	3,473	3,271	203
Sears Holdings Corp.	C	3,089	2,909	180
Talen Energy Supply, LLC	B1	758	676	83
Office Depot, Inc.	B2	652	569	83
Chesapeake Energy Corporation	Caa1	757	676	81
Pride International, Inc.	B3	484	414	70
Frontier Communications Corporation	B3	1,684	1,615	69

## CDS Spread Decreases

Issuer	Senior Ratings	CDS Spreads		
		Feb. 14	Feb. 7	Spread Diff
MBA Inc.	Ba3	994	1,251	-257
MBA Insurance Corporation	Caa2	993	1,160	-167
Unisys Corporation	B3	560	593	-33
AK Steel Corporation	B3	354	372	-19
Pitney Bowes Inc.	Ba1	344	359	-15
Nordstrom, Inc.	Baa1	276	289	-13
Delta Air Lines, Inc.	Baa3	116	125	-9
Macy's Retail Holdings, Inc.	Baa3	208	216	-8
United States Steel Corporation	B2	237	246	-8
Assured Guaranty Municipal Holdings Inc.	Baa2	102	110	-8

Source: Moody's, CMA

**Figure 4. CDS Movers - Europe (February 7, 2018 – February 14, 2018)****CDS Implied Rating Rises**

Issuer	CDS Implied Ratings		Senior Ratings
	Feb. 14	Feb. 7	
Eurobank Ergasias S.A.	Caa2	Ca	Caa3
Piraeus Bank S.A.	Caa2	Ca	Caa3
France, Government of	Aaa	Aa1	Aa2
Finland, Government of	Baa1	Baa2	Aa1
SEB	Aa2	Aa3	Aa3
Bankinter, S.A.	Baa1	Baa2	Baa2
Allied Irish Banks, p.l.c.	Baa3	Ba1	Ba1
National Grid Electricity Transmission plc	A3	Baa1	A3
Autoroutes du Sud de la France (ASF)	Baa2	Baa3	A3
Schneider Electric SE	Aa3	A1	Baa1

**CDS Implied Rating Declines**

Issuer	CDS Implied Ratings		Senior Ratings
	Feb. 14	Feb. 7	
Telia Company AB	A3	Aa3	Baa1
TDC A/S	Ba3	Baa3	Baa3
Banco Bilbao Vizcaya Argentaria, S.A.	Baa1	A2	Baa1
Banco Santander S.A. (Spain)	A2	Aa3	Baa1
Daimler AG	A3	A1	A2
Banco Popular Espanol, S.A.	A3	A1	Baa3
AXA	A2	Aa3	A2
Iberdrola International B.V.	A3	A1	Baa1
Bouygues S.A.	A1	Aa2	Baa1
Sunrise Communications Holdings S.A.	Ba2	Baa3	B1

**CDS Spread Increases**

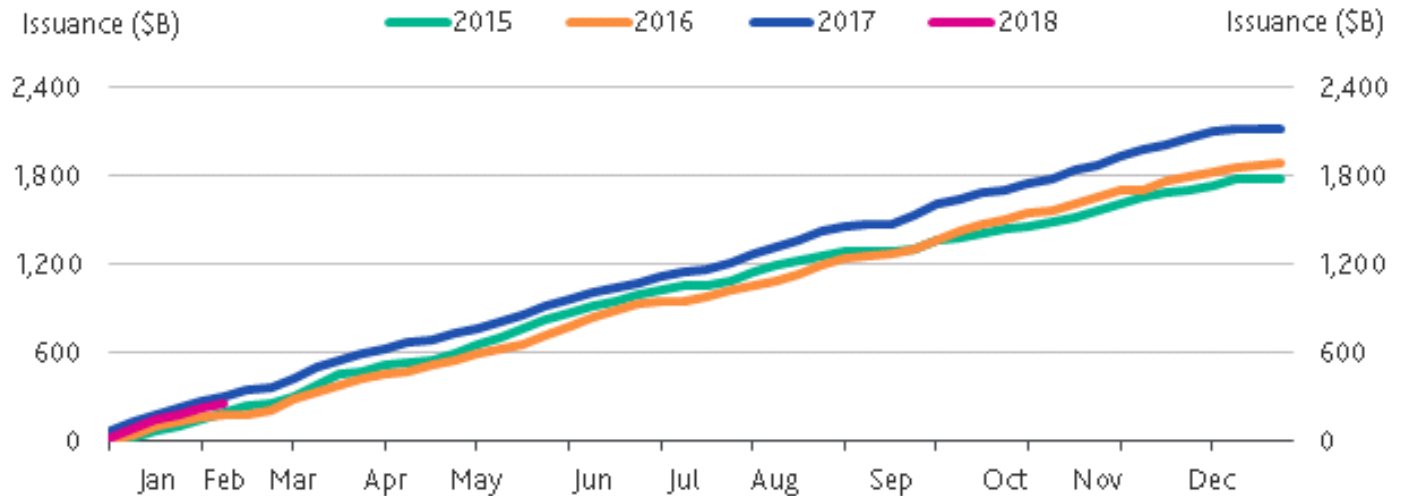
Issuer	Senior Ratings	CDS Spreads		
		Feb. 14	Feb. 7	Spread Diff
Astaldi S.p.A.	B3	2,206	2,012	193
Galapagos Holding S.A.	Caa3	1,024	943	81
TDC A/S	Baa3	137	69	68
Enscopl	B3	444	380	64
Greece, Government of	Caa2	336	281	55
PizzaExpress Financing 1 plc	Caa1	943	889	54
Matalan Finance plc	Caa1	632	583	49
Stena AB	B3	524	477	47
Sunrise Communications Holdings S.A.	B1	107	72	36
Vedanta Resources plc	B2	434	399	35

