

ANNUAL REPORT
OF
STANDARD & POOR'S Credit Market Services Europe Limited
SOUTH AFRICA BRANCH
FOR THE FINANCIAL YEAR ENDED 31/12/2016

(Published in accordance with Section of 15 of the Credit Rating Services Act 24 of 2012)

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SECTION A: EXECUTIVE SUMMARY

Certain capitalised terms used but not defined herein have the meanings ascribed thereto in Appendix 1 hereof. Unless indicated, information provided in this Transparency Report is current as at 31st December 2016.

S&P Global Ratings¹ operates in South Africa through Standard & Poor's Credit Market Services Europe Limited ("SPCMSE") and in particular through its South Africa branch ("SPCMSE South Africa"). S&P Global Ratings refers to the global Credit Rating Agency ("CRA") operating through a group of affiliated companies performing Credit Rating Activities (the "Affiliated Entities"), each of which is a direct or indirect wholly owned subsidiary of S&P Global Inc. ("SPGI").² The Affiliated Entities operate in accordance with policies, procedures and ratings criteria ("Criteria") that generally are globally applicable. S&P Global Ratings shares an integrated operating structure. SPGI is a company incorporated in the State of New York, USA and publicly listed on the New York Stock Exchange. The business activities of SPCMSE South Africa include Credit Rating Services (as set out in Article 1(1) of the Act) concerning global and national scale Credit Ratings, as well as other services in accordance with Article 12(2) of the Act. A document containing descriptions of services provided by SPCMSE South Africa is available on the South Africa regulatory disclosures page at

http://www.standardandpoors.com/en_EU/web/guest/regulatory/disclosures.

SPCMSE South Africa provides credit rating services to clients in South Africa and other sub-Saharan Africa countries, with South Africa being the key and most diversified market in the region. 2016 marked a break from the expansion of ratings in sub-Saharan Africa witnessed over the last few years, with lower demand for new Issuer Credit Ratings and significantly reduced volumes in cross border debt issuance from African issuers into international capital markets. Credit quality in the region, measured by the number of downgrades versus the number of upgrades, continued to weaken in 2016 with regional economic growth dipping to the lowest level of growth in more than two decades.

SPCMSE South Africa had ten full time employees in 2016, including 7 analysts in the Financial Institutions, Sovereign and Corporate Ratings Practices. SPCMSE South Africa also continued to offer an intern programme providing first on-the-job internship experience to South African university graduates.

SPCMSE South Africa's contribution to financial market education in South Africa included several seminars, regular meetings and roundtable discussions with South African and international institutional investors, analysts and intermediaries, as well as frequent media outreach.

The office premises of SPCMSE South Africa remain in Rosebank, Johannesburg.

The board of directors comprises six directors: 1) John Berisford; 2) Jan Willem Plantagie³; 3) James Penrose; 4) Dominic Crawley⁴; 5) Thierry Sciard and 6) Joseph Strubel.

¹ At the Annual Meeting of Shareholders of MHFI on 27 April 2016, the company's shareholders voted to change the legal name of the company to "S&P Global Inc." from "McGraw Hill Financial, Inc.". The new company name is used in this report.

² Following the shareholder vote on 27 April 2016, the division name of Standard & Poor's Ratings Services was rebranded as S&P Global Ratings. The new division name is used in this report.

³ In 2016, Yann Le Pallec retired from the board of SPCMSE and Jan Willem Plantagie became an executive member.

⁴ After retiring from his executive function on 1 April 2017, Dominic Crawley became a non-executive member.

SECTION B: INFORMATION AS PER SECTION 13 AND 15 OF THE ACT

1. Detailed Information on Legal Structure and Ownership

SPCMSE was incorporated⁵ under the laws of England and Wales on 31 December 2009 and houses the Credit Rating Activities conducted in the United Kingdom, and, through its branches in those countries, the Credit Rating Activities in the Republic of South Africa, Dubai (United Arab Emirates), Germany, Poland, Russia, Spain and Sweden, which were previously owned by other Affiliated Entities. It also has a liaison office in Turkey but no analysts are currently located in the Poland and Turkey offices. SPCMSE is one of several wholly-owned subsidiaries of S&P Global European Holdings (Luxembourg) Sarl ("SPGEH", formerly known as McGraw Hill Financial European Holdings (Luxembourg) Sarl), which is in turn indirectly wholly-owned by SPGI.

The share capital of SPCMSE is £1,000, made up of 1,000 shares with a par value of £1, all held by SPGEH.

SPCMSE has no subsidiaries or holdings in any other entity in South Africa, the United Kingdom or elsewhere.

Other than as set out above, no acquisitions, disposals or events changing the breakdown of voting rights have taken place since SPCMSE was incorporated.

Based on public filings for the quarter ended 31 December 2016, the following entities were the only owners of 5% or more of SPGI equity:

Name of Shareholder	% shareholding	Country
The Vanguard Group, Inc.	7.19%	USA
BlackRock, Inc.	5.9%	USA
State Street Corporation	5.47%	USA
Fidelity Investment Inc.	5.081%	USA

⁵ Registered office: 20 Canada Square, Canary Wharf, London, United Kingdom, E14 5LH. Company number: 07114748

2. Description of Internal Control Mechanisms

S&P Global Ratings' Internal Control structure, as described below, was enhanced in 2016 in the following areas:

- An Internal Control function was established in Global Risk Management to provide oversight and guidance in the implementation and maintenance of S&P Global Ratings' Internal Control Structure.
- Key positions were filled in the newly established In-Business Control function in Global Rating Services that supports the business in the implementation and maintenance of S&P Global Ratings' Internal Control Structure.
- An In-Business Control function was also established within the Global Ratings Operating Office to implement and maintain the internal control structure across Data, Information Technology, Global Operations, and Vendor Management functions.
- Internal control processes were enhanced, including the periodic management assessment of internal control and reporting on the effectiveness of the internal control structure.
- Investments in process and system improvements continue to be made to streamline processes and enhance internal control.

Our ongoing efforts continue to improve the efficiency and effectiveness of our business processes and drive a culture of compliance, accountability and risk awareness.

Policies and Standard Operating Procedures (“SOPs”)

S&P Global Ratings' Policies and SOPs are designed to ensure that all applicable regulatory requirements are addressed either via global procedures or jurisdictional supplements where specific requirements apply in certain jurisdictions.

Each policy has a Regulatory Summary section which describes the high level regulatory requirements. The Policy Statement then goes on to explain how the regulatory requirements are addressed followed by an Internal Procedures section describing the process in more detail and referencing the relevant SOPs where applicable. Key controls are also defined in the policy.

Policy Governance Group

S&P Global Ratings established the Policy Governance Group (“PGG”). PGG is responsible for leading the development, approval and maintenance of analytical and non-analytical policies relating to prudent, ethical business practices, and compliance and regulatory matters associated with S&P Global Ratings' activities globally and to oversee the communication of such policies. PGG voting membership consists of representatives from Compliance, Criteria, the Global Analytical Practice, Operating Office, and Risk, as well as the Head of the Internal Control Function, and the Head of In-Business Control. Each representative has one vote and Compliance has a supermajority vote.

The rating Practice Areas are ultimately responsible for the quality of Credit Ratings and Credit Rating Activities and for adherence to policies and procedures. This responsibility is discharged through managerial supervision and oversight as well as a variety of operational controls.

New policies or amendments to existing policies must be approved before they are disseminated and become effective.

