

EDGAR XBRL Guide

Prepared by SEC Staff

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The Securities and Exchange Commission ("SEC" or "Commission") staff is making available to the public this EDGAR Extensible Business Reporting Language ("XBRL") Guide to assist filers with preparing submissions on EDGAR using XBRL. This guide should not be relied upon for any other purpose.

Filers may consult the separate EDGAR XBRL Guide (Filing Fee Extract) for references in connection with preparing fee-related submissions on EDGAR using XBRL.

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Introduction

This EDGAR XBRL Guide provides detailed technical specifications of XBRL formatting and validation for use in connection with making submissions on EDGAR.

For all submissions, filers should refer to and must comply with the requirements in the EDGAR Filer Manual ("EFM").

Chapter 6, Volume II of the EFM, Interactive Data, contains requirements for Interactive Data submissions in EDGAR using XBRL. That chapter also explains the use of taxonomies and instances that comprise the XBRL model. Chapter 3, Volume II of the EFM, Index to Forms, contains a discussion of different XBRL formatted documents associated with relevant EDGAR form and submission types.

1 Fundamentals

Interactive Data submissions in EDGAR use the Extensible Business Reporting Language (XBRL) information model. To understand the preparation and processing of Interactive Data in EDGAR it is important to be familiar with XBRL's key ideas and terminology, as well as how XBRL differs from other formats.

Facts and Concepts. XBRL defines computer-readable *facts* for business reporting. A *fact* represents a single numeric item, or an arbitrarily sized section of text (a *non-numeric* fact). In EDGAR, a fact that appears in a submission is an assertion being made by a filer to satisfy an SEC disclosure requirement. Each fact is characterized by a set of core standard *dimensions*:

- the *period* for which the fact is asserted,
- the business *entity* that it is about,
- the human *language* in which the text is written (US English, in EDGAR),
- for numeric facts, the *unit* of measure and number of *decimal* places that are not significant.

Each fact is an occurrence of a *concept* that makes it comparable to other facts. For example, "Public Float" could be an SEC-defined concept for which a fact "10 billion US dollars, with nine digits (zeroes) not shown" has the same meaning whether it is a fact about entity ABC as of February 14, 2030, or a fact about entity XYZ as of January 12, 2025. Concepts have a *data type* and *validations* that constrain their possible values. Continuing the example, facts of the Public Float concept value should not be negative and must be expressed in US Dollars.

Instances and Formats. A set of XBRL facts is called an XBRL *instance*. An instance is computer-readable data that may be stored or transmitted written out in its original XML-based file format ("xBRL-XML") or embedded into HTML documents ("Inline XBRL"). In XBRL formats currently used in EDGAR, the location of facts within a file has no impact on their meaning. Also, an instance is not necessarily one EDGAR file attachment; Inline XBRL allows instances to be distributed across, and embedded into, more than one file attachment within a submission. XBRL defines the facts of an instance – its *information model*, not just file formats – and this is a unique defining characteristic of XBRL specifically intended to support technology changes.

Taxonomies and Dimensions. Another defining characteristic of XBRL is how concepts are defined via XBRL taxonomies. A *taxonomy* consists of concepts, along with *relationships* among concepts and with other computer-readable data. Relationships can be thought of as arcs in a graph, each with a *source* (or *parent*) concept and *target* (or *child*). The type of relationship is called *role* of the arc, i.e., its *arc role*. Some of these relationships describe the various *dimensions* along which a fact may be characterized. A fact may have any number of *taxonomy-defined dimensions*, conventionally called *axes*, each of which has a *domain* of possible values. As a mnemonic for axes and dimensions, it may be helpful to visualize a physical object such as a book. It has three *axes*: height, width, and depth. The *dimensions* of the book might be seven inches high, five inches wide, and one inch deep. Each of the book's axes has the same *domain*: positive numbers.

Domains may be infinite, like the number of inches, or may have a set of *explicit* members. For example, a taxonomy might define a "Country" axis, whose *explicit* members are countries. In this way, the facts "ABC Inc's Bermuda 2025 Revenue is \$10m" and "ABC Inc's Bonaire 2025 revenue is \$10m" are distinct. Their "dimensions" are "country Bermuda" and "country Bonaire", respectively. For a fact that does not specify an explicit member of an axis, there may be an unstated *default* member that represents 10

all members of that axis collectively. The fact "ABC Inc's 2025 Revenue is \$20m" therefore refers to its global revenue. A taxonomy specifies for every concept what dimensions are required, permitted, or forbidden for facts of every concept. EDGAR *validates* each XBRL instance against the relevant taxonomies to ensure that every fact has all the required dimensions and none of those dimensions are forbidden.

Modularity and Documentation. EDGAR taxonomies that support specific SEC rule releases are accompanied by technical documents called *taxonomy guides* that detail the concepts and other aspects of how the taxonomy is used. Since their introduction in 2009, new EDGAR taxonomies have been introduced and have evolved, resulting in differences in naming conventions, organization of files, and other matters. All EDGAR taxonomies are currently updated at least annually, for the most part via an EDGAR release occurring in the first quarter of each calendar year and removed from use after two years. All taxonomies used in an instance must be from the same calendar year but are otherwise technically independent and can be mixed and matched to suit the regulatory disclosures present in a submission. This organization of taxonomies is a different approach than EDGAR's technical guides for online forms.

Meta data. Taxonomies contain several computer-readable relationships other than the dimension-defining relationships outlined above. A concept in a taxonomy will be annotated with text *labels*, authoritative *references*, *data quality* validations, simple arithmetic *calculations*, and ordering and nesting relationships among concepts that that detail how software should create a tabular *presentation* of facts extracted from an instance. These relationships are ideally independent of which SEC Form, EDGAR Submission Type, or Exhibit the concepts will be used for.

For example, the concept "Entity Filer Category" has an authoritative reference to the Exchange Act 240.12b-2 which contains definitions of the terms. The Entity Filer Category concept also appears in a presentation *link* that provides a conventional order of presentation with respect to related concepts such as "Entity Voluntary Filers" and "Entity Well Known Seasoned Issuers" that may appear on the cover page of several different Forms in the same relative positions. In XBRL taxonomies, these relationships are stored in *linkbases* and may be embedded in XML *Schemas*; informally, these additional relationships and annotations are *taxonomy metadata*. They are often first created, reviewed, and used in various tabular styles, leaving the details of the technical syntax to software. Many submission types and exhibits require a filer-constructed *custom taxonomy* as part of the submission.

Validation. An EDGAR submission with XBRL attachments proceeds through multiple validation steps prior to acceptance. The validations are defined at several levels:

- (a) file format syntax, be that defined by the syntax of XML, XML Schema, XHTML, or XBRL specifications;
- (b) syntax restrictions that are specific to EDGAR for example, limitation on the XHTML tags that may appear in Inline XBRL;
- (c) semantic consistency of the instance for example, ABC Inc's Bonaire 2025 cannot be \$10m one location in an instance and \$11m in another:
- (d) semantic consistency of the facts and the meta data for example, if country Barbados is not a dimension, there can be no fact "ABC Inc's Barbados Inventory", and if it is present, Inventory should not be a negative number; and
- (e) submission-, form- and exhibit-specific checks for example, instance type QF.US should have a reporting period consistent with the 1^{st} , 2^{nd} or 3^{rd} quarter of the company's fiscal year.

All levels contribute to *data quality* although the term is mainly associated with levels (c), (d) and (e). Generally, the consequences of failed validations are either XBRL Errors, which may cause suspension, or XBRL Warnings, which do not cause suspension.

XBRL Submissions. Disclosure requirements that detail which entities are required to make what disclosures at what times and under what circumstances are ultimately to be found in the SEC rules and/or Form instructions. This document covers the steps for making those disclosures, and it details the relevant validations. In that way this document supplements the EDGAR Filer Manual and XBRL specifications, while providing a background for each individual Taxonomy Guide. The high-level steps for an EDGAR submission with XBRL attachments are listed below:

- 1. Identify the correct Form type, submission type, and exhibits; this determines the instance type [§ 6.1].
- 2. The relevant taxonomy entry points for that instance type [§ 6.3].
- 3. Identify the permitted formats for the instance attachments [§ 6.4]; choose valid mnemonic file names.
- 4. Identify the facts that are expected; their absence could result in EDGAR suspending the submission.
- 5. Identify the facts required for the disclosure, especially those with EDGAR validation warnings.
- 6. Determine where there will be concepts reported for more than one event, asset class, business segment or any disaggregation represented in the taxonomy and required in the disclosure.
- 7. Determine any non-standard ("custom") concepts needed and their supporting properties.
- 8. Create the custom taxonomy (if needed) and files for the instance.
- 9. Validate the instance, interpret errors and warnings, and correct them.
- 10. Preview the submission as it will be rendered on the SEC.gov web site.
- 11. Validate the entire submission and all its attachments, usually as a TEST submission.
- 12. Resolve the errors and warnings, repeat 11 as needed, then submit as a LIVE submission.

2 XBRL Specifications

XBRL International Inc. (XII) defines and updates the technical specifications, primers, test cases, and other resources for XBRL syntax, via committees and working groups whose draft publications are open to the public. EDGAR processes XBRL formatted files in submissions to create instances and validates that they conform to specifications.

New versions of specifications are published at https://specifications.xbrl.org from time to time. EDGAR does not use all parts nor the latest of all XII specifications. New specifications are not permitted in EDGAR submissions until finalized. New specifications are permitted only through the periodic EDGAR release and the filer manual update processes. The specifications currently governing the technical syntax of all EDGAR instances are:

- XBRL version 2.1
- XBRL Calculations version 1.1
- XBRL Dimensions version 1.1
- XBRL Extensible Enumerations version 1.0
- XBRL Extensible Enumerations version 2.0
- XBRL Open Information Model (OIM) 1.0 Common
- xBRL-XML Mapping for OIM 1.0

Additionally, the current XII specification governing the Inline XBRL format of instances is:

• Inline XBRL version 1.1

XII publishes widely shared enhancements that do not require new specifications via *registries*. EDGAR currently permits use of entries in these registries:

- XBRL Data Types Registry (DTR), versions 2020-01-21 and 2022-03-31 all entries
- XBRL Unit Types Registry (UTR), versions 2022-07-20 all entries
- Transformation Registries (TR) versions 2015-02-26, 2020-02-12, and 2022 all entries
- XBRL Link Role Registry (LRR) version 2022-09-28 only those URIs starting http://www.xbrl.org/lrr/

XII also creates and publishes taxonomies. Currently none of the XII taxonomies are EDGAR standard taxonomies.

3 Instance Validations

The content of an instance is illustrated here using Form 6-K.

EFM § 3 shows that Form 6-K may be submitted either as submission type 6-K or, if an amendment of a prior 6-K, submission type 6-K/A. The tables in EFM v68 § 6 (duplicated in this document in section 11 below), show that:

- Submission types 6-K and 6-K/A are in submission set 6K [§ 6.1.1];
- Submission set 6K is paired only with entity set FPI and maps to instance type 6K.A [§ 6.1.3];
- Instance type 6K.A requires entry point dei and may use us-gaap or ifrs and any of the other entry points on the row labeled ALL [§ 6.3];
- Instance type 6K.A is *not* one of the exceptions to the general requirement that the format be Inline XBRL, so it is an Inline XBRL attachment. [§ 6.4].

The first few lines of the file shown below have a root html element and a namespace prefix ix that establish it is an Inline XBRL file; see [§ 5.2.5] for more detail. The link:schemaRef attribute xlink:href means that it uses the dei-sub entry point that contains labels, presentation, and definition links of the 2024 version of the dei taxonomy:

```
<html xmlns="http://www.w3.org/1999/xhtml"
xmlns:xlink="http://www.xbrl.org/2013/inlineXBRL"
xmlns:link="http://www.xbrl.org/2003/linkbase"
xmlns:dei="http://xbrl.sec.gov/dei/2024">
<head><title></title><meta http-equiv="Content-Type" content="text/html"/>
<body style="width: 7in"><div style="display: none">
<ix:header>
<ix:header>
<ix:references>
<link:schemaRef xlink:type="simple"
    xlink:href="https://xbrl.sec.gov/dei/2024/dei-sub-2024.xsd" />
</ix:references>
...
```

Regarding the Inline XBRL markup, the preparer of a 6K.A instance needs to know the following data points:

- The form type, as distinct from the submission type;
- The company CIK and its EDGAR conformed name;
- The month and day of the current fiscal year end;
- For current reports in submission sets 8K and 6K, the date of the earliest event reported;

- In an amending submission (a submission type in submission set AM), whether the content of any XBRL facts have changed; and
- If the content of any XBRL facts changed, how.

Each of these data points is represented in an instance as a fact in the same context.

3.1 Expected Facts in the Required Context

Every instance type has some facts that are expected to be present and have specific values in the instance. Each such fact has a concept from a *standard taxonomy* as defined in EFM v68 § 6.2.2. The context of the fact will have:

- 1. an entity identifier matching the filing CIK, and
- 2. either
 - a. no taxonomy-defined dimensions, or
 - b. a dimension from a standard taxonomy, and
- 3. either a period whose end date matches the reporting period end, which may be
 - a. an instant, or
 - b. a duration matching the quarter or year of the submission reporting period, or
 - c. a duration of one day.

Conditions 1, 2.a, and either 3b or 3c jointly define *the* required context. There may be more than one context that matches all four conditions, in which case 3.c takes precedence over 3.b.

Every instance type has expected facts in a required context. For example, every instance must have a fact in the required context having concept dei:EntityCentralIndexKey whose value is the 10-digit CIK matching the CIK described in condition 1. One CIK must be chosen even when there are multiple co-registrants in the submission.

Other contexts meeting conditions 1.b, 2, and 3 are defined below in relation to certain expected facts. For example, some expected facts for multi-series filers expect a context with an explicit member of dei:LegalEntityAxis and otherwise identical to the Required Context.

Expected facts may also be subject to additional conditions:

- 4. The fact may be required to be either present or absent (attribute xsi:nil = true is normally the same as being absent).
- 5. The fact value may be expected to have a value that is consistent with
 - a. EDGAR's existing data for a company, or
 - b. data from the EDGAR submission header, or
 - c. other facts in the same instance.
- 6. The fact may be expected outside of element ix:header of an Inline XBRL file [§ 5.2.5.14]. Inline XBRL permits the same concept to appear more than once in the same context, possibly inside and outside of ix:header; in that case the condition of one occurrence appearing outside ix:header is sufficient.

Symmetrically, there are also validations for unexpected facts. Facts that are expected for one instance type may be unexpected (resulting in an XBRL warning or error) or optional (no warning or error is produced) or for other instance types. These conditions vary by instance type.

3.1.1 Notation and Terminology

This guide describes each fragment of expected content in two tables, a Concepts table and a Validations table

The Concepts table shows:

- The concept with its standard namespace prefix (sometimes, an EDGAR header field);
- A concept # in the style {1}, {2} etc. to be referenced in the Validations table;
- An XML or XBRL data type, or a POSIX regular expression (regex) of possible string values;
- A short indication of the concept meaning, which is often apparent from the concept name, along with any detail notes such as related Inline XBRL transformations (in some tables the cell is blank because the concept has been defined in a previous Concepts table).

An example Concepts table is shown below.

| Concept | # | Type or regex | Meaning |
|---------------------------|-----|---------------|-----------|
| dei:EntityCentralIndexKey | {1} | \d{10} | EDGAR CIK |

The Validations table shows:

- Included submission sets (prefixed by "s: ") and included instance types (prefixed by "i: ")
- Excluded submission sets (prefixed by "s: ") and excluded instance types (prefixed by "i: ")
- c a code indicating the contexts to which it applies (r: required; a: all; etc.)
- Check the condition to be tested
- f a footnote indication for special cases, exceptions, or additional detail notes,
- On failure the condition raised when the check fails,
- s the severity of the violation (E: Error, W: Warning),
- and (in this version of the guide) a reference to version 68 of the EDGAR Filer Manual (for example, "§ 6.5.21 X" refers to the code X appearing in the table of section 6.5.21; "§ 6.5.46 []" refers to a blank cell in the table of section 6.5.46).

An example validations table is shown below.

| Incl | Excl | С | Check | f | On failure | S | EFM v68 Ref |
|--------|------|---|------------------------|---|-------------|---|-------------|
| i: ALL | | r | A {1} fact is present. | | {1} Missing | Е | § 6.5.21 X* |

The consequences of an XBRL Error may vary depending on the instance type, as discussed in [§ 6.6]. However, an XML syntax error (such as a five-digit number where a ten-digit number is required or an unknown country code) always results in an XBRL Error. Failed validations of expected facts may be Errors or Warnings.

XBRL Warnings indicate that facts found in the instance are in some way incomplete, inconsistent with each other, misleading, ambiguous, or unreliable and this will have undesirable downstream consequences for users of the data. Filers should avoid XBRL warnings by correcting the data prior to live submission.

Within the validations table, a fact is *visible* in an Inline XBRL file if it is not located within the <code>ix:hidden</code> element. If the fact has duplicates, at least one must be located outside of <code>ix:hidden</code>. A fact is *present* in a context if it has a non-nil value; a fact is deemed to be *absent* if it either does not exist or exists only with a nil value.

Each validations table is followed by notes or special cases from the footnote (f) column.

3.1.2 Required Context validation

There is a check for the existence of a required context applying to all instances:

| Concept | # | Type or regex | Meaning |
|---------|---|---------------|---------|

| The CIK of any one company in the submission header | {1} | \d{1,10} | EDGAR CIK |
|---|-----|-----------------------|---|
| The period of the submission header | {2} | \d{1,2}-\d{1,2}-\d{4} | Reporting period if present |
| The filing date of the submission | {3} | \d{1,2}-\d{1,2}-\d{4} | Filing date, which may be the same or later than the acceptance date. |

Validations:

| Incl | Excl | С | Check | f | On failure | S | EFM v68 Ref |
|-------|------|---|---|---|------------------------|---|-------------|
| i:ALL | | | All contexts have an identifier element value equal to {1}. | | Non Matching Cik | Е | § 6.5.3 |
| i:ALL | | | There is a context having endDate value matching either {2} or {3}, and no segment element. | | Required Context | Е | § 6.5.19 |

Notes and special cases: none.

3.1.3 Central Index Key

| Concept | # | Type or regex | Meaning |
|---------------------------|-----|---------------|-----------|
| dei:EntityCentralIndexKey | {1} | \d{10} | EDGAR CIK |

Validations:

| Incl | Excl | С | Assertion | | On failure | S | EFM v68 Ref |
|--------------------|--------------------|---|---|---|----------------|---|-------------|
| i: ALL | | r | A {1} fact is present. | | {1} Missing | Е | § 6.5.21 X* |
| i: K.SDR, L.SDR | | r | A {1} fact with value a full tendigit CIK from among the coregistrants in the submission header or equal to 0000000000. | | {1} Value | Е | § 6.5.23 |
| i: ALL | i: K.SDR, L.SDR | r | A {1} fact with value a full tendigit CIK other than 0000000000 from among the co-registrants in the submission header. | 1 | {1} Value | Е | § 6.5.23 |

Notes and special cases:

1. Instance types K.SDR and L.SDR permit a CIK value of 0000000000 that could not appear in the submission header. 00000000000 represents an entity that is not an EDGAR registrant.

3.1.4 Registrant Name

| Concept | # | Type or regex | Meaning |
|--------------------------|-----|---------------------|----------------------------------|
| dei:EntityRegistrantName | {1} | xs:normalizedString | EDGAR registrant conformed name, |
| | | _ | with some differences permitted |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|---|---|---|--|------|--------------------------------|---|-----------------------|
| i: ALL | | r | A {1} fact is present. | | {1} Missing | Е | § 6.5.21 X, X* |
| i: ALL | | r | A value of {1} matches the EDGAR conformed name of the company whose CIK is. | 1, 2 | {1} Submission Value | Е | § 6.5.24 X |
| s: FAST | | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.21 X*, 6.5.45 X |
| i: AF.CA, AF.FPI, R33.FPI, R34.FPI | | r | If no {1} fact with xml:lang value en-US matches, then a matching {1} fact with a language not starting with en- is present. | 3 | - | Е | § 6.5.24 |
| i:ALL | i: AF.CA, AF.FPI, R33.FPI, R34.FPI | r | The matching {1} fact has xml:lang value en-us. | | {1} Submission Value | Е | § 6.5.24 X |

- 1. The conformed name must be a case-insensitive prefix of the fact value. For example, conformed name "SMITH" would match fact text "Smith, John". These differences are ignored:
 - a. Differences in whitespace or punctuation; hyphen characters (-, -) may either match whitespace or nothing. For example, "ABC Real-time" will match both "A.B.C. RealTime" and "ABC, Real Time".
 - b. Single-character words are ignored; "A. B. SMITH" will match "SMITH A".
 - c. Text entered between "//", such as "ABC CO /DE/", matches "ABC CO".
 - d. Matching abbreviations that EDGAR imposes, such as truncating CORPORATION to CORP, shortening "and" to ampersand "&", and dropping the word "The" at the beginning. For example, "The Smith and Jones Corporation" matches "SMITH & JONES CORP".
- 2. When the required context CIK is 0000000000, the name match is waived.
- 3. The cover pages of certain forms distinguish the "Exact name of Registrant as specified in its charter" from the "Translation of Registrant's name into English". If either differs from the conformed name, then an additional dei:EntityRegistrantName fact with an xml:lang attribute value not starting with en is expected.

3.1.5 Form or Exhibit Type

| Concept | # | Type or regex | Meaning |
|------------------|-----|--|--|
| dei:DocumentType | {1} | [A-z0-9]+([/A-z0-9 \.\-]*[A-z0-9])? Other (Up to 20 characters) | Form or Exhibit Type (often differs from the submission type). |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-----------|--------------------------------|---|---|---------------|-------------------|---|-------------|
| i: ALL | s: FE | r | A {1} fact is present. | | {1} Missing | Е | § 6.5.20 X* |
| i: ALL | s: FE, i: SE.OCX, SE.FEX | r | The {1} fact value is among the Form types permitted for the submission type as shown in EFM § 3. | 1, 2, 3 | {1} Value | Е | § 6.5.20 |
| i: SE.FEX | | r | The {1} fact value is Ex-99. SDR. I or Ex-99. SDR. J as shown in EFM § 3. | | {1} Value | Е | § 6.5.20 |
| i: SE.OCX | | r | The {1} fact value is among the Exhibits C-F, H, K-L, P-S as shown in EFM § 3. | | {1} Value | Е | § 6.5.20 |
| i: FE | | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.20 [] |

- 1. For compatibility with earlier EDGAR releases, dei:DocumentType may match the submission type without a warning, but this usage is discouraged and may soon be deprecated and result in a warning or error.
- 2. In some cases, there may be an inferred entity set and inferred submission set based on the combination of submission type, the value of **DocumentType**, and the value of submission header field **investment-CompanyType**, with or without a warning (previously § 6.5.56).

| Submission types | Value of dei:DocumentType | Value of investment-CompanyType | Inferred entity sets | Inferred submission sets | Severity |
|-----------------------------|---------------------------------|---------------------------------|----------------------|--------------------------|----------|
| 485APOS, 485BPOS | N-3 | | V3 | [§ 6.1] | W |
| 485APOS, 485BPOS | N-4 | | V4 | [§ 6.1] | W |
| 485APOS, 485BPOS | N-6 | | V6 | [§ 6.1] | W |
| 485APOS, 485BPOS, 485BXT | Not N-3, not N-4 and not N-6 | | OEF | [§ 6.1] | W |
| POS AM, POS EX | Matches POS.* | S-1 or S-3 | US | RD | W |
| POS AM, POS EX | Matches POS.* | N-1A | OEF | RD | W |
| POS AM, POS EX | Matches POS.* | N-2 | CEF | RD | W |
| POS AM, POS EX | Matches POS.* | N-3 | V3 | RD | W |
| POS AM, POS EX | Matches POS.* | N-4 | V4 | RD | W |
| POS AM, POS EX | Matches POS.* | N-6 | V6 | RD | W |
| POS AM, POS EX | Matches POS.* | (absent) | US | R33 | W |
| All other cases | | _ | | [§ 6.1] | |

3. Note that the entity and/or submission set, when inferred from dei:DocumentType, may not be what the filer intended; this can lead to other warnings or errors; therefore, using the value of the underlying form type (without /A) for dei:DocumentType is always preferred.

3.1.6 Amendment Flag and Description

| Concept | # | Type or regex | Meaning |
|-------------------------------|-----|---------------|--|
| dei:AmendmentFlag | {1} | xs:boolean | Value is true if the content of an instance changed from a previous submission that this amends, and false otherwise. This is not the same as the "/A" indicator on an EDGAR submission type; it is possible for an "/A" submission to amend only material that was not XBRL tagged content. |
| dei:Amendment- Description | {2} | xs:string | A description of the changes in the amendment. |

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|---------|---|---|---|---|-----------------------------|---|-------------|
| i: ALL | i: FE.A | r | A {1} fact is present. | | {1} Missing | W | § 6.5.20 R* |
| i: FE.A | | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.20 [] |
| i: ALL | | r | If a {1} fact with value true is present, then a {2} fact is present. | | {1} {2} Value Dependency | W | § 6.5.20 A |
| i: ALL | | r | If a {1} fact with value false is present, then a {2} fact is absent. | | {1} {2} Value Dependency | W | § 6.5.20 A |
| i: ALL | i: FE.A, RXP.US, RXP.FPI, OA.SDR | r | If {2} facts are present, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.20 A |

Notes and special cases: none.

3.1.7 Document Period End Date

| Concept | # | Type or regex | Meaning |
|--------------------------------|-----|---------------|---|
| dei:Document- PeriodEndDate | {1} | xs:date | Many EDGAR submission types have a header field periodofReport. For most of these, it represents the end date of a reporting or transition period. For current reports (8K, 6K submission types) it represents the date of the earliest event reported. |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-------------------------------|-------|---|---|---------|-------------------------------------|---|--------------------|
| s: 8K | | r | A {1} fact is present. | 1 | <pre>{1} Missing</pre> | W | § 6.5.20 R |
| s: FAST, AF.OEF, HF.OEF | s: 8K | r | A {1} fact is present. | 2 | {1} Missing | W | § 6.5.20 R |
| s: FAST, AF.OEF, HF.OEF | | r | If {1} facts are present, then at least one is visible. | | <pre>{1} in Facts Not Visible</pre> | W | § 6.5.45 R |
| s: 6K, i: OA.SDR | | r | A {1} fact is present. | 3 | {1} Missing | W | § 6.5.20 R* |
| s: RD, R33, R34, R40 | | r | A {1} fact is present. | 4, 5 | {1} Missing | W | § 6.5.20 R*, O* |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|---|---|---|--|---|-------------------|---|--------------------|
| s: FAST, AF.OEF, HF.OEF, 6K, R33, R34, R40, 6K, RD, R33, R34, R40, EBP, i: OA.SDR | | r | If a {1} fact is present, and the submission header field periodOfReport is present, then its date matches the value of {1}. | | {1} Value | W | § 6.5.40 Item 2 |
| s: ALL | s: FAST, 6K, R33, R34, R40, 6K, RD, R33, R34, R40, SE, EBP i: AF.OEF, HF.OEF, OA.SDR | r | A {1} fact is absent. | 5 | {1} Unexpected | W | § 6.5.20 [], O* |

- 1. Use the date of earliest event reported.
- 2. Use the end of the reporting or transition period.
- 3. Use the end of the period reported.
- 4. Use the filing date.
- 5. Check is waived when the submission type matches POS*

3.1.8 Document Fiscal Year and Period Focus

| Concept | # | Type or regex | Meaning |
|-------------------------------|-----|-------------------------|------------------------------|
| dei:DocumentFiscalYearFocus | {1} | xs:gYear (matches YYYY) | Filer's fiscal year. |
| dei:DocumentFiscalPeriodFocus | {2} | Q1 Q2 Q3 FY | Fiscal period of the report. |

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--------|---------------------------|---|---|---|------------------------------|---|---------------------|
| s: AF | i: AF.OEF | r | A {1} fact is present. | | {1} Missing | W | § 6.5.20 R* |
| s: ALL | | r | Neither or both of {1} and {2} facts are present. | 1 | {1} {2} Mutual Dependency | W | § 6.5.20 Op* |
| s: ALL | s: FAST, R33, R34, EBP | r | A {1} fact is absent. | 1 | {1} Unexpected | W | § 6.5.20 [], Op* |
| s: AF | i: AF.OEF | r | A {2} fact is present. | | {2} Missing | W | § 6.5.20 R* |
| s: ALL | s: FAST, R33, R34, EBP | r | A {2} fact is absent. | 1 | {2} Unexpected | W | § 6.5.20 [], Op* |

Notes and special cases:

1. Waived for submission types matching Pos.*.

3.1.9 Current Reporting Status and Interactive Data Current

Both dei:EntityCurrentReportingStatus and dei:EntityInteractiveDataCurrent facts in the required context are expected for most financial statements and optional for certain FPI instances.

| Concept | # | Type or regex | Meaning |
|--|-----|---------------|--|
| dei:Entity- Current- ReportingStatus | {1} | Yes No | Registrant has (1) filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that registrants were required to file such reports), and (2) have been subject to such filing requirements for the past 90 days. |
| dei:Entity- Interactive- DataCurrent | {2} | Yes No | The registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). |

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--------|-----------------------|---|---|---|-----------------------------|---|--------------------|
| s: AF | i: AF.OEF | r | A {1} fact is present. | | {1} Missing | W | § 6.5.21 R |
| s: AF | i: AF.OEF | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.21 R |
| s: ALL | i: R34.CA, R34.FPI | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.21 [], O* |
| s: AF | i: AF.OEF | r | A {2} fact is present. | | {2} Missing | W | § 6.5.21 R |
| s: AF | i: AF.OEF | r | If {2} facts are present, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.21 R |
| s: ALL | i: R34.CA, R34.FPI | r | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.21 [], O* |

Notes and special cases: none

3.1.10 Voluntary Filers, Shell Companies, and Well-known Seasoned Issuers

| Concept | # | Type or regex | Meaning |
|-----------------------------------|-----|---------------|--|
| dei:EntityVoluntaryFilers | {1} | Yes No | Registrant is "not required to file". |
| dei:EntityWellKnownSeasonedIssuer | {2} | Yes No | Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act |
| dei:EntityShellCompany | {3} | xs:boolean | Registrant is a shell company as defined in Rule 12b-2 of the Exchange Act |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--------------------------------|--------------------------------|---|--|---|--------------------------------|---|--------------------|
| i: AF.US, AF.BDC, AF.FPI | | r | A {1} fact is present. | | {1} Missing | W | § 6.5.21 R |
| i: AF.US, AF.FPI | | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.45 R |
| i: AF.US, AF.BDC, AF.FPI | | r | If header element voluntaryFilerFlag has a value, then it is equivalent to the {1} fact value. | | {1} Value | W | § 6.5.40 Item 3 |
| s: ALL | i: AF.US, AF.BDC, AF.FPI | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.21 [] |
| i: AF.US, AF.BDC, AF.FPI | | r | A {2} fact is present. | | {2} Missing | W | § 6.5.21 R |
| i: AF.US, AF.BDC, AF.FPI | | r | If {2} facts are present, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.45 R |
| i: AF.US, AF.BDC, AF.FPI | | r | If header element wellknown- SeasonedIssuerFlag has a value, then it is equivalent to the {2} fact value. | | {2} Value | W | § 6.5.40 Item 4 |
| s: ALL | i: AF.US, AF.BDC, AF.FPI | r | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.21 [] |
| i: AF.US, AF.BDC, AF.FPI | | r | A {3} fact is present. | | {3} Missing | W | § 6.5.21 R |
| i: AF.US, AF.BDC, AF.FPI | | r | If {3} facts are present, then at least one is visible. | | {3} in Facts Not Visible | W | § 6.5.45 R |
| i: AF.US, AF.BDC, AF.FPI | | r | If header element shellCompanyFlag has a value, then it is equivalent to the {3} fact value. | | {3} Value | W | § 6.5.40 Item 5 |
| s: ALL | i: AF.US, AF.BDC, AF.FPI | r | A {3} fact is absent. | | {3} Unexpected | W | § 6.5.21 [] |
| s: ALL | | a | At most one of {1} and {2} has the value Yes or true. | | {1} {2} Exclusive Values | W | § 6.5.21 WV |
| s: ALL | | a | At most one of {2} and {3} has the value Yes or true. | | {2} {3} Exclusive Values | W | § 6.5.21 WS |

Notes and special cases: none.

3.1.11 Small Business, Emerging Growth Company

| Concept | # | Type or regex | Meaning |
|---|-----|---------------|--|
| dei:EntitySmall- Business | {1} | xs:boolean | Indicates that the company is a Smaller Reporting Company (SRC). |
| dei:Entity- EmergingGrowth- Company | {2} | xs:boolean | Indicates a registrant that meets the emerging growth company criteria. |
| dei:Entity- ExTransitionPeriod | {3} | xs:boolean | Indicates an emerging growth company has elected not to use the extended transition period for complying with any new or revised financial accounting standards. |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--|--|---|--|---|--------------------------------|---|-------------------------|
| i: AF.US, AF.BDC, AF.OEF, QF.US, R33.US, R34.US | | r | A {1} fact is present. | 1 | {1} Missing | W | § 6.5.40 R, R* |
| i: AF.BDC | | r | A {1} fact with value true is absent. | | {1} Value | W | § 6.5.40 SB |
| i: AF.US, AF.BDC, AF.OEF, QF.US, R33.US, R34.US | | r | If header element smallBusinessFlag for the filer with the CIK of the required context, then a {1} fact is present with that fact value. | 1 | {1} Value | W | § 6.5.40 Item 9 |
| i: AF.US, AF.BDC, QF.US | | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.40 R, § 6.5.45 |
| s: ALL | i: AF.US, AF.BDC, AF.OEF, QF.US, R33.US, R34.US | r | A {1} fact is absent. | 1 | {1} Unexpected | W | § 6.5.40 [] |
| s: FAST, i: R33.US, R33.FPI, R34 | | r | A {2} fact is present. | 1 | {2} Missing | W | § 6.5.40 R, R* |
| s: ALL | | r | If there is a value for emergingGrowthCompany- Flag in the header for the filer with the CIK of the required context, then a {2} fact is present with that value. | 1 | {2} Submission Value | W | § 6.5.40 Item 6 |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|---|--|---|--|------|--------------------------------|---|--------------------------|
| s: FAST | | r | If {2} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.40 R |
| s: ALL | s: FAST, R34, i: R33.US, R33.FPI, | r | A {2} fact is absent. | 1 | {2} Unexpected | W | § 6.5.40 [] |
| s: FAST, i: R33.US, R33.FPI, R34 | | a | If a {2} fact valued true is present, then a {3} fact is present. | 1, 2 | {2} {3} Value Dependency | Е | § 6.5.40 ET |
| s: FAST, i: R33.US, R33.FPI, R34 | | a | If a {2} fact does not have value true, then a {3} fact is absent. | 1, 2 | {2} {3} Value Dependency | W | § 6.5.40 ET, ET* |
| s: FAST | | r | If {3} facts are present, then at least one is visible. | | {3} Unexpected | W | § 6.5.40 ET, § 6.5.45 |
| s: ALL | s: FAST, R34, i: R33.US, R33.FPI | r | A {3} fact is absent. | 1 | {3} Unexpected | W | § 6.5.40 [] |
| s: ALL | | r | If there is a value for exTransitionPeriodFlag in the header for the filer with the CIK of the required context, then a {3} fact is present with that value. | 1 | {3} Submission Value | W | § 6.5.40 Item 7 |

- 1. Check is waived when the submission type matches POS.*.
- 2. Check does not apply to instance type RD.CEF; see 3.1.24.7 below.

3.1.12 Current Fiscal Year End Date

| Concept | # | Type or regex | Meaning |
|-----------------------------------|-----|-----------------------------|--|
| dei:CurrentFiscalYear- EndDate | {1} | xs:gMonthDay (matchesMM-DD) | Month and day marking the end of the company's fiscal year; it normally does not change from year to year. |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|---|--|---|---|---|--------------------------------|---|-------------------------|
| s: AF, QF, 6K, i: K.SDR, L.SDR | i: AF.OEF, AF.CEF, AF.SEF, QF.SEF | r | A {1} fact is present. | 1 | {1} Missing | W | § 6.5.21 R, R* |
| s: AF | i: AF.OEF, AF.CEF | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.21 R, § 6.5.45 |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|---|---|---|--|---------|----------------------------|---|-------------------------------------|
| s: 8K, AF, QF, 6K, i: K.SDR, L.SDR, EBP | | r | If {1} is present, and there is a value for fiscalYearEnd in the header for the filer with the CIK of the required context, then the {1} fact is present with that value. | 2, | {1} Submission Value | W | § 6.5.21 [], O*, § 6.5.40 Item 1 |
| s: ALL | s: AF, QF, RF, 6K, EBP, i: R34.FPI, R34.CA, K.SDR, L.SDR | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.21 [], O* |
| s: 8K | | r | If Item 5.03 is indicated in the header, then {1} is present. | 1, 2 | {1} Submission Value | W | § 6.5.21 E503 |
| s: 8K | | r | If Item 5.03 is not indicated in the header, then {1} is absent. | | {1} Unexpected | W | § 6.5.21 E503 |

- 1. Co-registrants in the header may have different fiscal year ends; only one is relevant to value tests.
- The header field fiscalYearEnd is in format MM/DD, and in XBRL data type gMonthDay as --MM-DD.
- 3. L.SDR instances with CIK of 000000000 are exempt from the fiscal year end date value check.

3.1.13 Filer Category (Accelerated / Non-Accelerated)

| Concept | # | Type or regex | Meaning |
|------------------------------|-----|--|--|
| dei:EntityFiler- Category | {1} | (Large Accelerated Accelerated Non- accelerated) Filer | Accelerated Filer Status. Note that the possible values are case-sensitive, have spaces and a dash. |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-----------|------|---|---|---|---------------------|----|-------------------------|
| i: AF.US, | | | | | | | |
| AF.BDC, | | | | | | | |
| QF.US, | | | A cas fact is amount | 1 | {1} Missing | W | § 6.5.21 R, |
| AF.FPI, | | r | A {1} fact is present. | | | | R* |
| R33.US, | | | | | | | |
| R34.US | | | | | | | |
| i: AF.US, | | | | | | | |
| AF.BDC, | | | If {1} facts are present, then at least | | {1} in Facts Not | W | § 6.5.21 R, |
| QF.US, | | r | one is visible. | | Visible | VV | § 6.5.21 R, § 6.5.45 |
| AF.FPI | | | | | | | |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--|--|---|---|---|----------------------------|---|---------------------|
| s: ALL | i: AF.US, AF.BDC, QF.US, AF.FPI, R33.US, R34.US | r | A {1} fact is absent. | 1 | {1} Unexpected | W | § 6.5.21 [] |
| i: AF.US, AF.BDC, QF.US, AF.FPI, R33.US, R34.US | | r | If the value of accelerated- FilerStatus in the header for the filer with the CIK of the required context is Large Accelerated Filer, then a {1} fact value starting with Large Accelerated Filer is present. | 1 | {1} Submission Value | W | § 6.5.40 Item 10 |
| i: AF.US, AF.BDC, QF.US, AF.FPI, R33.US, R34.US | | r | If the value of accelerated- FilerStatus in the header for the filer with the CIK of the required context is Accelerated Filer, then a {1} fact value starting with Accelerated Filer is present. | 1 | {1} Submission Value | W | § 6.5.40 Item 11 |
| i: AF.US, AF.BDC, QF.US, AF.FPI, R33.US, R34.US | | r | If the value of accelerated- FilerStatus in the header for the filer with the CIK of the required context is neither Large Accelerated Filer nor Accelerated Filer, then a {1} fact is present in the required context with a value that starts with neither Large Accelerated Filer nor Accelerated Filer. | 1 | {1} Submission Value | W | § 6.5.40 Item 12 |
| i: AF.US, AF.BDC, QF.US, AF.FPI, R33.US, R34.US | | r | If there is no accelerated- FilerStatus in the header for the filer with the CIK of the required context, then a {1} fact is absent. | 1 | {1} Unexpected | W | § 6.5.40 Item 13 |

1. Checks waived when the submission type matches POS.*.

3.1.14 ICFR Auditor Attestation Flag

A dei:IcfrAuditorAttestationFlag fact is expected for US and FPI financial statements of accelerated and large accelerated filers, but optional for Canadian and Non-accelerated filers.

| Concept | # | Type or regex | Meaning |
|--------------------------------|-----|--|---|
| dei:EntityFilerCategory | {1} | (Large Accelerated Accelerated Non- accelerated) Filer | Note that the possible values have spaces and a dash. |
| dei:IcfrAuditorAttestationFlag | {2} | xs:boolean | |

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--|--|---|--|---|--------------------------------|---|----------------|
| i: AF.US, AF.BDC, AF.FPI | | r | If the value of {1} is "Large Accelerated Filer" or "Accelerated Filer", then a {2} fact is present. | | {2} Missing | W | § 6.5.21 Ra |
| i: AF.US, AF.BDC, AF.FPI, AF.CA | | r | If {2} facts are present, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.45 Ra |
| s: ALL | i: AF.US, AF.BDC, AF.FPI, AF.CA | a | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.21 [], O |

Notes and special cases: none.