**CDS Spread Decreases**

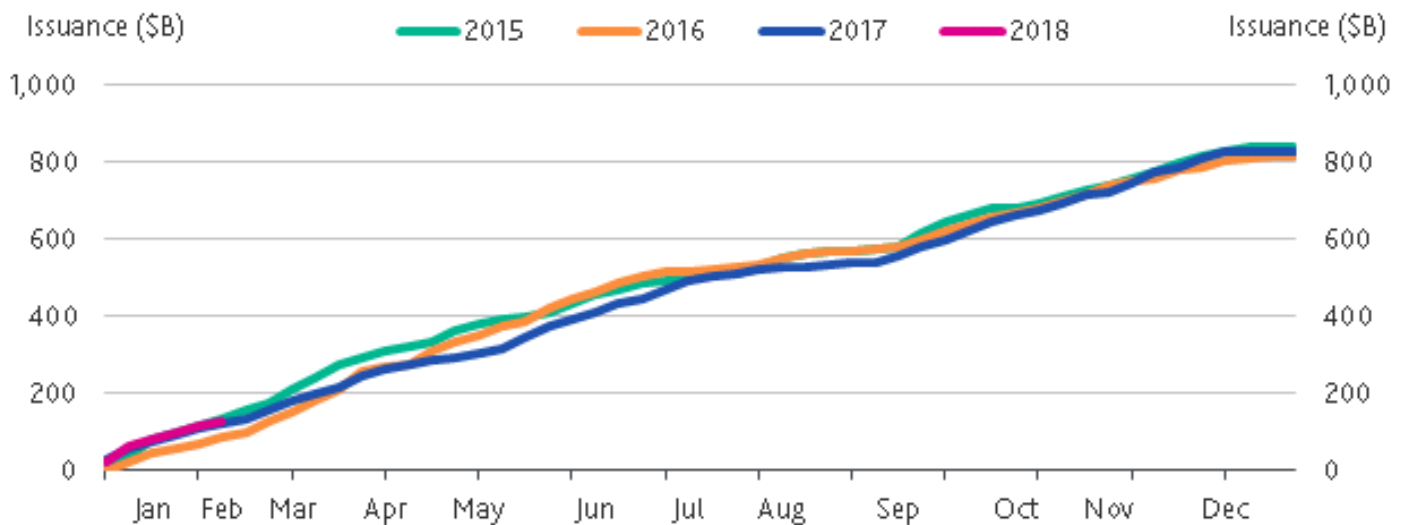
Issuer	Senior Ratings	CDS Spreads		
		Feb. 14	Feb. 7	Spread Diff
Eksportfinans ASA	Baa3	465	472	-6
FCE Bank plc	Baa2	94	98	-4
Permanent tsb p.l.c.	Ba3	202	205	-3
Dexia Credit Local	Baa3	106	109	-2
Old Mutual Plc	Ba1	28	30	-2
Natixis	A2	24	26	-1
Allied Irish Banks, p.l.c.	Ba1	78	80	-1
DZ BANK AG	Aa3	68	69	-1
Banca Monte dei Paschi di Siena S.p.A.	B3	121	122	-1
Alliander N.V.	Aa2	43	43	-1