S&P Global Ratings' policies and internal procedures undergo periodic review to accommodate any new regulatory requirement or interpretation, or relevant new business or technological development and are continually refined based on input from employees.

In-Business Control (Global Ratings Services)

In-Business Control ("IBC") is a group within Global Ratings Services that works closely with In-Business Control (Operating Office), Global Risk Management, Compliance and other functions to support the implementation of internal controls in the Practice Areas and perform regular monitoring and testing of Analysts' compliance with policies and procedures. IBC reports to the head of Global Ratings Services.

In-Business Control (Operating Office)

An In-Business Control function has also been established within the Global Ratings Operating Office. The team is responsible for implementing and maintaining the internal control structure across the functions within the Operating Office, which include Data, Information Technology, Global Operations, and Vendor Management. The team works closely with In-Business Control (Global Ratings Services), Global Risk Management, Compliance and other functions to ensure the consistent implementation of the internal control structure and to address company-wide internal control needs. This function reports to the Chief Operating Officer.

Global Risk Management

Global Risk Management ("GRM"), headed by a Chief Risk Officer ("CRO"), has responsibility for Global Risk Management Operations, the Model Validation Group, the Criteria Validation Group, Risk Analytics and Market Surveillance, the Criteria Advisory Group and the Internal Control function:

- The Model Validation Group is responsible for independently performing ex-ante validation to assess proposed new or revised models and conducting periodic reviews of models.
- The Criteria Validation Group is responsible for independently performing ex-ante validation to assess proposed new or revised Criteria and providing final sign-off on periodic Criteria reviews.
- The Criteria and Model Governance Committee is responsible for approving models and Criteria. The Committee is chaired by the CRO and has as voting members the Chief Credit Officer, the Global Head of Model and Criteria Validation and the Global Head of Criteria Advisory. It is designed to further enhance S&P Global Ratings' model and Criteria approval process.
- The Criteria Advisory Group supports the ratings Practice Areas on Criteria application, interpretations, and deviations as well as rating to principles. It also participates in the periodic Criteria review process. To support its independence, the Criteria Advisory Group is separate from the Criteria Development and Approval Group and the Criteria Validation Group.
- The Internal Control function provides oversight and guidance in the implementation and maintenance of Global S&P Ratings' Internal Control Structure. The Internal Control function advises the organization on enhancements to internal control and coordinates management's periodic assessment of the effectiveness of internal control. Oversight of the remediation of deficiencies and material weaknesses is also performed to confirm that issues are adequately addressed and on a timely basis.

GRM performs periodic reporting to Executive Management, various Governance Committees and the Boards on risks and the effectiveness of internal control, and produces reporting on risks and the effectiveness of our internal control structure for regulators.

Criteria Development and Approval Group

S&P Global Ratings Criteria provides the analytical framework for assessing creditworthiness and assigning Credit Ratings that differentiate credit risk. The Criteria Development and Approval Group is responsible for overseeing and approving the development of Criteria and Criteria changes across Practice Areas, asset classes, sectors and geographic regions for analytical rigor, relevance, consistency, timeliness and transparency. Dedicated Criteria Officers participate in the drafting of Criteria, provide Criteria training, a shared responsibility with Practice Areas, and provide effective challenge and approve Criteria.

Criteria Officers report independently of the Practice Areas to the Chief Credit Officer and have oversight of all Criteria across different sectors, regions and asset classes. The Chief Credit Officer also provides periodic briefings to the analytical staff on major Criteria changes.

Compliance Department

The Compliance Department is headed by the S&P Global Ratings Global Chief Compliance Officer (the "Global CCO") who reports to S&P Global Ratings President. The Global CCO is responsible for monitoring adherence to global and local regulatory requirements as well as to S&P Global Ratings' policies and procedures.

The Compliance Department structure and approach are grounded in three pillars:

- **Advisory:** Day-to-day advice, formal and ad hoc training, live chaperone interactions, policy violation investigations and discipline, advising on policy and reporting metrics, conducted by Covering Compliance Officers.
- **Regulatory:** Maintaining and managing regulatory relationships and interactions, exam management and coordination, regulatory filings, regulatory remediation oversight, and regulatory reporting, conducted by the Covering Compliance teams, Exam Management Team and Regulatory Coordination Team.
- **Monitoring:** Periodic compliance exam planning, conducting monitoring and dynamic exams, surveillance and control, and metrics reporting, conducted by the Control Room/Surveillance and Compliance Exams/Monitoring teams.

Compliance Department Structure and Responsibilities

To achieve its mission, the Compliance Department is organized into the following groups: Regional Compliance (Americas, EMEA and India, APAC, all of which include Covering Compliance), Compliance Examination, Compliance Control Office, Global Regulatory Coordination, and Global Matrix Office. The primary responsibilities of each group are as follows:

Regional Compliance Groups

The Regional Compliance groups consist of three teams: Americas, EMEA and India, and APAC. Each Regional Compliance group is responsible for Covering Compliance functions,

regulatory exam management, regulatory reporting oversight and routine policy violation examinations.

The Chief Compliance Officer for EMEA and India (“CCO EMEA”) is based in London and reports to the Global CCO. The CCO EMEA manages a team of thirteen Compliance Officers for EMEA. At least one Compliance Officer is employed by each of the three EU Entities. The EMEA Compliance Officers receive additional global Compliance support.

Covering Compliance

Covering Compliance Officers are embedded within the business in each region. Covering Compliance Officers promote adherence to policies and procedures by supporting the direction and implementation of policies and procedures, and reviewing and monitoring adherence to policies and administer discipline for policy violations. Covering Compliance Officers also support surveillance and monitoring activities carried out by other parts of Compliance, as well as participate in Compliance examinations and investigations (as requested), and collaborate with other S&P Global business functions on risk management, rating quality and internal controls.

Compliance Examination Group

The Compliance Examination Group conducts reviews of S&P Global Ratings globally. The primary function of the Compliance Examination Group is to conduct and report on compliance examinations and periodic monitoring reviews to evaluate the understanding and effectiveness of written compliance policies and procedures, compliance with regulatory requirements, and the adequacy and effectiveness of S&P Global Ratings’ compliance controls. In addition, the Compliance Examination Group may undertake special reviews where required.

Global Control Room

The role of the Global Control Room is to administer a set of monitoring and surveillance controls established to protect the integrity of the analytical process, manage conflicts of interest and to prevent misuse of non-public information. The EMEA Control Office, which is part of the Global Control Room, is responsible for managing insider lists in accordance with applicable regulation and reports to a UK-based Compliance Officer.

Global Regulatory Coordination

The Global Regulatory Coordination team facilitates coordination and consistency across regions and remediation activities stemming from findings and recommendations from regulatory agencies. The team validates completion of regulatory remediation efforts and reports regulatory updates to senior management.

Global Matrix Office

The Global Matrix Office creates and maintains the Policy Chapters of the S&P Global Ratings Policy Manual, tracks and coordinates compliance training, oversees global compliance-related projects and presentations, and gathers data periodically on certain global compliance department activities, such as complaints, reviews and disciplinary letters.

Ratings Risk Review Function

Ratings Risk Review (“RRR”) reports to the SPGI Chief Risk and Audit Executive, who reports directly to the SPGI Chief Executive Officer on an administrative basis and functionally to the SPGI Audit Committee of the Board of Directors. However, RRR staff remain subject to S&P Global Ratings’ policies and procedures.

