

RatingsDirect®

評等準則 | 資產證券化 | CDOs :

有關CDO Evaluator Version 5.0的補充 假設：企業信用評等變動率矩陣

- 此處提供之中文版內容僅為參考之用。若中文內容與英文版原文有任何歧異，一切以英文版為準

Quantitative Analytics Group:

Cristina Polizu, New York (1) 212-438-2576; cristina_polizu@standardandpoors.com

Bob C Watson, New York (1) 212-438-2728; bob_watson@standardandpoors.com

Global Criteria Officer - Structured Credit:

Henry C Albulescu, New York (1) 212-438-2382; henry_albulescu@standardandpoors.com

目錄

準則範圍

準則修訂摘要

對既有評等之影響

適用日期

假設

相關研究

有關CDO Evaluator Version 5.0的補充假設：企業信用評等變動率矩陣

編按：本準則文章首次公布於2009年11月6日。我們在2014年6月19日完成對本準則文章的定期檢視後再版重登。本文係在補充2009年9月17日公布之「Update To Global Methodologies And Assumptions For Corporate Cash Flow And Synthetic CDOs」一文，並部分取代2005年12月19日公布之「CDO Evaluator Version 3.0: Technical Document」文。

1. 標準普爾評級服務 (Standard & Poor's Ratings Services) 在此闡明其在有關企業信用評等變動率矩陣方面所使用的假設，該評等變動率矩陣與 CDO Evaluator 5.0 中的企業違約表一致，而 CDO Evaluator 5.0 則為標準普爾在估計 CDO (抵押債務證券) 交易案在各個不同評等情境下之違約與損失情況的分析工具。標準普爾發布本文之目的，是希望能幫助市場人士更加瞭解標準普爾在有關企業信用評等變動率方面所使用的假設。本文係標準普爾先前公布之企業債務現金流量型與合成型 CDO 評等準則的補充說明，該評等準則一文已於 2009 年 9 月 17 日公布，標題為「Update To Global Methodologies And Assumptions For Corporate Cash Flow And Synthetic CDOs」。

準則範圍

2. 標準普爾在此闡明其在有關企業信用評等變動率矩陣方面所使用的假設，該評等變動率矩陣與 CDO Evaluator 中的企業違約表一致。在 CDO Evaluator 5.0 中的企業信用評等變動率矩陣，是以標準普爾 CreditPro 資料庫產生之固定單年期信用評等變動率矩陣 (credit rating transitions with a constant one-year matrix) 為基礎，再將單年期變動率矩陣進行不同次方的乘冪運算，以產生多年期信用評等變動率矩陣 (multi-year transition matrices)。這些企業信用評等變動率矩陣，主要與標準普爾的企業信用違約假設有所關聯。

準則修訂摘要

3. 本文將取代之之前公布之 CDO Evaluator 版本中的企業信用評等變動率矩陣，其中包括 2005 年 12 月 19 日公布的「CDO Evaluator Version 3.0: Technical Document」(參見該文 Appendix I 中標題為「Rated Firms – One-Year Transition Matrix」表格)，且本文亦為 2009 年 9 月 17 日公布之「Update To Global Methodologies And Assumptions For Corporate Cash Flow And Synthetic CDOs」一文的補充說明。

對既有評等之影響

4. 這些有關企業信用評等變動率矩陣的假設本身，並不會對接受標準普爾評等且目前流通在外之 CDO 交易案件的評等造成任何衝擊，因為該些假設與 CDO Evaluator 5.0 中的企業違約表是一致的。CDO Evaluator 5.0 是標準普爾於 2009 年 9 月 17 日公布之評等準則更新中的一部分 (參見「Update To Global Methodologies And Assumptions For Corporate Cash Flow And Synthetic CDOs」與「Application Of Supplemental Tests For Rating Global Corporate Cash Flow And Synthetic CDOs」)。

適用日期

5. 這些有關企業信用評等變動率矩陣之假設並無適用日期的問題，因為這些假設係與 CDO Evaluator 5.0 之企業違約表是一致的，而 CDO Evaluator 5.0 是標準普爾於 2009 年 9 月 17 日公布之評等準則更新中的一部分。

