

XBRL US Record of Credit Ratings Taxonomy v2009 Architecture

Version 1.0

October 31, 2009

Prepared by:

Phillip Engel
Lead Technologist
XBRL US, Inc.

Campbell Pryde
Chief Standards Officer
XBRL US, Inc.

Notice Authorized Uses of this Document

Copyright © 2009 XBRL US, Inc.

All Rights Reserved

In order to meet the SEC's mission requirements, the "Record of Credit Ratings Taxonomy" may be used by the public, royalty-free and may be incorporated without change in other works that comment on, explain, or assist in the use or implementation of the XBRL US Record of Credit Ratings Taxonomy.

To that end, this document and translations of it may be copied and furnished to others, in whole or in part, and this document may be incorporated, in whole or in part, without change in other works that comment on or otherwise explain the XBRL US Record of Credit Ratings Taxonomy or assist in its implementation. Other works that incorporate this document, in whole or in part, without change may be prepared, copied, published and distributed without restriction of any kind, provided this Notice is included on the first page of all such authorized copies and works and the legend set forth below is contained on each subsequent page of such documents. Under no circumstances may this document, or any part of it that is incorporated into another work, be modified in any way, such as by removing the copyright notice or references to XBRL US, Inc., except as required to translate it into languages other than English or with prior written consent of XBRL US, Inc.

XBRL US, Inc. owns all right, title and interest in the XBRL US Record of Credit Ratings Taxonomy and all technical data, software, documentation, manuals, instructional materials, and other information created in connection with the Taxonomy – which includes this document. The SEC has an unlimited license in the Record of Credit Ratings Taxonomy and this other information and materials pursuant to Federal Acquisition Regulation ("FAR") 52.227-11, 52.227-14 (Alternative IV) and 52.227-16.

ALL PARTIES ACKNOWLEDGE THAT THIS DOCUMENT, THE INFORMATION CONTAINED HEREIN, AND ALL INFORMATION PROVIDED AS PART OF THIS TAXONOMY OR ITS ASSOCIATED FILES IS PROVIDED ON AN "AS IS" BASIS AND XBRL US, INC. DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR TITLE; OR ANY WARRANTY THAT THE USE OF THE CONTENTS OF THE TAXONOMY OR ITS ASSOCIATED FILES WILL NOT INFRINGE ANY THIRD PARTY PATENTS, COPYRIGHTS, TRADEMARKS OR OTHER RIGHTS. IN NO EVENT WILL XBRL US, INC. BE LIABLE TO ANY USER OR ANY THIRD PARTY FOR THE COST OF PROCURING SUBSTITUTE GOODS OR SERVICES, LOST PROFITS, LOSS OF USE, LOSS OF DATA OR ANY DIRECT, INDIRECT, CONSEQUENTIAL, INCIDENTAL, PUNITIVE OR SPECIAL DAMAGES, WHETHER UNDER CONTRACT, TORT, WARRANTY OR OTHERWISE, ARISING IN ANY WAY OUT OF THE USE OF THIS TAXONOMY OR ITS ASSOCIATED FILES, OR THE PERFORMANCE OR IMPLEMENTATION OF THE CONTENTS THEREOF OF ANY TYPE WHATSOEVER, WHETHER OR NOT SUCH PARTY HAD ADVANCE NOTICE OF THE POSSIBILITY OF SUCH DAMAGES.

The following legend shall appear on each subsequent page:

**Notice
Authorized Uses Are Set Forth on the First Page of this Document/File
Copyright © 2009 XBRL US, Inc. All Rights Reserved**

Table of Contents

1	Introduction	1
2	Domain Model	1
2.1	Terminology.....	1
2.2	Separation of Issuer, Instrument & Rating.....	1
2.3	SEC Categories.....	2
2.4	Issuers, Obligors & Instruments.....	3
2.5	Identification of Reporting Concepts	3
2.6	Identification of Issuers & Instruments.....	3
2.7	Need for Extension.....	4
3	Logical Model.....	4
3.1	Overview	4
3.2	Tuples.....	7
3.3	Views.....	7
3.4	Entry Points	7
3.5	Period Types	7
4	Physical Model	8
4.1	Implementation of Tuples	8
4.2	Entry Points & Files	8
5	Instance Model	9
5.1	Contexts.....	9
5.2	Instance Files	9
6	References (non-normative)	9

Table of Figures

Figure 1 - Example of a Security Rating	2
Figure 2 – Data Model of the XBRL US Record of Credit Ratings Taxonomy	5
Figure 3 - Tuple Structure	6

1 Introduction

The purpose of this document is to describe the architecture of the XBRL US Record of Credit Ratings Taxonomy. This architecture is based on the XBRL US GAAP Taxonomies Architecture [ARCH]. However, this taxonomy is a standalone taxonomy that is not intended to be integrated into the US GAAP Taxonomies' structure. This document highlights where the XBRL US Record of Credit Ratings Taxonomy diverges from the XBRL US GAAP Taxonomies' architecture in the three main areas of the architecture: domain model, logical model and physical model.