RRR Officers are assigned to specific sectors and/or regions. Among other activities, RRR conducts sector and targeted reviews as well as ongoing monitoring that includes evaluation of Credit Rating files from an analytical perspective, including (i) assessment of adherence to analytical policies and procedures and methodologies for determining Credit Ratings, (ii) assessment of adherence to Criteria methodology, (iii) review of the assumptions made, appropriateness of the documentation of the Credit Rating analysis, and (iv) review of the published rationales for credit ratings. RRR monitors the performance of Credit Ratings and the Credit Rating process to ensure that emerging trends and credit attributes are appropriately considered.

RRR prepares reports that summarize any findings associated with the outcome of its Reviews and Monitoring activities, which are issued to applicable stakeholders. RRR requires the Practice to develop and deliver applicable Management Action Plans with responsible owners and completion dates to address each finding identified. For Management Action Plans that result from RRR reviews, RRR formally tracks the effectiveness and timeliness of completion by the Practice Areas. Instances of potential inconsistencies in Criteria application or the Credit Rating process identified by RRR may also result in RRR escalating the applicable Credit Rating(s) to the relevant Lead Analytical Manager for a new Rating Committee when RRR believes the Credit Rating or the published rationale does not materially reflect the appropriate analysis.

RRR reports to the SPGI Audit Committee on topics such as:

- Results of sector and targeted reviews and monitoring activities;
- Overall Assessments and trends by Assessment Point and practice;
- Status of Management Action Plans; and
- Status of reviews against the annual review plan.

RRR also presents periodically to the SPCMSE Board of Directors, the S&P Global Ratings Executive Committee and to Global and Regional management of the Practice Areas. These “Practice Updates” are presentations that typically cover the same topics as are referenced above.

SPGI Internal Audit

Independent of S&P Global Ratings’ management and GRM functions, the SPGI Internal Audit function (“IA”) incorporates S&P Global Ratings in their annual risk-based internal audit plan. IA has a team dedicated to regularly perform compliance, operational, information technology and financial audits on SPGI entities including S&P Global Ratings. IA prepares and executes its internal audit plan using a comprehensive risk assessment process to identify significant risks associated with S&P Global Ratings (including those that are regulatory in nature) and to conduct audits which are scoped to assess the effectiveness of the processes and internal control environment in relation to those risks. IA issues reports in relation to these audits and tracks the status and completion of management’s action plans to address IA’s findings. The results of IA reviews are reported to key stakeholders including status of Management Action Plans and progress against the annual approved IA Plan. The SPGI Chief Risk & Audit Executive reports to the Audit Committee of the SPGI Board of Directors on a functional basis, and

administratively to the SPGI President & Chief Executive Officer. IA also presents periodically to the SPCMSE Board of Directors.

3. Outcome of the Annual Internal Review undertaken by Compliance Unit

The annual review of the Compliance unit covers the results and observations arising from a series of review activities for SPCMSE South Africa. The key activities covered in the reviews conducted in 2016 draw on conclusions from:

1. **Compliance Examinations** – The Compliance Examination Group conducted a separate compliance review of SPCMSE South Africa covering 2016. The purpose of this review was to assess compliance with documented policies and procedures, and to evaluate the adequacy and effectiveness of key compliance controls. The outcomes of the reviews did not raise any concerns relating to SPCMSE South Africa during 2016.
2. **Local compliance monitoring** – routine monitoring and surveillance covering key policy areas was undertaken for SPCMSE South Africa, the outcomes of which highlighted no material weaknesses during the course of 2016.
3. **E-mail surveillance** – routine surveillance to assist in the detection, investigation and subsequent enforcement related to a breach of policy or procedure. All e-mail surveillance is undertaken in accordance with local laws and regulations.

Compliance training activities – a number of Compliance-led training initiatives were undertaken during 2016 primarily to address training on key policies and regulation. These sessions were conducted by an instructor or delivered via e-learning. They were either global or regional, depending on the subject of the training course.

In addition, EMEA Compliance hosts monthly videoconferences with SPCMSE South Africa. The purpose of these meetings is to have interactive discussions on compliance themes with SPCMSE South Africa.

The outcome of the 2016 annual internal review undertaken by the Compliance unit concludes that there was a satisfactory level of compliance with applicable policies and regulation at SPCMSE South Africa.

The Outcome of the Annual Internal Review of EMEA Compliance

In 2016, IA performed a review of the independent compliance function in EMEA (“EMEA Compliance”). IA’s focus was to determine the effectiveness of Compliance, based on the applicable regulatory requirements. The scope of the audit included the following:

- An assessment of the independence of EMEA Compliance from the business/operations functions of S&P Global Ratings.
- The adequacy of the resources and expertise of EMEA Compliance.
- The appropriate authority and responsibility of EMEA Compliance and its access to all relevant information.

- The adequacy of reporting by EMEA Compliance to senior management and the Independent Directors of the Board.
- The effectiveness of monitoring S&P Global Ratings' compliance with applicable regulation.

IA considered that EMEA Compliance was generally effective and in Compliance with applicable regulatory requirements.

4. Description of Recordkeeping Policy

SPCMSE South Africa applies policies and procedures in relation to documentation⁶ covering all aspects of its business, in particular, all information created, received or in the possession or control of anyone working at or for SPCMSE South Africa. This includes internal and external communications; records of Credit Rating actions; research notes; and Issuer materials. The policies and procedures in relation to documentation establish a framework for classifying records and documents.

Records in relation to Credit Ratings held by SPCMSE South Africa subject to applicable retention periods include, but are not limited to:

- a. For each Rating Decision, the identity of the Analysts participating in the determination of the Credit Rating and of the identity of the persons who have approved the Credit Rating, information as to whether the Credit Rating was solicited or unsolicited, and the date on which the Credit Rating action was taken;
- b. An account record for each rated entity, related third party or other user that has paid for the issuance or maintenance of a Credit Rating. In accordance with applicable policies, Analysts do not have access to such account records;
- c. The records documenting the established procedures and methodologies used by SPCMSE South Africa to determine its Credit Ratings;
- d. The final version of internal records, including non-public information and work papers, used to form the basis of the Rating Decision taken;
- e. Records of the procedures and measures implemented to comply with the Act and the Rules; and
- f. Copies of internal and external communications, including electronic communications, received and sent by SPCMSE South Africa and its employees that relate to Credit Rating Activities.

The Primary Analyst for a Credit Rating is responsible for the retention of the records associated with the Credit Rating action, although a Practice Area may delegate this responsibility to someone other than the Primary Analyst, as necessary and appropriate. All other personnel are responsible for the retention of any record that they generate or receive that is required to be retained pursuant to the Recordkeeping and Retention Policy.

⁶ These policies are maintained by S&P Global Ratings.

SPCMSE South Africa's personnel retains designated records for at least five years after the records are made or received in relation to Credit Rating Activities, Ancillary Services and Other Services.

The heads of each Practice Area, as well as the heads of certain departments and functions, are responsible for their respective group's compliance with the Recordkeeping and Retention Policy.

5. Revenue Sources

SPCMSE REVENUE RESULTS FOR 2016 (UNAUDITED)

Revenue Source	Rands (ZAR) in thousands
Credit Rating Services	5,897,817
Non-Credit Rating Services	33,365
Total Revenue	5,931,183

SECTION C: INFORMATION AS PER BOARD NOTICE 168 OF 2013

1. Details of Methodologies, Models and Key Assumptions Reviewed

The following methodologies used by SPCMSE South Africa were reviewed during the period of January 1 – December 31, 2016.

