

Guidance | Criteria | Financial Institutions | General:

Applying The Risk-Adjusted Capital Framework Methodology

September 13, 2018

OVERVIEW AND SCOPE

This article is a guidance document related to our methodology for calculating globally consistent risk-adjusted capital (RAC) ratios for banks and other financial institutions ("Risk-Adjusted Capital Framework Methodology", published July 20, 2017). It provides additional information and guidance related to the analytical application of our risk-adjusted capital framework (RACF) methodology. It is intended to be read in conjunction with those criteria. According to the framework, we compare our measure of capital--total adjusted capital (TAC)--to the risks a firm takes, as measured by S&P Global Ratings' risk-weighted assets (RWAs). In applying certain aspects of the criteria, we use a number of parameters that can change over time depending on regulatory developments and other factors; these are outlined in the criteria. This article gives the current values of those parameters.

PRIMARY CREDIT ANALYSTS

Thierry Grunspan
New York
(1) 212-438-1441
thierry.grunspan
@spglobal.com

Mathieu Plait
Paris
(33) 1-4420-7364
mathieu.plait
@spglobal.com

SECONDARY CONTACTS

Matthew B Albrecht, CFA
New York
(1) 212-438-1867
matthew.albrecht
@spglobal.com

Michelle M Brennan
London
(44) 20-7176-7205
michelle.brennan
@spglobal.com

Deepali V Seth Chhabria
Mumbai
(91) 22-3342-4186
deepali.seth
@spglobal.com

Nico N DeLange
Sydney
(61) 2-9255-9887
nico.delange
@spglobal.com

KEY PUBLICATION INFORMATION

- Published as a guidance document on Sept. 13, 2018, to include an updated section on Banking Industry Country Risk Assessments (BICRAs) and economic risk proxies or estimates, as well as the updated parameters used in our risk-adjusted capital ratio calculations.
- Originally published on July 20, 2017 ("The Application Of Key Aspects Of The Risk-Adjusted Capital Framework Criteria").
- We may revise this guidance from time to time when regulatory developments and other factors (as outlined in the criteria) warrant re-evaluating some parameters we use in our risk-adjusted capital ratios calculations.

GUIDANCE

Equity Market Groups

In paragraph 125 of the RACF criteria, we detail the treatment of exposures to listed and unlisted securities, and outline the factors typically used to classify equity investments into four groups, by country. The four equity market groups are listed in table 1. We apply a different capital charge to each of the four groups, reflecting our view of the degree of riskiness (least risky=group 1, most risky=group 4).

Table 1

Equity Market Groups Classification By Country

Equity market group	Countries
Group 1	Switzerland, U.K., U.S.
Group 2	Australia, Belgium, Canada, Denmark, France, Germany, Israel, Italy, Japan, Mexico, Netherlands, New Zealand, Portugal, Singapore, South Africa, Spain, Sweden
Group 3	Austria, Bahrain, Chile, Colombia, Czech Republic, Finland, Hong Kong, Hungary, Ireland, Jamaica, Korea, Kuwait, Latvia, Lithuania, Luxembourg, Malaysia, Malta, Norway, Oman, Qatar, Saudi Arabia, Slovenia, Slovakia, Taiwan, Turkey, United Arab Emirates
Group 4	All other countries

Paragraph 151 of the RACF criteria details our approach to deriving the overall equity market group when we don't have the equity exposures broken down by country. We classify them by region or subregion and then calculate a GDP-weighted average of the equity market group for the countries included. Table 2 shows the classification of some of the main regions or groups of countries in the four equity market groups.

Table 2

Equity Market Groups Classification By Region Or Group Of Countries

Regions or group of countries	Equity bucket
Northern America	1
Europe or EU	2
Asia-Pacific; Europe, the Middle East, and Africa; Gulf Cooperation Council; Latin America; and World	3
Africa, Central America, and Caribbean	4

BICRA And Economic Risk Proxies Or Estimates

In paragraph 12 of the RACF criteria, we describe the steps we take where a full Banking Industry Country Risk Assessment (BICRA) is not available, to determine a country's BICRA proxy or estimate. Although we assign BICRAs to all countries where rated banks are domiciled, many rated banks have exposures to countries and banking systems that have no rated banks.