Source: Moody's, CMA

## ISSUANCE

**Figure 5. Market Cumulative Issuance - Corporate & Financial Institutions: USD Denominated**

Source: Moody's / Dealogic

**Figure 6. Market Cumulative Issuance - Corporate & Financial Institutions: Euro Denominated**

Source: Moody's / Dealogic

**Figure 7. Issuance: Corporate & Financial Institutions**

	USD Denominated		
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	19.557	6.025	26.066
Year-to-Date	183.966	55.715	253.531

	Euro Denominated		
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	8.749	2.425	12.410
Year-to-Date	112.008	10.460	127.950

\* Difference represents issuance with pending ratings.

Source: Moody's/ Dealogic

## EMERGING MARKET CREDIT SPREADS

**Figure 8. Emerging Market Median OAS**

Emerging Market Duration	Median Spreads				Bond Counts			
	A	Baa	Ba	B	A	Baa	Ba	B
>=1 and <3	88	106	203	323	87	106	68	44
>=3 and <5	91	128	245	408	76	113	85	36
>=5 and <7	92	145	255	410	44	90	48	35
>=7	137	200	320	452	98	150	34	13

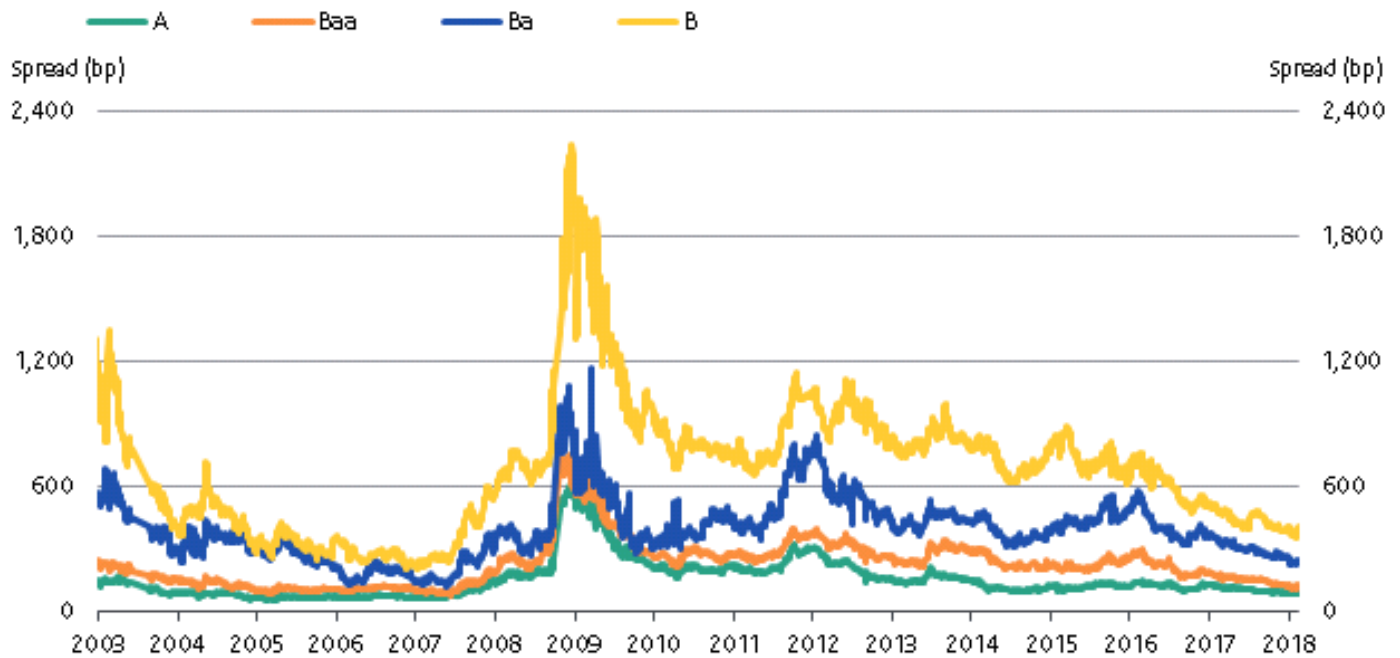
Emerging Market Sovereign Duration	Median Spreads				Bond Counts			
	A	Baa	Ba	B	A	Baa	Ba	B
>=1 and <3	52	76	117	268	18	18	18	10
>=3 and <5	61	106	164	307	18	23	20	8
>=5 and <7	66	102	195	353	17	29	21	21
>=7	116	169	320	452	59	60	30	13