2 Domain Model

The purpose of the XBRL US Record of Credit Ratings Taxonomy is to capture information about credit ratings issued by a Nationally Recognized Statistical Rating Organization (NRSRO). This information is required by the Securities Exchange Act of 1934. The act, revised by SEC Rule 34-59342, requires that *“for each outstanding credit rating, a record showing all rating actions and the date of such actions from the initial credit rating to the current credit rating identified by the name of the rated security or obligor and, if applicable, the CUSIP of the rated security or the Central Index Key (CIK) number of the rated obligor”*.

2.1 Terminology

The following terms are used in this document:

Issuer: The entity issuing an instrument or running a debt program. The issuer may not in all cases be the obligor.

Obligor: The entity that is obligated to honor the debt described.

Object Rated: The description of the debt that is rated. This can be either an instrument, a program or a shelf.

Instrument: Financial constructs that are rated excluding issuers and obligors.

2.2 Separation of Issuer, Instrument & Rating

Information disclosed about a rating is segregated into three types of information. First, information about the rating itself (rating details); second, information about the instrument or program being rated (instrument details); and third, information about the issuer being rated (issuer details).

The rating details describe the rating type, the rating value, the relevant rating dates and any actions associated with the rating regardless if the rating is for an issuer, instrument or program. There can be one or many individual ratings that are applicable to an issuer or an instrument.

The instrument details refer to information about the actual debt instrument, program or shelf being rated. This generally includes the debt rated, the name of the debt rated, obligor details, unique identifier(s) of the debt, the interest rate type, the interest rate amount, other debt details and the class of debt. This information is provided to help a user identify and classify the debt.

The issuer details refer to information about the issuer of the debt. This generally includes the SEC issuer category, the issuer's name and unique identifiers of the issuer.

Figure 1 - Example of a Security Rating

Issuer Details			
SEC Category	Corporate		
Issuer Name	3M Company		
Issuer Identifier Details			
Issuer Scheme	Moody's ID		
Issuer-ID	496500		
Instrument Details			
Debt Rated	Security		
Instrument Identifier Details			
Instrument Identifier Scheme	CUSIP	ISIN	Moody's ID
Instrument ID	88579EAB1	US88579EAB11	815058038
Fixed Interest Rate	5.125		
Maturity Date	2009-11-06		
Rating Details			
Rating Type	Senior Unsecured		
Rating	Aa1		
Rating Effective Date	2007-02-16		

Figure 1 is an example of a corporate rating on a Senior Unsecured debt instrument. The issuer of the debt instrument is 3M Company. The debt is a security with a maturity date of November 6, 2009 and a fixed interest rate of 5.125%. The security was rated by Moody's on February 16, 2007 with a rating of "Aa1".

2.3 SEC Categories

Ratings are reported to the SEC using the following categories:

- Financial institutions, brokers, or dealers
- Insurance companies
- Corporate issuers
- Issuers of asset-backed securities (as that term is defined in section 1101(c) of part 229 of title 17, Code of Federal Regulations, as in effect on the date of enactment of this paragraph)
- Issuers of government securities, municipal securities, or securities issued by a foreign government.

The XBRL US Record of Credit Ratings Taxonomy normalizes these categories across NRSROs. The taxonomy requires that these categories are reported as the following enumerated strings:

- Financial
- Insurance

- Corporate
- AssetBacked
- Government

In addition, this is a required field that must be reported.

2.4 Issuers, Obligors & Instruments

A rating can be applied either to an issuer of a debt security or debt program, an obligor of a debt security or debt program, a debt security, or a debt program. In the XBRL US Record of Credit Ratings Taxonomy, a debt instrument is defined as a debt that includes both a debt security and a debt program or a shelf. The Taxonomy also refers to the debt issuer and obligor as the debt issuer. In the case where the debt issuer and obligor are different, the debt issuer refers to the actual issuer of the debt and the obligor is separately reported as the obligor associated with the debt instrument. When they are the same, the obligor does not need to be included in the file but can be if the NRSRO desires.