- Criteria - Corporates - General: 2008 Corporate Criteria: Rating Each Issue - April 15, 2008
- Criteria - Corporates - General: Corporate Methodology - November 19, 2013
- Criteria - Corporates - General: Corporate Methodology: Ratios And Adjustments - November 19, 2013
- Criteria - Corporates - General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers - December 16, 2014
- Criteria - Corporates - General: The Treatment Of Non-Common Equity Financing In Nonfinancial Corporate Entities - April 29, 2014
- Criteria - Corporates - Industrials: Key Credit Factors For The Building Materials Industry - December 19, 2013
- Criteria - Corporates - Industrials: Key Credit Factors For The Metals And Mining Upstream Industry - December 20, 2013
- Criteria - Corporates - Industrials: Key Credit Factors For The Telecommunications And Cable Industry - June 22, 2014
- Criteria - Corporates - Industrials: Key Credit Factors For The Transportation Infrastructure Industry - November 19, 2013
- Criteria - Corporates - Utilities: Key Credit Factors For The Regulated Utilities Industry - November 19, 2013
- Criteria - Financial Institutions - Banks: Assumptions: Clarification Of The Equity Content Categories Used For Bank And Insurance Hybrid Instruments With Restricted Ability To Defer Payments – February 9, 2010
- Criteria - Financial Institutions - Banks: Bank Capital Methodology And Assumptions - December 06, 2010
- Criteria - Financial Institutions - Banks: Bank Hybrid Capital And Nondeferrable Subordinated Debt Methodology And Assumptions - January 29, 2015
- Criteria - Financial Institutions - Banks: Banking Industry Country Risk Assessment Methodology And Assumptions - November 09, 2011
- Criteria - Financial Institutions - Banks: Banks: Rating Methodology And Assumptions - November 09, 2011
- Criteria - Financial Institutions - Banks: Commercial Paper I: Banks - March 23, 2004
- Criteria - Financial Institutions - Banks: Methodology For Mapping Short- And Long-Term Issuer Credit Ratings For Banks - May 04, 2010
- Criteria - Financial Institutions - Banks: Quantitative Metrics For Rating Banks Globally: Methodology And Assumptions - July 17, 2013
- Criteria - Financial Institutions - Banks: Revised Market Risk Charges For Banks In Our Risk-Adjusted Capital Framework - June 22, 2012

- Criteria - Financial Institutions - Finance Companies: Key Credit Factors For Financial Services Finance Companies - December 09, 2014
- Criteria - Financial Institutions - General: Issue Credit Rating Methodology For Nonbank Financial Institutions And Nonbank Financial Services Companies - December 09, 2014
- Criteria - Financial Institutions - General: Methodology: Hybrid Capital Issue Features: Update On Dividend Stoppers, Look-Backs, And Pushers - February 10, 2010
- Criteria - Financial Institutions - General: Nonbank Financial Institutions Rating Methodology - December 09, 2014
- Criteria - Governments - Sovereigns: Sovereign Rating Methodology - December 23, 2014
- Criteria - Insurance - General: Enterprise Risk Management - May 07, 2013
- Criteria - Insurance - General: Hybrid Capital Handbook: September 2008 Edition - September 15, 2008
- Criteria - Insurance - General: Insurers: Rating Methodology - May 07, 2013
- Criteria - Insurance - General: Refined Methodology And Assumptions For Analyzing Insurer Capital Adequacy Using The Risk-Based Insurance Capital Model - June 07, 2010
- General Criteria: Country Risk Assessment Methodology And Assumptions - November 19, 2013
- General Criteria: Criteria Clarification On Hybrid Capital Step-Ups, Call Options, And Replacement Provisions - October 22, 2012
- General Criteria: Criteria For Assigning 'CCC+', 'CCC', 'CCC-', And 'CC' Ratings - October 01, 2012
- General Criteria: Group Rating Methodology - November 19, 2013
- General Criteria: Guarantee Default: Assessing The Impact On The Guarantor's Issuer Credit Rating - May 11, 2012
- General Criteria: Methodology For Linking Short-Term And Long-Term Ratings For Corporate, Insurance, And Sovereign Issuers - May 07, 2013
- General Criteria: Methodology: Criteria For Determining Transfer And Convertibility Assessments - May 18, 2009
- General Criteria: Methodology: Industry Risk - November 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers - November 13, 2012
- General Criteria: Methodology: Timeliness Of Payments: Grace Periods, Guarantees, And Use Of 'D' And 'SD' Ratings - October 24, 2013
- General Criteria: National And Regional Scale Credit Ratings - September 22, 2014
- General Criteria: Post-Default Ratings Methodology: When Does Standard & Poor's Raise A Rating From 'D' Or 'SD'? - March 23, 2015
- General Criteria: Rating Government-Related Entities: Methodology And Assumptions - March 25, 2015
- General Criteria: Rating Implications Of Exchange Offers And Similar Restructurings, Update - May 12, 2009
- General Criteria: Ratings Above The Sovereign--Corporate And Government Ratings: Methodology And Assumptions - November 19, 2013

- General Criteria: Stand-Alone Credit Profiles: One Component Of A Rating - October 01, 2010
- General Criteria: Understanding Standard & Poor's Rating Definitions - June 03, 2009
- General Criteria: Use Of CreditWatch And Outlooks - September 14, 2009
- Legal Criteria: Guarantee Criteria--Structured Finance - May 07, 2013

The following models used by SPCMSE South Africa were reviewed during the period of January 1 – December 31, 2016.

- Risk-Adjusted Capital for Non-US Banks & Non-US NBFI
- NBFI Ratings Summary Record
- Corporate Criteria Scoring Template
- GRE Database Criteria Evaluation Engine
- ESP (Expected Scenario Projector) including Liquidity Template
- Financial Institutions RSR
- Sovereign Macroeconomic
- Risk Based Capital for Insurers - GAAP/IFRS Global Version

2. Details of Analyst Rotation

SPCMSE South Africa applies the Analyst Rotation Policy which sets out the standards applicable in South Africa and elsewhere on the rotation of Analysts.

To meet applicable regulatory requirements and in order to implement required periodic rotation and cooling-off periods, the following approaches have been established:

- For all public Credit Ratings, Primary Analysts (a) must not be involved in Credit Rating Services⁷ for an Issuer for a period exceeding four years and (b) must wait for at least two years before being involved again in any Credit Rating Services for that Issuer.
- For Sovereign, International Public Finance (“IPF”) and unsolicited Credit Ratings, employees in an Analytical Role who are involved in making Rating Decisions with respect to an Issuer (a) must not be involved in Credit Rating Services for that Issuer for a period exceeding five years and (b) must wait for at least two years before being involved again in any Credit Rating Services for that Issuer. For these purposes, being involved in making Rating Decisions requires voting in relevant Rating Committees and regularly attending routine management meetings.
- For all Credit Ratings, Rating Committee chairpersons – the individuals who approve the Rating Decision or determination of the Rating Committee with respect to an Issuer (a) must not be involved in Credit Rating Services for that Issuer for a period exceeding seven years and (b) must wait for at least two years before being involved again in any Credit Rating Services for that Issuer.

The rotation requirement extends to related third parties to the Issuer’s transactions with whom the relevant Analyst has had an analytical interaction. Analysts are rotated on an individual basis so that the composition of analytical teams and the Rating Committee changes over time. This approach is designed to maintain consistency in Credit Rating Services over time.