3.1.15 Public Float

A dei:EntityPublicFloat fact is expected for certain instance types in an instant (not duration) context.

| Concept | # | Type or regex | Meaning |
|----------------------------|-----|---------------|--|
| dei:EntityPublic- Float | {1} | xs:decimal | A filer having no common shares outstanding will have a \$0 public float fact, not nil; debt and other tiers of equity are not measured in the public float. |

A context that has period type instant, no taxonomy-defined dimensions, and a date equal to or after the end date of the period of the required context is called a Subsequent Event (se) context.

Validations:

| Incl | Excl | c | Assertion | f | On failure | S | EFM v68 Ref |
|---------------------|---------------------|----|---|---|-----------------------------|---|-------------------------|
| i: AF.US, AF.BDC | | se | A {1} fact is present. | | {1} Missing | W | § 6.5.21 R |
| i: AF.US, AF.BDC | | se | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.21 R, § 6.5.45 |
| s: ALL | i: AF.US, AF.BDC | se | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.21 [] |

Notes and special cases: none.

3.1.16 Auditor Name, Location, and Firm ID

Three facts must appear together for annual financial statements for periods ending after 12/31/2020.

| Concept | # | Type or regex | Meaning |
|---------------------|-----|--|--|
| dei:AuditorName | {1} | [\p{L}\p{N}].* up to 150 characters; \p{L} matches a single letter and \p{N} matches any kind of numeric character in any language. | The plain text (not logo nor signature) name of the auditor |
| dei:AuditorLocation | {2} | $[\p{L}\p{N}].*$ up to 150 characters. | City along with either or both of country, US state, or Canadian province |
| dei:AuditorFirmId | {3} | [1-9]\d* an integer with no leading sign or zeroes. | The auditor's Firm ID as assigned by the US PCAOB. |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--|--|---|---|---|-----------------------------|---|-------------------------|
| i: AF.US, AF.BDC, AF.FPI, AF.CA | s: AM | r | A {1} fact is present. | 1 | {1} Missing | Е | § 6.5.21 H, § 6.5.54 |
| i: AF.US, AF.BDC, AF.FPI, AF.CA | | r | If {1} facts are present, then at least one is visible. | 2 | {1} in Facts Not Visible | W | § 6.5.21 H, § 6.5.54 |
| s: ALL | i: AF.US, AF.BDC, AF.FPI, AF.CA | r | A {1} fact is absent. | 1 | {1} Unexpected | Е | § 6.5.21 [] |
| i: AF.US, AF.BDC, AF.FPI, AF.CA | s: AM | r | A {2} fact is present. | 1 | {2} Missing | Е | § 6.5.21 H, § 6.5.54 |
| i: AF.US, AF.BDC, AF.FPI, AF.CA | | r | If {2} facts are present, then at least one is visible. | 2 | {2} in Facts Not Visible | W | § 6.5.21 H, § 6.5.54 |
| s: ALL | i: AF.US, AF.BDC, AF.FPI, AF.CA | r | A {2} fact is absent. | 1 | {2} Unexpected | Е | § 6.5.21 [] |
| i: AF.US, AF.BDC, AF.FPI, AF.CA | s: AM | r | A {3} fact is present. | 1 | {3} Missing | Е | § 6.5.21 H § 6.5.54 |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--|---|---|--|----|-------------------------------------|---|------------------------|
| i: AF.US, AF.BDC, AF.FPI, AF.CA | | r | If {3} facts are present, then at least one is visible. | 2 | {3} in Facts Not Visible | W | § 6.5.21 H § 6.5.54 |
| s: ALL | i: AF.US, AF.BDC, AF.FPI, AF.CA, EBP | r | A {3} fact is absent. | 1 | {3} Unexpected | Е | § 6.5.21 [] |
| s: ALL | | a | If any of {1}, {2}, or {3}, are present, then all three are present. | 1, | {1} {2} {3} Mutual Dependency | Е | § 6.5.54 |

- 1. Absence (or unexpected presence) has severity Error, not Warning as it is for most expected facts.
- 2. The code {_} in Facts Not Visible does not mean that auditor information must literally appear on a cover page. These facts should appear in an Inline XBRL file where they normally appear, adjacent to the auditors' opinions.
- 3. In addition to the primary auditor in the required context, additional auditor names, locations and firm IDs should be tagged in other contexts distinguished by the relevant reporting period of that audit opinion, and/or a distinct member of one of the following axes in a standard namespace:
 - a. ConsolidatedEntitiesAxis for subsidiaries,
 - b. ScheduleOfEquityMethodInvestmentEquityMethodInvesteeNameAxis for investments,
 - c. LegalEntityAxis for branches,
 - d. OwnershipAxis for components,
 - e. CounterpartyNameAxis for all others.

3.1.17 Investment Company Type

| Concept | # | Type or regex | Meaning |
|--------------------------|-----|--|--|
| dei:EntityInvCompanyType | {1} | N-1A N-1 N-2 N- 3 N-4 N-6 S-1 or S-3 S-6 | Investment Company Type. Note that one of the possible values is the literal token s-1 or s-3, these are not alternative values. |

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--------|-------|---|---|---|-------------|---|--------------------|
| s: RD | | r | A {1} fact is present. | | {1} Missing | W | § 6.5.40 R* |
| s: ALL | s: RD | r | A {1} fact is absent. | 1 | {1} Value | W | § 6.5.40 [] |
| s: RD | | r | If header element invCompanyType for the filer with the CIK of the required context, then a {1} fact is present with that fact value. | 1 | {1} Value | W | § 6.5.40 Item 8 |

Notes and special cases:

1. Checks waived for submission types matching POS.*.

3.1.18 File Number (Securities Act File Number)

| Concept | # | Type or regex | Meaning |
|---------------------------|-----|-------------------------|------------------------------------|
| dei:EntityFile- Number | {1} | \d{1,3}-\d{1,8}({1,4})? | Securities ("33") Act file number. |

Validations:

| Incl | Excl | c | Assertion | f | On failure | S | EFM v68 Ref |
|---------|--|---|------------------------|---|-------------------|---|----------------------------------|
| s: FAST | | r | A {1} fact is present. | | {1} Missing | W | § 6.5.47 Ri |
| s: ALL | s: FAST, 6K, EBP i: R34.FPI, R34.CA | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.47 [], O* § 6.5.55 n2sn |

Notes and special cases:

• The regex is less restrictive than that governing file numbers in an EDGAR submission header.

3.1.19 Incorporation State / Country Code

| Concept | # | Type or regex | Meaning |
|---|-----|---------------|---|
| dei:Entity- Incorporation- StateCountryCode | {1} | [A-Z][A-Z0-9] | Two-character EDGAR code. US States and Canadian provinces are represented by their postal code (e.g., wa, Bc); other countries by a code matching [A-z]\d. Transformation ixt-sec:edgarprovcountry (EFM § 5.2.5.12) transforms the full names of countries and Canadian provinces to their EDGAR codes. |

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|---------|----------------------|---|---|---|-----------------------------|---|--------------------|
| s: FAST | | r | A {1} fact is present. | | {1} Missing | W | § 6.5.47 Ri |
| s: FAST | | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.47 Ri |
| s: ALL | s: FAST, R33, R34 | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.47 [], O* |

Notes and special cases: none.

3.1.20 Tax Identification Number

| Concept | # | Type or regex | Meaning |
|--|-----|---------------|--------------------------------------|
| dei:EntityTaxIdentification- Number | {1} | \d{2}-\d{7} | Shown on forms as "IRS Employer ID". |

Validations:

| Types | Excl | c | Assertion | f | On failure | S | EFM v68 Ref |
|---------|---------------------------|---|---|---|-----------------------------|---|--------------------|
| s: FAST | i: AF.CA | r | A {1} fact is present. | | {1} Missing | W | § 6.5.47 Ri, O |
| s: FAST | | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.47 Ri, O |
| s: ALL | s: FAST, R34, i: AF.CA | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.47 [], O* |

Notes and special cases: none.

3.1.21 Primary SIC (Standard Industrial Code) Number

| Concept | # | Type or regex | Meaning |
|----------------------------|-----|---------------|---------------------------------------|
| dei:EntityPrimarySicNumber | {1} | \d{4} | SEC-assigned Standard Industrial Code |

Validations:

| Incl | Excl | c | Assertion | f | On failure | S | EFM v68 Ref |
|--------|------------------|---|---|---|-----------------------------|---|--------------------|
| AF.CA | | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.47 O |
| s: ALL | s: R34, i: AF.CA | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.47 [], O* |

Notes and special cases: none

3.1.22 Principal Office Address

The facts expected for the principal office address vary across instance types.

3.1.22.1 Street, City and Zip

| Concept | # | Type or regex | Meaning |
|--------------------------------|-----|---------------------|---------|
| dei:EntityAddressAddressLine1 | {1} | xs:normalizedString | |
| dei:EntityAddressCityOrTown | {2} | xs:normalizedString | |
| dei:EntityAddressPostalZipCode | {3} | xs:normalizedString | |

The first line of the address, the city or town, and postal or zip code, share identical checks.

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|---------|-------------------------------|---|---|---|-------------------------------------|---|--------------------|
| s: FAST | | r | A {1} fact is present. | | {1} Missing | W | § 6.5.48 Ri |
| s: FAST | | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.48 Ri |
| s: ALL | s: FAST, 6K, R34, R33, EBP | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.48 [], O* |
| s: FAST | | r | A {2} fact is present. | | {2} Missing | W | § 6.5.48 Ri |
| s: FAST | | r | If {2} facts are present, then at least one is visible. | | <pre>{2} in Facts Not Visible</pre> | W | § 6.5.48 Ri |
| s: ALL | s: FAST, 6K, R34, R33, EBP | r | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.48 [], O* |
| s: FAST | | r | A {3} fact is present. | | {3} Missing | W | § 6.5.48 Ri |
| s: FAST | | r | If {3} facts are present, then at least one is visible. | | <pre>{3} in Facts Not Visible</pre> | W | § 6.5.48 Ri |
| s: ALL | s: FAST, 6K, R34, R33, EBP | r | A {3} fact is absent. | | {3} Unexpected | W | § 6.5.48 [], O* |

Notes and special cases: none.

3.1.22.2 Street Address Lines 2 and 3

| Concept | # | Type or regex | Meaning |
|-------------------------------|-----|---------------------|---------|
| dei:EntityAddressAddressLine1 | {1} | xs:normalizedString | |
| dei:EntityAddressAddressLine2 | {2} | xs:normalizedString | |
| dei:EntityAddressAddressLine3 | {3} | xs:normalizedString | |

Address line 2 should only appear if the first line does, likewise, address line 3 only if address line 2 does. This should hold in any context.

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-----------------------|---|---|--|---|--------------------------------|---|---|
| s: ALL | | a | If a {2} fact is present, then a {1} fact is present. | 1 | {1} {2} Dependency | W | § 6.5.48 OL1*, § 6.5.51 OL1* |
| s: FAST, i: RD.CEF | | r | If {2} facts are present, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.48 O |
| s: ALL | s: FAST, 6K, R34, i: RD.CEF, R33.US, R33.FPI, EBP | r | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.48 [] |
| s: ALL | | a | If a {3} fact is present, then a {2} fact is also present. | | {2} {3} Dependency | W | § 6.5.48 OL2, OL2* § 6.5.51 OL2, OL2* |
| s: FAST, i: RD.CEF | | r | If {3} facts are present, then at least one is visible. | | {3} in Facts Not Visible | W | § 6.5.48 OL2 |
| s: ALL | s: FAST, 6K, R34, i: RD.CEF, R33.US, R33.FPI, EBP | r | A {3} fact is absent. | | {3} Unexpected | W | § 6.5.48 [], OL2* |

Notes and special cases:

1. Condition OL1 is satisfied if address line 2 is present; address line 1 is already required.

3.1.22.3 State or Province and Country

| Concept | # | Type or regex | Meaning |
|-----------------------------|-----|---------------|--|
| dei:Entity- | | | Postal state or province. Inline XBRL transformations |
| AddressState- OrProvince | {1} | [A-Z][A-Z] | that convert state and province names to postal codes |
| Orprovince | | | (e.g., TX, ON) shown in EFM § 5.2.5.12. |
| dei:Entity- | | | ISO 3166-1 alpha 2 (IANA) country code. Inline XBRL |
| AddressCountry | {2} | [A-Z] [A-Z] | transformations convert country names to IANA () codes |
| | | | (e.g., US, JP) are shown in EFM § 5.2.5.12. |

| Incl | Excl | c | Check | | Codes | S | EFM v68 Ref |
|-----------------------|-----------|---|---|------------------------|-----------------------------|---|--------------------|
| s: FAST, i: RD.CEF | i: AF.FPI | r | One or both {1} and {2} facts are present. | 1 {1} {2} Inclusive | | W | § 6.5.48 O2 |
| s: FAST, i: RD.CEF | | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.48 O, O2 |
| i: AF.FPI | | r | A {2} fact is present. | | {2} Missing | W | § 6.5.48 Ri |
| s: FAST, i: RD.CEF | | r | If {2} facts are present, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.48 O2, Ri |

| Incl | Excl | c | Check | f | Codes | S | EFM v68 Ref |
|--------|---|---|-----------------------|---|-------------------|---|--------------------|
| s: ALL | s: FAST, R34, R33, i: RD.CEF, EBP | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.48 [], O* |
| s: ALL | s: FAST, 6K, R34, i: R33.US, R33.FPI, EBP | r | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.48 [], O* |

Notes and special cases: none.

3.1.22.4 Phone

| Concept | # | Type or regex | Meaning |
|----------------------|-----|---------------------|---------|
| dei:CityAreaCode | {1} | xs:normalizedString | |
| dei:LocalPhoneNumber | {2} | xs:normalizedString | |

| Types | Excl | С | Check | f | On failure | s | EFM v68 Ref |
|---|---|---|---|------|--------------------------------|---|--|
| i: R34.US, R34.CA, R33.US, R33.FPI, AF.FPI, RD.CEF | | a | Neither or both of {1} and {2} facts are present. | 1, 2 | {1} {2} Dependency | W | § 6.5.48 Oph*, § 6.5.51 Oph, Oph* |
| s: 8K, QF, i: AF.US, AF.BDC, RD.CEF, AF.CA | i: QF.SEF | r | A {1} fact is present. | | {1} Missing | W | § 6.5.48 Ri |
| s: 8K, QF, i: AF.US, AF.BDC, RD.CEF, AF.CA | i: QF.SEF | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.48 Ri |
| s: ALL | s: 8K, QF, i: AF.US, AF.BDC, RD.CEF, AF.CA, R34.US, R34.CA, R33.US, R33.FPI, EBP | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.48 [], Oph* |
| s: 8K, QF, i: AF.US, AF.BDC, RD.CEF, AF.CA | i: QF.SEF | r | A {2} fact is present. | | {2} Missing | W | § 6.5.48 Ri |
| s: 8K, QF, i: AF.US, AF.BDC, RD.CEF, AF.CA | i: QF.SEF | r | If {2} facts are present, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.48 Ri |
| s: ALL | s: 8K, QF, i: AF.US, AF.BDC, RD.CEF, AF.CA, R34.US, R34.CA, R33.US, R33.FPI, EBP | r | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.48 [], O* |

- 1. Check is waived when the submission type matches POS*
- 2. Check applies in all contexts, and appears in both 6.5.48 and 6.5.51 (business address)

3.1.23 Submission Flags

Submission flags are grouped below when they have mutually dependent or exclusive values.

3.1.23.1 Annual Report, Transition Report, Quarterly Report

| Concept | # | Type or regex | Meaning |
|-----------------------------------|-----|---------------|---------|
| dei:DocumentAnnualReport | {1} | xs:boolean | |
| dei:DocumentTransitionReport | {2} | xs:boolean | |
| dei:DocumentShellCompanyReport | {3} | xs:boolean | |
| dei:DocumentShellCompanyEventDate | {4} | xs:date | |
| dei:DocumentQuarterlyReport | {5} | xs:boolean | |

When certain of the above concepts are expected, only one can have the value true.

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-------------------------------|------------|---|--|---|--------------------------------|---|-------------------|
| i: AF.US, AF.BDC, AF.CA | s: TF | r | A {1} fact valued true is present. | | {1} Value Missing | W | § 6.5.49 Y |
| s: TF, R34.FPI, R34.CA | s: QF, EBP | r | A {1} fact valued false is present. | | {1} Value Missing | W | § 6.5.49 N, N* |
| i: AF.FPI | | r | If a {1} fact valued true is present, then a {2} fact valued false is present. | | {1} {2} Value Dependency | W | § 6.5.49 TF3 |
| i: AF.FPI | | r | If a {1} fact valued true is present, then a {3} fact valued false is present. | | {1} {3} Value Dependency | W | § 6.5.49 TF3 |
| i: AF.FPI | | r | If a {2} fact valued true is present, then a {1} fact valued false is present. | | {2} {3} Value Dependency | W | § 6.5.49 TF3 |
| i: AF.FPI | | r | If a {2} fact valued true is present, then a {3} fact valued false is present. | | {2} {3} Value Dependency | W | § 6.5.49 TF3 |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|---|--|---|--|---|--------------------------------|---|-----------------------|
| i: AF.FPI | | r | If a {3} fact valued true is present, then a {1} fact valued false is present. | | {3} {2} Value Dependency | W | § 6.5.49 TF3 |
| i: AF.FPI | | r | If a {3} fact valued true is present, then a {2} fact valued false is present. | | {3} {2} Value Dependency | | § 6.5.49 TF3 |
| i: AF.US, AF.BDC, AF.CA | | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.49 Y, N, TF3 |
| s: QF, i: AF.US, AF.BDC, AF.CA | | r | If {2} facts are present, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.49 Y, N, TF3 |
| i: AF.FPI | | r | If {3} facts are present, then at least one is visible. | | {3} in Facts Not Visible | W | § 6.5.49 TF3 |
| R34.CA | | r | A {1} fact valued false is present. | | {2} Value Unexpected | | § 6.5.49 N* |
| s: ALL | s: QF, i: AF.US, AF.BDC, AF.CA, AF.FPI, R34.CA, EBP | r | A {1} fact is absent. | | {1} Unexpected | | § 6.5.49 [] |
| s: ALL | s: QF, i: AF.US, AF.BDC, AF.CA, AF.FPI, EBP | r | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.49 [] |
| i: AF.FPI | | r | If {3} facts valued true are present, then {4} is present. | | {3} {4} Value Dependency | W | § 6.5.49 SR |
| i: AF.FPI | | r | If {3} facts valued false are present, then {4} is absent. | | {3} {4} Value Dependency | W | § 6.5.49 SR |
| i: AF.FPI | | r | If {4} facts are present, then at least one is visible. | | {4} in Facts Not Visible | W | § 6.5.49 SR |
| s: ALL | i: AF.FPI, EBP | r | A {4} fact is absent. | | {4} Unexpected | W | § 6.5.49 [] |
| s: QF | s: TF | r | A {5} fact valued false is present. | | {5} Value Missing | W | § 6.5.49 N |
| s: TF | s: AF, EBP | r | A {5} fact valued true is present. | | {5} Value Missing | W | § 6.5.49 Y |
| s: QF | | r | If {5} facts are present, then at least one is visible. | | {5} in Facts Not Visible | W | § 6.5.49 Y, N |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--------|-------|---|-----------------------|---|---------------------------|---|-------------|
| s: ALL | s: QF | r | A {5} fact is absent. | | <pre>{5} Unexpected</pre> | W | § 6.5.49 [] |

Notes and special cases: none.

3.1.23.2 Financial Statement Error Correction, Recovery Analysis

| Concept | # | Type or regex | Meaning |
|--|-----|---------------|---|
| dei:DocumentFinStmtError- CorrectionFlag | {1} | xs:boolean | Annual reports expect a flag indicating error correction. |
| dei:DocumentFinStmt- RestatementRecovery- AnalysisFlag | {2} | xs:boolean | If error correction is true, then a flag indicating whether the restatement resulted in an analysis of compensation recovery. |

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|---------------------------------------|---------------------------------------|---|--|---|-----------------------------|------------|-------------|
| i: AF.US, AF.BDC, AF.FPI, AF.CA | | r | A {1} fact is present. {1} Missing | | W | § 6.5.49 R | |
| i: AF.US, AF.BDC, AF.FPI, AF.CA | | r | If {1} facts are present, then at least one is visible. | t, then at least {1} in Facts Not Visible | | W | § 6.5.49 R |
| s: ALL | i: AF.US, AF.BDC, AF.FPI, AF.CA | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.49 [] |
| i: AF.US, AF.BDC, AF.FPI, AF.CA | | a | If a {1} fact valued true is present, then {2} is present. | | {1} {2} Value Dependency | W | § 6.5.49 RT |
| i: AF.US, AF.BDC, AF.FPI, AF.CA | | a | If a {1} fact valued false is present, then {2} is absent. | | {1} {2} Value Dependency | W | § 6.5.49 RT |
| i: AF.US, AF.BDC, AF.FPI, AF.CA | | r | If {2} facts are present, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.49 RT |
| s: ALL | i: AF.US, AF.BDC, AF.FPI, AF.CA | r | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.49 [] |

Notes and special cases: none.

3.1.23.3 Non-US Filer Flags

Miscellaneous flags applying only to non-US filers.

| Concept | # | Type or regex | Meaning |
|--------------------------------------|-----|---|---|
| dei:AnnualInformationForm | {1} | xs:boolean | |
| dei:AuditedAnnualFinancialStatements | {2} | xs:boolean | |
| dei:DocumentAccountingStandard | {3} | U.S. GAAP International Financial Reporting Standards Other | Note that the values are case sensitive and contain spaces. |
| dei:OtherReportingStandardItemNumber | {4} | Item (17 18) | Note that the values are case sensitive and contain spaces. |

| Concept | # | Type or regex | Meaning |
|-----------------------------------|-----|---------------|---------|
| dei:DocumentRegistrationStatement | {5} | xs:boolean | |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-----------------------|--|---|---|---|-------------------------------------|---|-----------------------|
| s: AF.CA | | r | A {1} fact is present. | | {1} Missing | W | § 6.5.49 Ri |
| s: AF.CA | | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.49 Ri |
| s: ALL | s: AF.CA | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.49 [] |
| s: AF.CA | | r | A {2} fact is present. | | {2} Missing | W | § 6.5.49 Ri |
| s: AF.CA | | r | If {2} facts are present, then at least one is visible. | | <pre>{2} in Facts Not Visible</pre> | W | § 6.5.49 Ri |
| s: ALL | s: AF.CA | r | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.49 [] |
| i: AF.FPI | | r | A (3) fact is present. | | {3} Missing | W | § 6.5.50 Ri |
| i: AF.FPI | | r | If {3} facts are present, then at least one is visible. | | {3} in Facts Not Visible | W | § 6.5.50 Ri |
| s: ALL | i: AF.FPI, R34.FPI | r | A {3} fact is absent. | | {3} Unexpected | W | § 6.5.50 [], O* |
| i: AF.FPI, R34.FP | | r | If a {3} fact valued other is present, then {4} is present. | | {3} {4} Value Dependency | W | § 6.5.50 Oth, Oth* |
| i: AF.FPI, R34.FP | | r | If a {3} fact valued other is absent, then {4} is absent. | | {3} {4} Value Dependency | W | § 6.5.50 Oth, Oth* |
| i: AF.FPI | | r | If {4} facts are present, then at least one is visible. | | {4} in Facts Not Visible | W | § 6.5.50 Oth |
| s: ALL | i: AF.FPI, R34.FPI | r | A {4} fact is absent. | | {4} Unexpected | W | § 6.5.50 [] |
| i: AF.FPI, AF.CA | | r | If a {5} fact is present, it is valued false. | | <pre>{5} Value Missing</pre> | W | § 6.5.49 N |
| i: AF.FPI, AF.CA | | r | If {5} facts are present, then at least one is visible. | | <pre>{5} in Facts Not Visible</pre> | W | § 6.5.49 N |
| i: R34.CA, R34.FPI | | r | If a {5} fact is present, it is valued true. | | {5} Value Missing | W | § 6.5.49 Y* |
| s: ALL | i: AF.FPI, AF.CA. R34.FPI, R34.CA | r | A {5} fact is absent. | | {5} Unexpected | W | § 6.5.49 [] |

Notes and special cases: none.

3.1.23.4 Period Start Date

| Concept | # | Type or regex | Meaning |
|------------------------------|-----|---------------|---------|
| dei:DocumentTransitionReport | {1} | xs:boolean | |
| dei:DocumentPeriodStartDate | {2} | xs:date | |

The period start date fact is required only for transition reports. In the case of Form 20-F, a transition report cannot always be determined from the submission type alone.

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|---------------------|---------------------|---|---|---|-------------------------------------|---|--------------------|
| i: AF.FPI | | r | If a {1} fact valued true is present, then a {2} fact is present. | | <pre>{1} {2} Value Dependency</pre> | W | § 6.5.49 TR |
| s: TF | | r | A {2} fact is present. | | {2} Missing | W | § 6.5.49 Ri |
| s: TF, i: AF.FPI | | r | If {2} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.49 Ri, TR |
| s: ALL | s: TF, i: AF.FPI | r | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.49 [] |

Notes and special cases: none.

3.1.23.5 Bankruptcy Proceedings Flag

| Concept | # | Type or regex | Meaning |
|--|-----|---------------|---------|
| dei:EntityBankruptcyProceedingsCurrent | {1} | xs:boolean | |

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--|---|---|---|---|-----------------------------|---|--------------------|
| s: QF, i: AF.US, AF.BDC, AF.FPI | i: QF.SEF | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.49 O |
| s: ALL | s: QF, i: AF.US, AF.BDC, AF.FPI, R33.FPI, EBP | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.49 [], O* |

Notes and special cases: none.

3.1.23.6 Documents Incorporated by Reference

Form 10-K text describing documents incorporated by reference should appear in a text block fact.

| Concept | # | Type or regex | Meaning |
|---|-----|------------------------------|---------|
| dei:DocumentsIncorporatedByReferenceTextBlock | {1} | Text block (see 8.1.1 below) | |

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|---------------------|---------------------|---|---|---|-----------------------------|---|-------------|
| i: AF.US, AF.BDC | | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.49 O |
| s: ALL | i: AF.US, AF.BDC | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.49 [] |

Notes and special cases: none.

3.1.23.7 Current Report

| Concept | # | Type or regex | Meaning |
|--------------------------------|-----|---------------|---------|
| dei:WrittenCommunications | {1} | xs:boolean | |
| dei:SolicitingMaterial | {2} | xs:boolean | |
| dei:PreCommencementTenderOffer | {3} | xs:boolean | |

| Concept | # | Type or regex | Meaning |
|---|-----|--|---------|
| dei:PreCommencementIssuerTenderOffer | {4} | xs:boolean | |
| dei:EntityInformationFormerLegalOr- RegisteredName | {5} | xs:normalizedString (e.g., "OLDCO Inc.") | |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--------------|--------------|---|---|---|-------------------------------------|---|-------------|
| s: 8K | | r | A {1} fact is present. | | {1} Missing | W | § 6.5.52 Ri |
| s: 8K | | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.52 Ri |
| s: ALL | s: 8K | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.52 [] |
| s: 8K | | r | A {2} fact is present. | | {2} Missing | W | § 6.5.52 Ri |
| s: 8K | | r | If {2} facts are present, then at least one is visible. | | <pre>{2} in Facts Not Visible</pre> | W | § 6.5.52 Ri |
| s: ALL | s: 8K | r | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.52 [] |
| s: 8K | | r | A (3) fact is present. | | {3} Missing | W | § 6.5.52 Ri |
| s: 8K | | r | If {3} facts are present, then at least one is visible. | | {3} in Facts Not Visible | W | § 6.5.52 Ri |
| s: ALL | s: 8K | r | A {3} fact is absent. | | {3} Unexpected | W | § 6.5.52 [] |
| s: 8K | | r | A {4} fact is present. | | {4} Missing | W | § 6.5.52 Ri |
| s: 8K | | r | If {4} facts are present, then at least one is visible. | | <pre>{4} in Facts Not Visible</pre> | W | § 6.5.52 Ri |
| s: ALL | s: 8K | r | A {4} fact is absent. | | {4} Unexpected | W | § 6.5.52 [] |
| s: 8K, QF | i: QF.SEF | r | If {5} facts are present, then at least one is visible. | | {5} in Facts Not Visible | W | § 6.5.52 O |
| s: ALL | s: 8K, QF | r | A {5} fact is absent. | | {5} Unexpected | W | § 6.5.52 [] |

Notes and special cases: none

3.1.23.8 Material Cybersecurity Incident Disclosure

| Concept | # | Type or regex | Meaning |
|---|-----|--|----------------------|
| Values of element item in submission header | {1} | Several values all matching [1-9]. [0-9] [1-9] | Form 8-K Item number |

Validations:

| Incl | Excl | С | Check | f | On failure | S | |
|-------|------|---|---|---|------------------------------------|---|--|
| s: 8K | | r | If any value of {1} is 1.05, then a non-nil, non-empty CYD fact is present. | 1 | No CYD facts present for Item 1.05 | W | |

Notes and special cases:

1. CYD concepts are defined in 10.8.9 below.

3.1.24 Closed-end fund registration

The cover page of Form N-2 has over 30 check box, date, amendment, and file number facts, many of which have interdependent values or are mutually exclusive. The subsections below break these facts into related groups.

Note that unlike other Checks involving facts in the required context, violation of these is more likely to raise an error, not a warning.

Most concepts related to these Checks are in the dei namespace; a few are specific to closed-end funds and thus appear in the cef taxonomy.

3.1.24.1 N-2 Registration file numbers

| Concept | # | Type or regex | Meaning |
|--------------------------------------|-----|-------------------------|---------|
| Submission type from EDGAR header | {1} | | |
| dei:DocumentRegistrationStatement | {2} | xs:boolean | |
| dei:InvestmentCompanyActRegistration | {3} | xs:boolean | |
| dei:EntityFileNumber | {4} | \d{1,3}-\d{1,8}({1,4})? | |
| dei:InvestmentCompanyActFileNumber | {5} | \d{1,3}-\d{1,8}({1,4})? | |
| cef:BdcFileNumber | {6} | \d{1,3}-\d{1,8}({1,4})? | |

Form N-2, when submitted to EDGAR as submission type N-2, represents an initial filing in which no SEC file number has yet been assigned. All subsequent submissions will have one or more file numbers appearing on the cover page.

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-----------|------|---|--|---|-----------------------------|---|---------------|
| i: RD.CEF | | r | If {1} is N-2, then a {4} fact is absent. | 1 | {4} Unexpected | W | § 6.5.55 [] |
| i: RD.CEF | | r | If {1} is N-2, then a {5} fact is absent. | 1 | {5} Unexpected | W | § 6.5.55 [] |
| i: RD.CEF | | r | If {1} is N-2, then a {6} fact is absent. | 1 | {6} Unexpected | W | § 6.5.55 [] |
| i: RD.CEF | | a | Either or both a {2} fact valued true or a {3} fact valued true must be present. | | {3} {4} Inclusive | Е | § 6.5.55 n2c |
| i: RD.CEF | | a | Neither or both a {2} fact valued true and a {4} fact exist. | | {2} {4} Value Dependency | Е | § 6.5.55 n2sn |
| i: RD.CEF | | r | If {2} facts are present, then at least one is visible. | | {2} in Facts Not Visible | Е | § 6.5.55 n2sn |
| i: RD.CEF | | r | If {4} facts are present, then at least one is visible. | | {2} in Facts Not Visible | Е | § 6.5.55 n2sn |
| i: RD.CEF | | a | Neither or both a {3} fact valued true and a {5} fact exist. | | {3} {5} Value Dependency | Е | § 6.5.55 n2in |
| i: RD.CEF | | r | If {3} facts are present, then at least one is visible. | | {3} in Facts Not Visible | Е | § 6.5.55 n2in |
| i: RD.CEF | | r | If {5} facts are present, then at least one is visible. | | {5} in Facts Not Visible | Е | § 6.5.55 n2in |
| i: RD.CEF | | a | At most one of {5} or {6} are present. | | {5} {6} Exclusive | Е | § 6.5.55 n2bn |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-----------|------|---|--|---|-------------------------------------|---|---------------|
| i: RD.CEF | | r | If {5} facts are present, then at least one is visible. | | {5} in Facts Not Visible | Е | § 6.5.55 n2bn |
| i: RD.CEF | | r | If {6} facts are present, then at least one is visible. | | <pre>{6} in Facts Not Visible</pre> | Е | § 6.5.55 n2bn |
| i: RD.CEF | | a | If {6} facts are present, their value must begin with 814- | | {6} Value | Е | § 6.5.55 n2bn |

- 1. In general, the first form N-2 submission is not an amendment and will have no file numbers.
- 2. The file number regex is less restrictive than that used in EDGAR submission headers.

3.1.24.2 N-2 Registration Amendment Numbers

Subsequent submissions after the first Form N-2 will have amendment numbers that are different depending on whether the registration is under the Securities Act or the Investment Company Act and whether they occur before or after the registration becomes effective.

| Concept | # | Type or regex | Meaning |
|--|-----|---------------------|---------|
| Submission type from EDGAR header | {1} | | |
| dei:DocumentRegistrationStatement | {2} | xs:boolean | |
| dei:PreEffectiveAmendment | {3} | xs:boolean | |
| dei:PreEffectiveAmendmentNumber | {4} | xs:positiveInteger | |
| dei:PostEffectiveAmendment | {5} | xs:boolean | |
| dei:PostEffectiveAmendmentNumber | {6} | xs: positiveInteger | |
| dei:InvestmentCompanyActRegistration | {7} | xs:boolean | |
| dei:InvestmentCompanyRegistrationAmendment | {8} | xs:boolean | |
| dei:InvestmentCompanyRegistrationAmendmentNumber | {9} | xs:positiveInteger | |

Note that these tend to be errors, not warnings.