Every rating reported must include the debt issuer. An NRSRO could report ratings that are only applicable to an Issuer of securities and not report any instrument ratings. In addition, the NRSRO could report a rating for a debt instrument but not report the rating that is applicable to the Issuer (see Figure 1).

2.5 Identification of Reporting Concepts

The base set of reporting concepts were identified from the SEC regulations. Additional concepts were identified from common practices by reviewing initial filings of NRSROs and discussions with the NRSROs.

The XBRL US Record of Credit Ratings Taxonomy includes a standardized issuer and instrument identification method as well as elements for CIK and CUSIP. Reporting concepts were created to support these identifiers.

There are some concepts in the XBRL US GAAP Taxonomies that are identical to concepts defined in the XBRL US Record of Credit Ratings Taxonomy; however, in some cases the XBRL US GAAP Taxonomies' concepts are represented using dimensional qualifiers that could not be used; however, the same element names were used with a different namespace. No links were included between these concepts. Where concepts are the same we have used these elements, i.e., Investment Maturity Date.

2.6 Identification of Issuers & Instruments

The SEC rule requires that securities be identified by CUSIP and obligors be identified by CIK, if applicable. In order to ensure that instruments and issuers can be identified, an identification schema is defined that specifies what identifiers to use when CUSIP or CIK are not available.

2.6.1 Instruments

A security cannot always be identified by a CUSIP as required by the SEC regulations. The taxonomy, therefore, allows multiple instrument identifiers to be described. However, at least one identifier should be used. The taxonomy does not restrict the amount of identifiers that can be provided.

2.6.2 Issuers

An issuer or obligor cannot always be identified by a CIK as required by the SEC regulations. The taxonomy, therefore, allows multiple issuer identifiers to be described. However, at least one identifier should be used. The taxonomy does not restrict the amount of identifiers that can be provided.

In the case of the CUSIP identifier, one issuer could have multiple CUSIPs which are determined as a function of the securities issued by the issuer. The taxonomy is structured to allow for multiple identifiers for each identifier scheme by repeating the tuple for each CUSIP number.

2.7 *Need for Extension*

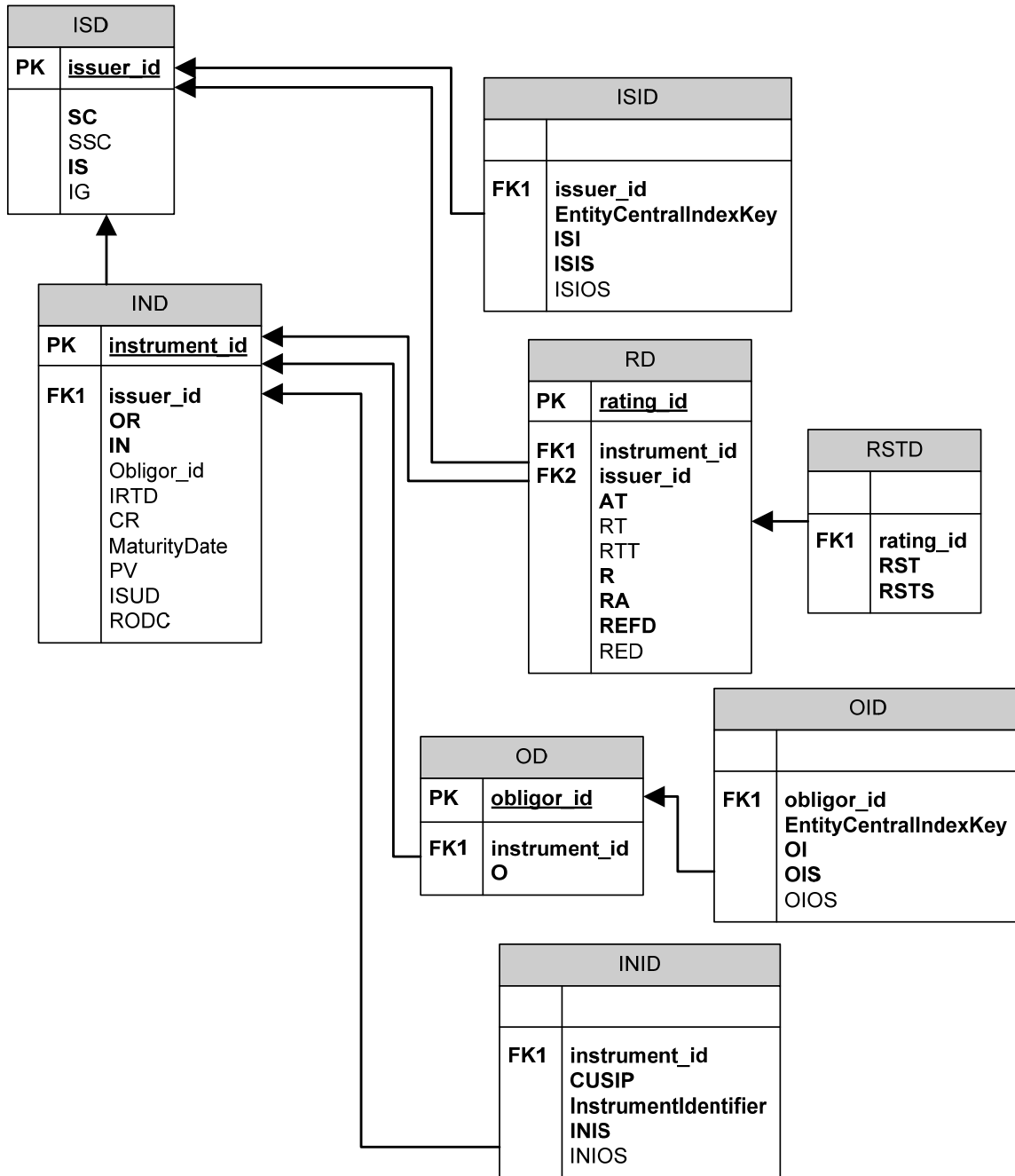
The XBRL US Record of Credit Ratings Taxonomy includes all the necessary components to report credit rating information. There should be no need to extend this taxonomy with additional elements. In addition, the taxonomy uses a tuple structure which severely limits the ability of the taxonomy to be extended. The only information that can be added to the taxonomy is additional elements about the NRSRO itself or labels.