Each Practice Area is responsible for assigning Analysts to perform Credit Ratings Services in a manner that adheres to the Analyst Rotation Policy and applicable regulation.

⁷ As defined in the Act.

3. Details of Staff Allocated to Ratings

Table 1 – Total number of Analysts

	Corporate/ Infrastructure	Financial Services	Sovereign/ IPF	Structured Finance	Other Divisional ⁸	Total
SPCMSE South Africa	1	5	1	0	0	7
SPCMSE total	102	95	48	86	31	362

Table 2 – Analytical management and general management of SPCMSE and S&P South Africa

	Analytical Managers	General Management ⁹	Total
SPCMSE South Africa	0	0	0
SPCMSE total	25	2	27

S&P Global Ratings is committed to the highest standards of analytical excellence. Consistent with this core value, regulatory requirements, and S&P Global Ratings' goal of issuing high-quality Credit Ratings, S&P Global Ratings has established standards of training, experience and competence for all employees who participate in determining Credit Ratings.

The standards of training and competence, which apply to employees who participate in the determination of Credit Ratings and certain other employees, consists of required training and periodic testing elements.

As to standards of experience, S&P Global Ratings has established work experience standards associated with certain roles, including those that entail participating in the determination of Credit Ratings.

In establishing these standards of training, experience and competence applicable to an employee, S&P Global Ratings has considered an employee's role and responsibilities.

The qualifications for credit analysts are generally as follows and as to professional experience may vary by region:

⁸ Other Divisional consists of Analysts in the graduate trainee programme.

⁹ General Managers are employees engaged in the management of S&P Global Ratings' business and operational activities.

	Junior Credit Analysts	Mid- Level Credit Analysts	Senior Level Credit Analysts
Preferred Minimum Education	BA or BS in business related field.	BA or BS in business related field. Advanced degree preferred.	BA or BS in business related field. Advanced degree preferred.
Preferred Minimum Experience / Skills	Typically 2 years or more of credit, analytical or related financial services experience preferred. For entry-level positions, in light of the nature and supervision of these positions, there is no additional minimum experience requirement.	Typically 3-5 years of credit, analytical or related financial services experience preferred.	Typically 7 or more years of credit, analytical or related financial services experience preferred.

Additional qualifications for credit analyst supervisors are generally as follows:

	Mid-Level Credit Analyst Supervisors	Senior-Level Credit Analyst Supervisors
Preferred Minimum Education	BA or BS in business related field. Advanced degree preferred.	BA or BS in business related field. Advanced degree preferred.
Preferred Minimum Experience / Skills	Typically 7 or more years of credit, analytical or related financial services experience	Typically 10 or more years of credit, analytical or related financial services experience, including prior experience in an Analytical Manager or equivalent role.

All Analysts fulfilled the Fit and Proper requirements as set out in FSB Board Notice 166 of 2013.

4. Information On Credit Ratings By Category

Credit Ratings¹⁰ issued by SPCMSE South Africa

	Affirmation	Downgrade	New	Upgrade	Withdrawal	Total
Credit Rating actions at Issuer level	309	94	12	6	17	438
Credit Rating actions at instrument level	116	38	10	3	2	169
Grand Total:	425	132	22	9	19	607

Number of Issuers rated by SPCMSE South Africa by sector:

Corporate Ratings	6
Financial Institutions Ratings	21
Insurance Ratings	11
Sovereigns And International Public Finance	9
Total	47

Please see the document entitled “*S&P Global Ratings Definitions*” for a description of the types of Credit Ratings provided by S&P Global Ratings. This document can be found at

http://www.standardandpoors.com/en_EU/web/guest/article/-/view/sourceId/504352.

5. List of Ancillary Services

No ancillary services or other permissible services have been provided to entities rated by SPCMSE South Africa. A document containing descriptions of services provided by SPCMSE South Africa is available on the South Africa regulatory disclosures page at http://www.standardandpoors.com/en_EU/web/guest/regulatory/disclosures.

¹⁰ This table contains the number of Credit Ratings at Issuer level and the number of Credit Ratings at issue or transaction level issued during the year 2016. The numbers may include multiple Credit Ratings and Credit Rating actions on a single entity.

6. List of Members of the Board of Directors and Senior Management

Full Name and Surname	Qualifications and Experience	Committee Membership	Date Appointed
John Berisford	President of S&P Global Ratings BS, Political Science, West Liberty College, West Virginia, USA MS, Labor and Industrial Relations, West Virginia University, USA	Executive Director – SPCMSE Board	1 st January 2016
Jan Willem Plantagie	Head of EMEA Developed Markets Business Administration, Financial Sector at the Vrije Universiteit Amsterdam	Executive Director – SPCMSE Board	1 st June 2016
James Penrose	Head of Legal and Regulatory Affairs, EMEA, S&P Global Ratings MA in Law – Cambridge University, UK LLM – Columbia Law School, USA	Executive Director – SPCMSE Board	1 st December 2016
Dominic Crawley	B.Sc. Economics, Cardiff University Advanced management programme, Wharton Business School, University of Pennsylvania, USA	Non-Executive Independent Director – SPCMSE Board	1 st July 2015
Thierry Sciard	Non-Executive Director at Liquidnet Europe Limited, Mizuho International plc, AXA UK plc, AXA PPP Healthcare Limited and AXA Insurance UK plc, AXA PPP Healthcare Limited and AXA Insurance UK plc. Formerly senior executive at Calyon, Lehman Brothers Inc., StormHarbour Partners and Fortis Investments and Non-Executive Director at BlackTree Investment Partners. MBA, Ecole Supérieur de Commerce de Paris	Non-Executive Independent Director – SPCMSE Board	1 st July 2015
Joseph Strubel	Senior Advisor and Non-Executive Director - SphereInvest Group Limited, SphereInvest Global UCITS SICAV P.L.C. and Ontario Graphite Ltd. Formerly Senior Adviser at Millennium Group Holdings Limited.	Non-Executive Director – SPCMSE Board	31 st December 2014

	MBA, the William E. Simon Graduate School of Business, Finance and Applied Economics, NY, USA		
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Other senior management

Matthew Bosrock	Global Head of Developing Markets, S&P Global Ratings MBA, Duke University
Konrad Reuss	Managing Director, SPCMSE South Africa Master of Economics – Bayerische Julius Maximilians University, Germany

7. Details of Policies and Initiatives in Adopting the King Code

SPCMSE subscribes to the principles and practices of effective corporate governance as contemplated in the King Code (and with the corporate governance standards contained in applicable UK and EU legislation and regulation). Because SPCMSE is privately held, it is not subject to the UK Corporate Governance Code which applies only to UK public companies.

As a wholly owned indirect subsidiary of SPGI, SPCMSE follows the SPGI Code of Business Ethics as well as SPGI's other publicly disclosed policies covering many of the topics referenced in the King Code and which bind employees of all its subsidiaries worldwide.

SPGI is strongly committed to the highest standards of corporate governance. SPGI has standing Audit, Compensation and Leadership Development, and Nominating and Corporate Governance Committees. The Chairman of each Committee reports to the Board as appropriate. Each Committee has a Charter that is reviewed by the Nominating and Corporate Governance Committee on a regular basis. In addition to these three standing Committees, the Board has an Executive Committee and a Financial Policy Committee.