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-----------|------|---|--|---|-------------------------------------|---|--------------|
| i: RD.CEF | | r | If {1} is N-2, then a {3} fact is absent. | | {3} Unexpected | W | § 6.5.55 [] |
| i: RD.CEF | | r | If {1} is n-2, then a {5} fact is absent. | | {5} Unexpected | W | § 6.5.55 [] |
| i: RD.CEF | | a | If a {3} fact value is true, then there is a {2} fact valued true. | | {3} {2} Value Dependency | Е | § 6.5.55 n2d |
| i: RD.CEF | | a | If a {5} fact value is true, then there is a {2} fact valued true. | | <pre>{5} {2} Value Dependency</pre> | Е | § 6.5.55 n2f |
| i: RD.CEF | | a | If a {8} fact value is true, then there is a {7} fact valued true. | | {8} {7} Value Dependency | Е | § 6.5.55 n2h |
| i: RD.CEF | | r | Neither or both {3} fact has the value true and a {4} fact exists. | | {3} {4} Value Dependency | Е | § 6.5.55 n2e |
| i: RD.CEF | | r | Neither or both {5} fact has the value true and a {6} fact exists. | | <pre>{5} {6} Value Dependency</pre> | Е | § 6.5.55 n2g |
| i: RD.CEF | | r | Neither or both {8} fact has the value true and a {9} fact exists. | | {8} {9} Value Dependency | Е | § 6.5.55 n2i |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-----------|------|---|---|---|-------------------------------------|---|--------------|
| i: RD.CEF | | r | If {2} facts valued true are present, then at least one is visible. | 1 | {2} in Facts Not Visible | Е | § 6.5.55 n2d |
| i: RD.CEF | | r | If {3} facts valued true are present, then at least one is visible. | 1 | {3} in Facts Not Visible | Е | § 6.5.55 n2d |
| i: RD.CEF | | r | If {4} facts are present, then at least one is visible. | 1 | {4} in Facts Not Visible | Е | § 6.5.55 n2e |
| i: RD.CEF | | r | If {5} facts valued true are present, then at least one is visible. | 1 | {5} in Facts Not Visible | Е | § 6.5.55 n2f |
| i: RD.CEF | | r | If (6) facts are present, then at least one is visible. | 1 | <pre>{6} in Facts Not Visible</pre> | Е | § 6.5.55 n2g |
| i: RD.CEF | | r | If {7} facts valued true are present, then at least one is visible. | 1 | {7} in Facts Not Visible | Е | § 6.5.55 n2h |
| i: RD.CEF | | r | If {8} facts valued true are present, then at least one is visible. | 1 | {8} in Facts Not Visible | Е | § 6.5.55 n2h |
| i: RD.CEF | | r | If {9} facts are present, then at least one is visible. | 1 | {9} in Facts Not Visible | Е | § 6.5.55 n2i |

1. There are no checks for the absence of these facts in instance types other than RD.CEF.

3.1.24.3 N-2 Commencement of Sales

| Concept | # | Type or regex | Meaning |
|---|-----|---|---|
| dei:ApproximateDateOf- CommencementOf- ProposedSaleToThe- Public | {1} | (As soon as practicable From time to time) after the effective date of this Registration Statement\.?) (20\d\d-(0[1-9] 1[0-2])-(3[01] [012]\d)) | Note that the text values contain spaces. |

Validations:

| Incl | Excl | c | Check | f | On failure | S | Ref |
|-----------|------|---|------------------------|---|-------------|---|-------------|
| i: RD.CEF | | r | A {1} fact is present. | 1 | {1} Missing | W | § 6.5.55 Ri |

Notes and special cases:

1. There is no check for the absence of this fact in instance types other than RD.CEF.

3.1.24.4 N-2 Rule Flags

| Concept | # | Type or regex | Meaning |
|--|-----|---------------|---------|
| dei:DividendOrInterestReinvestmentPlanOnly | {1} | xs:boolean | |
| dei:DelayedOrContinuousOffering | {2} | xs:boolean | |
| cef:PrimaryShelfFlag | {3} | xs:boolean | |
| dei:EffectiveUponFiling462e | {4} | xs:boolean | |
| dei:AdditionalSecuritiesEffective413b | {5} | xs:boolean | |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-----------|------|---|---|---|-----------------------------|---|-------------|
| i: RD.CEF | | r | If {1} facts valued true are present, then at least one is visible. | 1 | {1} in Facts Not Visible | Е | § 6.5.55 B |
| i: RD.CEF | | r | If {2} facts valued true are present, then at least one is visible. | 1 | {2} in Facts Not Visible | Е | § 6.5.55 B |
| i: RD.CEF | | r | If {3} facts valued true are present, then at least one is visible. | 1 | {3} in Facts Not Visible | Е | § 6.5.55 B |
| i: RD.CEF | | r | If {4} facts valued true are present, then at least one is visible. | 1 | {4} in Facts Not Visible | Е | § 6.5.55 B |
| i: RD.CEF | | r | If {5} facts valued true are present, then at least one is visible. | 1 | {5} in Facts Not Visible | Е | § 6.5.55 B |

1. There is no check for the absence of this fact in instance types other than RD.CEF.

3.1.24.5 N-2 Effectiveness Dates

| Concept | # | Type or regex | Meaning |
|------------------------------------|-----|---------------|---------|
| dei:EffectiveWhenDeclaredSection8c | {1} | xs:boolean | |
| dei:EffectiveUponFiling486b | {2} | xs:boolean | |
| dei:EffectiveOnSetDate486b | {3} | xs:boolean | |
| dei:EffectiveOnDate486b | {4} | xs:date | |
| dei:EffectiveAfter60Days486a | {5} | xs:boolean | |
| dei:EffectiveOnSetDate486a | {6} | xs:boolean | |
| dei:EffectiveOnDate486a | {7} | xs:date | |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-----------|------|---|---|----------------------------|-----------------------------|---|--------------|
| i: RD.CEF | | r | If {1} facts valued true are present, then at least one is visible. | | {1} in Facts Not Visible | Е | § 6.5.55 B |
| i: RD.CEF | | r | If {2} facts valued true are present, then at least one is visible. | | | Е | § 6.5.55 B |
| i: RD.CEF | | r | If {3} facts valued true are present, then at least one is visible. | 1 | {3} in Facts Not Visible | Е | § 6.5.55 B |
| i: RD.CEF | | a | Neither or both {3} fact has the value true and a {4} fact exists. | | {3} {4} Value Dependency | Е | § 6.5.55 n2j |
| i: RD.CEF | | r | If {4} facts are present, then at least one is visible. | 1 {4} in Facts Not Visible | | Е | § 6.5.55 n2j |
| i: RD.CEF | | r | If {5} facts valued true are present, then at least one is visible. | 1 | {5} in Facts Not Visible | Е | § 6.5.55 B |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-----------|------|---|---|---|-------------------------------------|---|--------------|
| i: RD.CEF | | r | If {6} facts valued true are present, then at least one is visible. | 1 | {6} in Facts Not Visible | Е | § 6.5.55 B |
| i: RD.CEF | | a | Neither or both {6} fact has the value true and a {7} fact exists. | | <pre>{6} {7} Value Dependency</pre> | Е | § 6.5.55 n2k |
| i: RD.CEF | | r | If {7} facts are present, then at least one is visible. | 1 | {7} in Facts Not Visible | Е | § 6.5.55 n2k |

1. There is no check for the absence of this fact in instance types other than RD.CEF.

3.1.24.6 N-2 Other Flags

| Concept | # | Type or regex | Meaning |
|--|-----|-------------------------|---------|
| dei:NewEffectiveDateForPreviousFiling | {1} | xs:date | |
| dei:AdditionalSecurities462b | {2} | xs:boolean | |
| dei:AdditionalSecurities462bFileNumber | {3} | \d{1,3}-\d{1,8}({1,4})? | |
| dei:NoSubstantiveChanges462c | {4} | xs:boolean | |
| dei:NoSubstantiveChanges462cFileNumber | {5} | \d{1,3}-\d{1,8}({1,4})? | |
| dei:ExhibitsOnly462d | {6} | xs:boolean | |
| dei:ExhibitOnly462dFileNumber | {7} | \d{1,3}-\d{1,8}({1,4})? | |

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-----------|------|---|---|---|-------------------------------------|---|--------------|
| i: RD.CEF | | r | If {1} facts are present, then at least one is visible. | 1 | {1} in Facts Not Visible | Е | § 6.5.55 B |
| i: RD.CEF | | r | If {2} facts valued true are present, then at least one is visible. | 1 | {2} in Facts Not Visible | Е | § 6.5.55 B |
| i: RD.CEF | | a | Neither or both {2} fact has the value true and a {3} fact exists. | | {2} {3} Value Dependency | Е | § 6.5.55 n21 |
| i: RD.CEF | | r | If {3} facts are present, then at least one is visible. | 1 | {3} in Facts Not Visible | Е | § 6.5.55 n21 |
| i: RD.CEF | | r | If {4} facts valued true are present, then at least one is visible. | 1 | {4} in Facts Not Visible | Е | § 6.5.55 B |
| i: RD.CEF | | a | Neither or both {4} fact has the value true and a {5} fact exists. | | {4} {5} Value Dependency | Е | § 6.5.55 n2m |
| i: RD.CEF | | r | If {5} facts are present, then at least one is visible. | 1 | {5} in Facts Not Visible | Е | § 6.5.55 n2m |
| i: RD.CEF | | r | If 6 facts valued true are present, then at least one is visible. | 1 | {6} in Facts Not Visible | Е | § 6.5.55 B |
| i: RD.CEF | | a | Neither or both {6} fact has the value true and a {7} fact exists. | | <pre>{6} {7} Value Dependency</pre> | Е | § 6.5.55 n2o |
| i: RD.CEF | | r | If {7} facts are present, then at least one is visible. | 1 | {7} in Facts Not Visible | Е | § 6.5.55 n2o |

Notes and special cases:

1. There is no check for the absence of this fact in instance types other than RD.CEF.

3.1.24.7 N-2 Registrant Type Flags

| Concept | # | Type or regex | Meaning |
|------------------------------------|-----|---------------|---------|
| cef:RegisteredClosedEndFundFlag | {1} | xs:boolean | |
| cef:BusinessDevelopmentCompanyFlag | {2} | xs:boolean | |
| cef:IntervalFundFlag | {3} | xs:boolean | |
| cef:PrimaryShelfQualifiedFlag | {4} | xs:boolean | |
| dei:EntityWellKnownSeasonedIssuer | {5} | Yes No | |
| dei:EntityEmergingGrowthCompany | {6} | xs:boolean | |
| dei:EntityExTransitionPeriod | {7} | xs:boolean | |
| cef:NewCefOrBdcRegistrantFlag | {8} | xs:boolean | |

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-----------|------|---|---|---|-----------------------------|---|--------------|
| i: RD.CEF | | r | If {1} facts valued true are present, then at least one is visible. | 1 | {1} in Facts Not Visible | Е | § 6.5.55 n2p |
| i: RD.CEF | | r | At most one of {1} and {2} has the value true. | 1 | {1} {2} Exclusive Values | Е | § 6.5.55 n2p |
| i: RD.CEF | | r | If {2} facts valued true are present, then at least one is visible. | 1 | {2} in Facts Not Visible | Е | § 6.5.55 B |
| i: RD.CEF | | r | If {3} facts valued true are present, then at least one is visible. | 1 | {3} in Facts Not Visible | Е | § 6.5.55 B |
| i: RD.CEF | | r | If {4} facts valued true are present, then at least one is visible. | 1 | {4} in Facts Not Visible | Е | § 6.5.55 B |
| i: RD.CEF | | r | If {5} facts valued true are present, then at least one is visible. | | (5) in Facts Not Visible | Е | § 6.5.55 B |
| i: RD.CEF | | r | If {6} facts valued true are present, then at least one is visible. | | (6) in Facts Not Visible | Е | § 6.5.55 B |
| i: RD.CEF | | r | If {7} facts valued true are present, then at least one is visible. | 2 | {7} in Facts Not Visible | Е | § 6.5.55 B |
| i: RD.CEF | | r | If {8} facts valued true are present, then at least one is visible. | | {8} in Facts Not Visible | Е | § 6.5.55 B |

Notes and special cases:

- 1. Some concepts in this section are drawn from the cef namespace, not dei.
- 2. See 3.1.11 above for checks related to this fact value for other instance types.

3.2 Expected Facts with Dimensions

Taxonomy-defined dimensions, as introduced in section 1 above, are used to define XBRL *hypercubes*. In this document as in all SEC standard taxonomies a taxonomy-defined dimension is called an *Axis*. Members of an axis may be its *default* member, a *standard* member, or a *custom* member defined by the filer. In addition to indicators such as names and indentations within tables, concept types used in this document are additionally color-coded as shown in Figure 1.

Figure 1. Dimension figures color-coding legend

| Concept or value type | Color |
|---|-------------|
| Concept core dimension and concepts | Green |
| Other core dimensions and their members | Gray |
| Fact values | None |
| Taxonomy-defined dimension (Axis) | Orange |
| Standard members | Medium Blue |
| Custom members | Purple |
| Abstract placeholder concepts not appearing in instances, such as hypercubes, line items, domain defaults, and non-usable domain members. | Light Blue |

A hypercube of only a single taxonomy-defined dimension can be visualized as a table presented in a disclosure as illustrated in Figure 2. Note that if not specified as region 1 or 2, the value is the sum across the two regions.

Figure 2. Example showing nine facts with a single taxonomy-defined dimension

| entity: Example01 | | Concepts Dimension | | | | |
|-------------------|----------|--------------------|-----------------|------------------|--|--|
| period: FY30 | | | | | | |
| units: USD | | Product Revenue | Service Revenue | Combined Revenue | | |
| | Region 1 | 23 | 12 | 35 | | |
| Region Axis | Region 2 | 17 | 8 | 25 | | |
| | | 40 | 20 | 60 | | |

Layout and formatting for presentation of the data to a human reader does not change the meaning, and therefore does not change the characterization of each of the nine facts. Figure 3 shows the same facts, with the concept dimension presented as rows, and the class dimension as columns.

Figure 3. Example showing different presentation of the same nine facts

| entity: Exan | nple01 | | Region Axis | |
|---------------------------|------------------|----------|-------------|----|
| period: FY3 units: USD | 0 | Region 1 | Region 2 | |
| Concepts Dimension | Product Revenue | 23 | 17 | 40 |
| | Service Revenue | 12 | 8 | 20 |
| | Combined Revenue | 35 | 25 | 60 |

Data in in instances is organized into hypercubes having zero or more axes; as the previous two figures show, they are usually thought of – and referred to as – Tables. Some axes have a set of members fixed by a taxonomy, others are empty in the taxonomy and are populated only by custom members. Although filers may define facts that use additional axes beyond those in the table, some taxonomy tables are closed and restrict the facts to use only certain axes.

The representation of individual facts in Figure 2 and Figure 3 can be understood as a table whose columns represent each dimension and the value of the fact, and each row representing a separate fact. Where a taxonomy defined dimension (in this case, Region) is blank, that indicates it is the default of that dimension.

Figure 4. Example showing the nine individual facts

| Entity | Period | Unit | Concept | Region | Value |
|-----------|--------|------|------------------|----------|-------|
| Example01 | FY30 | USD | Product Revenue | Region 1 | 23 |
| Example01 | FY30 | USD | Service Revenue | Region 1 | 12 |
| Example01 | FY30 | USD | Combined Revenue | Region 1 | 35 |

| Entity | Period | Unit | Concept | Region | Value |
|-----------|--------|------|------------------|----------|-------|
| Example01 | FY30 | USD | Product Revenue | Region 2 | 17 |
| Example01 | FY30 | USD | Service Revenue | Region 2 | 8 |
| Example01 | FY30 | USD | Combined Revenue | Region 2 | 25 |
| Example01 | FY30 | USD | Product Revenue | | 40 |
| Example01 | FY30 | USD | Service Revenue | | 20 |
| Example01 | FY30 | USD | Combined Revenue | | 60 |

The appearance of a concept and a set of facts with or without members of a given dimension may be interpreted in various ways. The first common case is as detailed above: a numeric fact without a dimension equaling the sum of other facts having members of that dimension. The axis represents a disaggregation of a total.

The second common case, less common for numeric facts, but prevalent for non-numeric facts such as text and dates, is that a fact can be inferred from the relationship between the Axis default (representing the whole) and the *absence* of a member on the axis:

| Entity | Period | Concept | Region | Value |
|-----------|--------|-------------|----------|-----------|
| Example01 | FY30 | Best Seller | | Product A |
| Example01 | FY30 | Best Seller | Region 2 | Product B |

This case implies that product A is the company's best seller overall and in region 1, but region 2 is an exception where product B is the best seller; although different, it is not contradictory.

A third case is the appearance of non-numeric facts, each with a different member of the axis, but no default:

| Entity | Period | Concept | Region | Value |
|-----------|--------|----------------|----------|-----------|
| Example01 | FY30 | Sponsored Team | Region 1 | Red Sox |
| Example01 | FY30 | Sponsored Team | Region 2 | White Sox |

It would be meaningless to sum, merge, average or concatenate text values for this non-numeric concept to come up with a sponsored team for the whole company. A software program might expect a sponsored team for the whole company, *or* for each of its individual regions, but signal a problem if it receives values for *both* the whole and the parts. In this case, the use of the axis default, and the use of individual members, are mutually exclusive.

The interpretation of a given combination of concept and axis always impacts the expected and unexpected facts in an instance; this is particularly true for the mostly non-numeric expected facts.

3.2.1 Business contact

When a business contact is expected, the facts are present in the business contact (bc) context defined as the required context plus a single dimension dei:EntityAddressesAddressTypeAxis with standard member dei:BusinessContactMember.

3.2.1.1 Contact Person

| Concept | # | Type or regex | Meaning |
|----------------------------------|-----|---------------------|---------|
| dei:ContactPersonnelName | {1} | xs:normalizedString | |
| dei:LocalPhoneNumber | {2} | xs:normalizedString | |
| dei:ContactPersonnelFax | {3} | xs:normalizedString | |
| dei:ContactPersonnelEmailAddress | {4} | xs:normalizedString | |

| Incl | Excl | c | Check | f | On failure | s | EFM v68 Ref |
|--------------------------------|---|----|---|---|-----------------------------|---|--------------------|
| i: AF.FPI, RD.CEF, AF.CA | | bc | A {1} fact is present. | | {1} Missing | W | § 6.5.51 Ri |
| i: AF.FPI, RD.CEF, AF.CA | | bc | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.51 Ri |
| s: ALL | i: R34.FPI, R34.CA, R33.FPI, R33.US | bc | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.51 [], O* |
| i: AF.FPI, RD.CEF | | bc | One, two, or all three {2}, {3} or {4} facts are present. | | {2} {3} {4} Missing | W | § 6.5.51 O3 |
| i: AF.CA | | bc | A {2} fact is present. | | {2} Missing | W | § 6.5.51 Ri |
| i: AF.CA | | bc | If {2} facts are present, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.51 O3 |
| s: ALL | i: AF.FPI, RD.CEF, AF.CA, R34.FPI, R34.CA, R33.FPI, R33.US | bc | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.51 [], O* |
| i: AF.FPI, RD.CEF | | bc | If {3} facts are present, then at least one is visible. | | {3} in Facts Not Visible | W | § 6.5.51 O3 |
| s: ALL | i: AF.FPI, RD.CEF, R34.FPI, R34.CA | bc | A {3} fact is absent. | | {3} Unexpected | W | § 6.5.51 [], O* |
| i: AF.FPI, RD.CEF | | bc | If {4} facts are present, then at least one is visible. | | {4} in Facts Not Visible | W | § 6.5.51 O3 |
| s: ALL | i: AF.FPI, RD.CEF, R34.FPI, R34.CA | bc | A {4} fact is absent. | | {4} Unexpected | W | § 6.5.51 [], O* |

Notes and special cases: none.

3.2.1.2 Street, City and Zip

A business contact will have similar facts to the principal address.

| Concept | # | Type or regex | Meaning |
|--------------------------------|-----|---------------------|---------|
| dei:EntityAddressAddressLine1 | {1} | xs:normalizedString | |
| dei:EntityAddressCityOrTown | {2} | xs:normalizedString | |
| dei:EntityAddressPostalZipCode | {3} | xs:normalizedString | |

The first line of the address, the city or town, and postal or zip code, share similar validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--------------------------------|---|----|---|---|-----------------------------|---|--------------------|
| i: AF.FPI, RD.CEF, AF.CA | | bc | A {1} fact is present. | | {1} Missing | W | § 6.5.51 Ri |
| i: AF.FPI, RD.CEF, AF.CA | | bc | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.51 Ri |
| s: ALL | i: AF.FPI, RD.CEF, AF.CA, R34.FPI, R34.CA R33.FPI R33.US | bc | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.51 [], O* |
| i: AF.FPI, RD.CEF, AF.CA | | bc | A {2} fact is present. | | {2} Missing | W | § 6.5.51 Ri |
| i: AF.FPI, RD.CEF, AF.CA | | bc | If {2} facts are present, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.51 Ri |
| s: ALL | i: AF.FPI, RD.CEF, AF.CA, R34.FPI, R34.CA R33.FPI R33.US | bc | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.51 [] |
| i: AF.FPI, RD.CEF, AF.CA | | bc | A {3} fact is present. | | {3} Missing | W | § 6.5.51 Ri |
| i: AF.FPI, RD.CEF, AF.CA | | bc | If {3} facts are present, then at least one is visible. | | {3} in Facts Not Visible | W | § 6.5.51 Ri |
| s: ALL | i: AF.FPI, RD.CEF, AF.CA, R34.FPI, R34.CA R33.FPI R33.US | bc | A {3} fact is absent. | | {3} Unexpected | W | § 6.5.51 [], O* |

Notes and special cases: none.

3.2.1.3 State or Province and Country

| Concept | # | Type or regex | Meaning |
|---------------------------------------|-----|--------------------------|--|
| dei:EntityAddress- StateOrProvince | {1} | Postal state or province | XBRL transformations that convert state and province names to postal codes (e.g., TX, ON) are shown in EFM § 5.2.5.12. |
| dei:EntityAddress- Country | {2} | Valid IANA country code | XBRL transformations that country names to ISO 3166-1 alpha 2 (IANA) codes (e.g., US, JP) are shown in EFM 5.2.5.12. |

| Incl | Excl | c | Check | f | Codes | S | EFM v68 Ref |
|--------------------------------|--|----|--|---|-----------------------------|---|--------------------|
| i: AF.FPI, RD.CEF | | bc | One or both {1} and {2} facts are present. | | {1} {2} Inclusive | W | § 6.5.51 O2 |
| i: AF.CA | | bc | A {1} fact representing a US state is present. | | {1} Value | W | § 6.5.51 Ru |
| i: AF.FPI, RD.CEF, AF.CA | | bc | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.51 O2, Ru |
| i: R34.CA | | bc | A {1} fact representing a Canadian province is present. | | {1} Value | W | § 6.5.51 Ou* |
| s: ALL | i: AF.FPI, RD.CEF, AF.CA, R34.CA, R33.US | bc | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.51 [], O* |
| i: AF.FPI, RD.CEF | | bc | If {2} facts are present, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.51 O2 |
| s: ALL | i: R33.FPI, R34.FPI | bc | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.51 [] |

Notes and special cases: none.

3.2.1.4 Phone

| Concept | # | Type or regex | Meaning |
|----------------------|-----|---------------------|---------|
| dei:CityAreaCode | {1} | xs:normalizedString | |
| dei:LocalPhoneNumber | {2} | xs:normalizedString | |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--------------------------------|---|----|---|---|-----------------------------|---|----------------------|
| i: AF.CA | | bc | A {1} fact is present. | | {1} Missing | W | § 6.5.51 Ri |
| i: AF.CA, AF.FPI, RD.CEF | | bc | If {1} facts are present, then at least one is visible. | 1 | {1} in Facts Not Visible | W | § 6.5.51 Oph |
| s: ALL | i: AF.CA, AF.FPI, RD.CEF, R34.FPI, R34.CA, R33.FPI, R33.US | bc | A {1} fact is absent. | 1 | {1} Unexpected | W | § 6.5.51 [], Oph* |
| i: AF.CA | | bc | A {2} fact is present. | | {2} Missing | W | § 6.5.51 Ri |
| i: AF.CA, AF.FPI, RD.CEF | | bc | If {2} facts are present, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.51 O3, Ri |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--------|---|----|-----------------------|---|-------------------|---|--------------------|
| s: ALL | i: AF.CA, AF.FPI, RD.CEF, R34.FPI, R34.CA, R33.FPI, R33.US | bc | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.51 [], O* |

1. Neither or both CityAreaCode and LocalPhoneNumber should be present in any context, not just the business contact context; see 3.1.22.4 above.

3.2.2 Former address

To report a former address, the facts are present in the Former Address (fa) context defined as the required context plus a single dimension dei:EntityAddressesAddressTypeAxis with member dei:Former-AddressMember.

3.2.2.1 Former Street, City and Zip

| Concept | # | Type or regex | Meaning |
|--------------------------------|-----|---------------------|---------|
| dei:EntityAddressAddressLine1 | {1} | xs:normalizedString | |
| dei:EntityAddressAddressLine2 | {2} | xs:normalizedString | |
| dei:EntityAddressAddressLine3 | {3} | xs:normalizedString | |
| dei:EntityAddressCityOrTown | {4} | xs:normalizedString | |
| dei:EntityAddressPostalZipCode | {5} | xs:normalizedString | |

The first line of the address, the city or town, and postal or zip code, share similar validations.

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--------------|--------------|----|---|---|-------------------------------------|---|---------------------|
| s: 8K, QF | | fa | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.53 O |
| s: ALL | s: 8K, QF | fa | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.53 [], O |
| s: 8K, QF | | fa | If {2} facts are present, then at least one is visible. | | <pre>{2} in Facts Not Visible</pre> | W | § 6.5.53 OL1 |
| s: 8K, QF | | fa | If a {2} fact is present, then a {1} fact is present. | | <pre>{1} {2} Dependency</pre> | W | § 6.5.53 OL1 |
| s: ALL | s: 8K, QF | fa | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.53 [] |
| s: 8K, QF | | fa | If a {3} fact is present, then a {2} fact is present. | | <pre>{2} {3} Dependency</pre> | W | § 6.5.53 OL2 |
| s: 8K, QF | | fa | If {3} facts are present, then at least one is visible. | | {3} in Facts Not Visible | W | § 6.5.53 OL2 |
| s: ALL | s: 8K, QF | fa | A {3} fact is absent. | | {3} Unexpected | W | § 6.5.53 [], OL2 |
| s: 8K, QF | | fa | One or both {4} and {5} facts are present | | {4} {5} Inclusive | W | § 6.5.53 F2 |
| s: 8K, QF | | fa | If {4} facts are present, then at least one is visible. | | <pre>{4} in Facts Not Visible</pre> | W | § 6.5.53 F2 |
| s: ALL | s: 8K, QF | fa | A {4} fact is absent. | | {4} Unexpected | W | § 6.5.53 [] |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--------------|--------------|----|---|---|-------------------------------------|---|-------------|
| s: 8K, QF | | fa | If {5} facts are present, then at least one is visible. | | <pre>{5} in Facts Not Visible</pre> | W | § 6.5.53 F2 |
| s: ALL | s: 8K, QF | fa | A {5} fact is absent. | | {5} Unexpected | W | § 6.5.53 [] |

Notes and special cases: none.

3.2.2.2 Former State or Province and Country

| Concept | # | Type or regex | Meaning |
|--|-------------------------|--------------------------|--|
| dei:Entity- AddressAddress- Line1 | {1} | xs:normalizedString | |
| dei:Entity- AddressState- OrProvince | {2} | Postal state or province | XBRL transformations that convert state and province names to postal codes (e.g., TX, ON) are shown in EFM § 5.2.5.12. |
| dei:Entity- AddressCountry | Valid IANA country code | | XBRL transformations that country names to ISO 3166-1 alpha 2 (IANA) codes (e.g., US, JP) are shown in EFM 5.2.5.12. |

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--------------|--------------|----|---|---|--|---|-------------|
| s: 8K, QF | | fa | If a {1} is present, then one or both of {2} and {3} facts are present. | | {1} {2} {3} Inclusive Dependency | W | § 6.5.53 F2 |
| s: 8K, QF | | fa | If a {2} fact is absent, then {1} is absent. | | {2} {1} Inclusive Dependency | W | § 6.5.53 F2 |
| s: 8K, QF | | fa | If a {3} fact is absent, then {1} is absent. | | {3} {1} Inclusive Dependency | W | § 6.5.53 F2 |
| s: 8K, QF | | fa | If {2} facts are present, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.53 F2 |
| s: ALL | s: 8K, QF | fa | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.53 [] |
| s: 8K, QF | | fa | If {3} facts are present, then at least one is visible. | | {3} in Facts Not Visible | W | § 6.5.53 F2 |
| s: ALL | s: 8K, QF | fa | A {3} fact is absent. | | {3} Unexpected | W | § 6.5.53 [] |

Notes and special cases: none.

3.2.3 Common Stock Shares Outstanding

Common stock shares, like public float, appears in a context that is an instant period, not a duration.

| Concept | # | Type or regex | Meaning |
|--|-----|---------------|---------|
| dei:EntityCommonStockSharesOutstanding | {1} | decimal | |

Depending on whether the entity represented in the required context has zero, one, or more than one, class of common shares or ownership units outstanding, the instance will have exactly one of the following permitted sets of facts:

| Case | Axis in any standard namespace | Members in distinct contexts | Period |
|------|--------------------------------|------------------------------|--|
| 1 | No dimensions | N/A | An instant on or after the end of the required context |
| 2 | StatementClassOfStockAxis | At least two | An instant on or after the end of the required context |
| 3 | ClassesOfShareCapitalAxis | At least two | An instant on or after the end of the required context |

The cases are mutually exclusive. Cases 2 and 3 require that the instance be accompanied by a custom taxonomy (see 5 below). The validations apply to a subsequent event (se) context as defined above in 3.1.15, "Public Float".

Validations:

| Incl | Excl | c | Check | | On failure | S | EFM v68 Ref |
|---------|------------------------|----|--|--|-----------------------------|---|-------------|
| s: FAST | i: AF.CA | se | A {1} fact is present in each context of exactly one of the cases 1, 2 or 3. | | {1} Missing | W | § 6.5.26 |
| s: FAST | | se | If {1} facts are present in a context, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.45 |
| s: ALL | s: FAST, i: R33.FPI | se | A {1} fact is not present in any context. | | {1} Unexpected | W | § 6.5.26 |

Notes and special cases:

1. A filer having no common stock will have 0 common stock shares outstanding under case 1, not nil.

3.2.4 Registered Securities

Depending on whether the entity represented in the required context has zero, one, or more than one type or class of registered securities (not limited to common shares as in the previous section), an instance may have one of the following mutually exclusive cases of permitted sets of facts about those securities:

| Case | Axis in any standard namespace | Distinct members in contexts | Period |
|------|--------------------------------------|-------------------------------|------------------|
| 1 | No dimensions (the required context) | N/A (there is only one class) | Required context |
| 2 | StatementClassOfStockAxis | At least two | Required context |
| 3 | ClassesOfShareCapitalAxis | At least two | Required context |

Notes:

- 1. No instance type requires either dei:Security12bTitle or dei:Security12gTitle. The Checks concern only whether they are consistent with each other and other facts if they are present.
- 2. Members on StatementClassOfStockaxis and ClassesOfShareCapitalaxis are expected only when there is need to distinguish different securities. An American Depositary Receipt (ADR) is an exception: it may be the only registered security, yet still requires a dimension to indicate this.
- 3. The presence of members on axes other than StatementClassOfStockAxis or ClassesOfShare-CapitalAxis does not change which of the three cases is being represented in an instance.

3.2.4.1 Security Title

The presence of facts for either of two concepts determines which of the three cases apply:

| Concept | # | Type or regex | Meaning |
|----------------------|-----|--|---------|
| dei:Security12bTitle | {1} | xs:normalizedString up to 150 characters | |
| dei:Security12gTitle | {2} | xs:normalizedString up to 150 characters | |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-----------------|-----------------|---|--|---|-----------------------------|---|---------------------------|
| s: FAST, R34 | | r | A {1} fact value is present in at most one of the cases 1-3. | | {1} Security Axes | W | § 6.5.46 Ot1, Ot1* |
| s: FAST, R34 | | r | A {2} fact value is present in at most one of the cases 1-3. | | {2} Security Axes | W | § 6.5.46 Ot1, Ot1* |
| s: FAST, R34 | | a | At most one {1} or {2} fact is present. | | {1} {2} Exclusive | W | § 6.5.46 Ot1, Ot1* |
| s: FAST | | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.45, § 6.5.46 Ot1 |
| s: FAST | | r | If {2} facts are present, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.45, § 6.5.46 Ot1 |
| s: ALL | s: FAST, R34 | r | A {1} fact is not present in any context. | | {1} Unexpected | W | § 6.5.46 [] |
| s: ALL | s: FAST, R34 | r | A {2} fact is not present in any context. | | {2} Unexpected | W | § 6.5.46 [] |

Notes and special cases: none.

3.2.4.2 Exchanges Axis

A security may be traded on more than one exchange. Much like the exclusivity of cases 1, 2, and 3, **EntityListingsExchangeAxis** permits only one listing for the security and the listings axis does not appear, or there are multiple listings, and more than one member of the axis appears.

| Concept | # | Type or regex | Meaning |
|----------------------|-----|--|---------|
| dei:Security12bTitle | {1} | xs:normalizedString up to 150 characters | |
| dei:Security12gTitle | {2} | xs:normalizedString up to 150 characters | |

.

| Sub Case | Axes in a standard namespace | Members in distinct contexts | Period |
|----------|------------------------------|------------------------------|------------------|
| a | No axes | N/A | Required context |
| b | EntityListingsExchangeAxis | At least two | Required context |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-----------------|------|---|---|---|-------------------------|---|-------------|
| s: FAST, R34 | | r | If a {1} fact is present in a context with no member of EntityListingExchange-Axis, then there are no {1} facts in contexts the same except for also having a member of EntityListingExchange-Axis. | | {1} Security Axes | W | § 6.5.46 |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-----------------|------|---|---|---|-------------------------|---|-------------|
| s: FAST, R34 | | r | If a {1} fact is present in a context with a member of EntityListingExchange-Axis, then there are no {1} facts in contexts the same except without a member of EntityListingExchange-Axis. | | {1} Security Axes | W | § 6.5.46 |
| s: FAST, R34 | | r | If a {2} fact is present in a context with no member of EntityListingExchange-Axis, then there are no {2} facts in contexts the same except for also having a member of EntityListingExchange-Axis. | | {2} Security Axes | W | § 6.5.46 |
| s: FAST, R34 | | r | If a {2} fact is present in a context with a member of EntityListingExchange-Axis, then there are no {2} facts in contexts the same except without a member of EntityListingExchange-Axis. | | {2} Security Axes | W | § 6.5.46 |

Notes and special cases: none.

3.2.4.3 Security Exchange Name

One security of a company could be traded on no national exchanges, another security on one national exchange, and a third on several exchanges. Regardless, the presence of a dei:Security12bTitle fact is paired with the name of the Exchange in the same context, and only that same context.

| Concept | # | Type or regex | Meaning |
|-------------------------------|-----|--|---|
| dei:Security- 12bTitle | {1} | xs:normalizedString up to 150 characters | |
| dei:Security- ExchangeName | {2} | NYSE NASDAQ CHX BOX BX MIAX MRX NYSEAMER NYSEArca NYSENAT PEARL Phlx AF | National Exchanges. Other than National Exchanges are not tagged. |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|-----------------|------|---|---|---------------|--------------------------------|---|-------------|
| s: FAST, R34 | | a | If a {1} fact is present in a case 1 context, then a {2} fact value is present in the same context. | 1, 2 | {1} {2} Dependency | W | § 6.5.46 Te |
| s: FAST, R34 | | a | If a {1} fact is present in a case 2 or 3 context and dei:AdrMember is not a member of either axis, then a {2} fact value is present in the same context. | 1, 2, 3 | {1} {2} Dependency | W | § 6.5.46 Te |
| s: FAST | | a | If {2} facts are present in a case 1 context, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.46 Te |
| s: FAST | | a | If {2} facts are present in a case 2 or 3 context, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.46 Te |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--------|-------------------------------|---|---|---|-------------------|---|-------------|
| s: All | s: FAST, R34, i: AF.CEF | a | A {2} fact is not present in any context. | 2 | {2} Unexpected | W | § 6.5.46 [] |

- 1. An exchange name is relevant only to 12b securities; 12g securities are not traded on national exchanges.
- 2. The values of dei:SecurityExchangeName are EDGAR-defined acronyms. Inline XBRL transformation ixt-sec:exchnameen described in EFM section 5.2.5.12 transforms commonly displayed textual names of exchanges to these values.
- 3. The exchange name is neither expected nor unexpected for an ADR member on the StatementClass-OfStockAxis Of ClassesOfShareCapitalAxis.

3.2.4.4 Trading Symbol / No Trading Symbol

Whether a security has a trading symbol is represented in two mutually exclusive concepts:

| Concept | # | Type or regex | Meaning |
|-------------------------|-----|--|---------|
| dei:NoTradingSymbolFlag | {1} | Fixed value true | |
| dei:TradingSymbol | | xs:normalizedString up to 25 characters. | |

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|----------------------------|--------------------------------|---|---|---|----------------------|---|-------------------------------|
| s: FAST, R34, i: AF.CEF | | a | At most one {1} or {2} fact is present. | 1 | {1} {2} Exclusive | W | § 6.5.46 T1, T1*; § 6.5.57 |
| s: ALL | s: FAST, R34, RD, i: AF.CEF | r | A {1} fact is absent. | 2 | {1} Unexpected | W | § 6.5.46 [], O* |
| s: ALL | s: FAST, R34, RD, i: AF.CEF | r | A {2} fact is absent. | 2 | {2} Unexpected | W | § 6.5.46 [], O* |

Notes and special cases:

- 1. Concepts dei:NoTradingSymbol and dei:TradingSymbol may be present in AF.CEF instances but only in class contexts.
- 2. Concept dei: TradingSymbol is neither expected nor unexpected in RD submissions.

3.2.4.5 Security Reporting Obligation

| Concept | # | Type or regex | Meaning |
|---------------------------------|-----|--------------------|---------|
| dei:SecurityReportingObligation | {1} | Fixed value 15 (d) | |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|---------------------|--|---|---|---|-----------------------------|---|--------------------|
| i: AF.FPI, AF.CA | | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.45 O |
| s: ALL | i: AF.FPI, AF.CA, R34.FPI, R34.CA | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.46 [], O* |

Notes and special cases: none.

3.2.5 Open-end Fund Series

Open-end Funds (N-1A funds) and Separate Accounts Registered as Open End Funds (N-3 registrants) contain facts for distinct series. The set of series identifiers in the scope of a submission is determined by the content of the EDGAR Submission header element seriesClasses:

- Each seriesId results in one series;
- Each rptIncludeAllSeriesFlag results in a series for every active series.

For each series, there should be at least one additional Series Context (sc) for each Series ID reported in the submission. Each such context will have an explicit member of the dimension with local name **LegalEntityAxis** in a standard namespace. That axis should have a custom member for every series ID, such as S000000987, named **S000000987Member** (EFM v68 § 6.5.41).

3.2.6 Open-end Fund Shareholder Reports

Form N-CSR contains one shareholder report per class. The set of class identifiers in the scope of a submission is determined by the content of the EDGAR submission header element seriesClasses:

- Each rptClassId results in one class;
- Each rptIncludeAllClassesFlag results in a class for every active class in that series; and
- Each rptIncludeAllSeriesFlag results in a class for every active class in all series of the filer CIK.

For each shareholder report per class, there should be at least one additional Class Context (cc) for each Class ID reported in the submission. Each such context will have an explicit member of the dimension with local name ClassAxis in a standard namespace. That axis should have a custom member for every class ID, such as C000000123, named C000000123Member.

| Concept | # | Type or regex | Meaning |
|--|-----|--|---------------------------------------|
| oef:Shareholder- Report- AnnualOrSemi- Annual | {1} | ([Ss]emi[^A-Za- z0-9]+)?[Aa]nnual\s+[Ss]hareholder\s+[Rr]eport | - |
| oef:FundName | {2} | xs:normalizedString | |
| oef:ClassName | {3} | xs:normalizedString | |
| dei:NoTrading- SymbolFlag | {4} | xs:boolean | |
| dei:TradingSymbol | {5} | xs:normalizedString up to 25 characters. | |
| dei:Security- ExchangeName | {6} | NONE BOX BX C2 CBOE CHX Cboe(BYX BZX EDGA EDGX) GEMX IEX ISE MIAX MRX NASDAQ NYSE(AMER Arca NAT)? PEARL Phlx | EDGAR National Exchange Code |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|---------------------|---------------------|---|---|---|-----------------------------|---|-------------|
| s: HF, i: AF.CEF | | r | A {1} fact is present. | | {1} Missing | W | § 6.5.57 R |
| s: HF, i: AF.CEF | | r | If {1} facts are present, then at least one is visible. | | {1} in Facts Not Visible | W | § 6.5.57 R |
| s: ALL | s: HF, i: AF.CEF | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.57 [] |
| | | | | | | | |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|---------------------|---------------------|----|---|---|--|---|---------------------|
| s: HF, i: AF.CEF | | cc | A {2} fact is present. | | {2} Missing | W | § 6.5.57 R |
| s: HF, i: AF.CEF | | cc | If {2} facts are present, then at least one is visible. | | {2} in Facts Not Visible | W | § 6.5.57 R |
| s: ALL | s: HF, i: AF.CEF | сс | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.57 [] |
| | | | | | | | |
| s: HF, i: AF.CEF | | cc | A (3) fact is present. | | {3} Missing | W | § 6.5.57 R |
| s: HF, i: AF.CEF | | cc | If {3} facts are present, then at least one is visible. | | {3} in Facts Not Visible | W | § 6.5.57 R |
| s: ALL | s: HF, i: AF.CEF | cc | A (3) fact is absent. | | {3} Unexpected | W | § 6.5.57 [] |
| | | | | | | | |
| s: HF, i: AF.CEF | | сс | If a {1} fact is present, then either {4} or a {5} fact exist but not both. | 1 | {1} {2} {3} Exclusive Dependency | Е | § 6.5.57 T2*, T2 |
| s: HF, i: AF.CEF | | cc | If {4} facts are present, then at least one is visible. | | {4} in Facts Not Visible | W | § 6.5.57 T2 |
| s: HF, i: AF.CEF | | сс | If (5) facts are present, then at least one is visible. | | {5} in Facts Not Visible | W | § 6.5.57 T2 |
| | | | | | | | |
| s: HF, i: AF.CEF | | cc | Neither or both of {5} and {6} facts are present. | | {5} {6} Mutual Dependency | W | § 6.5.57 T3 |

1. See also 3.2.4.4 above that requires dei:NoTradingSymbolFlag and dei:TradingSymbol to be mutually exclusive in all contexts.

3.3 Resource Extraction Payments Disclosure

Exhibit 2.01 of Form SD consists of exactly two attachment types: EX-2.01.INS, an XBRL Instance, and EX-2.01.SCH, an XBRL Schema, with custom elements and embedded linkbases. Exhibit 2.01.INS is not an Inline XBRL document.

3.3.1 Alternative Reporting Regime

| Concept | # | Type or regex | Meaning |
|-------------------------------------|-----|---|---|
| rxp:Alternative- ReportingRegime | {1} | Not Relying on Alternative Reporting Regime EU Directives U\.K\.'s Reports on Payments to Governments Regulations Norway's Regulations on Country-by-Country Reporting Canada's ESTMA | Alternative reporting regime; note there are five alternative values, some containing spaces and punctuation. |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|------------|------|---|---------------|---|-------------|---|-------------|
| i: RXP.CA, | | | A {1} fact is | | | | |
| RXP.FPI, | | r | | | {1} Missing | W | |
| RXP.US | | | present. | | | | |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|--------|----------------------------------|---|-----------------------|---|----------------|---|-------------|
| s: ALL | i: RXP.CA, RXP.FPI, RXP.US | r | A {1} fact is absent. | | {1} Unexpected | W | |

1. The condition abbreviated as NArr in the notes to each validation table of this section means that either rxp:AlternativeReportingRegime fact is absent from the required context, or that it is present and has value Not Relying on Alternative Reporting Regime in the required context.

3.3.2 Currency and Total Payments

| Concept | # | Type or regex | Meaning |
|------------------------------------|-----|---------------|------------------------|
| dei:EntityReportingCurrencyISOCode | {1} | [A-Z]{3} | ISO 4217 currency code |
| rxp:TotalPayments | {2} | Monetary | - |

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|----------------------------------|----------------------------------|---|------------------------|---|----------------|---|-------------|
| i: RXP.CA, RXP.FPI, RXP.US | | r | A {1} fact is present. | 1 | {1} Missing | W | § 6.5.58 R* |
| s: ALL | i: RXP.CA, RXP.FPI, RXP.US | r | A {1} fact is absent. | | {1} Unexpected | W | § 6.5.58 [] |
| i: RXP.CA, RXP.FPI, RXP.US | | r | A {2} fact is present. | 1 | {2} Missing | W | § 6.5.58 R* |
| s: ALL | i: RXP.CA, RXP.FPI, RXP.US | r | A {2} fact is absent. | | {2} Unexpected | W | § 6.5.58 [] |

Notes and special cases: none.