Emerging Market Corporate Duration	Median Spreads				Bond Counts			
	A	Baa	Ba	B	A	Baa	Ba	B
>=1 and <3	95	112	222	402	69	88	50	34
>=3 and <5	96	132	277	416	58	90	65	28
>=5 and <7	104	168	264	440	27	61	27	14
>=7	145	222	351	—	39	90	4	—

Source: Moody's

Figure 9: Emerging Markets Median Credit Spreads (3-5 year duration)



Source: Moody's

## MEDIAN CREDIT SPREADS

Figure 10. Global Financial Institutions Median Credit Spreads

Duration	Median Spreads						
	Aaa	Aa	A	Baa	Ba	B	Caa
>=1 and <3	16	57	60	89	198	370	779
>=3 and <5	18	39	59	100	253	375	505
>=5 and <7	19	32	66	133	244	319	478
>=7	20	46	96	159	274	420	—

Duration	Debt Counts						
	Aaa	Aa	A	Baa	Ba	B	Caa
>=1 and <3	481	392	625	380	93	39	3
>=3 and <5	221	309	498	379	81	38	8
>=5 and <7	138	182	300	312	41	20	1
>=7	220	343	509	335	15	2	—

Duration	Issuer Counts						
	Aaa	Aa	A	Baa	Ba	B	Caa
>=1 and <3	42	89	193	195	59	27	3
>=3 and <5	39	80	177	199	50	32	7
>=5 and <7	31	66	118	167	32	17	1
>=7	37	93	152	155	12	2	—

Source: Moody's

**Figure 11. Global Corporate Median Credit Spreads**

Duration	Median Spreads						
	Aaa	Aa	A	Baa	Ba	B	Caa
>=1 and <3	23	39	49	73	170	356	497
>=3 and <5	34	40	50	84	222	361	481
>=5 and <7	47	55	64	105	238	345	518
>=7	88	93	110	155	249	407	622

Duration	Debt Counts						
	Aaa	Aa	A	Baa	Ba	B	Caa
>=1 and <3	22	111	480	716	218	153	45
>=3 and <5	18	124	474	782	326	302	79
>=5 and <7	14	102	363	650	261	194	30
>=7	52	310	1163	1366	239	37	16

Duration	Issuer Counts						
	Aaa	Aa	A	Baa	Ba	B	Caa
>=1 and <3	8	45	251	460	148	135	37
>=3 and <5	6	46	251	493	240	250	69
>=5 and <7	4	48	204	436	199	147	28
>=7	8	59	319	509	118	27	8

Source: Moody's

**MEDIAN 5-YEAR CDS SPREADS****Figure 12. Global Median CDS Spreads By Rating Category****Global Median Spreads by Fine Rating Category**

Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2
13	20	30	33	36	39	44	49	56
Baa3	Ba1	Ba2	Ba3	B1	B2	B3	Caa	
71	92	118	154	202	265	398	912	

**Global Median Spreads by Broad Rating Category**

Aaa	Aa	A	Baa	Ba	B	Caa
28	30	39	56	118	265	897

**Global Issuer Counts by Broad Rating Category**

Aaa	Aa	A	Baa	Ba	B	Caa
11	47	173	349	102	67	32

Source: Moody's, CMA

**Figure 13. Median CDS Spreads By Region**

Region	Median CDS Spreads						
	Aaa	Aa	A	Baa	Ba	B	Caa
North America	25	36	37	65	120	319	527
Europe	11	29	39	59	105	188	511
Asia Pacific (ex.Japan)	14	45	58	73	222	147	236
Japan	—	18	28	39	88	—	129