S&P Global Ratings is committed to the highest standards of analytical excellence. To achieve these standards, it has established (i) a governance hierarchy and committee framework to implement policies, procedures and methodologies for determining credit ratings and an independent governance and control structure aimed at adhering to its policies, procedures, and methodologies. S&P Global Ratings evaluates the effectiveness of its internal control structure and makes changes to its organisational structure and processes when appropriate.

S&P Global Ratings has established the S&P Global Ratings Code of Conduct ("the S&P Global Ratings Code") to reflect the high-level principles that govern the conduct of its Credit Rating Activities. The S&P Global Ratings Code also reflects the high-level principles underlying regulatory requirements in the jurisdictions where S&P Global Ratings conducts Credit Rating activities. S&P Global Ratings implements the principles set out in the S&P Code through policies and procedures as well as through its operational and control infrastructures.

Taken together, these corporate governance arrangements are consistent with the King Code.

8. Status Report on the Investor Education Initiatives

SPCMSE South Africa routinely reaches out to market participant to discuss Criteria, Credit Ratings, Credit Rating actions, and other market-relevant information and events. The outreach occurs through conferences, seminars, roundtables and face-to-face meetings. Analysts and the Office Head are also frequently contacted by investors, intermediaries and other parties directly to discuss particular Criteria or matters related to Credit Ratings. In addition, senior representatives of SPCMSE South Africa routinely speak to the media on Credit Ratings-related matters so as to promote a good understanding of Credit Rating issues in the media and to facilitate a broader public understanding of Credit Ratings-related matters.

The outreach in 2016 included two full day S&P Global Ratings cross-practice seminars in April 2016 and October 2016, respectively, with presentations from the Chief Economist for EMEA and senior representatives from the sovereign, corporate and bank ratings Practice Areas. In November 2016, an insurance Credit Ratings seminar was held focusing on insurance industry regulation and developments in the South African insurance sector. The seminar was an IISA (Insurance Institute of South Africa) accredited event. In excess of more than 500 attendees were registered at the 3 events. S&P Global Ratings staff also participated in a working group chaired by Johannesburg Stock Exchange and the National Treasury which is tasked with drafting project bond listing requirements and creating a better understanding among the local investors of the framework conditions for a successful infrastructure project bond market. Bank analysts from the Johannesburg office briefed market participants and members of the South African Reserve and the National Treasury at several occasions on implications on Credit Ratings of the new Resolution Framework for Financial Institutions in South Africa. Ratings education sessions were held with students from Rhodes University (Grahamstown) and GIBS Business School (Pretoria).

Senior representatives from SPCMSE South Africa also presented on matters relating to Credit Ratings at external conferences and held regular individual meetings with international as well as South African asset managers in Cape Town and Johannesburg as well as the Association of Savings and Investment Managers in South Africa (ASISA). In 2016, S&P Global Ratings was one of the lead sponsors of the Cape Town IMN Capital Markets conference and the GFCMedia Group's Bonds, Loans and Sukuk conference with senior staff from S&P Global Ratings participating in a in series of panel discussions. S&P Global Ratings also provides extensive information and educational content through a website (<https://www.spratings.com>), which offers the public an easy way to keep up with S&P Global Ratings' thought leadership on credit topics such as global aging, sovereign ratings, and global credit conditions. This free public website contains original videos and audio podcasts, selected articles and analyses, news and research summaries, and S&P Global Ratings live event listings, together with links to a Credit Rating lookup and Criteria. It can be accessed from the web, mobile devices, and tablets. Information required to be disclosed in accordance with applicable regulation including public Credit Ratings and related information is available on http://www.standardandpoors.com/en_EU/web/guest/regulatory/disclosures.

9. Historical Default Rates of the Past 10 Years per Category

Please see Appendix 2.

10. Adherence to the Prescribed Code Of Conduct

S&P Global Ratings requires all of its employees to comply with the S&P Global Ratings Code. Each year all S&P Global Ratings employees are required to read the S&P Global Ratings Code and affirm their compliance with it by signing an affirmation statement. All employees are given the opportunity at the time of affirmation to make S&P Global Ratings aware of any known conflicts of interest to which they or other employees may be subject. Failure to comply with the S&P Global Ratings Code may result in disciplinary action, up to and including termination of employment.

This S&P Global Ratings Code aligns with principles established by the International Organization of Securities Commissions (“IOSCO”) in its Code of Conduct Fundamentals for Credit Rating Agencies, published in December 2004 and amended in May 2008 and March 2015, and IOSCO’s “Statement of Principles Regarding the Activities of Credit Rating Agencies”, published in September 2003.

A copy of the S&P Global Ratings Code is available on the South Africa regulatory disclosures page at http://www.standardandpoors.com/en_EU/web/guest/regulatory/disclosures.

In 2016, the S&P Global Ratings Code of Conduct was updated to better align the description of model review to changes made to the Model Governance Policy and to clarify the language around the process relating to Credit Rating Actions.

SECTION D: APPENDICES

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Appendix 1: Glossary of Terms Used

“Act”: The Credit Rating Services Act, 2012 (Act No. 24 of 2012)

“Analyst”: an employee who is directly involved in S&P Global Ratings Activities, but not part of the Criteria organisation or the Compliance or Legal Departments.

“Analytical Manager”: an employee who oversees the day-to-day work of Analysts or other Analytical Managers, but who is not acting in a General Management Role.

“Analytical Role”: the role of an employee when acting as an Analyst. Examples include: Analysts and Analytical Managers.

“Ancillary Service”: a product or service that S&P Ratings Services provides or sells that is not a Credit Rating or Credit Rating Activity and is either a market forecast, an estimate of economic trends, a pricing analysis, other general data analysis, or distribution services related to a Credit Rating, a market forecast, an estimate of economic trends, a pricing analysis or general data analysis.

“Credit Rating”: a forward looking opinion regarding the creditworthiness of an entity, a debt or financial obligation, debt security, preferred share or other financial instrument (including a money market instrument), or of an Issuer of such a debt or financial obligation, debt security, preferred share or other financial instrument, issued using S&P Global Ratings' established and defined symbology. A Rating Outlook is not a Credit Rating but is subject to the same S&P Global Ratings policies and procedures applicable to a Credit Rating.

“Credit Rating Activities”: an activity engaged in by S&P Ratings Services that leads to or directly supports the issuance or surveillance of a Credit Rating including:

- the evaluation, approval, issuance, or review of Credit Ratings;
- analysis of data and information related to Credit Ratings;
- a Credit Rating Action or Rating Decision; and
- the development or approval of Criteria, including the development or approval of qualitative and quantitative models.

Examples include:

- Participating and/or voting in Rating Committees;
- Attending management meetings that are for the purpose of gathering information and for determining the basis of a rating recommendation;
- Communicating with Rated Entities and Related Third Parties to determine a Credit Rating Action;
- Managing Analysts, as applicable, in their analytical work;
- Developing Criteria (including attending Criteria committees);
- Conducting surveillance of a Credit Rating;
- Developing analytical models to support Criteria in which the results are used by a Rating Committee as part of determining a Credit Rating.

In addition Credit Rating Activities also include:

- Advanced Analytics
- Mappings
- Rating Agency Confirmation (RAC)
- Rating Evaluations Service (RES)
- Recovery Ratings

“Criteria”: published guidance that governs the analytic basis for determining Credit Ratings. Criteria include all fundamental factors, analytical principles, methodologies and assumptions that we use in the ratings process to produce our Credit Ratings. Criteria may encompass quantitative or qualitative elements, or both.