1. Check only performed if NATE.

3.3.3 Payments Axis

A Payment Context (pc) is a context having a typed dimension member of rxp:PmtAxis, an integer value of the rxp:pmt element and a period matching the required context. There is one payment context for each payment reported in the disclosure.

3.3.4 Boolean, Numeric and String Valued Facts

The table below lists concepts in the RXP taxonomy that characterizes a single payment or group of similar payments. These are restricted to basic data types and may only appear in payment contexts.

| Concept | # | Type or regex | Meaning |
|---------|-----|----------------------------------|--|
| rxp:A | {1} | Monetary | Amount |
| rxp:M | {2} | Well Open Pit Underground Mining | Method of Extraction. Note that there are three distinct values of m , two of them containing spaces. |
| rxp:Cm | {3} | xs:normalizedString | Currency Conversion Method |
| rxp:K | {4} | true | In-kind Payment flag |
| rxp:Km | {5} | xs:normalizedString | In-kind calculation method |

| Incl | Excl | c | Check | f | On failure | s | EFM v68 Ref |
|----------------------------------|------|----|---|------|---|---|--------------------|
| i: RXP.CA, RXP.FPI, RXP.US | | pc | If a {1} fact is present, then a {2} fact is present. | 1, 2 | {1} {2} Value Dependency | W | § 6.5.58 Item 3 |
| i: RXP.CA, RXP.FPI, RXP.US | | pc | If a {2} fact is present, then a {1} fact is present. | 1, 2 | {2} {1} Value Dependency | W | § 6.5.58 Item 3 |
| i: RXP.CA, RXP.FPI, RXP.US | | pc | If a {3} fact is present, then a {1} fact is present. | 1, 2 | {3} {1} Value Dependency | W | § 6.5.58 Item 3 |
| i: RXP.CA, RXP.FPI, RXP.US | | pc | If a {4} fact is present, then a {1} fact is present. | 1, 2 | {4} {1} Value Dependency | W | § 6.5.58 Item 3 |
| i: RXP.CA, RXP.FPI, RXP.US | | рс | If a {4} fact is present, then a {5} fact is present. | 1, 2 | {4} {5} Value Dependency | W | § 6.5.58 Item 3 |
| i: RXP.CA, RXP.FPI, RXP.US | | рс | If a {5} fact is present, then a {4} fact is present. | 1, 2 | {5} {4} Value Dependency | W | § 6.5.58 Item 3 |
| i: RXP.CA, RXP.FPI, RXP.US | | рс | If a {1} fact is present with unitRef matching the value of EntityReportingCurrency-IsoCode in the required context, then a {3} fact should not be present. | | {3} Unexpected | W | § 6.5.58 Item 4 |
| i: RXP.CA, RXP.FPI, RXP.US | | pc | At least one {1} fact is present in the instance with period matching the 12-month reporting period and unit matching the value of Entity-ReportingCurrencyIsoCode in the required context. | 2, 3 | Amount for Required 12 Months Period | W | § 6.5.58 Item 5 |

Notes and special cases:

- 1. There are no checks for absence of these facts in other submission types or contexts.
- 2. Check only performed if NATE.
- 3. Only one such fact is needed; the check does not apply to every individual payment context.

3.3.5 Member-valued Facts

The table below lists concepts in the RXP taxonomy restricted by the taxonomy to have values that are declared custom members (see 5.7 below) of one of the standard domains:

| Concept | # | Type or regex | Meaning |
|---------|-----|---|--------------------------|
| rxp:A | {1} | Monetary | Amount |
| rxp:E | {2} | Custom member of dei:EntityDomain | Entity |
| rxp:Co | {3} | Standard member of country: AllCountriesDomain | Country |
| rxp:Sn | {4} | Standard member of snj:AllSubnational- JurisdictionsDomain | Subnational Jurisdiction |

| Concept | # | Type or regex | Meaning |
|---------|-----|--|--------------|
| rxp:Gv | {5} | Custom member of rxp:AllGovernmentsMember | Government |
| rxp:Pr | {6} | Custom member of rxp:AllProjectsMember | Project |
| rxp:P | {7} | Custom member of rxp:AllPaymentTypesMember | Payment Type |
| rxp:R | {8} | Custom member of rxp:AllResourcesMember | Resource |
| rxp:Sg | {9} | Custom member of rxp:AllSegmentsMember | Segment |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|----------------------------------|------|----|---|---------|-------------------------------------|---|-----------------|
| i: RXP.CA, RXP.FPI, RXP.US | | pc | If a {1} fact is present, then a {5} fact is present. | 1, 2 | {1} {5} Value Dependency | W | § 6.5.58 Item 3 |
| i: RXP.CA, RXP.FPI, RXP.US | | pc | If a {1} fact is present, then a {3} fact is present. | 1, 2 | {1} {3} Value Dependency | W | § 6.5.58 Item 3 |
| i: RXP.CA, RXP.FPI, RXP.US | | pc | If a {1} fact is present, then a {8} fact is present. | 1, 2 | {1} {8} Value Dependency | W | § 6.5.58 Item 3 |
| i: RXP.CA, RXP.FPI, RXP.US | | pc | If a {2} fact is present, then a {1} fact is present. | 1, 2 | {2} {1} Value Dependency | W | § 6.5.58 Item 3 |
| i: RXP.CA, RXP.FPI, RXP.US | | pc | If a {3} fact present, then a {1} fact is present. | 1, 2 | {3} {1} Value Dependency | W | § 6.5.58 Item 3 |
| i: RXP.CA, RXP.FPI, RXP.US | | pc | If a {4} fact is present, then a {3} fact is present. | 1, 2 | {4} {3} Value Dependency | W | § 6.5.58 Item 3 |
| i: RXP.CA, RXP.FPI, RXP.US | | рс | If a {5} fact is present, then a {3} fact is present. | 1, 2 | {5} {3} Value Dependency | W | § 6.5.58 Item 3 |
| i: RXP.CA, RXP.FPI, RXP.US | | pc | If a {6} fact is present, then a {5} fact is present. | 1, 2 | {6} {5} Value Dependency | W | § 6.5.58 Item 3 |
| i: RXP.CA, RXP.FPI, RXP.US | | pc | If a {7} fact is present, then a {1} fact is present. | 1, 2 | {7} {1} Value Dependency | W | § 6.5.58 Item 3 |
| i: RXP.CA, RXP.FPI, RXP.US | | pc | If a {8} fact is present, then a {1} fact is present. | 1, 2 | {8} {1} Value Dependency | W | § 6.5.58 Item 3 |
| i: RXP.CA, RXP.FPI, RXP.US | | pc | If a {9} fact is present, then a {1} fact is present. | 1, 2 | <pre>{9} {1} Value Dependency</pre> | W | § 6.5.58 Item 3 |

Notes and special cases:

- 1. There are no checks for absence of these facts in other submission sets, instance types, or contexts.
- 2. Check only performed if NATE.

3.3.6 Payment Contexts

An RXP.US or RXP.FPI instance is likely to have more than one payment, and therefore more than one payment context. The existence of even a single payment context fact requires that there exist facts to represent the aggregated sum of individual payments by project, by government, and in total.

A set of concepts in the RXP taxonomy characterizes aggregate payments of nine types. In each case, the existence of a non-null fact value for that aggregate concept in any context should be accompanied by at least one Payment fact in some context with the matching member as value.

| Concept | # | Type or regex | Meaning |
|-------------------------------------|------|---|--------------------------------|
| rxp:P | {1} | Custom member of rxp:AllPayment- TypesMember | Payment Type |
| rxp:Taxes | {2} | Monetary | Taxes |
| rxp:Royalties | {3} | Monetary | Royalties |
| rxp:Fees | {4} | Monetary | Fees |
| rxp:Production- Entitlements | {5} | Monetary | Production Entitlements |
| rxp:Bonuses | {6} | Monetary | Bonuses |
| rxp:Dividends | {7} | Monetary | Dividends |
| rxp:Infrastructure- Improvements | {8} | Monetary | Infrastructure Improvements |
| rxp:CommunityAnd- Social | {9} | Monetary | Community and Social |
| rxp:OtherPayments | {10} | Monetary | Other Payments |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|----------------------------------|------|----------|---|------|--------------------------------|---|--------------------|
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {1} fact valued rxp: Taxes is present, then at least one {2} fact is present in the required context. | 1, 2 | {1} {2} Value Dependency | W | § 6.5.58 Item 7 |
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {2} fact is present, then a {1} fact valued rxp: Taxes is present in at least one payment context. | 1, 2 | {2} {1} Value Dependency | W | § 6.5.58 Item 6 |
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {1} fact valued rxp:Royalties is present, then at least one {3} fact is present in the required context. | 1, 2 | {1} {3} Value Dependency | W | § 6.5.58 Item 7 |
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {3} fact is present, then a {1} fact valued rxp:Royalties is present in at least one payment context. | 1, 2 | {3} {1} Value Dependency | W | § 6.5.58 Item 6 |
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {1} fact valued rxp: Fees is present, then at least one {4} fact is present in the required context. | 1, 2 | {1} {4} Value Dependency | W | § 6.5.58 Item 7 |
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {4} fact is present, then a {1} fact valued rxp: Fees is present in at least one payment context. | 1, 2 | {4} {1} Value Dependency | W | § 6.5.58 Item 6 |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|----------------------------------|------|----------|---|------|---------------------------------|---|--------------------|
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {1} fact valued rxp:ProductionEntitlements is present, then at least one {5} fact is present in the required context. | 1, 2 | {1} {5} Value Dependency | W | § 6.5.58 Item 7 |
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {5} fact is present, then a {1} fact valued rxp:ProductionEntitlements is present in at least one payment context. | 1, 2 | {5} {1} Value Dependency | W | § 6.5.58 Item 6 |
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {1} fact valued rxp:Bonuses is present, then at least one {6} fact is present in the required context. | 1, 2 | {1} {6} Value Dependency | W | § 6.5.58 Item 7 |
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {6} fact is present, then a {1} fact valued rxp:Bonuses is present in at least one payment context. | 1, 2 | {6} {1} Value Dependency | W | § 6.5.58 Item 6 |
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {1} fact valued rxp:Dividends is present, then at least one {7} fact is present in the required context. | 1, 2 | {1} {7} Value Dependency | W | § 6.5.58 Item 7 |
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {7} fact is present, then a {1} fact valued rxp:Dividends is present in at least one payment context. | 1, 2 | {7} {1} Value Dependency | W | § 6.5.58 Item 6 |
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {1} fact valued rxp: InfrastructureImprovements is present, then at least one {8} fact is present in the required context. | 1, 2 | {1} {8} Value Dependency | W | § 6.5.58 Item 7 |
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {8} fact is present, then a {1} fact valued rxp: InfrastructureImprovements is present in at least one payment context. | 1, 2 | {8} {1} Value Dependency | W | § 6.5.58 Item 6 |
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {1} fact valued rxp: CommunityAndSocial is present, then at least one {9} fact is present in the required context. | 1, 2 | {1} {9} Value Dependency | W | § 6.5.58 Item 7 |
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {9} fact is present, then a {1} fact valued rxp: CommunityAndSocial is present in at least one payment context. | 1, 2 | {9} {1} Value Dependency | W | § 6.5.58 Item 6 |
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {1} fact valued rxp:Other- Payments is present, then at least one {10} fact is present in the required context. | 1, 2 | {1} {10} Value Dependency | W | § 6.5.58 Item 7 |

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|----------------------------------|------|----------|--|------|---------------------------------|---|--------------------|
| i: RXP.CA, RXP.FPI, RXP.US | | r, pc | If a {10} fact is present, then a {1} fact valued rxp:Other- Payments is present in at least one payment context. | 1, 2 | {10} {1} Value Dependency | W | § 6.5.58 Item 6 |

- 1. The contexts of the monetary and the member-valued facts are distinct. The values of Amount rmp: A facts may be reasonably expected to arithmetically sum by payment type to the aggregate fact in the required context, but the validation process requires only that the corresponding aggregate facts exist.
- 2. Check only performed if NATE.

3.3.7 Government Aggregate Contexts

A Government Aggregate Context (gac) is a context having a custom member of rxp:GovernmentAxis.

| Concept | # | Type or regex | Meaning |
|---------|-----|---|------------|
| rxp:Gv | {1} | Custom member of rxp:AllGovernmentsMember | Government |

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|----------------------------------|------|------------|---|------|--------------------------------|---|--------------------|
| i: RXP.CA, RXP.FPI, RXP.US | | gac, pc | If a government aggregate context (gac) exists, then at least one payment context (pc) exists with a {1} fact having that member value. | 1, 2 | {1} {2} Value Dependency | W | § 6.5.58 Item 8 |

Notes and special cases:

- 1. The contexts of the monetary and the member-valued facts are distinct. The values of Amount rmp:A facts may be reasonably expected to arithmetically sum across all members of the government axis, but the validation process requires only that the corresponding aggregate facts exist.
- 2. Check only performed if NATE.

3.3.8 Project Aggregate Contexts

A Project Aggregate Context (pac) is a context having a custom member of rxp:GovernmentAxis.

| Concept | # | Type or regex | Meaning |
|---------|-----|--|---------|
| rxp:Pr | {1} | Custom member of rxp:AllProjectsMember | Project |

Validations:

| Incl | Excl | c | Check | f | On failure | S | EFM v68 Ref |
|----------------------------------|------|------------|--|------|--------------------------------|---|--------------------|
| i: RXP.CA, RXP.FPI, RXP.US | | pac, pc | If a project aggregate context (pac) exists, then at least one payment context (pc) exists with a {1} fact having that member value. | 1, 2 | {1} {2} Value Dependency | W | § 6.5.58 Item 8 |

Notes and special cases:

1. The contexts of the monetary and the member-valued facts are distinct. The values of Amount rxp:A facts may be reasonably expected to arithmetically sum across all members of the project axis, but the validation process requires only that the corresponding aggregate facts exist.

4 Filing Fee Exhibits

4.1 Filing Fee Inline XBRL Attachments

An Inline XBRL Filing Fee exhibit may be prepared using EDGAR's Fee Exhibit Preparation Tool (FEPT) as part of EDGAR Link Online (ELO) or by a third-party Inline XBRL document preparation tool.

The Inline XBRL Filing Fee exhibit is identified as the "EX-FILING FEES" attachment document type. (The Inline XBRL Filing Fee exhibit (EX-Filing Fees) is a separate XBRL instance identified as "EX-FILING FEES.") EX-Filing Fees is independent of any primary document attachments comprising an Inline XBRL Document Set (such as for a 10-K exhibit) or any other Inline XBRL instance. The EX-Filing Fee taxonomy, facts, units, and their supporting contexts, should not be comingled with any other Inline XBRL instances. Selecting a different document type will result in the submission being suspended.

The exhibit is viewed and prepared as tables (specified by the link roles of the FFD taxonomy dimensions hypercubes). These tables may have more than one line use per a line number typed dimension to identify which facts are logically grouped on that line. (The line number is an integer with no constraints, it could be sequential or anything else meaningful to the author.)

| 701 | | 7 1 | 1 | |
|-----|-----|-----|------|-----|
| The | - I | ar | ıles | are |

| Table (link role name) | Table has lines (lineNo dimension members) |
|------------------------------|--|
| Submission Table | No |
| Fees Summary Table | No |
| Fees, by Offering | Yes |
| Fees, by Offset | Yes |
| Fees, by Combined Prospectus | Yes |
| Securities, 424I | Yes |

The words "must" or "must not" mean that if the validation fails, an error will be raised, and the submission will be suspended.

The words "should" or "should not" mean that if the validation fails, the exhibit will be accepted, and a warning message will be issued.

The words "may" or "may not" mean that there is no validation that would result in a warning or error.

4.1.1 Security Types Based on Rule

The following table shows the security types applicable to each rule:

| | Rules | | | | | | |
|------------------------------------|--------|--------|--------|--------|--------|--------|-------|
| Security Type | 457(a) | 457(o) | 457(f) | 457(u) | 457(r) | 457(s) | Other |
| Asset-Backed Securities | Yes | Yes | Yes | No | No | Yes | Yes |
| Debt | Yes | Yes | Yes | No | Yes | No | Yes |
| Debt Convertible into Equity | Yes | Yes | Yes | No | Yes | No | Yes |
| Equity | Yes | Yes | Yes | No | Yes | No | Yes |
| Exchange-Traded Vehicle Securities | Yes | Yes | Yes | Yes | Yes | No | Yes |
| Face Amount Certificates | No | No | No | No | No | No | Yes |
| Limited Partnership Interests | Yes | Yes | Yes | No | Yes | No | Yes |

| | Rules | | | | | | |
|-------------------------------|--------|--------|--------|--------|--------|--------|-------|
| Security Type | 457(a) | 457(o) | 457(f) | 457(u) | 457(r) | 457(s) | Other |
| Mortgage-Backed Securities | Yes | Yes | Yes | No | No | Yes | Yes |
| Non-Convertible Debt | Yes | Yes | Yes | No | Yes | No | Yes |
| Other | Yes | Yes | Yes | No | Yes | No | Yes |
| Unallocated (Universal) Shelf | No | Yes* | No | No | No | No | No |

^{*}Applicable on submission types F-3, F-3/A, F-3MEF, F-3ASR, F-4, F-4/A, F-4MEF, F-10, F-10/A, F-10EF, N-2, N-2/A, N-2ASR, N-2 POSASR, N-2MEF, POSASR, S-3, S-3/A, S-3ASR, S-3MEF, S-4, S-4/A, S-4MEF

4.1.2 Offering & Transaction Valuation Rules Applicable for Submission Types

| | Rules | | | | | | | | |
|-------------------------|---------------------------|-----------|--------|--------|--------|--------|--------|--|--|
| Submission Types | 457(a) 457(o) Other | 415(a)(6) | 457(f) | 457(u) | 457(r) | 457(s) | 0-11** | | |
| 424I | No | No | No | Yes* | No | No | No | | |
| F-1 | Yes | Yes | Yes | Yes | No | No | No | | |
| F-3 | Yes | Yes | No | Yes | No | No | No | | |
| F-3ASR | Yes | Yes | No | No | Yes | No | No | | |
| F-3D | Yes | Yes | No | Yes | No | No | No | | |
| N-2 | Yes | Yes | No | No | No | No | No | | |
| N-2ASR | Yes | Yes | No | No | Yes | No | No | | |
| S-1 | Yes | Yes | Yes | Yes | No | No | No | | |
| S-3 | Yes | Yes | No | Yes | No | No | No | | |
| S-3D | Yes | Yes | No | Yes | No | No | No | | |
| S-3ASR | Yes | Yes | No | No | Yes | No | No | | |
| S-11 | Yes | Yes | Yes | No | No | No | No | | |
| SF-1 | Yes | No | No | No | No | No | No | | |
| SF-3 | Yes | Yes | No | No | No | Yes | No | | |
| F-1/A | Yes | Yes | Yes | Yes | No | No | No | | |
| F-3/A | Yes | Yes | No | Yes | No | No | No | | |
| N-2/A | Yes | Yes | No | No | No | No | No | | |
| N-2 POSASR | Yes | Yes | No | No | Yes | No | No | | |
| POSASR | Yes | Yes | No | No | Yes | No | No | | |
| POS AM | Yes | Yes | Yes | No | No | No | No | | |
| S-1/A | Yes | Yes | Yes | Yes | No | No | No | | |
| S-3/A | Yes | Yes | No | Yes | No | No | No | | |
| S-11/A | Yes | Yes | Yes | No | No | No | No | | |
| SF-1/A | Yes | No | No | No | No | No | No | | |
| SF-3/A | Yes | Yes | No | No | No | Yes | No | | |
| F-4 | Yes | Yes | Yes | No | No | No | No | | |
| F-10 | Yes | No | No | No | No | No | No | | |

^{**}Only applicable when the underlying previously effective registration statement is one of the following: S-3, S-4, F-3, F-4

| | Rules | | | | | | | | | |
|-------------------------|---------------------------|-----------|--------|--------|--------|--------|--------|--|--|--|
| Submission Types | 457(a) 457(o) Other | 415(a)(6) | 457(f) | 457(u) | 457(r) | 457(s) | 0-11** | | | |
| F-10EF | Yes | No | No | No | No | No | No | | | |
| N-14 8C | Yes | No | Yes | No | No | No | No | | | |
| S-4 | Yes | Yes | Yes | No | No | No | No | | | |
| S-4EF | Yes | Yes | Yes | No | No | No | No | | | |
| F-4/A | Yes | Yes | Yes | No | No | No | No | | | |
| F-10/A | Yes | No | No | No | No | No | No | | | |
| N-14 8C/A | Yes | No | Yes | No | No | No | No | | | |
| S-4/A | Yes | Yes | Yes | No | No | No | No | | | |
| PREM14A | No | No | No | No | No | No | Yes | | | |
| PREM14C | No | No | No | No | No | No | Yes | | | |
| SC 13E1 | No | No | No | No | No | No | Yes | | | |
| SC 13E3 | No | No | No | No | No | No | Yes | | | |
| SC TO-I | No | No | No | No | No | No | Yes | | | |
| SC TO-T | No | No | No | No | No | No | Yes | | | |
| SC13E4F | No | No | No | No | No | No | Yes | | | |
| SC14D1F | No | No | No | No | No | No | Yes | | | |
| PRER14A | No | No | No | No | No | No | Yes | | | |
| PRER14C | No | No | No | No | No | No | Yes | | | |
| SC 13E1/A | No | No | No | No | No | No | Yes | | | |
| SC 13E3/A | No | No | No | No | No | No | Yes | | | |
| SC13E4F/A | No | No | No | No | No | No | Yes | | | |
| SC14D1F/A | No | No | No | No | No | No | Yes | | | |
| SC TO-I/A | No | No | No | No | No | No | Yes | | | |
| SC TO-T/A | No | No | No | No | No | No | Yes | | | |
| F-3MEF | Yes | Yes | No | No | No | No | No | | | |
| N-2MEF | Yes | Yes | No | No | No | No | No | | | |
| S-3MEF | Yes | Yes | No | No | No | No | No | | | |
| SF-1MEF | Yes | No | No | No | No | No | No | | | |
| SF-3MEF | Yes | Yes | No | No | No | No | No | | | |
| F-1MEF | Yes | Yes | Yes | No | No | No | No | | | |
| F-4MEF | Yes | Yes | Yes | No | No | No | No | | | |
| S-4MEF | Yes | Yes | Yes | No | No | No | No | | | |
| N-14MEF | Yes | No | Yes | No | No | No | No | | | |
| S-1MEF | Yes | Yes | Yes | No | No | No | No | | | |
| S-11MEF | Yes | Yes | Yes | No | No | No | No | | | |
| 424B1 | Yes | Yes | Yes | No | Yes | Yes | No | | | |
| 424B2 | Yes | Yes | Yes | No | Yes | Yes | No | | | |
| 424B3 | Yes | Yes | Yes | No | Yes | Yes | No | | | |

| | Rules | Rules | | | | | | | | | |
|------------------|---------------------------|-----------|--------|--------|--------|--------|--------|--|--|--|--|
| Submission Types | 457(a) 457(o) Other | 415(a)(6) | 457(f) | 457(u) | 457(r) | 457(s) | 0-11** | | | | |
| 424B4 | Yes | Yes | Yes | No | Yes | Yes | No | | | | |
| 424B5 | Yes | Yes | Yes | No | Yes | Yes | No | | | | |
| 424B7 | Yes | Yes | Yes | No | Yes | Yes | No | | | | |
| 424B8 | Yes | Yes | Yes | No | Yes | Yes | No | | | | |
| 424H | Yes | Yes | No | No | No | Yes | No | | | | |
| 424H/A | Yes | Yes | No | No | No | Yes | No | | | | |
| S-8 | Yes | No | No | No | No | No | No | | | | |

^{*}Rule 457(u) is inferred on 424I submissions.

4.1.3 Offset Table & Combined Prospectus Rules Applicable for Submission Types

| | Rules | | | |
|---------------------|--------|------------|--------|-----|
| Submission Types | 457(b) | 0-11(a)(2) | 457(p) | 429 |
| 424I | No | No | Yes** | No |
| F-1 | Yes | Yes | Yes | Yes |
| F-3 | Yes | Yes | Yes | Yes |
| F-3ASR | Yes | Yes | Yes | Yes |
| F-3D | Yes | No | Yes | Yes |
| N-2 | Yes | Yes | Yes | Yes |
| N-2ASR | Yes | Yes | Yes | Yes |
| S-1 | Yes | Yes | Yes | Yes |
| S-3 | Yes | Yes | Yes | Yes |
| S-3D | Yes | No | Yes | Yes |
| S-3ASR | Yes | Yes | Yes | Yes |
| S-11 | Yes | Yes | Yes | Yes |
| SF-1 | Yes | No | Yes | Yes |
| SF-3 | Yes | No | Yes | Yes |
| F-1/A | Yes | Yes | Yes | Yes |
| F-3/A | Yes | Yes | Yes | Yes |
| N-2/A | Yes | Yes | Yes | Yes |
| N-2 POSASR | Yes | Yes | Yes | Yes |
| POSASR | Yes | Yes | Yes | Yes |
| POS AM | Yes | Yes | Yes | Yes |
| S-1/A | Yes | Yes | Yes | Yes |
| S-3/A | Yes | Yes | Yes | Yes |
| S-11/A | Yes | Yes | Yes | Yes |
| SF-1/A | Yes | No | Yes | Yes |
| SF-3/A | Yes | No | Yes | Yes |

^{**} Rule 0-11 is inferred for applicable submission types as described in section 4.5.

| | Rules | | | |
|--------------|--------|------------|--------|-----|
| Submission | 457(b) | 0-11(a)(2) | 457(p) | 429 |
| Types F-4 | Yes | Yes | Yes | Yes |
| F-10 | Yes | Yes | Yes | Yes |
| F-10EF | Yes | Yes | Yes | Yes |
| N-14 8C | Yes | Yes | Yes | Yes |
| S-4 | Yes | Yes | Yes | Yes |
| S-4EF | Yes | Yes | Yes | Yes |
| F-4/A | Yes | Yes | Yes | Yes |
| F-10/A | Yes | Yes | Yes | Yes |
| N-14 8C/A | Yes | Yes | Yes | Yes |
| S-4/A | Yes | Yes | Yes | Yes |
| PREM14A | No | Yes | No | No |
| PREM14C | No | Yes | No | No |
| SC 13E1 | No | Yes | No | No |
| SC 13E3 | No | Yes | No | No |
| SC TO-I | No | Yes | No | No |
| SC TO-T | No | Yes | No | No |
| SC13E4F | No | Yes | No | No |
| SC14D1F | No | Yes | No | No |
| PRER14A | No | Yes | No | No |
| PRER14C | No | Yes | No | No |
| SC 13E1/A | No | Yes | No | No |
| SC 13E3/A | No | Yes | No | No |
| SC13E4F/A | No | Yes | No | No |
| SC14D1F/A | No | Yes | No | No |
| SC TO-I/A | No | Yes | No | No |
| SC TO-T/A | No | Yes | No | No |
| F-3MEF | Yes | Yes | Yes | Yes |
| N-2MEF | Yes | Yes | Yes | Yes |
| S-3MEF | Yes | Yes | Yes | Yes |
| SF-1MEF | Yes | No | Yes | Yes |
| SF-3MEF | Yes | No | Yes | Yes |
| F-1MEF | Yes | Yes | Yes | Yes |
| F-4MEF | Yes | Yes | Yes | Yes |
| S-4MEF | Yes | Yes | Yes | Yes |
| N-14MEF | Yes | Yes | Yes | Yes |
| S-1MEF | Yes | Yes | Yes | Yes |
| S-11MEF | Yes | Yes | Yes | Yes |
| 424B1 | Yes | Yes | Yes | Yes |
| 424B2 | Yes | Yes | Yes | Yes |
| 424B3 | Yes | Yes | Yes | Yes |

| | Rules | | | |
|---------------------|--------|------------|--------|-----|
| Submission Types | 457(b) | 0-11(a)(2) | 457(p) | 429 |
| 424B4 | Yes | Yes | Yes | Yes |
| 424B5 | Yes | Yes | Yes | Yes |
| 424B7 | Yes | Yes | Yes | Yes |
| 424B8 | Yes | Yes | Yes | Yes |
| 424H | Yes | No | Yes | Yes |
| 424H/A | Yes | No | Yes | Yes |
| S-8 | No | No | Yes | No |

^{**} Offset sources are not required for 424I submission type.

4.2 Submission Table

The following submission table facts are currently specified by EFM version 68, § 6.5.21 as follows:

| Exhibit Type DEI Element | EX-FILING FEE |
|-----------------------------|---------------|
| EntityRegistrantName | X* |
| EntityCentralIndexKey | X* |

In the required context:

• X* – A non-null fact must exist.

The remainder of this section specifies table facts specific to Filing Fee attachments:

| Submission Type FFD Element | 424I | Others* | |
|-----------------------------------|-------------------|---------|--|
| RegnFileNb | W | WA | |
| FormTp | xs | | |
| SubmissnTp | X* | | |
| FeeExhibitTp | XF | | |
| IssrNm | W, T | | |
| IssrBizAdrStrt1 | w | | |
| IssrBizAdrStrt2 | W2 | | |
| IssrBizAdrCity | w | | |
| IssrBizAdrStatOrCtryCd | W2 | | |
| IssrBizAdrZipCd | w | | |
| CeasedOprsDt | 0, 0 | | |
| RptgFsclYrEndDt | WD, DB, Future | | |

In the required context:

• X* - A non-null fact should exist.

- W A non-null fact should exist (warning).
- WA For Amendment/MEF Filings, non-null fact should exist (submission types S-1/A, S-3/A, S-11/A, N-2/A, F-1/A, F-3/A, SF-1/A, SF-3/A, N-2 POSASR, POS AM, POSASR, S-4/A, N-14 8C/A, F-4/A, F-10/A, SF-1MEF, SF-3MEF, N-2MEF, S-3MEF, F-3MEF, F-1MEF, F-4MEF, N-14MEF, S-1MEF, S-4MEF, S-11MEF, 424B1, 424B2, 424B3, 424B4, 424B5, 424B7, 424B8, 424H, 424H/A) (warning).
- W2 Only when IssrBizAdrStrt1 is provided.
- O A non-null fact may or may not exist.
- XS FormTp must match an allowed form type for the submission type (e.g., F-4 for F-4/A or F-4MEF Submission Types).
- XF FeeExhibitTp has the value EX-FILING FEES.
- D EDGAR date field validations, expected Value between 1980-01-01 and 2050-12-31 (warning).
- T EDGAR text field validations, regex:

[0-9A-Za-z`~!@#\$%&*(). [\]{}|\\:;"'<>,_?/=\t\n\r\f+-]{1,150} (warning).

- WD Required if CeasedOprsDt is not provided (warning).
- DB When provided, must match Database record of filer registration.
- Future Must not be a future date.
- Blank A non-null fact should not exist.
- Others* All submission types specified in section 4.1.2 excluding 424I.

4.3 Fees Summary Table

This table has no dimensions. This table shows the validations.

| Submission Type FFD Element | 424 I | SC* | Others* | |
|-----------------------------|-----------------------------------|---|--|--|
| TtlOfferingAmt | | | TtlOfferingAmt = Sum of MaxAggtOfferingPric [1] | |
| TtlPrevslyPdAmt | | NR*, TtlPrevslyPdAmt not greater than TtlFeeAmt [3] | | |
| TtlFeeAmt | NR*, Sum of FeeAmt [2] | NR*, Sum of FeeAmt [1] | | |
| TtlTxValtn | | Sum of TxValtn [1] | | |
| FeeIntrstAmt | TtlFeeAmt × intrstRate × yrs late | | | |
| TtlOffsetAmt | NR*, TtlFeeAmt + FeeIntrstAmt | | NR*, TtlOffsetAmt not greater than TtlFeeAmt - TtlPrevslyPdAmt | |

| Submission Type FFD Element | 424I | SC* | Others* |
|-----------------------------|--|---|---------|
| NetFeeAmt | NR*, TtlFeeAmt - TtlOffsetAmt + FeeIntrstAmt | NR*, TtlFeeAmt - TtlOffsetAmt - TtlPrevslyPdAmt | |
| TtlFeeAndIntrstAmt | TtlFeeAmt + FeeIntrstAmt | | |

- SC* SC 13E1, SC 13E3, SC13E4F, PREM14A, PREM14C, SC TO-I, SC TO-T, SC14D1F, SC 13E1/A, SC 13E3/A, SC 13E4F/A, PRER14A, PRER14C, SC14D1F/A, SC TO-T/A, SC TO-I/A.
- Others* All submission types specified in section 4.1.2 excluding 424I and SC*.
- NR* Must be a number ranging from 0 to 99,999,999,999,999.99 inclusive.
- [1] From the Offerings table.
- [2]— From the 424I table.
- [3] Regardless of whether the filer is claiming an offset or not.

| FFD Element | ubmission Type POS* | 424B* | Validation |
|--------------------------|---------------------------|-------|--------------------|
| NrrtvDsclsr | ND, HTML | ND | |
| NrrtvMaxAggtOfferingPric | NP, | NP, | Either ND or NP |
| NrrtvMaxAggtAmt | NR | NR | |
| FnlPrspctsFlg | | 0 | |

In the required context:

- POS* POS AM, POSASR, N-2 POSASR.
- 424B* 424B1, 424B2, 424B3, 424B4, 424B5, 424B7, 424B8
- HTML XHTML encoded text block (^ and non-ASCII characters must be &#-encoded).
- NR Number ranging from 0 to 99,999,999,999,999.99 inclusive.
- ND Narrative disclosure.
- NP Narrative price.

4.4 Offering Table

Offering table facts are grouped by lineNo integer values of the Offerings Axis into lines. Validations are performed by line (on the facts of the table which have the same lineNo member). Missing lineNo members results in an XBRL Dimensional syntax error.

Offering table lines are grouped into two Offering Types: Fees to be Paid and Fees Previously Paid. A Fees to be Paid line has a value of false for the PrevslyPdflg element. A Fees Previously Paid line has a

value of true for the PrevslyPdFlg element. The following submission types may include at least one Fees Previously Paid line and not including one will result in an informational message: S-1/A, S-3/A, S-11/A, N-2/A, F-1/A, F-3/A, SF-1/A, SF-3/A, N-2 POSASR, POS AM, POSASR, S-4/A, N-14 8C/A, F-4/A, F-10/A, 424B1, 424B2, 424B3, 424B4, 424B5, 424B7, 424B8, 424H, 424H/A. The following submission types should include at least one Fees Previously Paid line and not including one will result in a warning message: PRER14A, PRER14C, SC 13E1/A, SC 13E3/A, SC TO-I/A, SC TO-T/A, SC13E4F/A, SC14D1F/A.

4.5 Offering Table Rule Flags

The rule flags identify the rule applicable to a line, one of Rule457aFlg, Rule457oFlg, Rule457uFlg, Rule457rFlg, Rule457rFlg, Rule457rFlg, Rule457rFlg, Rule457rFlg, Rule415reflg, or Rule415a6Flg may be specified for a line, except when Rule011Flg can be deemed to be defaulted. Rule011Flg is deemed to have the value true when none of the other flags are true in submission types applicable to Rule 0-11 as specified in section 4.1.2 above.

4.5.1 Rule 457(a) Lines

The following validations are provided for lines specifying Rule457aFlg, for applicable submission types as specified in section 4.1.2 above.

| Offering Type FFD Element | Fees to be paid | Fees previously paid | Validation* |
|------------------------------|-----------------|----------------------------|--|
| PrevslyPdFlg | W, FA | | |
| OfferingSctyTp [1] | W | | Should be a valid EDGAR Security Type for this rule as specified in the "Security Types Based on Rule" section 4.1.1 |
| OfferingSctyTitl [1] | W, T | | |
| AmtSctiesRegd [1] | W, NR3 | | |
| MaxOfferingPricPerScty [1] | W, NR1 | | |
| MaxAggtOfferingPric [1] | W, NR | DB | AmtSctiesRegd × MaxOfferingPricPerScty |
| FeeRate [1] | W, FD | ΩO | |
| FeeAmt [1] | W, NR2 | 1 | MaxAggtOfferingPric × FeeRate |
| OfferingNote | HTML | | |

In a context with lineNo dimensions:

- 1 Not applicable when Rule 457(f) is specified for the same context (see 4.5.9 Rule 457(f)).
- W Required, including any additional validation in adjacent column (warning).
- T EDGAR text field validations, regex:

[0-9A-Za-z`~!@#\$%&*(). [\]{}|\\:;"'<>, ?/=\t\n\r\f+-]{1,250} (warning).

- HTML XHTML encoded text block (^ and non-ASCII must also be &#-encoded)
- FA Should be false for non-amendment submission types (S-1, S-3, S-3ASR, S-3D, S-11, N-2, N-2ASR, F-1, F-3, F-3ASR, F-3D, SF-1, SF-3, S-4, S-4EF, N-14 8C, F-4, F-10, F-10EF,

SF-1MEF, SF-3MEF, N-2MEF, S-3MEF, F-3MEF, F-1MEF, F-4MEF, N-14MEF, S-1MEF, S-4MEF, S-11MEF, S-8)

- FD Should match the fee rate of the day submitted.
- NR Number ranging from 0 to 99,999,999,999,999.99 inclusive.
- NR1 Number ranging from 0 to 999,999,999,999.9999 inclusive.
- NR2 Number ranging from 0 to 999,999,999,999.99 inclusive.
- NR3 Number ranging from 0 to 999,999,999,999 inclusive.
- DB Maximum Aggregate Offering Price (MAOP) amount provided should match the prior filing using the Security Type and Security Class Title combination for the file number specified on the filing.
- UO Unexpected, may be omitted.
- Validation* Excluding and unexpected for submission types not specified in section 4.1.2.

4.5.2 Rule 457(o) Lines

The following validations are provided for lines specifying Rule457oFlg, for applicable submission types as specified in section 4.1.2. OfferingSctyTp value "Unallocated (Universal) Shelf' may be used with Rule 457(o) offering lines with the submission types specified in section 4.1.1. A sub-item should exist when using the "Unallocated (Universal) Shelf' security type. Sub-items to an "Unallocated (Universal) Shelf' parent are identified as offering lines specifying Rule457oFlg and omitting the FeeAmt, when another offering line exists having the OfferingSctyTp value of "Unallocated (Universal) Shelf offering".

| Offering Type FFD Element | Fees to be paid | Fees previously paid | Validation* |
|----------------------------|-----------------|----------------------------|--|
| PrevslyPdFlg | W, FA | | |
| OfferingSctyTp [1][2] | W | | Should be a valid EDGAR Security Type for this rule as specified in the "Security Types Based on Rule" section 4.1.1 |
| OfferingSctyTitl [1][3] | W, T | | |
| AmtSctiesRegd [1] | NR3, UO | | |
| MaxOfferingPricPerScty [1] | NR1, UO | | |
| MaxAggtOfferingPric [1][4] | W, NR | | |
| FeeRate [1][4] | W, FD | ΩO | |
| FeeAmt [1] | W, NR2 | | |
| OfferingNote | HTML | | |

In a context with lineNo dimensions:

- 1 Not applicable when Rule457fFlg is specified for the same context (see 4.5.9 Rule 457(f))
- ² When offeringsctytp is "Unallocated (Universal) Shelf" a sub-item should exist.

- 3 Not applicable when offeringsctyTp is "Unallocated (Universal) Shelf".
- 4 May be omitted for sub-items of the "Unallocated (Universal) Shelf" line.
- W Required, including any additional validation in adjacent column (warning).
- T EDGAR text field validations, regex:

 $[0-9A-Za-z^{-!}@#$%&*(). [\]{}|\\:;"'<>,_?/=\t\n\r\f+-]{1,250} (warning).$

- HTML XHTML encoded text block (^ and non-ASCII must also be &#-encoded).
- FA Should be false for non-amendment submission types (S-1, S-3, S-3ASR, S-3D, S-11, N-2, N-2ASR, F-1, F-3, F-3ASR, F-3D, SF-1, SF-3, S-4, S-4EF, N-14 8C, F-4, F-10, F-10EF, SF-1MEF, SF-3MEF, N-2MEF, S-3MEF, F-3MEF, F-1MEF, F-4MEF, N-14MEF, S-1MEF, S-4MEF, S-11MEF, S-8).
- FD Should match the fee rate of the day submitted.
- NR Number ranging from 0 to 99,999,999,999,999.99 inclusive.
- NR1 Number ranging from 0 to 999,999,999,999.9999.
- NR2 Number ranging from 0 to 999,999,999,999.99 inclusive.
- NR3 Number ranging from 0 to 999,999,999,999 inclusive.
- UO Unexpected, may be omitted.
- Validation* Excluding and unexpected for submission types not specified in section 4.1.2.