假設

6. 標準普爾推估違約曲線 (credit curves) 的方法，係先估計各評等等級在一年期間內的評等變動率，然後重複運用此單年期各評等等級評等變動率，來決定一特定期間內的違約曲線。

7. 標準普爾特別強調，在單年期企業信用評等變動率矩陣中使用的假設，僅為 CDO Evaluator 用以評估資產組合之違約率的眾多輸入值之一。

8. 下圖所示為產生 CDO Evaluator 5.0 之企業違約表所用的單年期企業信用評等變動率矩陣。標準普爾再藉由進行單年期評等變動率矩陣不同次方的乘冪運算，產生多年期信用評等變動率矩陣。CDO Evaluator 的企業違約率與該矩陣中評等變動後為「D」的變動率是相同的。

單年期企業信用評等變動率矩陣

變動前評等	變動後評等 (%)									
	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-
AAA	83.90908	7.43619	5.83899	1.03058	0.65326	0.41408	0.26247	0.16637	0.10546	0.06685
AA+	2.10573	79.88643	9.26959	3.58276	2.02101	1.22803	0.74620	0.45342	0.27551	0.16741
AA	0.55981	2.82662	77.04986	8.25431	4.48762	2.76443	1.64226	0.97561	0.57958	0.34431
AA-	0.16440	0.17173	4.72293	76.13671	9.78958	4.81235	1.58698	0.98199	0.60763	0.37599
A+	0.09582	0.11342	2.34813	6.92624	72.71506	8.91265	3.93861	1.89542	1.15709	0.70637
A	0.05584	0.06961	1.34412	2.23094	5.46059	72.33057	9.71102	4.84004	1.21277	1.04121
A-	0.03255	0.04272	0.70347	1.35847	2.26022	6.20868	71.74974	9.18879	4.78476	1.35379
BBB+	0.01897	0.02622	0.36818	0.72492	1.43423	2.20961	7.57600	71.25884	9.19012	2.80781
BBB	0.01106	0.01609	0.19269	0.48684	0.98001	1.58906	3.00070	8.29804	69.74281	7.22903
BBB-	0.00644	0.00987	0.10085	0.20643	0.42421	0.87987	1.48666	3.73253	7.11651	66.05498
BB+	0.00376	0.00606	0.05278	0.11016	0.23071	0.48719	0.85739	0.97344	2.73928	8.06848
BB	0.00219	0.00372	0.02762	0.05878	0.12547	0.26976	0.49448	0.61768	1.55405	3.81195
BB-	0.00128	0.00228	0.01446	0.03137	0.06824	0.14937	0.28518	0.39193	0.98165	1.61505
B+	0.00074	0.00140	0.00757	0.01674	0.03712	0.08271	0.16447	0.24869	0.62008	1.08927
B	0.00043	0.00086	0.00396	0.00894	0.02019	0.04580	0.09485	0.15780	0.39168	0.73466
B-	0.00025	0.00053	0.00208	0.00478	0.01099	0.02536	0.05471	0.10013	0.24741	0.49549
CCC+	0.00015	0.00033	0.00116	0.00258	0.00602	0.01408	0.03156	0.06354	0.15628	0.33418
CCC	0.00009	0.00020	0.00071	0.00157	0.00351	0.00788	0.01823	0.04032	0.09872	0.22539
CCC-	0.00005	0.00012	0.00043	0.00095	0.00216	0.00486	0.01069	0.02562	0.06237	0.15202
D	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

單年期企業信用評等變動率矩陣 (續)