If the aggregate credit exposures to countries and banking systems on which no BICRA exists are

significant, or if we otherwise determine these exposures to be relevant to our analysis, we perform a standard, but simplified, BICRA analysis to produce a BICRA estimate for the purpose of computing RAC ratios. If rated banks' aggregate exposure is not significant, we use a BICRA proxy for the same purpose, based on our foreign currency sovereign rating on the country. Countries that have foreign currency sovereign ratings of 'B' and lower are assigned an economic risk score proxy of '10' and a BICRA group proxy of '10'. For a country that we rate at 'B+' or above, we derive the BICRA proxy as follows:

- First, we estimate the anchor for the country's banking system by deducting one notch from the foreign currency sovereign rating. The one-notch deduction is based on the average number of notches observed between anchors and the corresponding foreign currency sovereign ratings over multiple years for countries in which we have assigned BICRAs. The "anchor" concept is discussed in more detail in paragraphs 42 to 47 of "Banks: Rating Methodology And Assumptions" (the bank criteria).
- Table 2 in the bank criteria enables us to derive an anchor from the industry and economic risk scores. Here, we reverse that process, using the estimated anchor and the diagonal of table 2 to infer proxies for the economic and industry risk scores. We can then use those to derive the BICRA proxy. Thus, an estimated anchor of 'bb+' is associated with economic and industry risk proxies of '6', and thus a BICRA proxy of '6' (see chart 1 and table 3). The 'b' anchor does not appear on the diagonal, but we associate it with an economic risk proxy of '10', industry risk proxy of '9', and BICRA proxy of '10'.
- We set a floor for industry and economic risk proxies of '5', which in tune means that the BICRA proxy cannot be better than '5'.

Chart 1

Determining The Economic Risk And Industry Risk Proxy From The Estimated Anchor

		Economic risk									
		1	2	3	4	5	6	7	8	9	10
Industry risk	1	a	a	a-	bbb+	bbb+	bbb				
	2	a	a-	a-	bbb+	bbb	bbb	bbb-			
	3	a-	a-	bbb+	bbb+	bbb	bbb-	bbb-	bb+		
	4	bbb+	bbb+	bbb+	bbb	bbb	bbb-	bb+	bb	bb	
	5	bbb+	bbb	bbb	bbb	bbb-	bbb-	bb+	bb	bb-	b+
	6	bbb	bbb	bbb-	bbb-	bbb-	bb+	bb	bb	bb-	b+
	7		bbb-	bbb-	bb+	bb+	bb	bb	bb-	b+	b+
	8			bb+	bb	bb	bb	bb-	bb-	b+	b
	9				bb	bb-	bb-	b+	b+	b+	b
	10					b+	b+	b+	b	b	b-

← To the left of this line, we assign economic and industry risk proxies of '5'

Note: This chart is based on Table 2 in "Banks: Rating Methodology And Assumptions," published on Nov. 9, 2011. We associate an estimated anchor of 'b' with an economic risk proxy of '10' and an industry risk proxy of '9'. Copyright © 2018 by Standard & Poor's Financial Services LLC. All rights reserved.

Table 3

Determining The Proxy BICRA From The Economic And Industry Risk Proxies

Economic risk proxy	+	Industry risk proxy	→	BICRA group proxy
5		5		5
6		6		6
7		7		7
8		8		8
9		9		9
10		9		10
10		10		10

Copyright © 2018 by Standard & Poor's Financial Services LLC. All rights reserved.

In our monthly article "Banking Industry Country Risk Assessment Update", we publish a selected list of BICRA and economic risk estimates (for which we perform a standard, but simplified, BICRA analysis in order to compute RAC ratios). We also include a list of the updated BICRA and economic risk scores assigned to regions or group of countries (e.g., Latin America, Africa, or Asia-Pacific), calculated according to paragraph 151 of the RACF criteria.

RACF Risk Weights Associated With Certain Types Of Exposures In The U.S.