4.5.3 Rule 457(r) Lines

The following validations are provided for lines specifying Rule457rFlg, for applicable submission types as specified in section 4.1.2.

| Offering Type FFD Element | Fees to be paid | Fees previously paid | Validation* |
|---------------------------|-----------------|----------------------------|---|
| PrevslyPdFlg | W, FA | | |
| OfferingSctyTp | W | | Should be a valid EDGAR Security Type for this rule as specified in section 4.1.1 |
| OfferingSctyTitl | W, T | | |
| AmtSctiesRegd | NR3, UO | | |
| MaxOfferingPricPerScty | NR1, UO | | |
| MaxAggtOfferingPric | NR, UO | | |
| FeeRate | O, FD | ŭO | |
| FeeAmt | O, NR2 | • | |
| OfferingNote | W, HTML | | |

In a context with lineNo dimensions:

- W Required, including any additional validation in adjacent column (warning).
- O Optional.
- T EDGAR text field validations, regex:

- HTML XHTML encoded text block (^ and non-ASCII must also be &#-encoded).
- FA Should be false for non-amendment submission types (S-1, S-3, S-3ASR, S-3D, S-11, N-2, N-2ASR, F-1, F-3, F-3ASR, F-3D, SF-1, SF-3, S-4, S-4EF, N-14 8C, F-4, F-10, F-10EF, SF-1MEF, SF-3MEF, N-2MEF, S-3MEF, F-3MEF, F-1MEF, F-4MEF, N-14MEF, S-1MEF, S-4MEF, S-11MEF, S-8).
- FD Should match the fee rate of the day submitted.
- NR Number ranging from 0 to 99,999,999,999,999.99 inclusive.
- NR1 Number ranging from 0 to 999,999,999,999.9999.
- NR2 Number ranging from 0 to 999,999,999,999.99 inclusive.
- NR3 Number ranging from 0 to 999,999,999,999 inclusive.
- UO Unexpected, may be omitted.
- Validation* Excluding and unexpected for submission types not specified in section 4.1.2.

4.5.4 Rule 457(s) Lines

The following validations are provided for lines specifying Rule457sFlg, for applicable submission types as specified in section 4.1.2.

| Offering Type FFD Element | Fees to be paid | Fees previously paid | Validation* |
|---------------------------|-----------------|----------------------------|---|
| PrevslyPdFlg | W, FA | | |
| OfferingSctyTp | w | | Should be a valid EDGAR Security Type for this rule as specified in section 4.1.1 |
| OfferingSctyTitl | W, T | | |
| AmtSctiesRegd | NR3, UO | | |
| MaxOfferingPricPerScty | NR1, UO | | |
| MaxAggtOfferingPric | NR, UO | | AmtSctiesRegd × MaxOfferingPricPerScty; 0 is allowed. |
| FeeRate | O, FD | υo | |
| FeeAmt | O, NR2 | | |
| OfferingNote | W, HTML | | |

In a context with lineNo dimensions:

- W Required, including any additional validation in adjacent column (warning).
- O Optional.

• T – EDGAR text field validations, regex:

 $[0-9A-Za-z^{-!}@#$%&*(). []{}|\\:;"'<>,_?/=\t\n\r\f+-]{1,250} (warning).$

- HTML XHTML encoded text block (^ and non-ASCII must also be &#-encoded).
- FA Should be false for non-amendment submission types (SF-3).
- FD Should match the fee rate of the day submitted.
- NR Number ranging from 0 to 99,999,999,999,999.99 inclusive.
- NR1 Number ranging from 0 to 999,999,999,999.9999.
- NR2 Number ranging from 0 to 999,999,999,999.99 inclusive.
- NR3 Number ranging from 0 to 999,999,999,999 inclusive.
- UO Unexpected, may be omitted.
- Validation* Excluding and unexpected for submission types not specified in section 4.1.2.

4.5.5 Rule 457(u) Lines

The following validations are provided for lines specifying Rule457uFlg, for applicable submission types as specified in section 4.1.2.

| Offering Type FFD Element | Fees to be paid | Fees previously paid | Validation* |
|----------------------------|-----------------|----------------------------|---|
| PrevslyPdFlg | W, FA | | |
| OfferingSctyTp | W | | Should be a valid EDGAR Security Type for this rule as specified in section 4.1.1 |
| OfferingSctyTitl | W, T | | |
| AmtSctiesRegd | UW | | |
| MaxOfferingPricPerS cty | UW | | |
| MaxAggtOfferingPric | UW | | |
| FeeRate | UW | | |
| FeeAmt | UW | | |
| OfferingNote | W, HTML | | |

In a context with lineNo dimensions:

- W Required, including any additional validation in adjacent column (warning).
- O Optional.
- T EDGAR text field validations, regex:

[0-9A-Za-z`~!@#\$%&*(). [\]{}|\\:;"'<>,_?/=\t\n\r\f+-]{1,250} (warning).

- HTML XHTML encoded text block (^ and non-ASCII must also be &#-encoded).
- FA Should be false for non-amendment submission types (S-1, S-3, S-3D, F-1, F-3, F-3D).
- UW Unexpected, should be omitted.

Validation* – Excluding and unexpected for submission types not specified in section 4.1.2.

4.5.6 Rule "Other" Lines

The following validations are provided for lines specifying **FeesOthrRuleFlg**, for applicable submission types as specified in section 4.1.2.

| Offering Type FFD Element | Fees to be paid | Fees previously paid | Validation* |
|----------------------------|-----------------|----------------------------|--|
| PrevslyPdFlg | W, FA | | |
| OfferingSctyTp [1] | W | | Should be a valid EDGAR Security Type for this rule as specified in the "Security Types Based on Rule" section 4.1.1 |
| OfferingSctyTitl [1] | W, T | | |
| AmtSctiesRegd [1] | O, NR3 | | |
| MaxOfferingPricPerScty [1] | O, NR1 | | |
| MaxAggtOfferingPric [1] | O, NR | DB | AmtSctiesRegd × MaxOfferingPricPerScty |
| FeeRate [1] | O, FD | ΩO | |
| FeeAmt [1] | W, NR2 | | MaxAggtOfferingPric × FeeRate When MaxAggtOfferingPric is absent FeeAmt should equal 0. |
| OfferingNote [1] | W, HTML | | |

In a context with lineNo dimensions:

- 1 Not applicable when Rule 457(f) is specified for the same context (see 4.5.9).
- W Required, including any additional validation in adjacent column (warning).
- O Optional.
- T EDGAR text field validations, regex:

[0-9A-Za-z`~!@#\$%&*(). [\]{}|\\:;"'<>,_?/=\t\n\r\f+-]{1,250} (warning).

- HTML XHTML encoded text block (^ and non-ASCII must also be &#-encoded).
- FA Should be false for non-amendment submission types (S-1, S-3, S-3ASR, S-3D, S-11, N-2, N-2ASR, F-1, F-3, F-3ASR, F-3D, SF-1, SF-3, S-4, S-4EF, N-14 8C, F-4, F-10, F-10EF, SF-1MEF, SF-3MEF, N-2MEF, S-3MEF, F-3MEF, F-1MEF, F-4MEF, N-14MEF, S-1MEF, S-4MEF, S-11MEF, S-8).
- FD Should match the fee rate of the day submitted.
- NR Number ranging from 0 to 99,999,999,999,999.99 inclusive.
- NR1 Number ranging from 0 to 999,999,999,999.9999.
- NR2 Number ranging from 0 to 999,999,999,999.99 inclusive.
- NR3 Number ranging from 0 to 999,999,999,999 inclusive.

- DB Maximum Aggregate Offering Price (MAOP) amount provided should match the prior filing using the Security Type and Security Class Title combination for the file number specified on the filing.
- UO Unexpected, may be omitted.
- Validation* Excluding and unexpected for submission types not specified in section 4.1.2.

4.5.7 Rule 415(a)(6) Lines

The following validations are provided for lines specifying Rule415a6Flg, for applicable submission types as specified in section 4.1.2. OfferingSctyTp value "Unallocated (Universal) Shelf" may be used with Rule 415(a)(6) carry forward lines with the submission types specified in section 4.1.1. A sub-item should exist when using the "Unallocated (Universal) Shelf" security type. Sub-items to an "Unallocated (Universal) Shelf" parent are identified as carry forward lines specifying Rule415a6Flg and omitting the CfwdPrevslyPdFee, when another carry forward line exists having the OfferingSctyTp value of

"Unallocated (Universal) Shelf offering".

| Offering Type | Fees to be | Fees previously | Validation* |
|-------------------------|------------|--------------------|--|
| FFD Element | paid | paid | vanuation |
| PrevslyPdFlg | UW | | |
| OfferingSctyTp [1] | W | | Should be a valid EDGAR Security Type for this rule as specified in the "Security Types Based on Rule" section 4.1.1 |
| OfferingSctyTitl [2] | W, T | | |
| AmtSctiesRegd | DB, NR3 | | |
| MaxOfferingPricPerScty | O, NR1 | | |
| MaxAggtOfferingPric [3] | W, DB, NR | | |
| FeeRate | UW | | |
| FeeAmt | UW | | |
| CfwdFormTp [3] | W | | Should be a valid EDGAR Form Type |
| CfwdPrrFileNb [3] | W | | Validate that it has the following (Securities Act) File Number prefixes: 333, 033, 002 |
| CfwdPrrFctvDt | D, DB | | |
| CfwdPrevslyPdFee | W, NR2 | | |
| OfferingNote | O, HTML | | |

In a context with lineNo dimensions:

- 1 When OfferingsctyTp is "Unallocated (Universal) Shelf", a sub-item should exist.
- 2 Not applicable when offeringsctyTp is "Unallocated (Universal) Shelf".
- 3 May be omitted for sub-items of the "Unallocated (Universal) Shelf" line.
- W Required, including any additional validation in adjacent column (warning).
- O Optional.

- D EDGAR date field validations, expected Value between 1980-01-01 and 2050-12-31 (warning).
- T EDGAR text field validations, regex:

[0-9A-Za-z`~!@#\$%&*(). [\]{}|\\:;"'<>,_?/=\t\n\r\f+-]{1,250} (warning).

- HTML XHTML encoded text block (^ and non-ASCII must also be &#-encoded).
- FD Should match the fee rate of the day submitted.
- NR Number ranging from 0 to 99,999,999,999,999.99 inclusive.
- NR1 Number ranging from 0 to 999,999,999,999.9999.
- NR2 Number ranging from 0 to 999,999,999,999.99 inclusive.
- NR3 Number ranging from 0 to 999,999,999,999 inclusive.
- DB Validate with EDGAR Database.
- UW Unexpected, should not be provided.
- Validation* Excluding and unexpected for submission types not specified in section 4.1.2.

4.5.8 Rule 0-11 Lines

The following validations are provided for lines specifying Rule011Flg or having it deemed true as noted in section 5, for applicable submission types as specified in section 4.1.2.

| Offering Type FFD Element | Fees to be paid | Fees previously paid | Validation* |
|---------------------------|-----------------|----------------------------|--------------------------------|
| PrevslyPdFlg | W, FA | | |
| TxValtn [1] | W, NR | | |
| FeeRate | W, FD | по | |
| FeeAmt [1] | W, NR2, CEF | | MaxAggtOfferingPrice × FeeRate |
| OfferingNote | W, HTML | | |

In a context with lineNo dimensions:

- 1 For amendment filings, this field may be blank for "Fees To be Paid" lines.
- W Required, including any additional validation in adjacent column (warning).
- T EDGAR text field validations, regex:

[0-9A-Za-z`~!@#\$%&*(). [\]{}|\\:;"'<>,_?/=\t\n\r\f+-]{1,250} (warning).

- HTML XHTML encoded text block (^ and non-ASCII must also be &#-encoded).
- FA Should be false for non-amendment submission types (SC 13E1, SC 13E3, SC13E4F, PREM14A, PREM14C, SC TO-I, SC TO-T, SC14D1F).
- FD Should match the fee rate of the day submitted.
- NR Number ranging from 0 to 99,999,999,999,999.99 inclusive.
- NR2 Number ranging from 0 to 999,999,999,999.99 inclusive.
- CEF Closed End Funds (parameter) warning if overridden with 0.

- UO Unexpected, may be omitted. Warning if specified.
- Validation* Excluding and unexpected for submission types not specified in section 4.1.2.

4.5.9 Rule 457(f) Lines

The following validations are provided for lines specifying Rule457fflg, which must be used on a line (i.e., the flag facts having same lineNo dimension) with Rule457aflg, Rule457oflg, or FeesOthrRuleflg for applicable submission types as specified in section 4.1.2.

| Offering Type | Fees to | Fees | V 1:1 /* * |
|--|------------|--------------------|---|
| FFD Element | be paid | previously paid | Validation* |
| OfferingSctyTp | W | | Should be a valid EDGAR Security Type for this rule as specified in section 4.1.1 |
| OfferingSctyTitl | W, T | | |
| AmtSctiesRegd 457(a) | W, NR3 | | |
| AmtSctiesRegd 457(o), Other | O, NR3 | | |
| MaxOfferingPricPerScty | UO, NR1 | | |
| MaxAggtOfferingPric | W, NR | | AmtSctiesRegd × MaxOfferingPricPerScty |
| FeeRate | W, FD | ΩO | |
| FeeAmt | W, NR2 | DB | MaxAggtOfferingPric × FeeRate |
| The following are fee note facts, usually displayed in a foo facts above | | | note style below table containing 457(f) |
| AmtSctiesRcvd | W, NR3 | | |
| ValSctiesRcvdPerShr | W, NR1 | | |
| ValSctiesRcvd | W, NR | | AmtSctiesRcvd x ValSctiesRcvdPerShr |
| CshRcvdByRegistrantInTx | O, NR | | |
| CshPdByRegistrantInTx | O, NR | | |
| FeeNoteMaxAggtOfferingPric | I, NR | | ValSctiesRcvd + CshRcvdByRegistrantInTx - CshPdByRegistrantInTx |
| OfferingNote | W, HTML | | |

In a context with lineNo dimensions:

- W Required, including any additional validation in adjacent column (warning).
- O Optional.
- T EDGAR text field validations, regex:

[0-9A-Za-z`~!@#\$%&*(). [\]{}|\\:;"'<>,_?/=\t\n\r\f+-]{1,250} (warning).

- HTML XHTML encoded text block (^ and non-ASCII must also be &#-encoded).
- FD Should match the fee rate of the day submitted.
- NR Number ranging from 0 to 99,999,999,999,999.99 inclusive.
- NR1 Number ranging from 0 to 999,999,999,999.9999 inclusive.
- NR2 Number ranging from 0 to 999,999,999,999.99 inclusive.

- NR3 Number ranging from 0 to 999,999,999,999 inclusive.
- DB Amount of Registration Fee provided should match the prior filing using the Security Type and Security Class Title combination for the file number specified on the filing.
- UO Unexpected, may be omitted.
- I Info msg if negative, will be processed as zero.
- Validation* Excluding and unexpected for submission types not specified in section 4.1.2.

4.5.10 General Instructions II.H (Exchange Offers) and II.I (Business Combinations)

The validations in section 4.5.9 are also applicable for lines specifying GnlInstrIIhiFlg, which must be used on a line (i.e., the flag facts having same lineNo dimension) with Rule457aFlg, Rule457oFlg, or FeesOthrRuleFlg for applicable submission types F-10, F-10/A, and F-10EF.

4.6 Offset Table

Offset table facts are grouped by lineNo dimension into lines. Validations are performed by line (on the facts of the table which have the same lineNo dimension member). Dimensional errors (missing lineNo dimension) are according to applicable XBRL standard.

Offset table lines are grouped into two Offset Types: Offset Claim and Offset Source. An Offset Claim line has a value of true for the OffsetClmdInd element. An Offset Source line has a value of false for the OffsetClmdInd element.

For all rules in this chapter, the aggregate of the OffsetClmdAmt value(s) should be less than or equal to the aggregate of the OffsetPrrFeeAmt value(s) paid.

4.6.1 Offset Table Rule Flags

The rule flags identify the rule applicable to a line, one of Rule457bOffsetFlg, Rule011a2OffsetFlg, or Rule457pOffsetFlg may be specified for a line.

4.6.2 Rule 457(b) or 0-11(a)(2)) Lines

The following validations are provided for lines specifying Rule457bOffsetFlg or Rule011a2OffsetFlg, for applicable submission types as specified in section 4.1.3.

| Offset Type FFD Element | Offset Claim | Offset Source | Validation* |
|-------------------------|-----------------|------------------|---|
| OffsetClmdInd | w | | A fee offset claim line requires at least one fee offset source line |
| OffsetPrrFilerNm | UW | W, T, DB | |
| OffsetPrrFormTp | W, DB | | Should be a valid EDGAR Form Type |
| OffsetPrrFileNb | W, DB | | Validate it includes the following (Securities Act/Exchange Act) File Number prefixes: 333, 033, 002, 001, 811, 814, 005, 000 |
| OffsetClmInitlFilgDt | W, D, Future | UW | |
| OffsetSrcFilgDt | UW | W, D, Future | |
| OffsetClmdAmt | W, NR | UW | |
| OffsetPrrFeeAmt | UW | W, NR, DB | |

| Offset Type FFD Element | Offset Claim | Offset Source | Validation* |
|-------------------------|-----------------|------------------|-------------|
| OffsetExpltnForClmdAmt | WSA, HTML | U | |
| OffsetNote | O, HTML | | |

In a context with lineNo dimensions:

- W Required, including any additional validation in adjacent column (warning).
- O Optional
- WSA Required when claiming from a Securities Act filing (file number prefixes 333, 033, 002 file number). Optional when claiming from the Exchange Act filings (file number prefixes 811, 814, 005, 001,000.
- D EDGAR date field validations, expected Value between 1980-01-01 and 2050-12-31 (warning).
- T EDGAR text field validations, regex:

 $[0-9A-Za-z^{-!}@#$%&*(). []{}|\\:;"'<>,_?/=\t\n\r\f+-]{1,150} (warning).$

- HTML XHTML encoded text block (^ and non-ASCII must also be &#-encoded).
- NR Number ranging from 0 to 99,999,999,999,999.99 inclusive.
- DB Validate prior filing.
- UW Unexpected, warning.
- U Unexpected.
- Future Should not be a future date.
- Validation* Excluding and unexpected for submission types not specified in section 4.1.3 above.

4.6.3 Rule 457(p) Lines

The following validations are provided for lines specifying Rule457poffsetFlg, for applicable submission types as specified in section 4.1.3. OffsetPresctyTp value "Unallocated (Universal) Shelf" may be used with Rule 457(p) offset claim lines.

| Offset Type FFD Element | Offset Claim | Offset Source | Validation* |
|-------------------------|-----------------|------------------|---|
| OffsetClmdInd | W | | A fee offset claim line requires at least one fee offset source line |
| OffsetPrrFilerNm | W, TF, DB | | |
| OffsetPrrFormTp | W, DB | | Should be a valid EDGAR Form Type |
| OffsetPrrFileNb | W, DB | | Validate it includes the following (Securities Act) File Number prefixes: 333, 033, 002 |
| OffsetClmInitlFilgDt | W, D Tuture | | |
| OffsetSrcFilgDt | UW | W, D, Future | |

| Offset Type FFD Element | Offset Claim | Offset Source | Validation* |
|---------------------------|-----------------|------------------|---------------------------------------|
| OffsetClmdAmt | W, NR | UW | |
| OffsetPrrSctyTp | W | UW | Should be a valid EDGAR Security Type |
| OffsetPrrSctyTitl[1] | W, T | UW | |
| OffsetPrrNbOfUnsoldScties | W, NR3 | UW | |
| OffsetPrrFeeAmt | UW | W, NR, DB | |
| OffsetNote | O, HTML | | |
| TermntnCmpltnWdrwl | W, HTML | υ | |

In a context with lineNo dimensions:

- 1- Not applicable when OffsetPrrsctyTp is "Unallocated (Universal) Shelf".
- W Required, including any additional validation in adjacent column (warning).
- O Optional
- D EDGAR date field validations, expected Value between 1980-01-01 and 2050-12-31 (warning).
- T EDGAR text field validations, regex:

[0-9A-Za-z`~!@#\$%&*(). [\]{}|\\:;"'<>,_?/=\t\n\r\f+-]{1,250} (warning).

• TF – EDGAR text field validations, regex:

[0-9A-Za-z`~!@#\$%&*(). [\]{}|\\:;"'<>,_?/=\t\n\r\f+-]{1,150} (warning).

- HTML XHTML encoded text block (^ and non-ASCII must also be &#-encoded).
- NR Number ranging from 0 to 99,999,999,999,999.99 inclusive.
- NR3 Number ranging from 0 to 999,999,999,999 inclusive.
- DB Validate prior filing.
- UW Unexpected, warning.
- U Unexpected.
- Future Should not be a future date.
- Validation* Excluding and unexpected for submission types not specified in section 4.1.3.

4.7 Combined Prospectus Table

Combined Prospectus table facts are grouped by lineNo dimension into lines. Validations are performed by line (on the facts of the table which have the same lineNo dimension member). Dimensional errors (missing lineNo dimension) are according to applicable XBRL standard.

4.7.1 Combined Prospectus Table Rule Flags

The rule flags identify the rule applicable to a line, Rule429CmbndPrspctsFlg should be specified for each line.

4.7.2 Combined Prospectus Lines Specifying Rule 429

The following validations are provided for lines specifying Rule429cmbndPrspctsFlg, for applicable submission types as specified in section 4.1.3. Rule429sctyTp value "Unallocated (Universal) Shelf" may be used with Rule 429 combined prospectus lines. If sub-items were provided on the prior filing, at least one sub-item should exist when using the "Unallocated (Universal) Shelf" security type on the Combined Prospectus.

| FFD Element | Combined Prospectus | Validation* |
|-------------------------|---------------------|---|
| Rule429SctyTp | W | Should be a valid EDGAR Security Type |
| Rule429SctyTitl [1] | W, T | |
| Rule429NbOfUnsoldScties | NR3, DB | |
| Rule429AggtOfferingAmt | NR, DB | |
| Rule429EarlierFormTp | W | Should be a valid EDGAR Form Type |
| Rule429EarlierFileNb | W, DB | Validation includes the following (Securities Act) File Number prefixes: 333, 033, or 002, and that it is not the same file number for offset claims in the Offset Table (section 4) lines. |
| Rule429InitlFctvDt | W, D, Future | |
| Rule429PrspctsNote | O, HTML | |

In a context with lineNo dimensions:

- 1- Not applicable when Rule429SctyTp is "Unallocated (Universal) Shelf".
- W Required, including any additional validation in adjacent column (warning).
- T EDGAR text field validations, regex:

[0-9A-Za-z`~!@#\$%&*(). [\]{}|\\:;"'<>,_?/=\t\n\r\f+-]{1,250} (warning).

- HTML XHTML encoded text block (^ and non-ASCII must also be &#-encoded).
- D EDGAR date field validations, expected Value between 1980-01-01 and 2050-12-31 (warning).
- NR Number ranging from 0 to 99,999,999,999,999.99 inclusive.
- NR3 Number ranging from 0 to 999,999,999,999 inclusive.
- DB Validate with EDGAR Database.
- Future Should not be a future date.
- O Optional
- Validation* Excluding and unexpected for submission types not specified in section 4.1.3.

4.8 Securities, 424l

4.8.1 Securities, 424I Table Rule Flags

424I table facts are grouped by lineNo dimension into lines. Validations are performed by line (on the facts of the table which have the same lineNo dimension member). Dimensional errors (missing lineNo dimension) are according to applicable XBRL standard.

• **Note:** There are no rule flags for the 424I table.

4.8.2 Submission Type 424I Table Lines

The following validations are provided for lines of submission type 424I.

| FFD Element | Securities, 424I | Validation* |
|------------------------|---------------------|---|
| OfferingSctyTitl | W, T | |
| AggtSalesPricFsclYr | W, NR | |
| AggtRedRpPricFsclYr | W, NR | |
| AggtRedRpPricPrrFsclYr | W, NR | |
| | | Required when AggtSalesPricFsclYr greater than AggtRedRpPricFsclYr + |
| NetSalesAmt | W, NR | AggtRedRpPricPrrFsclYr, then NetSalesAmt = AggtSalesPricFsclYr - AggtRedRpPricFsclYr - AggtRedRpPricPrrFsclYr |
| and Designation | EL MD4 | When AggtSalesPricFsclYr less than AggtRedRpPricFsclYr + |
| AmtRedCdts | W, NR4 | AggtRedRpPricPrrFsclYr then AmtRedCdts = AggtSalesPricFsclYr - AggtRedRpPricFsclYr - AggtRedRpPricPrrFsclYr |
| FeeRate | W, FD | |
| FeeAmt | W, NR | |
| FeeNote | O, HTML | |

In a context with lineNo dimensions:

- W Required, including any additional validation in adjacent column (warning).
- T EDGAR text field validations, regex:

[0-9A-Za-z`~!@#\$%&*(). [\]{}|\\:;"'<>,_?/=\t\n\r\f+-]{1,150} (warning).

- HTML XHTML encoded text block (^ and non-ASCII must also be &#-encoded).
- D EDGAR date field validations, expected Value between 1980-01-01 and 2050-12-31 (warning).
- NR Number ranging from 0 to 99,999,999,999,999.99 inclusive.
- NR4 Number ranging from -9,999,999,999,999 to 0 inclusive.
- FD Should match the fee rate of the day submitted.
- O Optional
- Validation* Excluding and unexpected for submission types not specified in section 4.1.3.

4.8.3 Submission Type 424I Entries in the Submission Table

Certain 424I FFD elements apply to the Submission Table (instead of the breakdown lines of the 424I Table of this section). Those elements are shown above in section 4.2, "Submission Table".

5 Custom Taxonomies

In addition to attachments containing the instance, most instance types need at least one other attachment that contains declarations of meta data: concepts and relationships unique to the filer or to the specific submission. This collection of attachments is the *custom taxonomy* for the instance. The instance type largely determines the degree to which customization is required or permitted.

5.1 Custom presentation and label relationships for standard concepts

Custom taxonomies are entirely optional when there is a taxonomy entry point providing all the necessary label, definition, and presentation relationships. For example, if company UVW were an FPI submitting a 6K.A instance type, there is no need for a custom taxonomy: the instance could reference entry point https://xbrl.sec.gov/dei/2025/dei-sub-2025.xsd (dei-sub) that contains all relationships needed for the expected facts in the dei namespace. However, if company UVW chooses to use entry point https://xbrl.sec.gov/dei/2025/dei-2025.xsd (dei) instead, a custom taxonomy is needed.

5.2 File attachments for custom relationships

EFM v69 § 6.4 explained that the naming convention for EDGAR XBRL files consists of a mnemonic code chosen by the filer, such as a trading symbol, followed by other distinguishing text of the filer's choice, followed by a dash, followed by a date in the format YYYYMMDD, and a dot with a three-character suffix. For example, a 6-K submission for the earliest date reported of October 15, 2025, of a company with trading symbol UVW might have file name uvw6k-20251015.htm. It would also have:

- An XBRL schema file.
 - O Its file name is like the instance, but with suffix .xsd, e.g., uvw6k-20251015.xsd;
 - O A targetNamespace attribute with a fixed pattern of authority and path components, reflecting the company mnemonic and the period, e.g., target namespace http://uvw.net/20251015 declared with authority uvw.net and path 20251015 with prefix uvw. See 10.1 below.
 - An import element for entry point https://xbrl.sec.gov/dei/2025/dei-2025.xsd.
 - A custom roleType declaration for a role URI such as http://uvw/role/Cover, with a
 definition text such as "010000 Document Cover" to be potentially used on calculation,
 definition, and presentation links.
- A label linkbase embedded in the schema (or in a separate file uvw6k-20251015_lab.xml referenced by the schema).
 - O The label linkbase contains links for the standard concepts used in facts, such as dei:DocumentType and dei:AmendmentFlag.
- A presentation linkbase embedded in the schema (or in a separate file uvw6k-20251015_pre.xml linked to by the schema). It will contain relationships in each presentation base set where the filer wants facts rendered, in this case presumably the custom Cover role.
 - O A root element such as dei:CoverAbstract with six parent-child relationships, one to each concept that could appear in facts.
 - O Presentation relationships may also use the **preferredLabel** attribute to specify which label role to use during the rendering process.

5.3 Custom presentation and label relationships

There is no need, in this example, for definition linkbase relationships, in the absence of any axes, members, or table structure. This is illustrated in Figure 5. Concepts are color coded and indented as in Figure 1 above; column "o" the value of the order attribute on the parent-child arc, "p" the preferred label role, if any; column "t" indicates a relationship that exists in a standard taxonomy and cannot be overridden; the concept labels are shown with the same indentation as the concept names.

For the purposes of the example, terse labels illustrate that label text need not precisely match the concept name, nor its standard label in the taxonomy.

Also, for the purposes of this example, the final column shows fact values.

Concept dei: AmendmentDescription has no fact value because dei: AmendmentFlag is false, and because there is no fact to display, it also needs no label.

Figure 1 above showed a coloring convention for highlighting concept types; in the figures below, the same convention is used to illustrate linkbase relationships. The concept is shown indented with respect to its parent element, with a column indicating its data type.

| Role URI: http://uvw/role/Cover | | | | | |
|--|-------|---|---|------------------|---------------------------|
| Description: 010000 - Document - Cover | | | | | |
| Concept | р | t | 0 | Label | Value in Required Context |
| dei:CoverAbstract | | | | Cover [Abstract] | |
| dei:DocumentType | terse | | 1 | Form | 6-K |
| dei:AmendmentFlag | terse | | 2 | Amended | false |
| dei:AmendmentDescription | | | 3 | | |
| dei:EntityCentralIndexKey | terse | | 4 | CIK | 0000012345 |
| dei:EntityRegistrantName | terse | | 5 | Conformed Name | WXY Ltd. |
| dei:DocumentPeriodEndDate | terse | | 6 | Reporting Date | 2025-11-05 |

Figure 5. Custom presentation and label relationships, no dimensions

A presentation group is a presentation base set; that is, relationships that all have the same role (in this example, http://uvw/role/Cover). The role may be a standard role from a standard taxonomy, or it could be a custom role as shown in this example. Even for a standard role, the set of relationships might be a mix of standard relationships from a standard taxonomy, or custom relationships. This means that any given presentation group might be assembled from parts in several different files. An XBRL processor handles prohibitions (relationships that cancel each other out) and many validations to produce a presentation group of effective relationships.

5.4 Custom relationships for standard concepts, with dimensions

When only standard concepts, axes and standard members of those axes appear in an instance, its custom taxonomy can usually be limited to providing only linkbases, with no custom element declarations. This should be evident from the validations in section 3.1, "Expected Facts in the Required Context".

Most of the validations in section 3.2 "Expected Facts with Dimensions" require valid relationships in an accompanying custom taxonomy. For example, in section 3.2.3, several instance types in the submission set FAST are expected to have a value for dei:EntityCommonStockSharesOutstanding; in case 2, a fact is expected for each member of the us-gaap:StatementClassOfStockAxis. Moreover, almost all instance types in submission set FA have expected facts that share a common concept but are distinguished from each other by representing a disaggregation of a total by geography, line of business, asset class, or any one or more possible distinctions. Sometimes there is no disaggregation per se, just a common concept applied to several different things. See sections 3.1.24 through 3.3 above for specific examples. In this section, instance type 8K.A for US company WXY will be used for an example.

5.4.1 File attachments for custom members

The 8K.A instance may still reference the dei-sub entry point. But, if it has classes A and B of common shares, then its custom taxonomy for that instance needs at least additional content, as described below, to satisfy the validations of section 3.2.3:

- An XBRL schema file.
 - O Its file name is like the instance, but with suffix .xsd, e.g., wxy8k-20251015.xsd;

- O A target namespace with a fixed pattern of authority and path components, reflecting the company mnemonic and the period, e.g., target namespace http://wxy.net/20251015 declared with authority wxy.net and path 20251015 with prefix wxy.
- O An import of entry point https://xbrl.sec.gov/dei/2025/dei-sub-2025.xsd.
- A definition linkbase, embedded in the schema (or in a separate file wxy8k-20251015_def.xml linked to by the schema), containing these dimensional relationships:
 - O Axis us-gaap:StatementClassOfStockAxis has a domain default member us-gaap:ClassOfStockDomain;
 - O Domain us-gaap:ClassOfStockDomain has two members us-gaap:CommonClassAMember and us-gaap:CommonClassBMember.
- A label linkbase embedded in the schema (or in a separate file wxy8k-20251015_lab.xml referenced by the schema).
 - O The label linkbase contains links from the standard concept us-gaap:CommonClassAMember to at least a standard label such as "Common Class A [Member]".
 - The label linkbase might include other labels for the concept, such as a label "Class A" with role terseLabel or a long label such as "Class A common shares of WXY Inc." with role documentation.
 - O Likewise, us-gaap: CommonClassBMember will have one or more labels.
- A presentation linkbase embedded in the schema (or in a separate file wxy8k-20251015_pre.xml referenced by the schema). It will contain presentation relationships in each presentation group where the filer wants facts with the dimension members rendered:
 - O Axis us-gaap: StatementClassOfStockAxis has two parent-child relationships, one to each of the two class members. In this example, the dei-sub entry point contains presentation links in the http://xbrl.sec.gov/dei/role/document/Cover role.
 - O Presentation relationships may also use the **preferredLabel** attribute to specify which label role to use during the rendering process.

5.4.2 Dimensional relationships

Figure 6 below illustrates the definition linkbase relationships in the custom taxonomy of the WXY 8K.A instance type. An Arc column indicates the arc role, with an exclamation point (!) in column "t" indicating the relationship is already in an imported entry point of a standard taxonomy and need not be customized. If a targetRole attribute is present on the arc, there is a column Target with an abbreviation for the target role.

| HIONING | · / | Imensional | malational | arna avamni | α |
|---------|-----|------------|-----------------|----------------|----------|
| PIPMEL | , , | nnensional | <i>renamons</i> | IIIIX EXAIMIII | P |
| | | | | | |

| Role: http://xbrl.sec.gov/dei/role/document/Entity- InformationEntityListingsTable | | | | | |
|---|-----------|---------------------|---|---|--------|
| Description: 995405 - Document - Entity Information, Entity Listings [Table] | | | | | |
| Concept | Type | Arc | 0 | t | Target |
| dei:EntityListingsLineItems | Abstract | | | | |
| dei:EntityListingsTable | Hypercube | all (closed) | 1 | ! | |
| us-gaap:StatementClassOfStockAxis | Axis | hypercube-dimension | 1 | | |
| us-gaap:ClassOfStockDomain | Member | dimension-domain | 1 | | |
| us-gaap:CommonClassAMember | Member | domain-member | 1 | | |
| us-gaap:CommonClassBMember | Member | domain-member | 2 | | |
| dei:EntityCommonStockSharesOutstanding | Shares | domain-member | 2 | ! | |

A different, more modular organization of the definition links places the domain members in a separate role. This organization, as illustrated in Figure 7, has the advantage of allowing any number of different tables to share the identical members of a shared axis:

Figure 7. Dimensional relationships example 2

| Role: http://xbrl.sec.gov/dei/role/document/Entity- InformationEntityListingsTable | | | | | |
|--|-----------|---------------------|---|---|---------|
| Description: 995405 - Document - Entity Information, Entity Listings [Table] | | | | | |
| Concept | Type | Arc | 0 | t | Target |
| dei:EntityInformationLineItems | Abstract | | | | |
| dei:EntitiesTable | Hypercube | all (closed) | 1 | ! | |
| us-gaap:StatementClassOfStockAxis | Axis | hypercube-dimension | 1 | | Classes |
| dei:EntityCommonStockSharesOutstanding | Shares | domain-member | 2 | ! | |

A custom target role classes contains only standard domain members:

| Role URI: http://wxy/role/Classes | | | | | |
|---------------------------------------|---------------|------------------|---|---|--------|
| Description: 001 - Document - Classes | | | | | |
| Concept | Type | Arc | 0 | t | Target |
| us-gaap:ClassOfStockDomain | Domain Member | dimension-domain | | | |
| us-gaap:CommonClassAMember | Member | domain-member | 1 | | |
| us-gaap:CommonClassBMember | Member | domain-member | 2 | | |

In either arrangement, the relationship between an axis and its default member only needs to be represented once in a taxonomy, and can be a single arc in a separate definition link role:

| Role URI: http://xbrl.sec.gov/dei/role/document/Defaults | | | | | |
|---|---------------|-------------------|---|---|--------|
| Description: 995411 - Document - Document and Entity Information, Defaults | | | | | |
| Concept | Type | Arc | 0 | t | Target |
| us-gaap:StatementClassOfStockAxis | Axis | | | | |
| us-gaap:ClassOfStockDomain | Domain Member | dimension-default | 1 | | |

Most SEC taxonomies have separate roles for each domain, and one role containing all dimension-default relationships, but this is not mandated for custom taxonomies.

In general, a custom taxonomy may contain any definition relationship having any arc role permitted by the XBRL base specification, dimensional specification, and certain specified arc roles in the Link Role Registry (LRR; see section 2 above). EDGAR places additional constraints on definition relationships and the way that they are permitted to be grouped within a single link:

- All definition relationships having the same source (or parent) must have distinct values of the order attribute.
- Only a concept (custom or standard) of type domainItemType may be the target of the dimensional relationship from an axis to a domain.
- A concept of type domainItemType may not be the source of relationships to concepts that are not domainItemType concepts.
- Any concept may appear in any number of tables, but each table needs to be in a different definition link role. This facilitates the detection of logical inconsistencies both in the taxonomy and the instance.
- Tables may be defined using relationships that cross from one link to another, but such relationships cannot "dangle". For example, the relationship from a table to an axis can only continue into a link if that link that has a domain for that axis.

• Dimensional relationships cannot have paths from a concept back to itself.

In practice, most if not all relationships in definition links are used to arrange table, axis, and domain member concepts into multidimensional structures, and so in EDGAR the terms *definition* links and *dimensional* links are frequently synonymous.

5.4.3 Presentation and label relationships

Custom taxonomies may also need custom presentation, label, and calculation relationships even when limited to standard concepts and their labels. Continuing the WXY 8K.A instance example, a custom taxonomy could include the presentation and label relationships in Figure 8 below. Note that the order and nesting of the definition and presentation links may have minor differences.

Figure 8. Presentation example

| Role URI: http://xbrl.sec.gov/dei/role/document/Cover | | | | |
|---|---|---|---|---------------------------------|
| Description: 995100 - Document - Cover | | | | |
| Concept | р | t | 0 | Label |
| dei:EntitiesTable | | | | Entities [Table] |
| us-gaap:StatementClassOfStockAxis | | | 1 | Statement Class of Stock [Axis] |
| us-gaap:ClassOfStockDomain | | | 1 | Class of Stock [Domain] |
| us-gaap:CommonClassAMember | | | 1 | Common Class A [Member] |
| us-gaap:CommonClassBMember | | | 2 | Common Class B [Member] |
| dei:EntityListingLineItems | | ! | 2 | Entity Information [Line Items] |
| dei:EntityCommonStockSharesOutstanding | | ! | 1 | Common Stock Shares Outstanding |

Presentation linkbases have no equivalent of the definition link targetRole feature, so that all concepts, axes, and members that the filer wishes to appear rendered together must be in the same link role. Section 6 below, "Instance Rendering", provides more detail on how to take advantage of this to arrange custom presentation links and labels to have some control over the layout, formatting, and facts displayed.