3 Logical Model

3.1 *Overview*

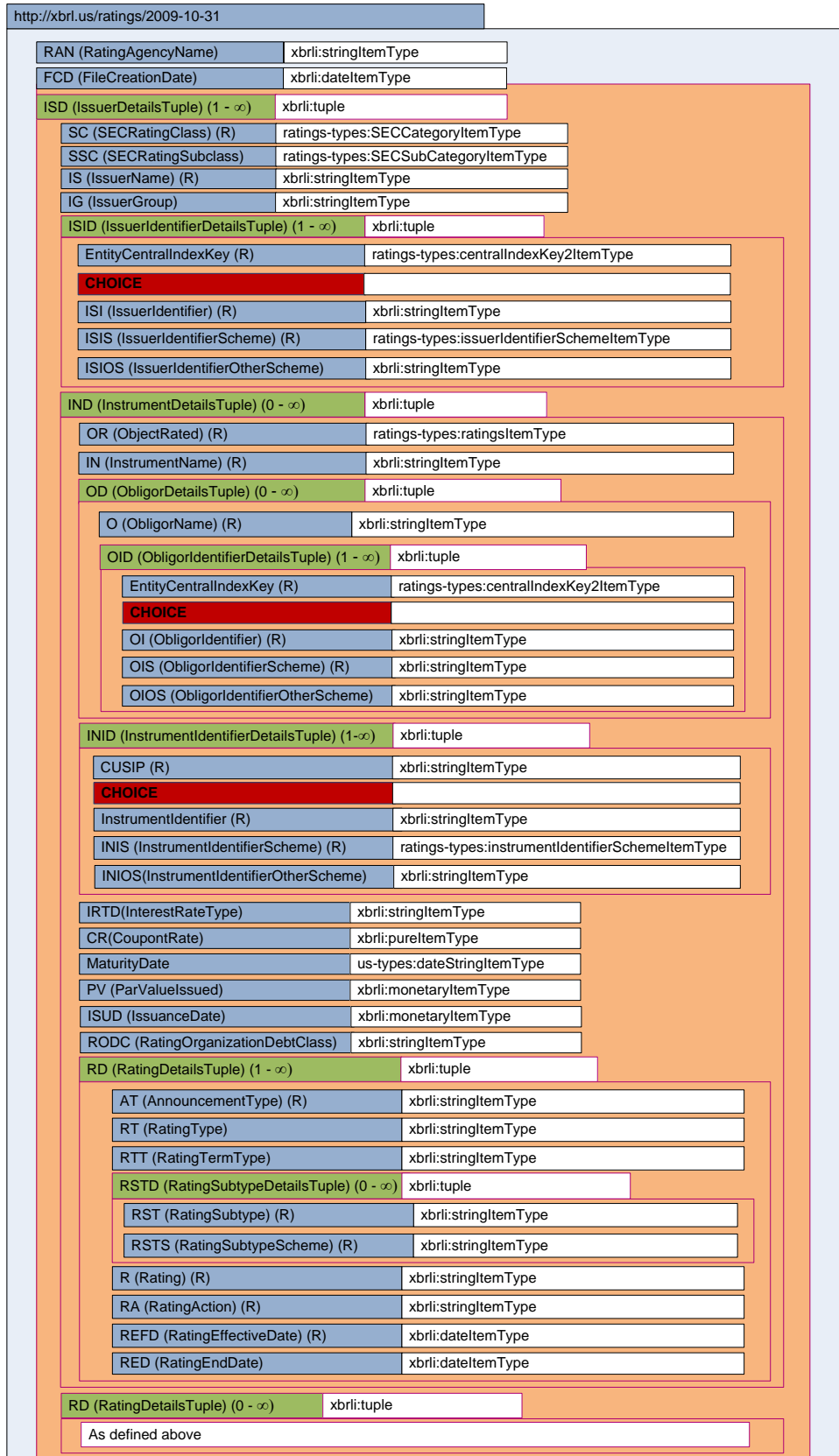
Figure 2 shows the Data Model of the XBRL US Record of Credit Ratings Taxonomy as a database schema. This schema can be used to record captured ratings data that will be reported by each NRSRO. The primary and foreign keys in the model are not included in the taxonomy but are included to represent the nested tuple structure that links the data together.