Region	Issuer Counts						
	Aaa	Aa	A	Baa	Ba	B	Caa
North America	5	15	98	213	65	41	16
Europe	6	31	69	127	28	23	12
Asia Pacific (ex.Japan)	3	14	32	37	4	3	2
Japan	—	6	29	15	4	—	1

Source: Moody's, CMA

**Figure 14. Global Median CDS Spreads by Sector**

Sector	Median CDS Spreads						
	Aaa	Aa	A	Baa	Ba	B	Caa
Corporates	25	23	36	59	120	244	440
Financials	11	39	46	71	154	147	663
Sovereigns	11	16	61	71	154	117	325
Banks	—	39	45	69	223	121	663

Sector	Issuer Counts						
	Aaa	Aa	A	Baa	Ba	B	Caa
Corporates	5	26	153	298	93	61	30
Financials	9	41	81	103	17	9	5
Sovereigns	9	7	7	9	4	1	1
Banks	—	27	44	34	8	5	3

Source: Moody's, CMA



**Figure 15. Global Financial Institutions Median CDS Spreads by Region**

Region	Median CDS Spreads						
	Aaa	Aa	A	Baa	Ba	B	Caa
North America	19	44	48	83	120	294	993
Europe	11	29	38	69	99	114	663
Asia Pacific (ex.Japan)	14	50	63	77	268	147	—
Japan	—	—	24	43	—	—	—

Region	Issuer Counts						
	Aaa	Aa	A	Baa	Ba	B	Caa
North America	1	7	27	50	5	3	1
Europe	6	24	30	32	5	3	3
Asia Pacific (ex.Japan)	2	9	12	14	1	3	—
Japan	—	—	9	3	—	—	—

Source: Moody's, CMA

**Figure 16. Global Corporates Median CDS Spreads by Region**

Region	Median CDS Spreads						
	Aaa	Aa	A	Baa	Ba	B	Caa
North America	28	25	34	61	123	322	509
Europe	—	22	41	57	107	198	355
Asia Pacific (ex.Japan)	19	40	55	68	175	—	236
Japan	—	18	28	32	88	—	129

Region	Issuer Counts						
	Aaa	Aa	A	Baa	Ba	B	Caa
North America	4	8	71	163	60	38	15
Europe	—	7	39	95	23	20	9
Asia Pacific (ex.Japan)	1	5	20	23	3	—	2
Japan	—	6	20	12	4	—	1

Source: Moody's, CMA

© 2018 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL, FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER. ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody's publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for appraisal and rating services rendered by it fees ranging from \$1,500 to approximately \$2,500,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at [www.moody.com](http://www.moody.com) under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors. It would be reckless and inappropriate for retail investors to use MOODY'S credit ratings or publications when making an investment decision. If in doubt you should contact your financial or other professional adviser.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for appraisal and rating services rendered by it fees ranging from JPY200,000 to approximately JPY350,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

For Publications Issued by Moody's Capital Markets Research, Inc. only:

The statements contained in this research report are based solely upon the opinions of Moody's Capital Markets Research, Inc. and the data and information available to the authors at the time of publication of this report. There is no assurance that any predicted results will actually occur. Past performance is no guarantee of future results.

The analysis in this report has not been made available to any issuer prior to publication.

When making an investment decision, investors should use additional sources of information and consult with their investment advisor. Investing in securities involves certain risks including possible fluctuations in investment return and loss of principal. Investing in bonds presents additional risks, including changes in interest rates and credit risk.

Moody's Capital Markets Research, Inc., is a subsidiary of MCO. Please note that Moody's Analytics, Inc., an affiliate of Moody's Capital Markets Research, Inc. and a subsidiary of MCO, provides a wide range of research and analytical products and services to corporations and participants in the financial markets. Customers of Moody's Analytics, Inc. may include companies mentioned in this report. Please be advised that a conflict may exist and that any investment decisions you make are your own responsibility. The Moody's Analytics logo is used on certain Moody's Capital Markets Research, Inc. products for marketing purposes only. Moody's Analytics, Inc. is a separate company from Moody's Capital Markets Research, Inc.

REPORT NUMBER 1112907

**Contacts**

Franklin Y Kim  
*Research Analyst*  
franklin.kim@moodys.com

212-553-4419

Njundu Sanneh  
*Assc Dir-Sr Research Analyst*  
njundu.sanneh@moodys.com

212-553-4036

**CLIENT SERVICES**

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454