5.5 Validation of custom relationships

EDGAR checks the custom taxonomy to ensure that its structure is valid with respect to XBRL specifications – for example, that the relationship between a source concept and its target label is directed correctly from a concept to a label, or that certain relationships do not define loops.

EDGAR performs additional validations of custom taxonomies; violations are reported as either Errors or Warnings.

5.5.1 Validations resulting in Errors

Among the EDGAR validations that may yield XBRL Errors:

- The custom namespace must exist, match a specific pattern, and not conflict with a standard namespace;
- Each custom namespace must have a distinct prefix;
- All concepts have id attributes that are consistent with the namespace prefix;
- All concepts may have null values
- Concept types (axis, domain member) must be correct for the relationships among them;
- A concept may have at most one label for each role (standard, terse, etc.) and language combination;
- Label texts are limited in length and contain no extra whitespace;
- Restrictions on label roles for certain concepts (for example, there must be no custom documentation labels for concepts in standard taxonomies);

- Relationships must not be redundant;
- Relationships within custom taxonomies do not override relationships in a standard taxonomy;
- Definition and presentation relationships do not have an ambiguous ordering in a list of concepts;
- No unexpected definition or presentation links on certain standard taxonomy concepts. For example, members of the Country Axis as used in an RXP instance type must be members from the standard country taxonomy.
- No XBRL reference linkbases. EDGAR has built-in reference linkbases for all standard taxonomies that cannot be altered or augmented.
- No custom declarations of resource roles or arc roles.
- Standard taxonomy schemas and entry points may only be referenced at their official location;

5.5.2 Validations resulting in Warnings

EDGAR validations on taxonomies may also yield XBRL warnings. Some of these concern data quality and interoperability, others help filers avoid problems with custom rendering, such as:

- Presentation groups that have more than one root concept, resulting in unexpected layouts;
- An axis appears in a presentation link role, but it has no domain concept among its children, so that nothing will be rendered in that presentation role.
- Numeric concepts with period type "duration" have labels for the "start" and "end" instants.
- Custom presentation and definition link roles have constraints on their contents.

5.6 Custom Concept Declarations in General

A custom taxonomy is not normally limited to links among standard members of standard axes. For many instance types, filers are free to define custom concepts. EDGAR imposes limits on those custom concepts. In addition, the following general principles reduce unnecessary variability both across filers and for a single filer over time.

5.6.1 Do not duplicate pre-existing concept declarations

(Formerly EFM v68 § 6.8.4) In preference to declaring a new concept in a custom taxonomy, filers should normally assign an appropriate label for a concept already defined in a standard taxonomy. If the disclosure intended by the filer is effectively a synonym for a disclosure represented by a standard taxonomy's authoritative references and documentation label, filers should assign a label to the standard concept, in preference to defining a custom concept.

Defining a filer-specific concept should be done only under specific circumstances relevant to each type of concept as discussed in separate sections below.

5.6.2 Avoid changes in declarations from period to period

(Formerly EFM v68 § 6.8.1) A custom taxonomy that changes any concept declaration from an earlier version of itself in such a way as to be incompatible with earlier instances should use the date portion of its target namespace to identify the new version. For example, the next 10-Q for company WXY after its 2025 10-K would define a schema with updated namespace http://wxy/20260331, without changing the prefix wxy and preserving consistent concept names as much as possible. From submission to submission, custom taxonomies do change, for example, to accommodate changes in concept labels. But custom concepts should be re-used as much as possible and changes in declarations should be avoided.

5.6.3 Custom concept naming

(Formerly EFM v68 § 6.8.6) Use company- and period-specific names only for domain members. Do not include company-specific or period-specific information in any custom concept other than a domain member. Concepts with other item types, including (but not limited to) monetary, percent, integer, shares, per share, string, or text block item types, should not include company-specific or period-specific information in the concept name. Represent period-specific facts by the built in XBRL period dimension, not through the concept name.

Domain members may, by contrast, include company-specific or period-specific information in the concept name. For example, a custom taxonomy should not declare a custom monetary concept with the name CostofAcquisitionOfLargeCo or FourthQuarterAdjustment. A company-specific custom domain member such as LargeCoMember to be used in a fact for the CostofAcquisition standard concept is preferable.

5.6.4 Custom concept declarations

Every custom concept must have a period type of either instant or duration. Numeric concepts must be declared with period type instant if and only if it represents a value that is only meaningful as of a point in time, typically a beginning or end of period balance. All other concepts are duration period types.

An easy check for whether a reporting concept has period type instant is to consider whether its reported value would be the same regardless of whether it was meant to represent the end of a year, or just the end of the fourth quarter. If those values could be different, then it is a duration period type.

(Formerly EFM v68 § 6.8.12) Do not define separate concepts to represent the instants at the beginning and the end of a period. The same instant represents the end of one period, and the beginning of the next.

(Formerly EFM v68 § 6.8.13) A numeric concept that represents an adjustment of an instant concept, by convention, have a period type duration. Facts of that concept will be in a period prior to the end-of-period balance that it applies to.

5.7 Custom Domain Member Declarations

A custom taxonomy may define a custom member concept and use it in linkbases and contexts. EDGAR validation of a custom taxonomy checks for XBRL errors in the declaration of such members:

- A custom concept must not have the same name as a concept in an imported taxonomy. For example, WXY company must not define a concept wxy:DocumentType because that conflicts with the dei concept.
- A custom member must be declared with a name that ends in the word Member or Domain (EFM v68 § 6.7.27), with type domainItemType as it is defined in the XII DTR, and with the period type duration (EFM v68 § 6.7.28). The type has empty content and elements are usually abstract; they cannot be used as facts (EFM v68 § 6.5.25).

Valid custom members may be linked in custom relationships in much the same way as the standard members illustrated in section 5.1 above.

For example, suppose company WXY has a share class it calls "Uncommon" that is distinct from any of the standard share class concepts in the us-gaap taxonomy. Its custom taxonomy must have relationships to wxy:UncommonClassMember instead of (or in addition to) relationships for the standard members such as us-gaap:CommonClassAMember and us-gaap:CommonClassBMember. This is illustrated in Figure 9.

Figure 9. Definition relationships with a custom member

| Role URI: http://xbrl.sec.gov/dei/role/document/Entity- InformationEntityListingsTable | | | | | |
|--|-----------|---------------------|---|---|--------|
| Description: 995405 - Document - Entity Information, Entity Listings [Table] | | | | | |
| Concept | Type | Arc | 0 | t | Target |
| dei:EntityInformationLineItems | Abstract | | | | |
| dei:EntitiesTable | Hypercube | all (closed) | 1 | ! | |
| us-gaap:StatementClassOfStockAxis | Axis | hypercube-dimension | 1 | | |
| us-gaap:ClassOfStockDomain | Member | dimension-domain | 1 | | |
| wxy:UncommonClassMember | Member | domain-member | 1 | | |
| dei:EntityCommonStockSharesOutstanding | Shares | domain-member | 2 | ! | |

(Formerly EFM v68 § 6.8.18) Declare a custom member for a domain only if the taxonomy defining the domain does not have members specific enough to distinguish between facts needing distinct values. Most standard taxonomies declare a default domain member for every explicit axis, and often several more non-default members. Define necessary domain members using mnemonic name attribute values.

Figure 10. Examples of custom domain members

| | Standard Default | Intended | Custom Domain |
|---|-------------------------------------|-----------------------------------|---------------------------------------|
| Standard Axis | domain member | Meaning | Members |
| dei:LegalEntityAxis | dei:EntityDomain | Separately reporting subsidiaries | DefCoMember, GhiCoMember |
| dei:LegalEntityAxis | dei:EntityDomain | EDGAR Series Identifiers | S000000111Member, S000000222Member |
| <pre>srt:ConsolidatedEntitiesAxis</pre> | srt:Consolidated- EntitiesDomain | Consolidated subsidiaries | SubCo1Member, SubCo2Member |
| srt:SegmentGeographicalAxis | srt:Segment- GeographicalDomain | Regions | UsEastMember, CaribbeanMember |
| us-gaap:StatementClass- OfStockAxis | us-gaap:Class- OfStockDomain | EDGAR Class/Contract Identifiers | C000001111, C0000011111 |

(Formerly EFM v68 § 6.8.19) Do not declare "Total" domain members. The domain default member of an explicit axis serves that purpose, as illustrated in Figure 2 and Figure 3. In the WXY example, if there were a fact that represented (say) the total market capitalization of common classes A and B combined for the reporting period, that fact would be in the Required Context, with no Class of Stock member at all.

5.8 Custom Presentation and Label Relationships

A custom taxonomy influences the rendering of facts in an instance by defining custom roles, defining presentation relationships within those roles, and assigning labels to concepts. Section 6 below details the general operation of the EDGAR Renderer and some of its instance type- and taxonomy-specific special cases.

5.8.1 Instance type 8K.A example – custom members

Likewise, the WXY 8K example assumes the use of the dei-sub entry point that provides presentation and label relationships. Therefore, in addition to the custom definition links shown earlier, its custom taxonomy needs a parent-child relationship from the class of stock domain to wxy:UncommonClassMember, and a label for the custom member.

Figure 11. Custom presentation and label relationships with a custom member

| Role URI: http://xbrl.sec.gov/dei/role/document/Cover | | | | |
|--|---|---|---|---------------------------------|
| Description: 995100 - Document - Cover | | | | |
| Concept | р | t | 0 | Label |
| dei:EntitiesTable | | | | Entities [Table] |
| us-gaap:StatementClassOfStockAxis | | | 1 | Statement Class of Stock [Axis] |
| us-gaap:ClassOfStockDomain | | | 1 | Class of Stock [Domain] |
| wxy:UncommonClassMember | | | 1 | Uncommon Class [Member] |
| dei:EntityListingLineItems | ! | | 2 | Entity Information [Line Items] |
| dei:EntityCommonStockSharesOutstanding | ! | | 1 | Common Stock Shares Outstanding |

If the base dei entry point had been used instead of dei-sub, then the WXY 8K custom taxonomy would need to provide all the presentation and label links for all its expected facts.

Either a standard taxonomy entry point or the custom taxonomy must ensure that the presentation is complete. This is part of EDGAR validation and XBRL errors will occur for each concept appearing in a fact, as an axis, or as a member in an instance to ensure that:

- Is the source or target of at least one presentation relationship; and
- It has a standard label; or
- Is the target of a relationship that has a preferred label role, but the concept has no such label.

Validation will also ensure that for the link:roleType declaration:

- The custom role URI has the same first two parts as the custom namespace (http://uvw/ in this case) followed by /role/ and additional text;
- The description text matches the format expected by the renderer to sort outputs (see section 5).
- All, and only, usedon elements for presentation, definition, and calculation relationships are present.

5.9 Custom Calculation Relationships for Standard Concepts

Calculation relationships indicate that concepts are logically and arithmetically related, *i.e.*, that a concept is meant as the arithmetic sum of other concepts, and whether that summation involves additions or subtractions. Although they do not appear in either the 6K.A nor 8K.A instance type examples shown earlier, custom calculation relationships among standard concepts do appear in other instance types. Of particular importance are financial statements represent in instance types of submission sets AF, HF, QF, and RF. The content of financial statements is governed by both SEC regulations as well as reporting standards, primarily US Generally Accepted Accounting Principles (GAAP) or International Financial Reporting Standards (IFRS). Within the limits of those standards, filers exercise judgment in choosing the line items appearing in their financial statements. The meaning of each numeric line item is represented in XBRL concepts via its:

- XBRL numeric data type (for example, monetary or share);
- If monetary, whether it represents an accounting credit, debit, or neither, with respect to balance sheet and/or income statement conventions;
- Period type (measured at an instant or measured over a duration with a start and end date);
- Authoritative references (for example, a concept that is defined in an SEC regulation);
- If present, a label with role documentation as provided by the taxonomy authors.

These meta data properties are usually sufficient for a concept considered in isolation. Consider the concept us-gaap:LimitedPartnersOfferingCosts. It has monetary data type, debit balance, and instant period. It has a standard label text "Limited Partners' Offering Costs," reference link pointing to a specific subparagraph of FASB Accounting Standards Codification 505.10.5 complete with a URL of the full text, and its documentation label has the text "The cumulative amount of offering costs allocated to the limited partners."

Calculation relationships are an important complement to that concept-specific meta data. Figure 12 shows a fragment of the us-gaap taxonomy with four calculation relationships. Partners' capital is the sum of two items, and the limited partners' account is the net of their contributed capital minus their offering costs. The columns of the figure have the same meaning as in previous figures; "w" indicates the numeric weight relating the parent concept to the child.

http://fasb.org/us-gaap/role/statement/ StatementOfFinancialPositionClassified Description: 104050 - Statement - Statement of Financial Position, Classified Concept W t o Label Partners' Capital us-gaap:PartnersCapital us-gaap:GeneralPartnersCapitalAccount +1! 1 General Partners' Capital Account 2 us-gaap:LimitedPartnersCapitalAccount +1Limited Partners' Capital Account ! us-gaap:LimitedPartnersContributedCapital +11 Limited Partners' Contributed Capital 2 us-gaap:LimitedPartnersOfferingCosts Limited Partners' Offering Costs

Figure 12. Standard calculation relationships example

For the most part, standard calculation relationships are not in the entry points listed in EFM v68 § 6.5. Instead, custom taxonomies for financial statement instance types should contain custom XBRL calculation relationships to define how their use of each concept relates to the others.

For example, suppose a FA.US instance balance sheet shows facts for only four of the five concepts in Figure 12, leaving out the intermediate value us-gaap: LimitedPartnersCapitalAccount. Figure 13 shows the calculation relationships that would appear in its custom taxonomy instead; one of them is a copy of the standard taxonomy relationship, and the other two are new.

| Concept | W | t | 0 | Label |
|---|----|---|---|---------------------------------------|
| us-gaap:PartnersCapital | | | | Partners' Capital |
| us-gaap:GeneralPartnersCapitalAccount | +1 | | 1 | General Partners' Capital Account |
| us-gaap:LimitedPartnersContributedCapital | +1 | | 2 | Limited Partners' Contributed Capital |
| us-gaap:LimitedPartnersOfferingCosts | -1 | | 3 | Limited Partners' Offering Costs |

Figure 13. Custom calculation relationships with standard concepts.

The concept us-gaap: PartnersCapital is now the sum of two items minus the third.

5.9.1 When calculation relationships are required

(Formerly EFM v68 § 6.15.2) If a financial statement shows two or more items along with their net or total, during or at the end of the Required Context period, and the instance contains corresponding numeric facts, then the custom taxonomy must have a calculation relationship from the total concept to each of the contributing items. Examples:

• A balance sheet shows assets as the sum of current and non-current assets, as of the date falling at the end of the period of the Required Context. Two relationships are required.

- An income statement shows only earnings per share and diluted earnings per share, but no reconciling per-share amount. Calculation relationships are *not* required.
- An income statement shows earnings per share before and after an adjustment for change in accounting principles, along with the adjusting amount. Two calculation relationships are required, from the net earnings per share, to its two contributing amounts.
- A company's cash flow from investments for the most recent quarter is shown as the sum of two lines: Payments for plant and equipment, plus Payments for marketable securities. Two calculation relationships are required.
- An income statement shows the line items "Revenues", "Cost of Goods Sold" and "Gross margin" as the net of the two values during the current quarter. Two calculation relationships are required. In this case, the relationship subtracting Cost of Goods Sold will have a weight attribute of -1.
- A balance sheet shows Net Receivables with a parenthetical value for Allowances. Only two values are shown, so no calculation relationship is required.
- A footnote for ABC contains a table in which the Revenue of its separately reporting subsidiaries DEF, GHI and JKL are totaled. But each of the four facts is in a different context, having a different member on dei:LegalEntityAxis. This does not require any calculation relationships.

5.9.2 Avoid calculation relationship redundancy

(Formerly EFM v68 § 6.5.14) Ensure that each pair of source concept (summation) and target concept (item) appears in at most one calculation relationship. Note that this refers to the calculation relationship, not the concepts; any concept might occur in any number of financial statements or footnotes. Legitimate exceptions to this rule occur when a concept is shown in different parts of the financial statement as a sum of different, but overlapping, sets of other concepts. Examples:

- An income statement contains amounts pre-tax income, tax, and post-tax income. There are two lines and their net; therefore, the balance sheet requires two calculation relationships. In the tax footnote there is another occurrence of pre-tax income, tax, and post-tax income. The tax footnote does not need two calculation relationships, because the same relationship already exists on the income statement.
- A balance sheet shows Net Current Receivables with a parenthetical value for Allowances. Only two values are shown, so no calculation relationship is required. A footnote also includes an analysis of (the same) Net Current Receivables including, among other details, amounts for Gross and Allowances. The footnote has those two items and their net and therefore a need for two calculation relationships. Whether any of these facts also appear elsewhere is relevant only if it would result in duplicated relationships.

5.9.3 A single concept may have alternate calculations

(Formerly EFM v68 § 6.15.3) If different parts of a financial statement contain alternate line items that sum to the same total amount, there must be calculation relationships for the original and the alternate line items in distinct roles. For example:

• A tax liability is shown in a tax disclosure as the sum of current and deferred tax liabilities, and elsewhere in the same instance as the sum of domestic and foreign tax liabilities. These are two separate calculations, appearing in two separate calculation links, each link containing two calculation relationships.

5.10 Custom Numeric Concepts

For many instance types, the custom taxonomy that accompanies it may declare concepts and use those concepts in taxonomy relationships and in instance facts. A common use for such concepts is to define the "line items" of financial statements – income statements, balance sheets, cash flows, *etc*. In a typical financial statement, line items that will appear that are broader or narrower than the available standard concepts and assigning a different text label is inappropriate. As in the guidance for defining custom domain members, following the principles below reduce unnecessary variability both across filers and for a single filer over time.

5.10.1 Do not duplicate numeric concepts

For example, a standard taxonomy may have the concept <code>GrossProfit</code> and one of its entry points assigns the label as "Gross Profit". The standard taxonomy does not have a concept <code>GrossMargin</code> because it is defined the same as gross profit: both are used to mean "excess of revenues over the cost of revenues." A filer disclosing their "gross margin" in a submission should not define a custom <code>GrossMargin</code> concept, but rather, use the <code>GrossProfit</code> concept and link it to a custom label "Gross margin".

(Formerly EFM v68 § 6.8.10) Do not declare different elements for different values of the same underlying line item. A line item such as "Net Income" is the same as the line item for "Net Loss", since the concept may appear in facts with different values, positive, negative, or zero in different periods.

Even a line item that appears to be shown with different values in the same period is still only a single concept. For example, a cash flow statement may have a line item "Reclassification of proceeds from Operations to Investments"; it appears in "Cash flow from Operations" as (10) and under "Cash flow from Investments" as 10, but it is the same concept and the same fact for the same period.

(Formerly EFM v68 § 6.11.1) In an Inline XBRL document, if the concept appears as a fact in a table or list, the custom label should be as close as possible to the text in the original document that serves as a heading or legend for that fact (formerly [6.11.1]).

5.10.2 Monetary concepts

(Formerly EFM v68 § 6.8.9) Declare a concept having the XBRL data type monetaryItemType if the standard taxonomy contains only monetary type concepts that, in the judgment of the filer, may be similar but are too broadly defined for a given line item.

For example, a financial statement may have a line item that encompasses a significant portion, but not all, of a nearby line item, such as this example:

| Accounts payable | \$ 7,324 |
|----------------------------|--------------|
| Securities lending payable | 1,274 |
| Other liabilities, current | 2,362 |
| Liabilities current | \$ 11 410 |

Assume the standard taxonomy has concepts AccountsPayable, OtherLiabilitiesCurrent and LiabilitiesCurrent. All three have the same XBRL attribute values: data type monetaryItemType, period (instant) and balance (credit). Assume the standard taxonomy does not have any concept whose meaning is narrow enough to encompass only "Securities Lending Payable".

Meeting the accounting disclosure requirements justifies defining a custom concept named SecuritiesLendingPayable with the same properties as the more general Accounts Payable concept, i.e., data type (monetary), period type (instant), and balance (credit).

The requirement for calculation relationships applies in this example. Calculation relationships provide important information to the consumer of the data with custom concepts. In this financial statement,

LiabilitiesCurrent is the sum of AccountsPayable, custom SecuritiesLendingPayable, and OtherLiabilities. Finally, because the custom item appears in the financial statement, EDGAR validations that either has a credit or debit balance or has a custom documentation label.

Custom monetary concepts may also be needed when a line item combines different concepts defined in the standard taxonomy, for example:

| Prepaid pension and postretirement benefits | \$ 8,731 |
|---|-------------|
| Other assets, noncurrent | 872 |
| Assets, noncurrent | \$ 9,603 |

Assume the standard taxonomy has two concepts PrepaidPostretirementBenefits and PrepaidPensionCosts, but the filer judges both to be too narrow. Meeting the accounting disclosure requirements justifies defining a custom concept named PrepaidPensionAndPostretirementBenefits.

Here, calculation relationships would be required to indicate that AssetsNoncurrent is the sum of PrepaidPensionAndPostretirementBenefits and OtherAssetsNoncurrent.

Whether an additional pair of relationships to indicate that the custom concept

PrepaidPensionAndPostretirementBenefits is the sum of PrepaidPostretirementBenefits and

PrepaidPensionCosts depends on whether those concepts appear elsewhere separately in the statement. If they are not used in any facts, then they need not participate in calculation relationships.

5.10.3 Share (unit of ownership) type concepts

The built-in XBRL data type shareItemType represents units of ownership. Facts of this type must have a unit dimension equal to the built-in value share. Despite its name, this type is not intended to be limited to literal "shares" of stock.

Custom concepts of this type solely to make distinctions between different units of ownership are not necessary. Better to make this distinction by using members on a standard axis such as us-gaap:StatementClassOfStockAxis in section 5.7 above.

5.10.4 Per-share type concepts

The distinction between a monetary amount and a monetary amount per unit of ownership (e.g., per share) is sufficiently important that standard taxonomy concepts such as "Earnings per Share" almost always have type perShareItemType, not monetaryItemType.

Custom concepts representing monetary measures per unit of ownership should do the same.

5.10.5 Pure number type concepts

The built in XBRL type pureItemType represents numbers that are defined as a ratio between measures of the same kind: for example, miles per kilometer (distance over distance). In mathematics this is called a "pure number" and a fact of such a concept must have the XBRL unit dimension pure.

(Formerly 6.8.15) A custom concept representing a ratio of values for which its facts would have a currency in the numerator and a different currency in the denominator must be declared as a pureItemType. For example, "Exchange Rate" is a "pure number", being a ratio of two monetary values having different currencies.

5.10.6 Percent type concepts

(Formerly 6.8.14) A percentage is a special case of a pure number in which the ratio is between identical measures. An interest rate, for example, is a ratio of two values of the same currency; it would be declared as a percentitemType. XBRL fact values of a percentitemType concept are not scaled by 100. A concept such as "Change in Revenues" is conventionally rendered scaled by 100 and followed by the

"%" symbol. A fact of this concept must have a unit dimension that is equal to the XBRL built in value pure, and a value such as ".20" to represent "20%".

Only if both the numerator and denominator would have a period type instant may the custom concept also have period type instant; otherwise, the period type is duration.

Use a name that expresses the meaning of the ratio, using the word "Over". For example, the concept name "Change in Revenues Over Revenues of the Period One Year Earlier" is verbose, but it is explicit and applicable to both quarterly and annual periods.

5.11 Custom Non-Numeric Concepts

Custom taxonomies may define custom *non*-numeric concepts. Guidelines for avoiding unnecessary variability apply just as they do for numeric concepts, but non-numeric concepts cannot be related to other concepts via calculation.

5.11.1 Custom Non-member Abstract concepts

(Formerly EFM v68 § 6.8.8) It is often desirable to arrange presentation or definition relationships into hierarchies. *Custom non-member abstract* concepts fill this need. These are custom concepts whose only purpose is to provide a root concept or an intermediate concept in a multi-level hierarchy.

There are few restrictions on declaring abstract non-member concepts, other than that the concept names must end with Abstract or LineItems, and vice versa (EFM § 6.7.26) and that its periodType be duration (EFM v68 § 6.7.32).

5.11.2 Custom text block type concepts

The *text block* is an important XBRL data type defined in the XII DTR (see 2 above) and used in nearly every standard taxonomy. The content of a text block fact is a character string to be interpreted as XHTML, and in EDGAR, the elements and attributes are restricted as detailed in EFM § 5.2.2.

A text block may represent anything from a sentence fragment to several pages of formatted narratives, images, and narratives; in Inline XBRL documents, text blocks are frequently intended to enclose other numeric and non-numeric facts – even other text blocks. The term originates from regulation S-T 405 that requires "block-text" tagging of Notes to Financial Statements.

Text block concepts in taxonomies other than us-gaap and ifrs for financial statements are often tied to a specific Form instruction or disclosure requirement that is neither too broad, nor too narrow, in the same way that standard numeric line items on a financial statement might be. For example, a disclosure satisfying Exchange Act Rule 17AD-27(b)(1) is represented in its entirety by one standard text block concept sro:CmspStpPlcyPrcdrSmryTextBlock having the label "CMSP STP Policies and Procedures Summary [Text block]" regardless of how little or how much narrative, tables, or images the fact may contain; there is no need to subdivide the text into different custom concepts, nor to create a custom concept that merges the topic with some other standard text block. The same cannot always be said of text blocks for financial statement notes, which are often related to multiple requirements, and may have substantial overlap with other text blocks.

(Formerly EFM v68 § 6.8.23) Define a custom concept of type textBlockItemType with name ending TextBlock when, in the judgment of the registrant, the standard concepts available are too narrowly defined disclosure being tagged, or the formatted text is commingled, and it would be misleading to include the same commingled formatted content in two or more standard text blocks. Define a custom text block concept with name ending TableTextBlock when the formatted text is composed entirely of a formatted table and its caption, if any.

(Formerly EFM v68 § 6.7.32) A custom concept of type textBlockItemType must have period type duration.

5.11.3 Custom dimensional concepts

Four types of non-numeric concepts are specifically for use in dimensional relationships: domain members, typed dimensions, explicit dimensions, and hypercubes.

Custom domain members are discussed in 5.7 above.

EDGAR does not permit custom typed dimensions in any custom taxonomy (EFM v68 § 6.5.39, EFM v68 § 6.7.20).

In some instance types, custom domain members, explicit dimensions and hypercubes are of no use because there are EDGAR validations preventing their participation in any dimensional relationships.

(Formerly 6.8.20) Declare a custom explicit dimension with a name ending in Axis only if the axes of no existing standard table are sufficient to capture a complex disclosure and no standard axis (typed or explicit) having the same meaning. For example, suppose there is a table for "Assets held for sale, by Asset Type" with only a standard axis for Asset Type. To disaggregate an asset type (property, for example) further according to its degree of distress, if there is no other standard dimension related to distress, define a custom dimension such as DegreeOfDistressAxis.

(Formerly 6.7.23) Custom explicit dimension concepts must have names ending in Axis and vice versa.

(Formerly 6.8.21) Declare a custom hypercube concept with a name ending in **Table** and only if no available standard taxonomy contains an appropriate combination of axes and concepts. Note that the hypercube concept itself is only a structural placeholder for dimensional validation and it does not appear in the instance at all.

(Formerly 6.7.24) Custom hypercube concepts must have names ending in **Table** and vice versa.

5.11.4 Other custom non-numeric types

Note that custom non-numeric types other than text blocks and domain members are rarely required in any instance type. Although any built-in or derived date type may be used in a custom taxonomy, in practice, dates and plain text strings are more than sufficient to comply with custom tagging requirements.

(Formerly 6.8.16) Declare a concept with the XBRL built in type dateItemType only if facts in an instance are dates, but no concept in a standard taxonomy is appropriate. For example, a disclosure contains a table of contracts with values and maturity dates. If there is no appropriate element in an available standard taxonomy schema for the date, so declare a date concept such as ContractMaturityDate.

(Formerly 6.8.17) Declare a concept with the XBRL built in type stringItemType only if facts in an instance are plain text without XHTML markup, but no concept in a standard taxonomy is appropriate. For example, a disclosure contains a table of contracts with the name of the project and its terms. If there is no appropriate concept in an available standard taxonomy for the name, declare a string concept such as ProjectNameText.

5.12 Other custom taxonomy components

Custom taxonomies must not contain:

- Custom arcroleType declarations
- Custom roles for label, footnote, or reference linkbase resource elements
- Custom fractionItemType concepts

Custom tuple concepts.

(Formerly EFM v68 § 6.8.3) Do not define a link:roleType that means the same as link roles that are already defined in the XBRL 2.1 specification or in a standard taxonomy.

6 Instance Content

Most XBRL Instance types require filers to use accounting judgment to correctly define entities, periods, and use appropriate concepts from standard taxonomies to accurately represent the content of disclosures.

Creating an XBRL document is often called "tagging the document," implying that a disclosure exists as a document prior to conversion to XHTML and then adding XBRL markup (or the creation of an EX-101.INS attachment).

"Tagging" is only one method of creating the instance; for example, EDGAR provides an online web form from which a FE.A type of instance is generated.

Whatever the origin of the disclosure content, filers' key decisions require modeling the disclosure accurately, and each choice of an XBRL element in a filing constitutes a kind of management assertion.

6.1 The Related Official Document

Predating the integration of Inline XBRL in EDGAR, rule 17 CFR 232.11 contains this definition, which appears to imply the existence of some document other than the XBRL document, that in some sense is more official than the XBRL:

Figure 14. Fragment of Regulation S-T Definitions

Related Official Filing. The term Related Official Filing means the ASCII or HTML format part of the official filing with which all or part of an Interactive Data File appears as an exhibit or, in the case of a filing on Form N-1A (239.15A and 274.11A of this chapter), Form N-2 (239.14 and 274.11al of this chapter), Form N-3 (239.17a and 274.11b of this chapter), Form N-4 (239.17b and 274.11c of this chapter), Form N6 (239.17c and 274.11d of this chapter), and Form N-CSR (274.128 of this chapter), and, to the extent required by 232.405 [Rule 405 of Regulation ST] for a business development company as defined in Section 2(48) of the Investment Company Act of 1940 (15 U.S.C. 80a2(a)(48)), Form 10-K (249.310 of this chapter), Form 10-Q (249.308a of this chapter), and Form 8-K (249.308 of this chapter), the ASCII or HTML format part of an official filing that contains the information to which an Interactive Data File corresponds.

For a submission not using Inline XBRL, the "ASCII or HTML format part" referred to those attachments of a submission other than the single EX-101.INS that contained the xBRL-XML instance. This definition leads to a derived definition, given the adoption of Inline XBRL using multiple HTML files and the possibility of multiple XBRL instances in a single submission.

The Related Official Document is defined in terms of an IXDS (whether single- or multi-file). It is the concatenation of the sequence of individual document bodies with any primary document body first, followed by the other file bodies sorted by attachment name in lexicographic order, with all XBRL- and Inline XBRL-specific elements, attributes, and namespaces ignored. For example:

- A 424I submission has one Inline XBRL attachment, an EX-FILING FEES file called ffd.htm.
 The Related Official Document of the FE.A type instance is the content of ffd.htm without any XBRL-specific tags.
- An S-3 submission has three Inline XBRL attachments comprising an IXDS: a S-3 attachment ccc.htm, an EX-99 attachment bbb.htm, and a second EX-99 attachment ccc.htm, along with an EX-FILING FEES called ffd.htm. The Related Official Document of the R33.US instance is the concatenation of ccc.htm, followed by aaa.htm, followed by bbb.htm, without any XBRL-specific tags. The Related Official Document of the EX-FILING FEES instance is ffd.htm.

Note that a multi-file IXDS must contain the primary document of a submission (EFM § 5.2.5).

6.2 Entities in Instances

This section describes guidance for the content of instances independent of disclosure substance, instance type, or format.

6.2.1 Default legal entities

(Formerly EFM v68 § 6.6.3) Facts about a registrant must have an i:context element in the default legal entity, except for facts that apply only to a reportable segment or a subsidiary with separate reporting obligations to the Commission.

A context is defined to be "in the default legal entity" if and only if it has no xbrldi:explicitMember with a dimension attribute equal to LegalEntityAxis in a standard namespace and ConsolidatedEntitiesAxis in a standard namespace. The required context (§ 3.1.2 above) is a context in the default legal entity.

The entity that it refers to is a Consolidated Entity, which is also the entity in the i:identifier element of the Required Context. For example:

- ABC company is a consolidated entity if it has subsidiaries DEF and GHI that each have separate
 reporting obligations to the Commission. ABC is a consolidated entity from the point of view of an
 instance that contains data about both DEF and GHI.
- Fund family MNO has two series MNOX and MNOY. MNO is considered a 'consolidated entity'. An instance containing the annual statements (or schedule of investments, or risk/return summaries) for both MNOX and MNOY must use the CIK of the fund family MNO as the i:identifier. In that instance, MNO is the "default legal entity".

A single CIK must be chosen to represent all co-registrants (see § 3.1.3 above).

6.2.2 Consolidating entities and subsidiaries

If facts about a Consolidated Entity and one or more of its subsidiaries, each with separate reporting obligations to the Commission, appear in a single instance, it is a consolidating instance. This is common when disclosures about the parent company and its separately reporting subsidiaries are included in a single, combined filing, such as Form 10-K. For example:

- Parent company ABC is a consolidated entity from the point of view of an instance that contains the reconciliation of ABC's consolidated statements with its subsidiaries DEF and GHI.
- An instance containing the annual statements (or schedule of investments, or risk/return summaries) for two series, MNOX and MNOY of fund family MNO, is considered a "consolidating instance" for the "consolidated entity" MNO. Even if the report does not, strictly speaking, contain a "consolidation", it will contain facts such as narratives that apply to all the series.

6.2.3 Consolidated entities.

The contexts for facts about entities other than the Consolidated Entity must have i:explicit Member with a dimension attribute value in a standard namespace and equal to **LegalEntityAxis** or **ConsolidatedEntitiesAxis** in a standard namespace, and distinct values. The dimension member must be declared in the company custom taxonomy (§ 6).

The LegalEntityAxis axis may be used in any instance; a consolidating instance that contains facts about multiple subsidiaries of the consolidated entity should use ConsolidatedEntitiesAxis. For example:

- A holding company (ABC) files a Form 10-K that contains:
 - 1. The face financial statements of the holding company on a consolidated basis;
 - 2. Selected financial data for each of its separately reporting subsidiaries (DEF and GHI)

If facts about all entities ABC, DEF and GHI are included in a single instance document, at least three contexts are required, as shown below.

```
<i:context id="FY09"><i:entity>
<i:identifier scheme="http://www.sec.gov/CIK">999999999</i:identifier>
</i:entity>...</i:context>
<i:context id="FY09_DEF"><i:entity>
<i:identifier scheme="http://www.sec.gov/CIK">999999999</i:identifier>
<i:segment>
<xbrldi:explicitMember dimension="xyz:ConsolidatedEntitiesAxis"</pre>
">abc:DEF Member</xbrldi:explicitMember>
</i:segment>
</i:entity>...</i:context>
<i:context id="FY09 GHI"><i:entity>
<i:identifier scheme="http://www.sec.gov/CIK">999999999</i:identifier>
<i:segment>
<xbrldi:explicitMember dimension=" xyz:ConsolidatedEntitiesAxis</pre>
">abc:GHI Member</xbrldi:explicitMember>
</i:segment>
</i:entity
>...</i:context>
```

In the above example, assume namespace prefix **abc** is bound to the company's extension schema namespace and **xyz** is bound to some standard namespace.

• Facts about two investment fund series MNOX and MNOY are included in a single instance. At least three contexts are required, as shown below. The MNO context is the context for facts such as dei:EntityCentralIndexKey or accounting policies text blocks. A Fund Series identifier must not appear as an i:identifier; it must appear only as the element name of the domain member representing the series (\$77777777, \$666666666):

```
<i:context id="FY09_MNO"><i:entity>
<i:identifier scheme="http://www.sec.gov/CIK" >8888888888</i:identifier>
</i:entity>...</i:context>
<i:context id="FY09_MNOX"><i:entity>
<i:identifier scheme="http://www.sec.gov/CIK" >8888888888</i:identifier>
<i:segment>
<isegment>
</br/>
</br/>
</br/>
</br/>
</br/>
</br/>

<pr
```

```
>mno:S66666666Member</xbrldi:explicitMember>
</i:segment></i:entity>...</i:context>
```

In the above example, assume namespace prefix mno is bound to the fund family's extension schema namespace.

6.2.4 Contexts for subsidiaries in a consolidating instance

Facts in a consolidating instance with a context that names an entity with subsidiaries, applies collectively to subsidiaries within that subset. For example:

• ABC is a public holding company whose submission has an instance document containing the consolidated statements of ABC, with selected financial data of each of its separately reporting subsidiaries DEF, GHI and JKL. A (non-numeric) Note to the Financial Statements applies only to subsidiaries GHI and JKL (but not to DEF), and in that note appears a material (numeric) figure "USD 30m" for (say) combined expenses of GHI and JKL. If the numeric fact is reported, then a new domain member (such as G_J_Member) could be used to denote the combination of those two subsidiaries and be used in the xbrldi:explicitMember element. In this example the namespace prefix abc is bound to the company's extension taxonomy namespace and xyz is bound to some standard namespace:

```
<i:context id="FY09_GHIJKL"><i:entity>
<i:identifier scheme="http://www.sec.gov/CIK">999999999</i:identifier>
<i:segment>
<xbrldi:explicitMember dimension="xyz:ConsolidatedEntitiesAxis
">abc:G_J_Member</xbrldi:explicitMember>
</i:segment>
</i:entity>...</i:context>
```

However, creating such "synthetic" entities should be avoided if the only facts that will be disclosed are non-numeric; in that case it is better to simply duplicate the non-numeric facts. For example:

A fund prospectus that contains a narrative fee disclosure that applies to share classes A, B and T, but a different narrative fee disclosure that applies to share class I. Tag the disclosure separately, once for each class. Do not create a new domain member named ABT to denote the combination of classes for the context of the narrative fee disclosure.

The members of each domain form a tree (see 10.4 below). For example:

• If GHI and JKL are combined in a context as **G_J_Member**, then DEF and GHI cannot also be combined for a different context in any instance using the same company extension schema and linkbases.

6.2.5 Contexts for a consolidating instance

In a consolidating instance, facts that apply only to the parent company and not to any specific subsidiaries must have contexts whose <code>xbrldi:explicitMember</code> elements have a dimension attribute of <code>ConsolidatedEntitiesAxis</code> in a standard namespace and value <code>ParentCompanyMember</code> in a standard namespace.

6.2.6 Contexts for consolidating eliminations

In a consolidating instance, facts that apply only to eliminations between subsidiaries must have contexts whose xbrldi:explicitMember elements have a dimension attribute of ConsolidationItemsAxis in a standard namespace and value ConsolidationEliminationsMember in a standard namespace. The registrant has freedom to define domain members to identify subsidiaries, but the registrant cannot choose the domain member to use for eliminations. For example:

• A consolidation of ABC with its subsidiaries contains corporate headquarters expenses that must be expressed as facts about ParentCompanyMember, and eliminations between DEF and GHI that are expressed as (usually negative) figures that are facts about ConsolidationEliminationsMember.

6.3 Periods in Instances

6.3.1 Period types

(Formerly EFM v68 § 6.6.23) An element used in numeric facts representing amounts must have an i:periodType attribute that is the same as the amounts reported. An element with an i:periodType attribute of instant has values that are only measurable at a point in time; the value duration is used for all other elements, including most textual information.

Elements in standard taxonomies are never identified as being a beginning or ending period amount. The same element can represent both a beginning and ending balance of a period, because the underlying concept is the same. The differentiating factor is the point in time, which is identified in the instance document and not the taxonomy.

6.3.2 Reporting periods for non-numeric facts

(Formerly EFM v68 § 6.6.1) In an instance reporting a fiscal (or calendar) year, non-numeric facts containing text about any portion of that, or a prior year must have a **contextRef** attribute to an i:context for the reporting period year. For example:

• In a fiscal year 2009 report, a company describes litigation settled in fiscal 2007. Nevertheless, the disclosure text should be in a context for fiscal 2009.

Only the date, not the time part of the ISO 8601 date-times, should be used in periods.