Figure 2 – Data Model of the XBRL US Record of Credit Ratings Taxonomy



All items with a “_id” suffix represent the content constraints defined by using a tuple structure. The data model shows the eight tuples included in the taxonomy and their content. The content constraints of the taxonomy are graphically depicted in Figure 3.

Figure 3 - Tuple Structure



3.2 Tuples

The XBRL US Record of Credit Ratings Taxonomy defines eight separate tuples. The tuples in the taxonomy are interconnected in a nested structure shown in Figure 3. All items in the taxonomy except the RatingAgencyName are included in one of eight tuple structures. Tuples have been used in the XBRL US Record of Credit Ratings Taxonomy to define the many one-to-many relationships that exist. Specifically, one issuer can issue many instruments and one instrument can have many ratings depending on the time period. In addition, one instrument can have multiple types of rating actions such as credit watch, trend and outlook ratings, and many instrument identifiers. The tuples defined in the XBRL US Record of Credit Ratings Taxonomy are easily identifiable as the word “Tuple” is appended to the element name and the string [Tuple] is appended to the element label.

The use of tuples in XBRL US taxonomies has historically been limited due to a need to extend taxonomies for entity specific disclosures. In the case of the XBRL US Record of Credit Ratings Taxonomy, the need to extend the taxonomy does not exist which makes tuples ideally suited for this taxonomy. In addition to using tuples, we considered using both explicit and typed dimensions.

Explicit dimensions would have required that an extension taxonomy be created which would have added to the complexity and volume of data being provided without any benefit other than the fact that the NRSRO would have had a greater ability to extend (not really a benefit in this case) and perhaps allow the re-use of dimensionally qualified elements already used in the XBRL US GAAP Taxonomy.

Typed dimensions would have not required an extension schema to be created but would have required the information captured by the tuple nesting structure to be explicitly captured in an XBRL context. Although a valid solution, the additional metadata required to capture the information would have doubled the file size of instances over a tuple structure. In addition, typed dimensions have not been fully implemented in a significant portion of XBRL enabled software.

Credit rating data does not have to be filed with EDGAR, which continues to disallow tuples.

3.3 Views

The XBRL US Record of Credit Ratings Taxonomy contains the view “995500 – Document – Record of Credit Ratings”. This view is implemented as a document and has a presentation linkbase only. There are no calculation or definition linkbases defined.

3.4 Entry Points

The XBRL US Record of Credit Ratings Taxonomy is a standalone taxonomy that will not be integrated into the XBRL US GAAP Taxonomies. The XBRL US Record of Credit Ratings Taxonomy does share some concepts in common with the XBRL US GAAP Schedule of Investments Taxonomy. Therefore, an instance of the XBRL US Schedule of Investments Taxonomy is referenced when the XBRL US Record of Credit Rating Taxonomy is opened. For more details on entry points refer to paragraph 4.2.