“Issuer”: an entity that issues debt or equity securities, as well as a bank or insurance companies, and their employees and agents acting on its behalf. An Issuer includes the rated entity and its related third parties.

“Other Service”: a product or service that S&P Global Ratings provides or sells that is neither an Ancillary Service nor part of its Credit Rating Activities.

“Practice Area”: a group within a Business Unit that is responsible for a particular type of credit sector or geographic area.

“Primary Analyst”: the Analyst who has been assigned primary responsibility for (a) determining a Rating Recommendation (b) presenting that Rating Recommendation to a Rating Committee and (c) Communicating with an Issuer with respect to a specific Credit Rating Action. A Primary Analyst means the “lead rating analyst” pursuant to the Rules.

“Rating Committee”: the committee that determines a Credit Rating.

“Rating Decision”: a Credit Rating that is determined by a Rating Committee prior to its Release.

“Rule”: A numbered “Rule” refers to the Credit rating agency Rules, prescribed under section 24(1) of the Act, published in Board Notice 228 of 2013.

Appendix 2: Historical Default Rates of the Past 10 Years per Category

S&P Global Ratings one-year default rates for each of the last 10 years by Credit Rating category and for Investment Grade (“IG”) and Non-Investment Grade (“NIG”) by segment.

Non-Financial Institutions 1 Year Default Rates (%)

Year	AAA	AA	A	BBB	BB	B	CCC/C	IG	NIG
2007	0.00	0.00	0.00	0.00	0.00	0.19	18.60	0.00	0.90
2008	0.00	0.00	0.00	0.10	0.62	4.27	30.49	0.06	3.88
2009	0.00	0.00	0.17	0.10	0.80	11.12	52.76	0.12	10.62
2010	0.00	0.00	0.00	0.00	0.00	0.87	22.40	0.00	2.86
2011	0.00	0.00	0.00	0.00	0.00	1.46	16.95	0.00	1.82
2012	0.00	0.00	0.00	0.00	0.25	1.69	29.92	0.00	2.80
2013	0.00	0.00	0.00	0.00	0.12	1.71	27.07	0.00	2.60
2014	0.00	0.00	0.00	0.00	0.00	0.82	19.73	0.00	1.58
2015	0.00	0.00	0.00	0.00	0.20	2.36	26.39	0.00	2.83
2016	0.00	0.00	0.00	0.00	0.60	3.74	32.60	0.00	4.48
Average	0.00	0.00	0.02	0.02	0.26	2.82	27.69	0.02	3.44

Financial Institutions 1 Year Default Rates (%)

Year	AAA	AA	A	BBB	BB	B	CCC/C	IG	NIG
2007	0.00	0.00	0.00	0.00	1.64	1.09	0.00	0.00	1.29
2008	0.00	0.44	1.06	1.89	2.21	2.02	15.38	1.11	2.82
2009	0.00	0.00	0.24	2.39	0.76	10.89	26.67	0.87	6.45
2010	0.00	0.00	0.00	0.00	3.60	0.93	22.73	0.00	4.10
2011	0.00	0.00	0.00	0.34	0.00	2.34	9.09	0.12	1.41
2012	0.00	0.00	0.00	0.00	0.65	0.73	12.50	0.00	1.30
2013	0.00	0.00	0.00	0.00	0.00	1.29	6.67	0.00	0.85
2014	0.00	0.00	0.00	0.00	0.00	0.57	6.06	0.00	0.73
2015	0.00	0.00	0.00	0.00	0.00	2.58	25.00	0.00	2.59
2016	0.00	0.00	0.00	0.00	0.00	4.02	35.00	0.00	3.26
Average	0.00	0.04	0.13	0.46	0.89	2.65	15.91	0.21	2.48

Insurance 1 Year Default Rates (%)

Year	AAA	AA	A	BBB	BB	B	CCC/C	IG	NIG
2007	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2008	0.00	0.58	0.29	0.56	0.00	3.45	0.00	0.41	1.28
2009	0.00	0.00	0.27	0.00	0.00	3.57	25.00	0.13	3.49
2010	0.00	0.00	0.00	0.00	0.00	0.00	28.57	0.00	2.56
2011	0.00	0.00	0.00	0.00	0.00	8.00	16.67	0.00	3.75
2012	0.00	0.00	0.00	0.00	0.00	0.00	16.67	0.00	1.28
2013	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2014	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2015	0.00	0.00	0.00	0.00	0.00	2.56	0.00	0.00	1.10
2016	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average	0.00	0.06	0.06	0.06	0.00	1.76	8.69	0.05	1.35

Sovereigns 1 Year Default Rates (%)

Year	AAA	AA	A	BBB	BB	B	CCC/C	IG	NIG
2007	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2008	0.00	0.00	0.00	0.00	0.00	7.14	0.00	0.00	3.92
2009	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	0.00	0.00	0.00	0.00	0.00	0.00	33.33	0.00	1.89
2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	0.00	0.00	0.00	0.00	0.00	6.06	100.00	0.00	5.36
2013	0.00	0.00	0.00	0.00	0.00	3.33	100.00	0.00	5.17
2014	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	1.75
2015	0.00	0.00	0.00	0.00	0.00	0.00	50.00	0.00	1.79
2016	0.00	0.00	0.00	0.00	0.00	5.41	0.00	0.00	3.33
Average	0.00	0.00	0.00	0.00	0.00	2.19	38.33	0.00	2.32

International Public Finance 1 Year Default Rates (%)

Year	AAA	AA	A	BBB	BB	B	CCC/C	IG	NIG
2007	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2008	0.00	0.00	0.00	0.00	1.14	0.00	0.00	0.00	0.87
2009	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.96
2010	0.00	0.00	0.00	0.00	1.37	0.00	14.29	0.00	1.85
2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	0.00	0.00	0.00	0.00	6.35	0.00	0.00	0.00	4.76
2013	0.00	0.00	0.00	0.00	1.79	4.76	0.00	0.00	2.56
2014	0.00	0.00	0.00	0.00	0.00	5.56	0.00	0.00	1.32
2015	0.00	0.00	0.00	0.00	0.00	0.00	9.09	0.00	1.28
2016	0.00	0.00	0.00	0.00	1.61	0.00	0.00	0.00	1.20
Average	0.00	0.00	0.00	0.00	1.23	1.03	12.34	0.00	1.48

Structured Finance 1 Year Default Rates (%)

Year	AAA	AA	A	BBB	BB	B	CCC/C	IG	NIG
2007	0.01	0.06	0.11	0.61	2.37	1.41	22.61	0.12	3.00
2008	0.33	0.66	1.04	2.00	4.78	11.77	55.37	0.70	15.97
2009	0.22	1.37	2.88	5.71	9.14	16.03	55.25	1.53	34.58
2010	0.14	0.50	0.71	1.84	2.59	5.25	23.31	0.53	17.50
2011	0.10	0.12	0.07	0.43	1.02	5.46	28.61	0.14	21.41
2012	0.04	0.13	0.05	0.32	0.66	1.46	31.38	0.10	23.06
2013	0.00	0.05	0.07	0.22	0.64	1.32	20.83	0.07	14.52
2014	0.00	0.04	0.00	0.02	0.17	1.33	13.90	0.01	9.23
2015	0.00	0.11	0.08	0.08	0.48	1.43	13.53	0.06	8.75
2016	0.00	0.27	0.07	0.19	0.23	1.26	10.94	0.12	6.92
Average	0.08	0.33	0.51	1.14	2.21	4.67	27.57	0.34	15.49

S&P Global Ratings three year cumulative default rates for each of the last 10 years by Credit Rating category and for Investment Grade ("IG") and Non-Investment Grade ("NIG") by segment.