A reporting period begins at 00:00:00 of its first day and ends at 24:00:00 of its last day, which is the XBRL 2.1 default for periods.

(Formerly EFM v68 § 6.6.1) In an instance reporting a fiscal year-to-date, the non-numeric facts containing text about any portion of the year-to-date or prior year must have a contextRef attribute to an i:context representing the year-to-date. For example:

• A company completes an acquisition in its second fiscal quarter. In its 3rd quarter fiscal report, the Acquisitions note contains text describing that same acquisition. The 3rd quarter text block fact should be in the context for the first nine months (that is, the year-to-date).

For submission types having facts that are not representing an entire reporting period, such as a prospectus or proxy, filers may use a period of one day that ends on the filing day.

6.3.3 Contexts for different reporting assumptions

(Formerly EFM v68 § 6.6.11) An instance containing multiple reports about the same entity for the same periods under different reporting assumptions must distinguish the facts in different reports using i:context elements whose xbrldi:explicitMember elements have a dimension attribute of StatementScenarioAxis in a standard namespace. Although the default scenario domain member is normally used to the same effect as "actual", when there is more than one entirely distinct report the Scenario Axis is used to distinguish the reports.

6.3.4 Nil facts

(Formerly EFM v68 § 6.6.15) The **xsi:nil** attribute with value **true** must be used only to convey a value that is different from both "zero" and different from not reporting the fact at all, or to identify a fact

detailed only by a link: footnote. For example, a small fragment of an original related document balance sheet:

| Line Item | Amount in thousands (2007) | Amount in thousands (2006) |
|---|----------------------------------|----------------------------------|
| Commitments and Contingencies | - | - |
| Preferred Shares (x,xxx shares authorized, none issued) | - | - |

This corresponds to these facts:

```
<us-gaap:CommitmentsAndContingencies unitRef="USD" contextRef="FY07e" xsi:nil="true"/>
<us-gaap:CommitmentsAndContingencies unitRef="USD" contextRef="FY06e" xsi:nil="true"/>
<us-gaap:PreferredStockValue unitRef="USD" contextRef="FY07e" xsi:nil="true"/>
<us-gaap:PreferredStockValue unitRef="USD" contextRef="FY06e" xsi:nil="true"/>
```

In rare cases, nil facts are helpful in customizing rendering; see § 7.13 regarding statements of changes in equity.

6.4 Classes of Stock in Instances

6.4.1 Contexts for all classes of stock

(Formerly EFM v68 § 6.6.9) Facts that apply to all classes of stock in an instance must have an i:context element without a dimension attribute equal to StatementClassOfStockAxis or ClassesOfShareCapitalAxis in a standard namespace.

6.4.2 Contexts for a single class of stock

(Formerly EFM v68 § 6.6.10) An instance containing facts that are only specific to distinct stock classes in a statement must distinguish those facts using i:context elements whose xbrldi:explicitMember elements have a dimension attribute of StatementClassOfStockAxis or ClassesOfShareCapitalAxis in a standard namespace. Many "generic" stock class domain members appear in standard namespaces (for example, CommonClassAMember), but filers may also create new domain members to refer to specific classes.

Investment company submissions cannot use the generic members. Each class in each series must be defined as a domain member with element name equal to the Fund Class identifier (for example, if MNOX has A, B and I classes, they might be domain members c555555555, c555555556, c555555557).

6.5 Concept Selection for Instances

6.5.1 Precedence when selecting elements

(Formerly EFM v68 § 6.6.29) When choosing the most appropriate element for facts in one or more periods, the element's link:reference elements take precedence over the i:periodType attribute, which takes precedence over the balance attribute if present, which takes precedence over the type attribute. Standard taxonomies may also have embedded linkbases or may have separate linkbases that reference, but are not required by, the core schema defining the elements.

Label linkbases contain label resources characterized with various roles. A label with *link:role attribute value http://www.xbrl.org/2003/role/documentation takes precedence over the label with *link:role attribute value http://www.xbrl.org/2003/role/label, which in turn takes precedence over other labels with *link:role attribute values such as its totalLabel or negatedLabel.

Calculation, definition, and presentation linkbases that reference, but are not referenced by, standard taxonomies schemas do communicate how elements are related to each other, and this too may be helpful in identifying the best choice. Subject to restrictions resulting from incompatible taxonomy versions or other conflicts, any element in any standard taxonomy schema may be used in an instance that has that schema in a valid Discoverable Taxonomy Set (DTS). This holds independently of any calculation, definition, or presentation linkbases not in its DTS.

The name attribute of an element is a mnemonic, not a definition; do not use the name attribute of an element as the definitive indicator of its meaning.

6.5.2 Selecting elements based on authoritative references

(Formerly EFM v68 § 6.6.28) When there is a choice among different elements having distinct link:reference elements in a standard taxonomy, use the element with the most specific reference. Reference linkbases containing link:reference elements do not have to be in the DTS of the instance as submitted, but they should be used during the preparation of the instance. For example:

• An element with a link: reference to a specific clause or instruction in an SEC rule is likely to be a better choice than an element that only refers to the entire rule.

Determining whether references supporting the intended disclosure are consistent with the reportable fact requires judgment.

6.5.3 Selecting elements based on data types

(Formerly EFM v68 § 6.6.27) If there is a choice among different elements whose type attribute is consistent with a set of facts in one or more periods, use the element with the most specific type attribute. For example:

- A footnote contains the sentence "The assumed discount rate is 2%" or, equivalently, "The assumed discount rate is two percent". There is a numeric element declared in a standard taxonomy for the value of "assumed discount rates", and another element for "assumptions". Use the numeric element, "assumed discount rate".
- A fact is a dollar amount and there are some potential elements that are monetary and others that are strings or text blocks, the monetary elements must be used. Similarly, "per share" dollar amounts must be tagged with "per share" elements.

6.5.4 Selecting signs based on the balance attribute

(Formerly EFM v68 § 6.6.30) Invert the sign of a numeric fact whose element has an i:balance value that is inconsistent with the reporting concept being reported. Often, this means entering a negative value into the instance, irrespective of whether that negative value will subsequently be rendered without brackets by applying a negating label. Use an element even if its i:balance is not the balance type expected and requires a sign flip.

The value of i:balance (debit or credit) is assigned from the perspective of the income statement and balance sheet where the amount is positive. This perspective may be inconsistent with the presentation of the element in the financial statements. For example:

• An amount in the cash flow statement may be represented by an element that was assigned an i:balance of debit based on the income statement. As a result, the i:balance may be different from preparers' expectations.

A different i:balance value for an element must not influence the registrant in deciding whether the element is appropriate for the fact representing a financial concept, and registrants should not create a

new element if an element in a standard taxonomy namespace is consistent with the financial concept reported in all respects except i:balance.

6.5.5 Monetary element negating labels

(Formerly EFM v68 § 6.10.6) Assign a "negating" label to an xs:element with an i:balanceType attribute that is inconsistent with the presentation in related official documents. A numeric fact value will occasionally have the reverse sign of the figure as conventionally shown. A link:label has several possible xlink:role attributes that will ensure the number will be displayed with a reversed sign, called "negating" labels.

For example, one of the most common cases for a negating label is the monetary element us-gaap: TreasuryStockValue, which has i:balanceType of debit. Its negating labels could be assigned as shown in this table:

| xlink:role attribute | link:label |
|---|--|
| http://www.xbrl.org/2003/role/label | Treasury Stock, Value |
| http://www.xbrl.org/2009/role/negatedLabel | (Less) Treasury Stock, Value |
| http://www.xbrl.org/2009/role/negatedPeriodEndLabel | (Less) Treasury Stock, Value, Ending Balance |
| http://www.xbrl.org/2009/role/negatedPeriodStartLabel | (Less) Treasury Stock, Value, Beginning Balance |
| http://www.xbrl.org/2009/role/negatedTotalLabel | (Less) Treasury Stock, Value, Total |
| http://www.xbrl.org/2009/role/negatedNetLabel | (Less) Treasury Stock, Value, Net |
| http://www.xbrl.org/2009/role/negatedTerseLabel | (Less) Treasury Stock |

6.5.6 Selecting elements based on documentation labels

(Formerly EFM v68 § 6.6.26) When there is a choice among different elements that have documentation labels consistent with a set of facts in one or more periods, use the element with the narrowest definition. (Formerly EFM v68 § 6.6.24) If an element used in numeric facts representing amounts in one or more periods has a documentation label, then the scope of that documentation must include the material amounts reported for that numeric concept. For example:

- Eleven possible word combinations may be derived from "depreciation", "amortization", "impairment", and "depletion", but all eleven combinations might not be included as distinct elements in a standard taxonomy namespace. If the line item being reported consists only of depreciation, then use an element such as DepreciationAndAmortization; do not use any of the alternative elements whose definition also includes impairment or depletion.
- The documentation label of an element "Other Restructuring Costs" states that it "excludes costs associated with the retirement of a long-lived asset and severance costs associated with established compensation plans." When reporting restructuring that includes those costs, use a different element.

As important as they are, all documentation labels have limitations, so preparers should not base their choice of an element simply on minor, immaterial differentials in definitions. Determining whether a definition is consistent with the reportable concept requires judgment.

6.5.7 Changes in elements from period to period

(Formerly EFM v68 § 6.8.1) A schema that changes any **xs:element** or type declarations or changes any relationships in its DTS from an earlier version of itself in such a way as to invalidate earlier instances 109

must use only the {versionDate} portion of its targetNamespace attribute to identify the new version. From submission to submission, a company extension's schema and linkbases almost always change, for example, to accommodate changes in the parenthetical portions of element labels. Change the {versionDate} portion of the schema's targetNamespace with each submission to ensure that submissions validate independently and maintain their correspondence to its related official document. For example:

• A 2nd quarter Form 10-Q submission contains a schema with a targetNamespace attribute http://abcinc.com/20091231. The schema for the 3rd quarter Form 10-Q changes one element from the i:balance attribute of credit to debit. Its targetNamespace attribute changes to http://abcinc.com/20100331.

6.5.8 Terse and verbose labels

(Formerly EFM v68 § 6.10.8) Assign an **xs:element** different terse or verbose labels if the same element will appear with different labels depending on the presentation relationships that have it as a target.

An element is assigned a terse label if and only if it is assigned a label with an xlink:role attribute equal to http://www.xbrl.org/2003/label/terse.

An element is assigned a verbose label if and only if it is assigned a label with an xlink:role attribute equal to http://www.xbrl.org/2003/label/verbose.

The terms 'terse' and 'verbose' are only suggestive. There is no specific label role that is supposed to "match" the original related document; the presentation, with preferredLabel taken into account, is what matters.

For example:

• A fact whose element has the standard label "Earnings Per Share, Diluted" in a standard taxonomy might appear in an income statement with the label "Diluted, per share" and in an Equity note with the label "Per share, diluted". If the two labels have different values of the *link:role attribute, either could be considered terse or verbose.

6.6 Units and Decimals in Instances

6.6.1 The content of a numeric fact never has a scale factor

(Formerly EFM v68 § 6.6.31) Examples:

- The value "twenty thousand" may appear in a numeric fact as any legal decimal representation of 20,000, such as 20000, 20000.0, or 020000. It must not appear as "20".
- The value "20%" may appear in a numeric fact as any legal decimal representation of .2, such as 0.2, 0.20, or 000.2000.
- The value "20%" must not appear in a numeric fact as "20", "20/100", "20%" or any variation of the integer "20".

6.6.2 Do not define or use units that imply a scale factor on a currency

(Formerly EFM v68 § 6.6.34) To express amounts in US Dollars, use only i:unit with one i:measure element whose content is the QName iso4217:USD. Do not define units such as "thousands of USD", "millions of GBP", or "pence".

6.6.3 Non-currency units must appear with only one implicit power-of-ten scale factor per instance

(Formerly EFM v68 § 6.6.35) Filers must use units and implicit scale factors consistently throughout submitted instances.

| element type attribute | Abbreviation | Meaning |
|-------------------------|-------------------------------------|---|
| us-types:boeItemType | Boe MBoe MMBoe | Barrel Oil Equivalent (Energy) Thousand Barrels of Oil Equivalent Million Barrels of Oil Equivalent |
| us-types:volumeItemType | cf Mcf MMcf Fbbls MBbls | Cubic Feet of Natural Gas Thousand Cubic Feet of Natural Gas Million Cubic Feet of Natural Gas Barrels of Oil at 60 degrees F Thousands of Barrels of Oil |
| | MMbls | Millions of Barrels of Oil |

For example:

• These facts have a unitref attribute of different scales in a single instance and only one such scale may be used:

```
<us-gaap:ProvedDevelopedReservesVolume ... unitRef="MMbbl">3880</...>
<us-gaap:ProvedDevelopedReservesVolume ... unitRef="Mbbl">2200000</...>
<us-gaap:ProvedUndevelopedReservesVolume ... unitRef="Fbbls">42000000</...>
```

By contrast, units such as "pound" and "ounce" are distinct, not related by a power of ten, and may be used, for example, as "hundreds of pounds" and "ounces" in a single instance.

Define and use other i:unit elements (usually needed for performance metrics such as "stores" or "customers") consistently within an instance and in subsequent submissions.

To define a custom unit, the i:measure element requires a namespace prefix. For example:

• A company with schema namespace prefix **abc** would declare Thousands of Barrels of Oil as follows:

```
<i:unit id="MBbls">
<i:measure>abc:MBbls</i:measure>
</i:unit>
```

6.6.4 Selecting the decimals attribute

(Formerly EFM v68 § 6.6.32) The value of the decimals attribute of a fact must correspond to the accuracy of the corresponding amount as reported. The decimals attribute influences how numbers are interpreted in computation and any value for the decimals attribute other than the value INF implies rounding or truncation. Use the following table to select the correct value of the decimals attribute for a fact so that it corresponds to the value as presented (most often rounded) in related official documents:

| Precision of the amount reported | Value of the decimals attribute |
|--|---------------------------------|
| Exact monetary, percentage, basis points or any other amount | INF |

| Precision of the amount reported | Value of the decimals attribute |
|----------------------------------|---------------------------------|
| Rounded to billions | -9 |
| Rounded to millions | -6 |
| Rounded to thousands | -3 |
| Rounded to units | 0 |
| Rounded to hundredths | 2 |
| Rounded to a whole percentage | 2 |
| Rounded to basis points | 4 |

Examples:

| Reported Fact | Value | Value of decimals attribute |
|---|--------|-----------------------------|
| A federal tax rate of (exactly) 46% | .46 | INF |
| A management fee of (exactly) 10 basis points | .001 | INF |
| A (rounded) profit margin of 9.3% | .093 | 3 |
| A (rounded) change in NAV of 12 basis points | .0012 | 4 |
| A (rounded) inventory "in thousands" of 100 | 100000 | -3 |
| A (rounded) inventory "in thousands" of 100.2 | 100200 | -2 |

The decimals attribute is not a scale factor.

The decimals attribute is not a formatting code; it does not indicate that the digits in the instance must subsequently be presented to a user in any particular way.

6.7 Inline XBRL Facts in Instances

An Inline XBRL instance, for all practical purposes, serves as the Official Related Filing document. Additional guidance in this section deals with maintaining an accurate correspondence between the text as visible in a browser and the XBRL concepts, fact values, and rendering of those facts for presentation.

6.7.1 Present facts according to location and position in related official documents

(Formerly EFM v68 § 6.12.2) The element of every fact in an instance must participate in an effective presentation relationship in a base set whose **xlink:role** attribute corresponds to the locations where the fact appears in the related official document. Instance type RD.OEF is exempt from this requirement. Instances whose DTS includes all the standard presentation relationships needed; instance types FE.A and RXP.US are examples, as would be instance type 8K.A that used entry point **dei-sub**.

(Formerly EFM v68 § 6.12.3) Organize the effective presentation relationships in a base set using the ordering and indentation of the facts in the related official document. Instance type RD.OEF is exempt from this requirement, as are instances whose DTS includes all the standard presentation relationships needed; instance types FE.A and RXP.US are examples.

Typically, each base set of effective presentation relationships will have a "root" element that is an abstract element, and that abstract element will be used by the renderer to display a heading that precedes all the facts of concepts in that base set.

Use presentation relationships to achieve ordering effects. Order a set of line items to appear as they do in the related official document by using an element as their heading that will be the source of presentation relationships that have the line items as their target.

Occasionally, a single line in the related official document such as "Proceeds from/Payments to ..." with both positive and negative values in different periods will correspond to two elements, one representing the proceeds, and one the payments. In such cases, the order of the two adjacent elements relative to each other is arbitrary.

Use abstract elements to insert headings. A line item with no facts associated with it, serving as a subheading, is represented with an element having an abstract attribute equal to true. A total element often appears at the end of the list under such a heading.

For additional detail see § 7.2, Instance Rendering.

6.7.2 Line item element labels

(Formerly EFM v68 § 6.10.1) Assign a label of an element used in an instance the same text as the corresponding line item in the Related Official Document. An element is defined to be "used in an instance" if the element is the element of any fact, or whose **QName** is a dimension attribute or content of **xbrldi:explicitMember**.

A label is "assigned to an element" by an effective relationship with an xlink:arcrole attribute equal to http://www.xbrl.org/2003/role/concept-label from the element declaration to the link:label resource. For example:

• The following line item appears in an income statement:

| Line Item | Amount in thousands | Amount in thousands | |
|--------------|---------------------|---------------------|--|
| | (2007) | (2006) | |
| Gross margin | \$15,212 | \$10,195 | |

The appropriate element is us-gaap: GrossProfit and it has the label "Gross Profit". Both "gross profit" and "gross margin" mean "excess of revenues over the cost of revenues." The registrant assigns the label "Gross margin," and may choose to either exclude from the DTS the linkbase containing all standard labels, or to override the existing label using an equivalent element-label arc with a use attribute equal to 'prohibit', and an element-label arc with a use attribute equal to 'optional' and a value of the priority attribute greater than the existing element-label arc priority attribute.

Usually, the standard label of the element will be displayed to the user. If the element appears in different places of the Related Official Document with different labels, then use the preferredLabel attribute on a presentation relationship to distinguish different labels. For example:

- An element may appear as "Gross Profit" in a footnote but "Gross Profit (Loss)" on the face of the financials.
- The following line item appears in a balance sheet and the appropriate element is us-gaap:ReceivablesNetCurrent.

| Line Item | Amount in thousands (2007) | Amount in thousands (2006) |
|---|----------------------------|----------------------------|
| Receivables, less allowances of \$1,260 and \$1,150 | \$31,659 | \$31,601 |

The standard label of the element assigned in a standard taxonomy linkbase is "Receivables, Net, Current." If the linkbase is included in the instance DTS, that label must be changed. The registrant should assign a label of "Receivables, less allowances of \$1,260 and \$1,150".

6.7.3 Labels for numeric totals

(Formerly EFM v68 § 6.10.4) An xs:element should be assigned a total label if the element will be presented with different labels depending on whether it is shown as a line item or as a summation of other line items. An element is assigned a total label if and only if it is assigned a label with an xlink:role attribute equal to http://www.xbrl.org/2003/label/totalLabel. For example:

• A fact may be shown with the label "Marketable Securities" on a balance sheet, but in a note detailing its composition, the same fact may be shown as "Marketable Securities, Total".

The renderer will display a fact having a total label with an additional horizontal line below it. Moreover, the only way that the filer can arrange for such a horizontal line to be displayed in the renderer is by assigning a total label to the element that represents the total. The preferredLabel of the presentation relationship must also be set to the total label.

6.7.4 Numeric element period start/end labels

(Formerly EFM v68 § 6.10.7) If an xs:element with an i:periodType attribute equal to instant could be presented as either a beginning or end of period value in a roll forward, assign period start labels or period end labels. An element is assigned a period start label if and only if it is assigned a label with an xlink:role attribute equal to http://www.xbrl.org/2003/label/periodStart.

An element is assigned a period end label if and only if it is assigned a label with an xlink:role attribute equal to http://www.xbrl.org/2003/label/periodEnd.

This rule often applies to cash balances as presented in a statement of cash flows and other balances shown in roll forwards.

| xlink:role attribute | link:label |
|---|--|
| http://www.xbrl.org/2003/role/label | Cash and Cash Equivalents |
| http://www.xbrl.org/2003/role/periodEnd | Cash and Cash Equivalents, Beginning Balance |
| http://www.xbrl.org/2003/role/periodStart | Cash and Cash Equivalents, Ending Balance |

6.7.5 When a numeric element label requires a unit designation

(Formerly EFM v68 § 6.10.3) If a numeric element is in presentation relationships in a relationship group with other numeric elements, and its units differ from the other elements and in the minority, then the suffix of its label must specify those units. Add a suffix such as "(in shares)" or "(in dollars per share)" to a label even though this would otherwise result in an exception to § 5.7.5 because the text differs.

| Line Item | Amount (2009) | Amount (2008) |
|---------------------------------------|---------------|---------------|
| Adjustments (in millions of dollars) | 12 | - |
| Net Earnings (in millions of dollars) | 331 | 174 |
| | | |
| Earnings per Share | .03 | .02 |

The element us-gaap: EarningsPerShare has a data type of i:perShareItemType, which is different from (and in the minority of) the other i:monetaryItemType elements in this example. Therefore, in this

case, assign the element us-gaap: EarningsPerShare the label "Earnings per Share (in dollars per share)".

6.7.6 Do not insert digits that do not appear in visible text

(Formerly EFM v68 § 6.6.33) Rounding for presentation purposes occurs in many source documents, but extra digits should not be added where they are not visible. For example:

| Line Item | Amount |
|---|--------|
| Earnings per share, Basic | 1.30 |
| Income (Loss) from Discontinued Operations, Net of Tax, Per Basic Share | |
| Income (Loss) from Continuing Operations, Per Basic Share | 1.28 |

The decimals attribute must be equal to "2" for all three amounts, because the digits as reported have been rounded. Do not add hidden digits, such as using .0149 instead of .01 and 1.2849 instead of 1.28 with decimals attributes to "4".

6.7.7 No extra facts

(Formerly EFM v68 § 6.6.17) An instance must not contain facts that do not appear in the related official document. The information in interactive data format should not be more or less than the information in the related registration statement or report, except for dei facts and other facts that are not required to be "visible" as it is defined above in § 3.1.1.

6.7.8 No page headers and footer facts

(Formerly EFM v68 § 6.6.18) Page headers and footers appearing in the Related Official Document must not appear in any of the facts or link: footnote elements of an instance.

6.8 Concepts and Facts in Financial Statement Instances

The following guidance applies to any instances that contain may contain financial statements. This includes submission types AF, EBP, HF, QF, and RF, instance types SE.FEX, K.SDR, L.SDR, and instance types such as 6K.FPI when they contain financial statements. There are four "levels" of tagging derived from the language of the Interactive Data rule (17 CFR 232.405) quoted below.

Figure 15. Fragment of Rule S-T 405

- (b) Content—categories of information presented.
- (1) * * *
- (i) The complete set of the electronic filer's financial statements (which includes the face of the financial statements and all footnotes);
- (ii) As applicable, all schedules set forth in Article 6A of Regulation S-X (§§ 210.6A-01-210.6A-05) and Article 12 of Regulation S-X (§§ 210.12-01-210.12-29),
- * * *
- (d) Format—Footnotes—Generally. The part of the Interactive Data File for which the corresponding data in the Related Official Filing consists of footnotes to financial statements must comply with the requirements of paragraphs (c)(1) and (2) of this section, as modified by this paragraph (d). Footnotes to financial statements must be tagged as follows:
- (1) Each complete footnote must be block-text tagged;
- (2) Each significant accounting policy within the significant accounting policies footnote must be block-text tagged;
- (3) Each table within each footnote must be block-text tagged; and
- (4) Within each footnote,

- (i) Each amount (i.e., monetary value, percentage, and number) must be tagged separately; and
- (ii) Each narrative disclosure may be tagged separately to the extent the electronic filer chooses.

Level 1 consists of items (b)(1) and (d)(1); levels 2, 3, and 4 consist of item (d) subitems 2, 3, and 4.

6.8.1 Level 1 (Statement and Notes)

6.8.1.1 Facts on the face of financial statements

(Formerly EFM v68 § 6.6.12) An instance must contain a fact for each combination of line item and period that appears on the face of the financial statements of the corresponding related official document. For example, a small fragment of a balance sheet:

| Line Item | Amount in thousands (2007) | Amount in thousands (2006) |
|-----------|----------------------------|----------------------------|
| Land | \$31,659 | \$31,601 |

This example corresponds to these two facts for the combination of line item and period:

<us-gaap:Land unitRef="usd" decimals="-3" contextRef="FY07e">31659000</us-gaap:Land>
<us:gaap:Land unitRef="usd" decimals="-3" contextRef="FY06e">31601000</us-gaap:Land>
6.8.1.2 Custom elements requiring a balance attribute

(Formerly EFM v68 § 6.8.11) An xs:element with a type attribute equal to i:monetaryItemType must have an i:balance attribute if it appears on a statement of income or balance sheet. An xs:element "appears on a statement of income or balance sheet" if the xs:element is the target of a presentation relationship in a link:presentationLink with an xlink:role attribute with a link:definition that contains phrases such as "income," "balance," "financial position."

The i:balance attribute values 'credit' and 'debit' serve to disambiguate the meaning of a positive (or negative) fact value in an instance. In combination with the i:periodType attribute, a user can identify all monetary facts on the income statement and balance sheet as assets, liabilities, income or expenses no matter what their name attribute.

6.8.1.3 Custom monetary elements without a balance attribute

(Formerly EFM v68 § 6.11.5) An xs:element with a type attribute equal to i:monetaryItemType that does not have an i:balance attribute must have a definition that disambiguates its sign. In most cases the registrant does not need to provide a definition label (that is, one with an xlink:role attribute equal to http://www.xbrl.org/2003/role/documentation. However, a special case arises when a monetary item could take on a positive or negative value in different periods, and there is potential for confusion because it is not required to have an i:balanceType attribute. The registrant must therefore either assign an appropriate i:balanceType attribute or assign a label with an xlink:role attribute equal to http://www.xbrl.org/2003/role/documentation' containing text that makes the meaning of a positive (or negative) value explicit.

For example, a registrant defines an element called "Other Loss Adjustments, Net" with a type attribute equal to i:monetaryItemType but does not provide an i:balanceType attribute. The text of the documentation is "A positive adjustment value indicates a net increase in cumulative losses."

6.8.1.4 Distinct page level footnote facts

(Formerly EFM v68 § 6.6.40) Distinct texts that are shown in the related official document at the bottom of a page on the face of the financials preceded by distinct superscripts must appear in the corresponding instance as the text of distinct link:footnote elements.

6.8.1.5 Facts for parenthetical disclosures on the face of financial statements

(Formerly EFM v68 § 6.6.14) An instance must contain a fact for each amount disclosed parenthetically in line items that appear on the face of the financial statements of the corresponding related official document. For example:

• The statement contains this line item:

Line Item

Amount in thousands (2007)

Receivables (net of allowance for bad debts of \$200 in 2007)

\$700

There are two facts:

<us-gaap:AccountsReceivableNetCurrent unitRef="usd" decimals="-3"
contextRef="FY07e">700000</us-gaap:AccountsReceivableNetCurrent>
<us-gaap:AllowanceForDoubtfulAccountsReceivableCurrent unitRef="usd" decimals="-3"
contextRef="FY07e">200000</us-gaap:AllowanceForDoubtfulAccountsReceivableCurrent>

Even if Receivables had been \$1,000 at the end of 2006 with no allowance for doubtful accounts material enough to be parenthetically disclosed, that would not make it a Gross Receivables figure, and the net value would nevertheless be reported as

<us-gaap:AccountsReceivableNetCurrent unitRef="usd" decimals="-3"
contextRef="FY06e">1000</us-gaap:AccountsReceivableNetCurrent>

6.8.1.6 Parenthetical item element labels

(Formerly EFM v68 § 6.10.2) Assign a label of an element in a parenthetical disclosure the same text as the corresponding text in the original related document. For example, continuing the example from above, the treatment of the parenthetical will be as follows:

Line Item Amount in thousands (2007) Amount in thousands (2006) Allowances 1.260 1.150

The registrant assigns element us-gaap: AllowanceForDoubtfulAccountsReceivable a label "Allowances".

6.8.1.7 Presentation groups for parenthetical facts

(Formerly EFM v68 § 6.12.4) All elements of facts corresponding to parentheticals in the original related document must be the targets only of effective presentation relationships in one base set and all having the same source abstract element. Filers must declare a link:roleType to contain the parentheticals in each statement and use an abstract element to serve as a heading for every parenthetical in that statement. Normally, this would be the same abstract element at the root of the base set representing the corresponding statement. In the examples of 5.8.1.5 above, the element us-gaap:AccountsReceivableNetCurrent appears in the balance sheet statement, so 5.8.1.7 would be satisfied with a presentation relationship from the element us-gaap:BalanceSheetAbstract to the target us-gaap:AllowanceForDoubtfulAccountsReceivableCurrent in a base set separate from the main

6.8.1.8 Page level footnotes of the face financials

balance sheet statement itself.

(Formerly EFM v68 § 6.6.39) Text that is shown in the related official document at the bottom of a page on the face of the financials preceded by a superscript must appear in the corresponding instance as the text of a link:footnote element. The content of link:footnote should not contain the superscript symbol or number originally appearing in the related official document.

Financial statement "footnotes" (Notes to the Financial Statements) do not appear in a link: footnote.

6.8.1.9 Financial statement Note and Schedule Text Blocks

(Formerly EFM v68 § 6.6.16) A financial statement instance must contain facts containing each complete note and each required schedule (as set forth in Article 12 of Regulation S-X) of the related official document, as a single block of text. Each non-numeric fact must reflect the same information in the corresponding text in the related official document. Formatting and layout are relevant for elements of a type attribute textblockItemType or a type equal to or derived by restriction from the type escapedItemType in a standard taxonomy schema namespace, but not for any other types. A fact of either type whose content represents a disclosure, footnote or schedule in the related document must contain escaped HTML to preserve that layout or formatting. For example:

• The original text as displayed in a browser:

Dividends

Our Board of Directors declared the following dividends:

Declaration DatePer Share Dividend(Fiscal year 2008)\$.09September 17, 2008

The original EDGAR HTML (3.2+) format text:

```
<B><I>Dividends</I></B><P>Our Board of Directors declared the following
dividends:</P><TABLE>
<TR><TH align=left valign=bottom>Declaration Date</TH><TH/>TH colspan=2 width=70>Per
Share Dividend</TH></TR>
<TR><TD align=left><I>Fiscal year 2008</I></TD></TR>
<TR><TD align=left>September 17, 2008</TD><TD/>TD>$</TD><TD
align=right>0.09</TD></TR>
</TABLE>
```

This text must appear in a text block. But if all the layout and formatting are removed and whitespace is normalized, the result is much harder to understand:

Dividends Our Board of Directors declared the following dividends: Declaration Date Per Share Dividend (Fiscal year 2008) September 17, 2008 \$ 0.09

Therefore, the entire text must appear as text containing only well-formed XHTML, in which the tags are balanced, and the attributes quoted:

```
<us-gaap:CashFlowSupplementalDisclosuresTextBlock contextRef="FY08Q1">
&lt;b> &lt;i>Dividends &lt;/i>
&lt;/b> &lt;p>Our Board of Directors declared the following dividends: &lt;/p>
&lt;table> &lt;tr> &lt;th align="left" valign="bottom" style="border-bottom: 1pt solid black">Declaration Date&lt;/th> &lt;th/> &lt;th colspan="2" style="width: 70pt; border-bottom: 1pt solid black">Per Share Dividend &lt;/th> &lt;/tr> &lt;tr> &lt;tr &lt;tr
```

6.8.2 Level 2 (Policy) Tagging

(Formerly EFM v68 § 6.6.19) For each significant accounting policy within the accounting policies note of the corresponding related official document financial statements, an instance must contain a fact containing the policy as a block of text.

6.8.3 Level 3 (Table) Tagging

(Formerly EFM v68 § 6.6.20) An instance must contain each table within each financial statement note and schedule in the corresponding related official document as a separate fact block of text. In the example given in Rule 6.6.16 above, the table would be tagged separately:

```
<us-gaap:ScheduleOfDividendsPayableTextBlock contextRef="FY08Q1">
&lt;table&gt;
&lt;tr&gt;&lt;th align="left" valign="bottom"&gt;Declaration
Date&lt;/th&gt;&lt;th/&gt;&lt;th colspan="2" width="70"&gt;Per Share
Dividend&lt;/th&gt;&lt;/tr&gt;
&lt;tr&gt;&lt;td align="left"&gt;&lt;I&gt;Fiscal year
2008&lt;/I&gt;&lt;/td&gt;&lt;/tr&gt;
&lt;tr&gt;&lt;td align="left"&gt;September 17,
2008&lt;/td&gt;&lt;td/&gt;&lt;td&gt;$&lt;/td&gt;&lt;td
align="right"&gt;0.09&lt;/td&gt;&lt;/tr&gt;
&lt;/table&gt;
</us-gaap:ScheduleOfDividendsPayableTextBlock >
```

6.8.4 Level 4 (Detail) Tagging

(Formerly EFM v68 § 6.6.22) An instance must contain separately each monetary value, percentage, and number in each footnote in the corresponding related official document, as a fact, if the document type requires "level 4" tagging. An instance may also contain dates and narrative disclosures as level 4 facts.

Level 4 facts appear separately from the text blocks of levels 1 to 3; the fact may have non-material changes to the formatting of dates and possibly other facts, for example:

• This table appears in a note:

| Declaration Date | Per Share Dividend |
|--------------------|--------------------|
| (Fiscal year 2008) | \$.09 |
| September 17, 2008 | |

This table contains only two facts, in which "September 17, 2008" becomes "2008-09-17" and "0.09" becomes ".09":

```
<us-gaap:DividendsPayableDeclarationDate contextRef="..."
>2008-09-17</us-gaap:DividendsPayableDeclarationDate>
<us-gaap:DividendsPayablePerShare contextRef="..." unitRef="USD_per_share"
decimals="INF" > .09</us-gaap:DividendsPayablePerShare >
```

• The sentence "Accretion expense declined from 30 thousand to six thousand in 2009" contains two facts:

```
<us gaap:AccretionExpense unitRef="USD" decimals="-3" contextRef="FY08" >30000</us
gaap:AccretionExpense>
<us gaap:AccretionExpense unitRef="USD" decimals="-3" contextRef="FY09" >6000</us
gaap:AccretionExpense>
```

7 Instance Rendering

Instances in all XBRL file formats (xBRL-XML or Inline) consists of a set of facts supported by meta data: concept declarations, labels, calculation, definition, reference, and presentation relationships.

The EDGAR renderer transforms XBRL facts and meta data into human readable output in the form of individual HTML files called "reports" or "R-files" and other supporting output such as a Filing

Summary. Each R-file has a table layout with rows, row headings, columns, column headings and footnotes.

XBRL parent-child relationships in the presentation groups of a filing are generally the most important determinant of the overall layout of each R-file. Facts in contexts, footnotes in the instance, roles and data types declared in schemas, text in label linkbases, and the axis default members defined in definition linkbases, all further contribute to producing the output.

7.1 Motivation for Standardized Rendering

Human readers have expectations about the display of a data set such as an instance. Facts that represent the value of the same concept at different times might be arranged into a row, with columns representing dates or periods. Or, the facts might be arranged in a column, with each row representing the date. A table might include all such facts, or there may be a list of tables, each with a specified subset. Some facts, such as blocks of narrative text, are best shown in a sequence or list. Facts might be combined with other comparable data collected in some other way or at a different time or shown with additional meta data.

Even though an Inline XBRL document likely represents the preparer's effort to present information clearly and compactly for human consumption, it is reasonable to for a user to expect an arrangement of similar data from different documents from different filers to be presentable in a somewhat uniform layout. Uniformity benefits not only the end user of the information viewing the data, but also for the preparer, who will want to ensure that fact values, concepts and other meta data is consistent with the intent of the plain, untagged document.

7.2 Presentation groups

(Formerly EFM v68 § 6.24.1) The relationships in a presentation group form a directed graph with one root concept having child concepts in a fixed order, child concepts of those concepts each in a fixed order, and so on.

Each presentation group has a single role, and therefore a single role URI and role definition text.

The overall order of presentation groups in the set of reports for a single instance is determined by lexicographic sorting of the definition texts, which is facilitated by conforming to a pattern that starts with a numeric sort code.

For example, the first presentation group in EDGAR's Document and Entity Information (DEI) taxonomy entry point dei-pre has the definition text 995100 - Document - Cover suggesting that it contains concepts typically appearing on the cover page of an SEC filing. Presentation groups that the filer wishes to appear after the facts on the cover page could start its role definition text with any number that will sort after 995100, such as 995101 or any number with seven or more digits starting with 995100.

The simplest report layout is one in which the presentation group contains no Axis or Domain Member elements. All the facts in the instance whose elements appear as sources or targets of relationships in the presentation group in contexts having no dimensions are displayed in the R-file. The facts are arranged into columns, one for each context. The presentation group, when traversed top down and in order, determines the order that the elements appear in the rows.

7.3 Fact selection

(Formerly EFM v68 § 6.24.5) A first step in rendering is to determine for each presentation group which facts it will show. The core dimensions of a fact that determine whether it will be rendered within in a presentation group layout are its *concept*, its *period*, the *entity*, the *language* of non-numeric facts and the *unit* of measure for numeric facts. An EDGAR instance concerns only one entity, and facts in languages other than US English are not rendered. The taxonomy-defined dimensions of a fact also 120

influence whether it is selected for display. The renderer selects a fact for rendering in a presentation group when:

Custom taxonomies can limit to some degree the facts shown on a particular report by including or not including certain axes, with or without their default and other members.

For example, suppose a presentation group is meant to filter out facts having any member of axis X. The presentation group has just one concept A, and one axis X along with only its default member B.

- Fact A1 with concept A and no axes.
 - o This will be selected. It satisfies condition 1, it satisfies condition 2 because there are no such axes in the presentation group, and it satisfies condition 3 trivially.
- Fact A2 with member C of axis X.
 - This will not be selected. It fails condition 2, because member C is not in the presentation group.
- Fact A3 with one axis Y and one member D.
 - O This would be selected. It satisfies condition 1; there are no such axes for condition 2, and it satisfies 3 (case b) because the group does not mention axis Y.

As noted in section 8.10 below, duplicate facts are consolidated into a single fact for rendering purposes. Inline XBRL formatted documents often contain the same fact reported in multiple locations of the document. The renderer selects just one of them for rendering. A common example is a company's net income, reported both on an Income Statement and in a Statement of Cash Flows. The value is tagged in two different places, resulting in an instance with duplicate facts. Inconsistent numeric values, or non-numeric values that are not identical, result in XBRL errors. So long as the numeric values are consistent, there is no error or warning; the duplicated numeric fact having the most significant digits will be selected for rendering.

The values of xsi:nil and decimals attributes have no effect on selection whether present or not.

Non-numeric facts with values of xml:lang other than us-EN are filtered.

If the presentation group has axes but lacks descendants that would allow any facts to be selected, then a warning is raised (EFM v68 § 6.26.1).

7.3.1 Period Selection

(Formerly EFM v68 § 6.24.8) The set of periods appearing in a presented set of facts constitute the layout "period axis". The period axis cannot be filtered.

7.3.2 Unit Selection

(Formerly EFM v68 § 6.24.3) All units are selected for display in a presentation group by default and constitute the layout "unit axis". The unit axis may be filtered using concepts having the same name as the unitRef attribute value.

7.3.3 The Primary Axis

(Formerly EFM v68 § 6.24.4) Members of the concept dimension that do not have same name as a unitRef attribute value, are collectively called members of the layout "primary axis".

7.3.4 Unselected Facts

Facts of a concept that appears in an effective presentation relationship, but are nevertheless not selected for presentation in any presentation group, can arise from a variety of causes:

- A fact in a context with no dimensions may be in a presentation group where there are axes that do not have default members. It is good practice for every explicit dimension to have a default member.
- A fact in a context with one or more dimensions may be in a presentation group where the members of its axes do not appear in the same presentation group
- A duration fact expected in a statement of equity presentation group may have a period that does not fall within the beginning and ending dates of the other facts (see 7.13 below).