3.5 Period Types

All items in the XBRL US Record of Credit Ratings Taxonomy have a period type of duration. This is because the XBRL US GAAP Architecture requires that string and date items have an XBRL periodType of duration. Rating dates are explicitly provided as elements in the taxonomy, so that ratings that are applicable for a period are not defined by a durational context but by the elements RatingEffectiveDate and RatingEndingDate. This is because in a large number of cases ratings will still be current and will not have an end date. This current concept cannot be captured in the XBRL context. The duration end date defined in the context of the instance must be the date at which the sample selection was made (usually six months prior to the creation date of the file), not the date at which the record was created or published. The start date should be the date that the previous selection was made.

4 Physical Model

4.1 Implementation of Tuples

Tuples are implemented in the XBRL US Record of Credit Ratings Taxonomy. The tuple structure uses a “ref” statement within the tuple to refer to the element. Elements defined in the XBRL US Schedule of Investments Taxonomy schema which is imported by the XBRL US Record of Credit Ratings Taxonomy are then re-used in tuples.

XML content models are included in the ratings schema to control the minimum and maximum occurrences of XBRL items and tuples. These constraints are shown in Figure 3 with an (R) used to indicate required fields, a (1 - ∞) to indicate that at least 1 or more tuples must be present in the instance, and a (0 - ∞) to indicate that no tuple or unlimited tuples may be reported in the instance.

XML choice is also used in two tuples. The first tuple allows the NRSRO to either enter a CIK or other issuer identifier. The second tuple allows the NRSRO to enter either a CUSIP or other Instrument Identifier. This structure is adopted to highlight that the CIK and CUSIP are preferred identifiers as they align with the SEC rule.

4.2 Entry Points & Files

The XBRL US Record of Credit Ratings Taxonomy has a single set of entry points for the taxonomy. The XBRL US Record of Credit Ratings Taxonomy is integrated with the XBRL US GAAP Taxonomies and entry points are created based on the XBRL US GAAP Architecture for roles with a document prefix.

The XBRL US Record of Credit Ratings Taxonomy has a single schema for the concepts and roles used by the taxonomy. It has separate linkbase files for each type of linkbase and a set of entry point schemas. The files are:

Files	Description
ratings-2009-10-31.xsd	Schema containing concepts and tuple content models
ratings-lab-2009-10-31.xml	Standard, period start, period end and total labels
ratings-doc-2009-10-31.xml	Documentation labels
ratings-ref-2009-10-31.xml	References
ratings-pre-2009-10-31.xml	Presentation linkbase
ratings-std-2009-10-31.xsd	Entry point which includes the concept and role schema, and the standard, period start, period end and total labels. (No References, Documentation labels or Presentation linkbase.)
ratings-ent-std-2009-10-31.xsd	Entry point which includes the concept and role schema, and the standard, period start, period end and total labels. (No References or Documentation labels.)
ratings-all-2009-10-31.xsd	Entry point which includes the ratings-std entry point, the label linkbases and references. (No Presentation linkbase.)
ratings-ent-all-2009-10-31.xsd	Entry point which includes the label linkbases, References and Presentation linkbase.
ratings-roles-2009-10-31.xsd	Schema containing roles used in the taxonomy
ratings-types-2009-10-31.xsd	Schema containing data types, excluding tuple content models

5 Instance Model

5.1 Contexts

The instances created using the XBRL US Record of Credit Ratings Taxonomy will only contain one context. All items in the taxonomy must reference this context.

The duration end date defined in the context should be the date at which the sample selection was made, not the date at which the record was published. The start date should be the date that the previous selection was made.

The entity name defined in the context should use the full name as defined on the form_NRSRO.

5.2 Instance Files

Given the large size of the files it may be necessary to break instances into multiple components. If the file is broken down by a class of security, for example, government securities may be broken down into US Government Securities, Municipal Securities, and Foreign Government Securities.

6 References (non-normative)

- [ARCH] XBRL US GAAP Taxonomies v1.0 Architecture
<http://xbrl.us/Documents/SECOFM-USGAAPT-Architecture-20080428.pdf>
- [XBRL] Phillip Engel, Walter Hamscher, Geoff Shuetrim, David vun Kannon, Hugh Wallis.
Extensible Business Reporting Language (XBRL) 2.1 Recommendation with corrected
errata to 2008-07-02
<http://www.xbrl.org/SpecRecommendations/>