Non-Financial Institutions 3 Year Cumulative Default Rates (%)

Year	AAA	AA	A	BBB	BB	B	CCC/C	IG	NIG
2007	0.00	0.00	0.00	0.19	0.74	4.36	23.71	0.11	3.77
2008	0.00	0.00	0.15	0.29	1.46	5.85	33.70	0.22	5.31
2009	0.00	0.00	0.00	0.58	5.88	14.72	45.35	0.33	12.35
2010	0.00	0.00	0.00	0.41	4.69	19.77	58.54	0.24	15.44
2011	0.00	0.00	0.17	0.10	1.46	16.14	65.03	0.12	14.55
2012	0.00	0.00	0.00	0.00	0.74	6.21	32.81	0.00	7.00
2013	0.00	0.00	0.00	0.00	0.80	7.11	34.75	0.00	6.38
2014	0.00	0.00	0.00	0.00	0.99	6.10	43.31	0.00	6.38
2015	0.00	0.00	0.00	0.00	0.86	6.62	42.11	0.00	6.64
2016	0.00	0.00	0.00	0.26	2.20	8.53	32.65	0.17	7.69
Average	0.00	0.00	0.03	0.18	1.98	9.54	41.20	0.12	8.55

Financial Institutions 3 Year Cumulative Default Rates (%)

Year	AAA	AA	A	BBB	BB	B	CCC/C	IG	NIG
2007	0.00	0.00	0.00	0.00	1.67	0.00	0.00	0.00	0.87
2008	0.00	0.64	0.86	1.95	4.65	1.14	0.00	1.14	3.07
2009	0.00	0.49	1.66	5.69	7.38	7.61	11.11	2.49	7.76
2010	0.00	0.44	1.59	5.68	5.88	13.13	30.77	2.44	10.08
2011	0.00	0.00	0.24	3.75	3.03	13.86	33.33	1.30	9.27
2012	0.00	0.00	0.00	0.33	4.32	1.87	27.27	0.12	5.22
2013	0.00	0.00	0.00	0.34	2.08	5.47	27.27	0.12	4.59
2014	0.00	0.00	0.00	0.00	1.30	2.92	18.75	0.00	2.93
2015	0.00	0.00	0.00	0.00	1.10	3.87	40.00	0.00	3.98
2016	0.00	0.00	0.00	0.28	0.00	8.57	21.21	0.12	5.33
Average	0.00	0.16	0.44	1.80	3.14	5.84	20.97	0.77	5.31

Insurance 3 Year Cumulative Default Rates (%)

Year	AAA	AA	A	BBB	BB	B	CCC/C	IG	NIG
2007	0.00	0.00	0.00	0.00	2.94	0.00	0.00	0.00	1.96
2008	0.00	0.71	0.33	0.64	2.56	8.70	0.00	0.47	4.69
2009	2.78	0.64	0.30	0.59	2.22	6.90	0.00	0.58	4.00
2010	2.63	1.74	0.29	0.56	2.22	6.90	0.00	0.83	3.85
2011	0.00	0.00	0.53	1.08	0.00	7.14	37.50	0.54	5.81
2012	0.00	0.00	0.00	0.57	0.00	9.09	42.86	0.14	6.41
2013	0.00	0.00	0.00	0.57	0.00	8.00	16.67	0.14	3.75
2014	0.00	0.00	0.00	0.00	0.00	0.00	16.67	0.00	1.28
2015	0.00	0.00	0.00	0.00	0.00	3.23	0.00	0.00	1.11
2016	0.00	0.00	0.00	0.00	0.00	2.86	0.00	0.00	1.28
Average	0.54	0.31	0.15	0.40	0.99	5.28	11.37	0.27	3.41

Sovereigns 3 Year Cumulative Default Rates (%)

Year	AAA	AA	A	BBB	BB	B	CCC/C	IG	NIG
2007	0.00	0.00	0.00	0.00	0.00	9.52	33.33	0.00	6.98
2008	0.00	0.00	0.00	0.00	0.00	0.00	66.67	0.00	4.44
2009	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	4.17
2010	0.00	0.00	0.00	0.00	0.00	10.71	0.00	0.00	5.88
2011	0.00	0.00	0.00	0.00	0.00	3.57	0.00	0.00	1.92
2012	0.00	0.00	0.00	5.56	0.00	7.41	33.33	1.43	5.66
2013	0.00	0.00	4.76	0.00	4.35	9.38	0.00	1.41	7.27
2014	0.00	0.00	0.00	4.17	0.00	12.12	0.00	1.39	8.93
2015	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00	8.62
2016	0.00	0.00	0.00	0.00	0.00	9.38	0.00	0.00	7.02
Average	0.00	0.00	0.48	0.97	0.44	7.61	13.33	0.42	6.09

International Public Finance 3 Year Default Rates (%)

Year	AAA	AA	A	BBB	BB	B	CCC/C	IG	NIG
2007	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2008	0.00	0.00	0.00	0.00	1.41	0.00	0.00	0.00	1.01
2009	0.00	0.00	0.00	0.00	1.25	4.00	0.00	0.00	1.90
2010	0.00	0.00	0.00	0.00	2.27	7.41	0.00	0.00	3.48
2011	0.00	0.00	0.00	0.00	1.32	3.70	0.00	0.00	2.88
2012	0.00	0.00	0.00	0.00	9.59	3.57	14.29	0.00	8.33
2013	0.00	0.00	0.00	0.00	9.23	0.00	0.00	0.00	6.25
2014	0.00	0.00	0.00	0.00	9.52	5.00	0.00	0.00	8.33
2015	0.00	0.00	0.00	0.00	1.79	14.29	0.00	0.00	5.13
2016	0.00	0.00	0.00	2.00	0.00	11.11	0.00	0.43	2.63
Average	0.00	0.00	0.00	0.20	3.64	4.91	1.43	0.04	3.99

Structured Finance 3 Year Default Rates (%)

Year	AAA	AA	A	BBB	BB	B	CCC/C	IG	NIG
2007	0.00	0.03	0.07	0.99	1.83	3.94	36.61	0.15	5.30
2008	0.03	0.13	0.95	4.80	7.58	7.34	34.06	0.85	8.89
2009	1.25	11.30	19.15	27.45	31.12	40.37	41.96	9.15	34.60
2010	5.73	20.79	25.56	31.40	43.63	62.30	77.20	14.07	55.76
2011	4.17	10.10	15.09	23.63	39.54	61.00	82.95	9.32	67.30
2012	0.65	1.74	2.85	7.58	13.37	27.31	66.49	2.17	52.74
2013	0.29	0.67	0.83	2.60	6.60	18.32	65.35	0.78	50.37
2014	0.17	0.35	0.71	1.19	3.43	7.43	53.37	0.45	40.25
2015	0.13	0.23	0.38	0.71	2.01	5.27	40.66	0.33	28.91
2016	0.00	0.37	0.31	0.55	1.14	4.86	32.67	0.29	22.15
Average	1.24	4.57	6.59	10.09	15.03	23.81	53.13	3.76	36.63