變動前評等	變動後評等 (%)									
	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	D
AAA	0.04237	0.02686	0.01702	0.01079	0.00684	0.00434	0.00275	0.00174	0.00070	0.00325
AA+	0.10172	0.06181	0.03756	0.02282	0.01387	0.00843	0.00512	0.00311	0.00115	0.00832
AA	0.20454	0.12151	0.07219	0.04288	0.02548	0.01513	0.00899	0.00534	0.00188	0.01766
AA-	0.23265	0.14396	0.08908	0.05512	0.03411	0.02111	0.01306	0.00808	0.00309	0.04944
A+	0.43122	0.26324	0.16070	0.09810	0.05989	0.03656	0.02232	0.01363	0.00508	0.10044
A	0.60893	0.36612	0.22827	0.14180	0.07123	0.04166	0.02436	0.01425	0.00833	0.19834
A-	0.81249	0.48763	0.29265	0.17564	0.10541	0.06326	0.03797	0.02279	0.01368	0.30528
BBB+	1.67161	0.97528	0.56902	0.33199	0.19369	0.11301	0.06593	0.03847	0.02244	0.40367
BBB	3.43913	1.93969	1.20104	0.57500	0.40477	0.20638	0.12431	0.06489	0.03683	0.46162
BBB-	7.83998	5.00053	3.18173	1.64355	0.94899	0.43855	0.22654	0.11702	0.06045	0.52429
BB+	64.99758	9.97096	6.08714	2.03244	1.11101	0.60732	0.33199	0.18148	0.09920	1.05163
BB	7.98820	62.76125	9.31032	4.16344	3.60683	1.71250	0.86629	0.35321	0.16280	2.10945
BB-	4.37162	6.28087	61.38799	11.39847	5.69483	2.65041	1.23351	0.57408	0.26718	2.60024
B+	2.89744	3.46107	6.57030	60.90932	12.45962	4.68205	2.12622	0.96556	0.43848	3.22118
B	1.92037	2.33361	5.24315	9.32955	59.51441	6.86790	3.23778	1.52640	0.71960	7.84805
B-	1.27279	1.57343	3.41795	5.72992	9.60576	56.12862	5.33019	3.93653	1.18096	10.88213
CCC+	0.84358	1.06088	2.22812	3.70780	5.82244	9.14310	43.44783	11.29852	6.14924	15.68860
CCC	0.55911	0.71529	1.45248	2.39928	4.10785	7.03312	11.47353	39.42063	11.94710	20.49498
CCC-	0.37057	0.48228	0.94685	1.55255	3.10510	4.92314	10.50982	21.01960	31.52955	25.30127
D	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	100.00000

相關研究

- Update To Global Methodologies And Assumptions For Corporate Cash Flow And Synthetic CDOs, 2009 年 9 月 17 日公布;
- Application Of Supplemental Tests For Rating Global Corporate Cash Flow And Synthetic CDOs, 2009 年 9 月 17 日公布; 及
- CDO Evaluator Version 3.0: Technical Document, 2005 年 12 月 19 日公布。

9. 本文所敘述之評等準則為評等基本原則的特定應用，此類評等基本原則定義了信用風險與評等意見。評等準則的應用取決於發行人或債務發行本身獨有的特性，以及標準普爾評級服務對某一發行人或債務發行的信用風險與可能之結構風險所進行的評估。評等方法與假設可能會隨市場與經濟情勢、債務發行或發行人特定因素、以及出現可能會影響標準普爾評級服務信用判斷之新實證證據而有所改變。

Copyright © 2014 by Standard & Poor's Financial Services LLC. All rights reserved.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P). The Content shall not be used for any unlawful or unauthorized purposes. S&P and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED, OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. S&P's opinions, analyses, and rating acknowledgment decisions (described below) are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P does not act as a fiduciary or an investment advisor except where registered as such. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P reserves the right to assign, withdraw, or suspend such acknowledgement at any time and in its sole discretion. S&P Parties disclaim any duty whatsoever arising out of the assignment, withdrawal, or suspension of an acknowledgment as well as any liability for any damage alleged to have been suffered on account thereof.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain nonpublic information received in connection with each analytical process.

S&P may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P reserves the right to disseminate its opinions and analyses. S&P's public ratings and analyses are made available on its Web sites, www.standardandpoors.com (free of charge), and www.ratingsdirect.com and www.globalcreditportal.com (subscription) and www.spcapitaliq.com (subscription) and may be distributed through other means, including via S&P publications and third-party redistributors. Additional information about our ratings fees is available at www.standardandpoors.com/usratingsfees.