Paragraph 83 of the RACF criteria explains the weighting applied to the separate counterparty risks associated with securities lending, sale and repurchase agreements (repos), reverse repos, and Lombard (margin) loans. The risk weights reflect the collateralization we typically observe for these kinds of exposure in the U.S. (see table 4). We also apply risk weights and normalized losses for subprime mortgages in the U.S., as described in paragraphs 78 and 193 of the RACF criteria. Normalized losses for subprime mortgages in the U.S. are currently 130 basis points.

Table 4

RACF Risk Weights For Counterparty Risks Associated With Certain Types Of Exposures In The U.S.

Type of counterparty risk exposure	Risk weight (%)
U.S. securities lent	11
U.S. repos	3
U.S. reverse repos	8
U.S. margin loans	15
U.S. subprimes	189

RACF Risk Weights For Pass-Through Securities

Paragraph 101 of the RACF criteria currently applies only to the Federal National Mortgage Assn. (known as Fannie Mae) and Federal Home Loan Mortgage Corp. (known as Freddie Mac). The

current RACF risk weight applicable to pass-through securities issued by these entities in the U.S. is 20%.

RACF Credit Valuation Adjustment Charge In Jurisdictions With No Exempted Counterparties

The RACF criteria targets a one-year 99.9% confidence level (see paragraph 86 of the RACF criteria). Because the most commonly used regulatory credit valuation adjustment (CVA) approach (the "standardized CVA" approach) uses a one-year, 99% confidence level, we apply a multiplier of 1.3 to the CVA charge (see paragraphs 85-86). Thus, in jurisdictions where no counterparties have been exempted from computation of the regulatory CVA charge, the RACF CVA charge is 1.3x the regulatory CVA charge.

RACF CVA Charge In The EU

In the EU, sovereign and nonfinancial corporate entities are currently exempted from the regulatory CVA charge, but financial institutions are not.

The current value of the add-on described in paragraph 88 of the RACF criteria, which represents the incremental risks posed by the generally lower creditworthiness of exempted counterparties in the EU, compared with financial institutions--is 64%. For example, for an entity with financial institutions exposures representing 45% of total over-the-counter (OTC) derivatives exposures, the second multiplier described in paragraph 87 is: $(1 + (1 + 64\%) \times (1 - 45\%)) / 45\% = 3.0$. Overall, the RACF CVA charge for this entity would be $(1.3 \times 3.0) = 3.9$ x the regulatory charge.

When we do not get the breakdown of OTC derivatives exposures by types of counterparties, we currently assume that nonexempted counterparties represent 45% of total derivatives counterparties. In these cases, the default value of the multiplier applied to the regulatory CVA charge (as defined in paragraph 89) is 3.9.

RACF CVA Charge When The Regulatory CVA Charge Is Not Available

In paragraphs 92-94 of the RACF criteria, we define our approach for entities that meet the materiality thresholds, but for which the regulatory CVA charge is not available. We compute the RAC CVA charge as a percentage of derivatives receivables, with percentages calibrated on a set of representative banks. We use two percentages, one for entities in jurisdictions for which derivatives are presented on a gross basis (as in International Financial Reporting Standards [IFRS]) and one for entities in jurisdictions for which derivatives are presented on a net basis (as in U.S. generally accepted accounting principles [GAAP]). The current value of the two multipliers is:

- 11% of derivatives receivables for entities reporting under U.S. GAAP or equivalent, and
- 2% of derivatives receivables for entities reporting under IFRS or equivalent.

Computing The RAC Central Counterparties Charge, For Entities Reporting Under Basel III Standards Only, When Certain Information Is Not Available

For entities reporting under Basel III standards, we apply a RAC central counterparty (CCP) charge,

reflecting capital allocation to trade exposures, initial margins, and guarantee fund contributions, as part of the RACF criteria. When information on one or more of these three types of exposure is not available, paragraphs 66-67 in the RACF criteria detail how we use either regulatory risk-weighted assets or the available accounting information to determine the level of these exposures.

The criteria describe how we determine trade exposures or initial margins at CCPs as a percentage of derivative receivables--the percentage differs, according to whether the derivative receivables are reported gross or net--and CCP guarantee fund contributions as a flat percentage of trade and initial margin exposures:

- When guarantee fund contributions are not disclosed separately, we assume that they represent 6.5% of trade and initial margin exposures (consistent with the current average guarantee fund contributions of a representative sample of rated banks).
- When trade exposures and initial margin are not disclosed, we assume that they represent 25% of derivatives receivables for entities under IFRS (or local GAAP equivalent) and 150% of derivatives receivables for entities under U.S. GAAP. These are conservative estimates based on representative samples of rated banks.

Computing The Counterparty Risk Charge On Derivatives Exposures (Cleared Or OTC) For Entities That Do Not Report Exposures According To Basel Standards

For entities that do not report counterparty risk exposures according to Basel standards, the criteria include, in paragraph 82, the determination of exposures to derivatives (OTC and listed) as a percentage of derivative receivables (different depending whether reported gross or net), based on a sample of representative banks. These multipliers are defined as follows:

- When a firm reports derivatives under U.S. GAAP rules (or equivalent), counterparty risk exposure on derivatives is assumed to be equal to 475% of derivatives receivables. Exposures are assumed to be OTC and split 50/50 between financial institutions and corporate entities, unless a majority of derivative activity is in exchange-settled products, in which case we assume that 100% of the derivative exposure is with clearinghouses.
- When a firm reports derivatives under IFRS (or local GAAP equivalent for the accounting treatment of derivatives), counterparty risk on derivatives is assumed to be equal to 55% of derivatives receivables. Exposures are assumed to be OTC and split 50/50 between financial institutions and corporate entities, unless a majority is in exchange-settled products, in which case we assume that 100% of derivatives are with clearinghouses.

Credit Conversion Factors

As explained in paragraph 148 of the RACF criteria, whenever banks do not report Basel exposures, we apply the Basel III standardized approach credit conversion factors (CCFs) to off-balance-sheet commitments (except for credit card commitments). For example, commitments that will mature in less than a year (except retail commitments that are unconditionally cancellable) are assigned a 20% CCF. Commitments that have a maturity of more than one year are assigned a 50% CCF.

Related Criteria And Research

Related Criteria

- Risk-Adjusted Capital Framework Methodology, July 20, 2017

Related Research

- Calibrating the Risk-Adjusted Capital Framework, July 20, 2017
- General Criteria: Understanding S&P Global Ratings' Rating Definitions, June 3, 2009

This report does not constitute a rating action.

This article is a guidance document for Criteria (Guidance Document). Guidance Documents are not Criteria, as they do not establish a methodological framework for determining Credit Ratings. Guidance Documents provide guidance on various matters, including: articulating how we may apply specific aspects of Criteria; describing variables or considerations related to Criteria that may change over time; providing additional information on non-fundamental factors that our analysts may consider in the application of Criteria; and/or providing additional guidance on the exercise of analytical judgment under our Criteria.

Our analysts consider Guidance Documents as they apply Criteria and exercise analytical judgment in the analysis and determination of Credit Ratings. However, in applying Criteria and the exercise of analytic judgment to a specific issuer or issue, analysts may determine that it is suitable to follow an approach that differs from one described in the Guidance Document. Where appropriate, the rating rationale will highlight that a different approach was taken.

Copyright © 2018 by Standard & Poor's Financial Services LLC (S&P). 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. Rating-related publications may be published for a variety of reasons that are not necessarily dependent on action by rating committees, including, but not limited to, the publication of a periodic update on a credit rating and related analyses.

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 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.

Any Passwords/user IDs issued by S&P to users are single user-dedicated and may ONLY be used by the individual to whom they have been assigned. No sharing of passwords/user IDs and no simultaneous access via the same password/user ID is permitted. To reprint, translate, or use the data or information other than as provided herein, contact Client Services, 55 Water Street, New York, NY 10041; (1) 212-438-7280 or by e-mail to: research_request@spglobal.com.

Copyright © 2018 Standard & Poor's Financial Services LLC. All Rights Reserved.