Each fact not presented will raise a warning message containing detailed information about the likely cause. It will also appear as an Uncategorized Fact (see 7.15 below).

7.4 Basic Layout using Core and Taxonomy-Defined Dimensions

(Formerly EFM v68 § 6.24.8) Rendering places each of the dimensions on rows or columns of a table, and to determine how dimensions are to be nested when more than one dimension is on the rows or on the columns. In general, the concept dimension appears on the rows, and the period dimension on the columns.

| Period Dimension → | 12 mo. ended Dec 31, 2033 | Dec 31, 2032 |
|---------------------|---------------------------|--------------|
| Concept Dimension ↓ | | |
| Line Items: | | |
| Revenue: | | |
| Assets: | | |

If the same concept (on a row) appears with more than one unit of measure (multiple currencies, for example) then each column representing a period may split into separate columns for each unit. The unit dimension is said to be *nested inside* the period dimension.

| Dania d Dinamaian | 12 mo. ended | | | |
|---------------------|--------------|---------|--------|--------|
| Period Dimension → | Dec 31 | 1, 2033 | Dec 31 | , 2032 |
| Unit Dimension → | \$ | € | \$ | € |
| Concept Dimension ↓ | | | | |
| Line Items: | | | | |
| Revenue: | | | | |
| Assets: | | | | |

If there are facts with members on an additional axis, then the concept dimension is nested inside. For example, if there were a geographic region axis, with some facts having no member (i.e., the default), and others having the members Bermuda and Bonaire:

| Period Dimension → | | 12 mo | 12 mo. ended | | |
|--------------------|---------------------|--------------|--------------|--------------|---|
| Period Dimension → | | Dec 31, 2033 | | Dec 31, 2032 | |
| Unit Dimension → | | \$ | € | \$ | € |
| Region Dimension ↓ | Concept Dimension ↓ | | | | |
| | Line Items: | | | | |
| (default) | Revenue: | | | | |
| | Assets: | | | | |
| | Concept Dimension ↓ | | | | |
| Bermuda | Line Items: | | | | |
| Bermuda | Revenue: | | | | |
| | Assets: | | | | |
| Bonaire | Concept Dimension ↓ | | | | |

| Line Items: | | |
|-------------|--|--|
| Revenue: | | |
| Assets: | | |

The custom taxonomy could have arranged for the region dimension to be nested inside the concept dimension. The renderer does this by using the order in which the "Line Items" and the different axes appear as children of the Table concept.

| Period Dimension → | | | ended 1, 2033 | Dec 3 | 1, 2032 |
|---------------------|--------------------|----|---------------|-------|---------|
| Unit Dimension → | | \$ | € | \$ | € |
| Concept Dimension ↓ | Region Dimension ↓ | T | | * | |
| | (default) | | | | |
| Line Items: | Bermuda | | | | |
| | Bonaire | | | | |
| | Region Dimension ↓ | | | | |
| Revenue | (default) | | | | |
| Revenue | Bermuda | | | | |
| | Bonaire | | | | |
| | Region Dimension ↓ | | | | |
| Assets | (default) | | | | |
| Assets | Bermuda | | | | |
| | Bonaire | | | | |

All the axes expected to appear in facts in a table must be ordered in the presentation group, because any axes that appear in facts *not* given an explicit nesting will appear with all the other axes nested inside.

7.5 Ordering members along a dimension

(Formerly EFM v68 § 6.24.7) For the most part, the presentation group also determines the ordering of items along an axis. Members of the concept dimension and any taxonomy-defined explicit dimensions are arranged into a list reflecting their ordering in the presentation group.

Typed dimension members follow their ascending natural order, typically numeric or lexical.

The period axis is different; it always follows the convention common to financial statements, in which the dates are descending (2033 before 2032) and durations ascending (quarters before years).

7.6 Merged columns

(Formerly EFM v68 § 6.24.8) If every column in the default layout represented a different combination of period and unit, then the display would often have significant empty space. In the examples below, the Revenue element is a duration-type element, and the Assets element is an instant-type element, so that the figures would appear this way:

| | 3 mo. ended | 9 mo. ended | |
|---------------------|--------------|--------------|--------------|
| Period Dimension → | Dec 31, 2033 | Dec 31, 2033 | Dec 31, 2033 |
| Concept Dimension ↓ | | | |
| Line Items: | | | |
| Revenue: | xxx,xxx | ууу,ууу | |
| Assets: | | | zzz,zzz |

Instead, columns representing an instant period are shown merged with the columns representing durations that end on that date; the same fact is shown more than once, but overall, the layout is more compact:

| | 3 mo. ended | 9 mo. ended |
|---------------------|--------------|--------------|
| Period Dimension → | Dec 31, 2033 | Dec 31, 2033 |
| Concept Dimension ↓ | | |
| Line Items: | | |
| Revenue: | xxx,xxx | ууу,ууу |
| Assets: | ZZZ,ZZZ | zzz,zzz |

A set of facts with different units all on distinct elements may be merged into a single column as well. When facts whose unit is a currency, facts with unit "shares", and facts whose unit is that same currency "per share" have compatible periods, they are merged into the same columns.

7.7 Period Start labels

(Formerly EFM v68 § 6.24.9) An instant-type element of the primary axis that has a period start preferred label results in a special kind of layout and column merge called a movement analysis. In a movement analysis, duration-type facts are matched to instant-type facts whose date-times are the same as its start and end dates. The same fact may thus appear as the ending value of one column, and the starting value of another. In the example below, the fact shown as yyy,yyy at Dec 31, 2032, is at the end of one period and the start of the next:

| USD | 12 mo. ended | 12 mo. ended |
|---------------------------|--------------|--------------|
| | Dec 31, 2033 | Dec 31, 2032 |
| Line Items: | | |
| Balance, start of period: | ууу,ууу | xxx,xxx |
| Changes: | | |
| Balance, end of period: | zzz,zzz | ууу,ууу |

In general, the starting and ending balance facts should be matched with at least one fact representing the duration between them; otherwise, a warning may be issued. Note that the order of elements along the primary axis is preserved and does not affect whether the layout is considered a movement analysis; the following example is equally valid, resembling a statement of cash flows:

| USD | 12 mo. ended | 12 mo. ended |
|------------------------------------|--------------|--------------|
| | Dec 31, 2033 | Dec 31, 2032 |
| Line Items: | | |
| C1 | | |
| Changes: | | |
| Changes: Balance, start of period: | ууу,ууу | XXX,XXX |

7.8 Column Headings and Promotion

(Formerly EFM v68 § 6.24.10) If all column headings share the same units or period, then those axes are "promoted" into the upper left corner of the layout to avoid redundancy.

Columns representing an instant in time are shown as (for example) "Oct. 19, 2008" or "May 07, 2009". Columns representing durations are shown as (for example) "6 months ended Oct 19, 2008" rounded to the nearest number of months. For example, the duration from Jul. 1 to Sep. 19 rounds to 3 months, but the period from Jul. 10 to Sep. 19 rounds to 2 months. Periods of more than one year are nevertheless shown in months, for example, two years starting Jan. 1, 2008, would be shown as "24 months ended Dec. 31, 2009".

7.9 Row Headings and Promotion

(Formerly EFM v68 § 6.24.11) The text shown in each row heading on the primary axis is the text of preferred label on that element position on the primary axis (7.3.3 above).

The text shown for non-primary axis members is a concatenation of the outermost member name's preferred label (defaulting to the standard label), followed by a vertical bar "|", followed by the next outermost member label, and so on.

If the default member of an axis is the first number shown in order on that axis, its label is considered blank.

Any member that is not the only member shown for a given axis in that report is promoted into the upper left corner of the layout.

7.10 Footnotes and Merging

(Formerly EFM v68 § 6.24.12) Footnotes of a report are displayed at the bottom of a report, sequentially numbered, and the footnote marks are numbers that appear as a superscript to the right of each fact to which they refer.

Every report's footnote numbering is local to that report, so that if a fact with a footnote is displayed in two different reports, it will be displayed with the same footnote text at the bottom of the report, but a different superscript number.

If all the facts on a row have the same footnote mark, then that footnote mark is removed from the facts and "merged" to a position just to the right of the row labels and removed from the cells.

If all the facts on a column have the same footnote mark, then that footnote mark is "merged" into the heading of the column and removed from the cells.

7.11 Flow Through Suppression on Statements

(Formerly EFM v68 § 6.24.13) "Flow through" occurs when a fact is selected for display in more than one presentation group. One of the most common examples is that "Net Income" appears on both an income statement and a statement of cash flows.

Only presentation groups for which the "Type" token as described in 9.2 below has the value "Statement" are subject to "flow through" suppression.

When a statement contains a column of facts that are all rendered in a column of some other presentation group, the column that is a subset of the other is removed (suppressed).

If columns in two statements have identical facts, then the column in the statement that appears first according to SortCode (section 9.2 below) is retained.

7.12 Cash Flow Statements

(Formerly EFM v68 § 6.24.14) Presentation base sets for which the "Type" token as described in section 9.2 has the value "Statement" and the "Title" text contains the word "cash" followed by "flow", then the only columns shown are those with the longest duration and those which have at least one-fourth the number of rows containing values as the columns with longest duration.

This is a special case of flow through suppression; without it, a typical cash flow statement for a 3rd quarter financial statement might display unwanted columns.

7.13 Statements of Changes in Shareholder Equity

(Formerly EFM v68 § 6.24.15) Presentation base sets for which the "Type" token has the value "Statement", that present facts with period start and period end labels, and the "Title" text does not contain "parenthetical" but does contain the case insensitive pattern:

- a. "stockholder", "shareholder", or "changes" in addition to either "equity" or "deficit", or
- b. "partners" or "accounts" in addition to "capital", or
- c. "statement" and "equity"

are considered "Statement of Changes in Equity" statements. These have a special movement analysis layout. These axes (if present) are shown on the rows, in this nesting order:

- a. Period
- b. Scenario (StatementScenarioAxis)
- c. Primary
- d. Creation Date (CreationDateAxis)
- e. New Accounting Pronouncements
 (AdjustmentsForNewAccountingPronouncementsAxis)
- f. Adjustments for Change in Accounting Principle (AdjustmentsForChangeInAccountingPrincipleAxis)
- g. Error corrections and Prior Period Adjustment (ErrorCorrectionsAndPriorPeriodAdjustments-RestatementByRestatementPeriodAndAmountAxis)

These axes (if present) are shown on the columns, in this nesting order:

- a. Legal Entity (LegalEntityAxis)
- b. Equity Components (StatementEquityComponentsAxis)
- c. Partner Capital Components (PartnerCapitalComponentsAxis)
- d. Class of Stock (StatementClassOfStockAxis)
- e. (All other axes present)
- f. Unit

Also, if the Scenario Axis is present then its member ordering is fixed in this order:

- a. Previously Reported (ScenarioPreviouslyReportedMember)
- b. Restatement Adjustment (RestatementAdjustmentMember)

- c. Change In Accounting Principle (ChangeInAccountingPrincipleMember)
- d. Unspecified (the default)

If the selected facts (see 7.3 above) do not have instant-type facts and duration-type facts in the expected alternating arrangement, with instant facts to mark the earliest and latest date of each duration fact, then a warning will be issued, and facts that fall outside that date range are excluded. If the statement of equity is the only presentation group where such excluded facts were to be presented, then they will be treated as unselected facts (see 7.3.4 above).

7.14 Layout Qualifiers

(Formerly EFM v68 § 6.24.16) In addition to general layout and formatting rules there are additional ways of altering a layout by modifying the role definition text. When the tokens "Unlabeled", "Elements", or "Transposed" (case sensitive) appear in the definition text between curly braces "{...}", then one of three transformations apply:

- 1. When the definition text contains the token "{Unlabeled}", then the elements' labels do not appear in the leftmost column.
- 2. When the definition text contains the token "{Elements}", then the display has an additional column to the right of the labels, showing the element id. The {Elements} display can be useful for reviewing all the detailed content of an Interactive Data instance. {Elements} cannot be used with the period axis on the rows.
- 3. When the text contains the token "{Transposed}", then the entire display, after any other layout has been applied, is transposed (rows on the columns and vice versa).

If more than one layout qualifier is present in a definition text, all are ignored.

7.15 Uncategorized Facts

(Formerly EFM v68 § 6.24.17) Facts (and their duplicates) that are not selected for display by at least one presentation base set are shown in an "Uncategorized Facts" report. The report number for the Uncategorized facts is 9999 and it is shown as if it had the "Elements" layout qualifier.

7.16 Numeric Formatting

(Formerly EFM v68 § 6.24.18) Numeric facts are scaled for presentation to reduce the appearance of redundant sequences of "000" groups. Each set of distinct units of facts selected for a report is scaled independently to preserve their significant digits. Note that this is performed only with respect to the fact values; the value of the decimals attribute of a fact does not directly affect this determination. For example, if there are three facts with unit USD:

- Revenues 1,000,000 USD, decimals=-6,
- Assets 100,000 USD, decimals=-3,
- Income 1,000 USD, decimals=0,

then all three facts would be shown scaled by thousands. Other facts in the same report with units such as "Ratio", "Shares", or "USD per Share" would not be affected by the scaling of USD. Cells in the layout have unit symbols assigned as follows:

- 1. Each numeric cell has a unit (USD, GBP, Shares, etc.). A nonzero number will be displayed with a prefix consisting of the unit.
- 2. If all the cells in a column have the same unit, then the symbol is copied to the column heading and removed from the cells.
- 3. For the non-zero cells in each column, remove a symbol from the cell if it has the same unit as the immediately prior nonzero cell, unless it is in the last row.
- 4. For the non-zero cells, in each row, remove a symbol from a cell if it has the same unit as the immediately prior nonzero cell, unless it is in the last column.
- 5. If there is a unique symbol for the unit (\$, \$, \$, etc.) use that symbol as a prefix instead of the unit's name as a suffix.

7.17 Non-numeric Formatting

(Formerly EFM v68 § 6.24.19) Fact values may be non-numeric; the following rules apply when displaying non-numeric values of an element:

- 1. A date item type is displayed with format "mmm d, yyyy";
- 2. A time item type is displayed with format "hh:mm:ss";
- 3. A datetime item type where the time part is not 00:00:00 is displayed with format "mmm d, yyyy hh:mm:ss";
- 4. A duration item type (the value looks like "P..Y..M..D..H..M..S") is formatted as ".. years, .. months, .. days, .. hours, .. minutes and .. seconds", omitting any zero values.
- 5. A fact value that matches the regex for an XML QName [_A za z][A za z]*:[_A za z][A za z0-9]* is displayed as follows:
 - a. If the QName is being displayed with preferred label p and it has preferred label p in this DTS, then display that label value;
 - b. If the QName as a standard label in this DTS, then display that standard label value;
 - c. Otherwise display the QName unchanged.
- 6. A string that matches the regex [^~]*~\s+{URI}\s+[^~]*~.* is interpreted as an embedding command;
- 7. A string that contains the < character followed by a QName and whitespace, "/>" or ">" is interpreted as escaped XHTML and is rendered as XHTML.
- 8. Otherwise, the string is copied to the output unchanged.

7.18 The Filing Summary

(Formerly EFM v68 § 6.24.20) In addition to individual R-files, the renderer produces a Filing Summary file that contains data about the input files, each R-file output, warnings, and error messages logged during processing, and other information.

In particular, the Filing Summary contains for each report a computed "menu category" for each report to assist in organizing a hierarchical menu for all reports. The renderer computes the menu category by analyzing the report's role definition text as follows:

SortCode determines the order of appearance (9.2 below).

Type distinguishes between statements and non-statements.

Title is text to be displayed in the menu augmented with the following patterns: "(Policies", "(Tables", "(Details", layout qualifier tokens (6.14 above), and text that indicates cash flows (6.12 above) and statements of changes in equity (6.13 above).

The order of appearance and patterns in the Title are processed as follows when there is a single instance:

| Category | Condition |
|---------------|---|
| Cover | Appears in first position and Type is not Statement |
| Statements | Type is Statement |
| Notes | Appears after Statements and is not Policies, Tables or Details |
| Policies | None of the above, and Title contains "(Policies" |
| Tables | None of the above, and Title contains "(Table" |
| Details | None of the above, and Title contains "(Details" |
| Other | None of the above |
| Uncategorized | Always appears as the last report |

Note that the reports are categorized in order of appearance, and their category may depend on what report categories have already appeared.

An Uncategorized Facts report, if present, would always be in the last position by virtue of being report number 9999.

7.19 Multiple Instances

(Formerly EFM v68 § 6.24.21) EDGAR submissions may have multiple Interactive Data instance document attachments. The renderer processes them all together in the same order that the instances appeared as EDGAR attachments. There is a single Filing Summary file output, and all the reports are numbered sequentially starting at 1. Each instance has a separate set of menu categories. When assigning a Menu Category as described in 9.2 below, any report whose SortCode is less than the SortCode of the previous report marks the beginning of a new set of menu categories.

If there are multiple instances each with uncategorized facts, they are numbered in descending order 9999, 9998, *etc.*, and they appear after the reports of all other instances.

7.20 Workbook Output

(Formerly EFM v68 § 6.24.22) The filing summary and reports are processed to produce a spreadsheet workbook. Each report is shown as a separate sheet, with a name derived from the first 32 characters of the presentation base set title. Each fact is presented in a spreadsheet cell. Formatting of individual numeric and non-numeric facts is simplified as compared to the report HTML format.

7.21 Resource Extraction Payment Rendering

(Formerly EFM v68 § 6.24.23) Instances with document type 2.01 SD are "RXP instances"; for certain presentation groups the rows and columns are adjusted for improved layout. In presentation groups with RXP roles, the columns are nested as:

- Primary
- Unit

In presentation groups with role URI http://xbrl.sec.gov/rxp/role/Detail, the rows are nested in the following order:

- Period
- Legal Entity (if present)
- Typed dimension rmp: PmtAxis in numeric ascending order

In presentation groups with role URI http://xbrl.sec.gov/rxp/role/ByProject, the rows are nested as:

- Period
- Legal Entity (if Present)
- Project

In presentation group http://xbrl.sec.gov/rxp/role/ByGovernment, the rows are nested as:

- Period
- Legal Entity (if Present)
- Government

7.22 Rendering of Mutual Fund Risk/Return Summary Interactive Data

An Interactive Data instance containing any fact whose element namespace contains the subtext /xbrl.sec.gov/rr/ is a Mutual Fund Risk/Return Summary (RR) instance. These filings are rendered with some differences as compared to other instances:

- The numeric value 0 is formatted as "none".
- If any instance in a filing is an RR instance, then the menu category of each report is empty, and all reports are shown together in a single menu called "Risk/Return Reports".
- There is no workbook output.

RR instances are also allowed to use the additional features below.

7.22.1 Embedding Commands

(Formerly EFM v68 § 6.25.1) Conventional rendering of Interactive Data consists only of one report per presentation base set. These are called the "top level" reports. Embedding commands allow additional reports that are not at top level. A text block fact may contain an embedding command, which is a section of XHTML that looks like the following, anywhere in the text block:

```
column period compact *
row dei_LegalEntityAxis compact eg_S000005977Member
row dei_ProspectusShareClassAxis compact *
~ Comments can go here
```

The purpose of an embedding command is to identify a presentation base set, select a subset of the contexts to display, and display the resulting report in place of where the content of the text block would have been shown. An embedding command consists of:

- One Role URI, which identifies the presentation base set to use for the layout;
- A list of "iterators", each of which:
 - o Places one of the axes (primary, period, unit) on either the rows or columns.
 - o identify the style of that axis display (compact);
 - o indicates which members of the axis may appear in the selected contexts.

A "compact" display means that each axis member is shown on a separate row (or column) with its label. Embedding layouts do not support the use of period start and period end preferred label roles.

Embedding command syntax, and the possible warning messages that may result from processing the command, are detailed below.

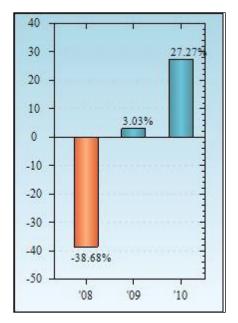
7.22.2 Bar Charts

(Formerly EFM v68 § 6.25.2) When an embedded command has a role URI that contains the case-insensitive text barchart and the primary elements are drawn from the set rr_AnnualReturn2008, rr_AnnualReturn2009, and so forth, then the renderer produces a graphic instead of a conventional table. The text block would have a command like this:

```
~ http://xbrl.sec.gov/rr/role/BarChartData
column period compact *
column dei_LegalEntityAxis compact $00000123Member
column rr_ProspectusShareClassAxis compact *
row primary compact * ~
```

Up to 20 facts may be shown. The bar chart has a fixed height and auto-scales vertically; it has fixed width horizontal bars. For example, three facts are displayed in the graphic shown below:

| Element | Value |
|---------------------|---------|
| rr_AnnualReturn2008 | -0.3868 |
| rr_AnnualReturn2009 | 0.0303 |
| rr_AnnualReturn2010 | 0.2727 |



Although it is not necessary, the horizontal width of the graphic can be adjusted by adding 'nil' valued facts. Footnotes on the facts are ignored.

8 Validation Details on All XBRL attachments

EDGAR does not permit attachments to use certain technical features of the XBRL information model, no matter the file format. Note that standard taxonomy files are not attachments, so these validations do not apply to them.

8.1 File names and character encodings

All attachments are subject to the same validations applied by the EDGAR system.

| Check | f | On failure | S | EFM v68 Ref |
|--|---|---------------------|---|-------------|
| The file name matches the regex [a-z0-9][a-z0-9\]*\. (htm, xml, xsd) | | File Name | Е | § 6.5.1 |
| The file name length is 32 characters or fewer. | | File Name Length | Е | § 6.5.1 |
| The file does not contain character ^ (circumflex). | | File Character | Е | § 6.5.2 |
| The file does not contain HTML entity codes. | 1 | File Entity Code | Е | § 6.5.2 |

Notes and special cases:

3. HTML entities such as are not permitted, but their equivalent XML encodings such as are

8.2 Standard namespace prefixes

If the following namespaces appear in file attachments, then they must appear only with the following prefixes; where there is an alternate, the prefix or alternate must be used consistently.

In this document, the shorter prefixes i: and xs: are used rather than i: and xsd: respectively.

| Namespace URI | Prefix | Alternate |
|--|-----------|-----------|
| http://www.sec.gov/inlineXBRL/transformation/2015-08-31 | ixt-sec | |
| http://www.w3.org/1999/xhtml | xhtml | (empty) |
| http://www.w3.org/1999/xlink | xlink | |
| http://www.w3.org/2001/XMLSchema | xs | xsd |
| http://www.w3.org/2001/XMLSchema-instance | xsi | |
| http://www.w3.org/XML/1998/namespace | xml | |
| http://www.xbrl.org/2003/instance | xbrli | i |
| http://www.xbrl.org/2003/iso4217 | iso4217 | |
| http://www.xbrl.org/2003/linkbase | link | |
| http://www.xbrl.org/2003/XLink | xl | |
| http://www.xbrl.org/2006/ref | ref | |
| http://www.xbrl.org/2009/dtr | dtr | |
| http://www.xbrl.org/2013/InlineXBRL | ix | |
| http://www.xbrl.org/dtr/type/2020-01-21 | dtr-types | |
| http://www.xbrl.org/dtr/type/2022-03-31 | dtr-types | |
| http://www.xbrl.org/inlineXBRL/transformation/2015-02-26 | ixt | |
| http://www.xbrl.org/inlineXBRL/transformation/2020-02-12 | ixt | |
| http://www.xbrl.org/inlineXBRL/transformation/2022-02-16 | ixt | |
| http://xbrl.org/2005/xbrldt | xbrldt | |
| http://xbrl.org/2006/xbrldi | xbrldi | |
| http://xbrl.org/2014/extensible-enumerations | enum | |
| http://xbrl.org/2020/extensible-enumerations-2.0 | enum2 | |

| Check | f | On failure | S | EFM v68 Ref |
|--|------|---------------------------------|---|-------------|
| If a namespace is used in the XML QName of an element name, attribute name, or text node, then it has one of the recommended prefixes. | 1, 2 | Standard Namespace Prefix | Е | § 6.5.2 |
| The prefix used for a namespace must be the same in all attachments of a submission. | 1 | Standard Namespace Prefix | Е | § 6.5.2 |

Notes and special cases:

- 1. Only one binding for prefix ixt or dtr-types is permitted in each instance of a submission.
- 2. A consequence of other EDGAR validations is that the namespace that is prefixed x1 need never appear in a submission.

8.3 Standard locations

The data file edgartaxonomies.xml defined in EFM v68 § 6.2.2 contains all the non-local taxonomy URLs for namespaces that a submission may use, and vice versa. It may be updated with each EDGAR release.

| Check | f | On failure | S | EFM v68 Ref |
|--|---|--|---|-------------|
| Attributes xlink: href, schemaLocation and xsi:schemaLocation values are either a relative URL resolving to a file within the submission, or an absolute URL appearing in the edgartaxonomies data file. | | Prohibited Href Or Schema Location | Е | § 6.22 |
| A standard namespace must only be defined at the URL defined in the edgartaxonomies data file. | 1 | | | |

Notes and special cases:

1. This is implied by the combination of other validations and SEC taxonomy conventions but is not reported as a separate error.

8.4 Compatible Taxonomies

Processing an instance requires constructing the Discoverable Taxonomy Set (DTS) as defined in the XBRL specification.

As implied by EFM v68 § 6.3, certain pairs of taxonomies are incompatible when they appear together in a DTS.

Generally, each standard taxonomy has a four-digit year embedded in their namespace URIs. The namespace URI syntax varies somewhat depending on its authority component:

| Regex locating the four-digit year in standard taxonomy namespaces |
|--|
| https?://xbrl.sec.gov/[a-z0-9-]+/(yyyy)(q[234])? |
| https?://(xbrl.)?fasb.org/[a-z-]+/(yyyy)(q[234])? |
| https?://ifrs.org/taxonomy/(yyyy)/.* |

Taxonomies of different years cannot be used together. Namespace URIs for w3.org and xbrl.org and custom namespaces are ignored for this check.

XBRL validation does not permit link:roleType to define the same roleURI attribute to be defined at different URLs; since the role URI is often stable from one taxonomy version to the next, some schemas with different years may be incompatible for that reason. A few specific entry points may be incompatible as well and are listed below.

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|---|------|-------------------------|---|-------------|
| All standard taxonomy namespaces in a DTS have the same four-digit year component. | | Incompatible Schemas | Е | 6.22.3 |
| If an xs:schema attribute targetNamespace value matches sec.gov/rr/ then no other target namespace matching sec.gov/oef-rr, fasb.org, Or ifrs.org appear in the same DTS. | 1, 2 | Incompatible Schemas | Е | 6.22.3 |

Notes and special cases:

- 1. For this check, the targetNamespace attribute of a schema must be tested even if it contains no xs:element declarations.
- 2. The rr taxonomy was deprecated as of 2023.

8.5 Elements

Validations:

| Check | f | On failure | | EFM v68 Ref |
|-----------------------------------|------|------------------------------|---|-------------|
| Element is not i: forever | | Context Has Period Forever] | | § 6.5.38 |
| Element is not i:scenario | | No Scenario | Е | § 6.5.4 |
| Element is not xs:include | | Schema Include Present | Е | § 6.7.1 |
| Element is not ix: fraction | 1, 2 | Fraction Item Type | Е | § 6.7.31 |
| Element is not link:arcroleType | 1, 2 | Custom Arcrole Referenced | Е | § 6.9.6 |
| Element is not link:referenceLink | 1, 3 | Element Has Reference | Е | § 18 |

Notes and special cases:

- 1. Previously, this was only implied by the combination of other validations in EFM v68.
- 2. EDGAR standard taxonomies do not define fraction item types nor custom arc roles.
- 3. Most standard taxonomies have reference linkbases, either embedded or in separate files.

8.6 Element attributes

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|---|---|---|---|-------------|
| Element does not have attribute xml:base | 1 | XML Base Used | Е | § 6.3.11 |
| Element does not have attribute precision | 2 | Decimals Not Precision | Е | § 6.5.17 |
| Element xs:element does not have attribute enum2:domain | | Typed Domain Ref Disallowed | Е | § 6.7.2 |
| Element xs:element does not have attribute enum:domain | | Typed Domain Ref Disallowed | Е | § 6.7.2 |
| Element link:presentationArc has attribute order | | Presentation Order Missing | Е | § 6.12.1 |
| Element link:calculationArc has attribute order | | Calculation Relationship Order Missing | Е | § 6.14.1 |
| Element link:definitionArc has attribute order | | Definition Relationship Order Missing | Е | § 6.16.1 |

Notes and special cases:

- 1. XML processors interpret this attribute differently, so it must not be used anywhere.
- 2. This applies to elements in substitution group i:item and elements ix:nonNumeric and ix:nonFraction.

8.7 Element attribute values

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|---|---|---|---|-------------|
| Element i:identifier attribute scheme value is http://www.sec.gov/CIK | | Entity Identifier Scheme | | § 6.5.1 |
| xs:element has attribute nillable Value true | | Nillable Not True | Е | § 6.7.18 |
| If xs:element with attribute abstract value true, then it has i:periodType Value duration | | Abstract Is Instant | Е | § 6.7.21 |
| Element xs:element attribute type value is not i:fractionItemType | | Fraction Item Type | Е | § 6.7.31 |
| If element with xlink: type value of arc has attribute priority, then the value less than 10. | | Relationship Priority Not Less Than Ten | Е | § 6.9.9 |
| Element link:calculationArc attribute weight value is either -1 or 1. | | Calculation Relationship Weight Not Unitary | Е | § 6.14.2 |

Notes and special cases: none.

8.8 Attribute value lengths

The content of certain XML attributes and text nodes in UTF-8 must not exceed 200 bytes in length. This length restriction applies to bytes in UTF-8 encoding, not characters. For example, an element name of 101 repetitions of character "Ā" (Unicode x0100) violates this criterion because its UTF-8 encoding has 202 bytes. The six-byte encoding of that same character, "Ā" when read and stored as an XML text

node in UTF-8 encoding, would also be two bytes. Therefore, up to 100 repetitions of that sequence would be allowed. Other length limits are applied similarly.

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|--|---|----------------------|---|-------------|
| Text of element i:measure is 200 bytes or fewer. | | Name Length Limit | Е | § 6.5.36 |
| Element xs:element attribute name value is 200 bytes or fewer. | | Name Length Limit | Е | § 6.7.29 |
| Element link:roleType Attribute roleURI value is 200 bytes or fewer. | | URI Length Limit | Е | § 6.7.30 |
| Element xs:schema attribute targetNamespace value is 200 bytes or fewer. | | URI Length Limit | Е | § 6.7.30 |

Notes and special cases: none.

9 Validation Details on XBRL instances

EDGAR does not permit instances to use the following features of the XBRL information model, regardless of file format:

- 1. XHTML elements and attributes disallowed by EDGAR HTML,
- 2. XBRL footnotes that are not local or use custom relationships,
- 3. Use of a "decimals" attribute value to truncate non-zero digits on a numeric fact,
- 4. Facts having periods that overlap by less than 24 hours,
- 5. Facts with a non-US English language code without a corresponding English fact,

Other features are disallowed only in some instance formats:

- 6. In xBRL-XML and Inline XBRL, context elements that duplicate the same entity, period, and taxonomy-defined dimensions,
- 7. In Inline XBRL, the target and xsi: schemaLocation attributes on any elements,
- 8. EDGAR restrictions and enhancements of Inline XBRL found in § 5.2.2 and 5.2.5.

9.1 XHTML Validations

HTML as accepted by EDGAR is detailed in § 5.2.2 and is based on HTML 3.2 elements and entities, with extensions (such as allowing a style attribute) and restrictions (such as disallowing the textarea element). HTML elements span, tbody, thead, tfoot, and the un-prefixed lang attribute may also be used in Inline XBRL. The HTML must satisfy a content model derived from the BODY tag as defined in § 5.2.2. The content model detailed in § 5.2.2 restricts Inline XBRL, to XBRL footnotes, and to certain non-numeric facts.

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|---|---|--|---|-------------|
| Attribute href is either a local relative URL or an absolute URL starting with https://www.sec.gov/Archives/edgar/data/ | 1 | External Reference In href Note Accepted | Е | § 6.5.16 |
| Attribute src is either a local relative URL or an absolute URL starting with https://www.sec.gov/Archives/edgar/data/ | 1 | External Reference In src Not Accepted | Е | § 6.5.16 |
| Attribute href does not use scheme javascript: | 1 | JavaScript In href | Е | § 6.5.16 |

| Check | f | On failure | S | EFM v68 Ref |
|--|---|--|---|-------------|
| The attribute src of the img element is a reference to a graphics file with name either .gif or .jpg and a valid format. | 1 | Graphics File Has Invalid Format | Е | § 6.5.16 |
| The attribute src of the img element is a reference to a graphics file that is not openable. | 1 | Graphics File Not Openable | | § 6.5.16 |
| A table element has no ancestor elements. | 1 | Nested Table Elements | Е | § 6.5.16 |

Notes and special cases: none.

1. Applies to the content of text block facts and to the XHTML content of link:footnote elements.

9.1.1 HTML restrictions on Text Block facts

The XII Data Type Registry (DTR) type textBlockItemType specializes xmlNodesItemType. The unescaped text content of such facts must have mixed content containing a simple string, a fragment of XHTML, or a mixture of both. Facts of textBlockItemType whose unescaped content contains XML elements must satisfy the restricted content model of § 5.2.2. In the table below, unless otherwise stated the checks apply to the unquoted text of a fact with a concept of type textBlockItemType.

| Check | f | On failure | S | EFM v68 Ref |
|---|---|--|---|-------------|
| The text does not contain unbalanced tags. For example, wr> must be followed by ; values of attributes such as align must be quoted, as in align="center". | 1 | Text-Block- Not-Well- Formed-XML | Е | § 6.5.15 |

Notes and special cases:

1. The content of an XBRL footnote must be valid XHTML; therefore, there is no need for an EDGAR validation for unbalanced tags.

9.1.2 HTML restrictions on XBRL footnotes

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|--|---|-----------------|---|-------------|
| The content of link: footnote has content satisfying | | Prohibited HTML | Б | § 6.5.34 |
| the EDGAR restricted BODY content model. | | Footnote Body | Ľ | 8 0.3.34 |

Notes and special cases: none.

9.1.3 HTML restrictions on Inline XBRL

Inline XBRL has additional restrictions defined in § 5.2.5.

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|---|---|------------|---|-------------|
| The XHTML elements of an Inline XBRL file has content | | Prohibited | Е | 8 5.2.5 |
| satisfying the EDGAR restricted BODY content model. | | HTML | | 3 5.2.5 |

Notes and special cases: none.

9.2 Labels

A concept that appears in an instance in facts or contexts must have at least one label defined in either a standard taxonomy file or in a custom taxonomy.

| Check | f | On failure | S | EFM v68 Ref |
|---|---|--------------------------------|---|-------------|
| The element of a fact has a standard label. | | Element Used Standard Label | Е | § 6.10.1 |
| An element i:explicitMember attribute dimension value has a standard label with xml:lang value en-us. | | Element Used Standard Label | Е | § 6.10.1 |
| An element i: typedMember attribute dimension value has a standard label with xml:lang value en-us. | | Element Used Standard Label | Е | § 6.10.1 |
| The QName content of an i:explicitMember element has a standard label with xml:lang value en-us. | | Element Used Standard Label | Е | § 6.10.1 |

Notes and special cases: none.

9.3 Presentation

A concept that appears in an instance in facts or contexts must participate in at least one effective presentation relationship in the DTS of that instance. An element "participates in a presentation relationship" in a DTS if it is a source or target of a presentation relationship in that DTS.

An element is "a source (or target) of a presentation relationship" in a DTS if there is an effective relationship with the defining xs:element source (or target) and an xlink:arcrole attribute equal to http://www.xbrl.org/2003/role/parent-child in a document of that DTS.

9.4 Footnote Links

EDGAR restricts use of the link: footnoteLink element in a variety of ways in addition to restrictions on its XHTML content.

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|--|---|-----------------------------------|---|-------------|
| Element link: footnoteLink must have no child elements other than link: footnote, link: footnoteArc, and link: loc | | Footnote Substitution Group | Е | § 6.5.27 |
| Attribute xlink: role of elements link: footnoteLink and link: footnote must be present. | | Footnote Role Missing | Е | § 6.5.28 |
| Attribute xlink: role of elements link: footnoteLink and link: footnote must have a role defined in XBRL 2.1 or in a standard taxonomy schema. | | Footnote Custom Footnote Role | Е | § 6.5.29 |
| Attribute xlink:role of element link:loc must have a role defined in XBRL 2.1 or in a standard taxonomy schema. | | Footnote Custom Loc Role | | § 6.5.30 |
| The href attribute value of a locator is local, that is, it must begin with the character #. | | Footnote Locator Portable | Е | § 6.5.32 |
| A link: footnote element is the target of at least one footnote arc. | | Dangling Footnote | Е | § 6.5.33 |

Notes and special cases: none.

9.5 Decimals

If the decimals attribute of a numeric fact is not INF, then the value is interpreted as if certain digits were zero. An instance must not contain usage that cause non-zero digits to be interpreted as zero. The examples below illustrate correct and incorrect use:

| Fact text | decimals value | Interpreted fact value | Result |
|-----------|----------------|------------------------|--------|
| -2345.67 | INF | -2,345.67 | |
| -2345.67 | 2 | -2,345.67 | |
| -2345.67 | 0 | -2,345.00 | Error |
| -2345.67 | -2 | -2,300.00 | Error |
| -2345.67 | -3 | -2000.00 | Error |
| -2345.67 | -6 | 0000.00 | Error |

| Check | f | On failure | S | EFM v68 Ref |
|--|---|-----------------------------|---|-------------|
| A non-nil numeric fact value is not truncated by the decimals attribute. | 1 | Nonzero Digits Truncated | Е | § 6.5.37 |

Notes and special cases:

1. The check is not symmetric; a value such as 1,000,000 may have a decimals attribute with any value greater than -6, such as -5, -4, etc.

9.6 Contexts

An instance must not contain redundant i:context elements. For testing redundancy, the equivalence of contexts is defined with respect to the equivalence tests defined in XBRL 2.1 Specification section 4.10.

Also, an instance must not contain any i:context elements whose id attribute value does not appear as the value of at least one contextRef attribute.

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|--|---|-----------------------|---|-------------|
| There is no pair of contexts with structurally equal (S-equal) i:identifier elements, S-equal i:period elements, and Set-equal i:segment children. | | Duplicate Contexts | Е | § 6.5.7 |
| The id value of a context appears as the value of at least one contextRef attribute. | | Unused Context | Е | § 6.5.8 |

Notes and special cases: none.

9.7 Periods

The set of periods (instants and durations) used in the facts of an instance must be checked for certain disallowed overlaps. A date in i:startDate is "midnight at the beginning of" that day. A date in i:instant or i:endDate means "midnight at the end of" that day.

There must be no pair of periods that overlaps by 24 hours or less; that is, if the duration of a period is more than 24 hours, then its end datetime value must be greater than the start datetime of any other period by 24 hours or less.

For example, a company reporting at fiscal year end of May 31st, 2029, will have data in two fiscal years that abut at midnight at the end of May 31st, 2028. This means there will be periods with end datetimes of midnight 2028-05-31 (the prior fiscal year) as well as periods whose start datetimes are midnight at the beginning of 2028-06-01 (the current fiscal year). Both describe the same midnight. However, it must not have periods with start datetime of midnight at the beginning of 2028-05-31, and no contexts with end datetime of midnight at the end of 2028-06-01.

| Check | f | On failure | S | EFM v68 Ref |
|---|---|--|---|-------------|
| Each end datetime value must be greater than the start datetime of any duration period by 24 hours or less. | 1 | Start And End Dates Not Distinct Inconsistent With Document Type | Е | § 6.5.9 |
| Each instant datetime value must be greater than the start datetime of any duration period by 24 hours or less. | | Start And Instant Dates Not Distinct Inconsistent With Document Type | Е | § 6.5.9 |

Notes and special cases:

1. At one time, certain instance types were unlikely to have contexts with periods of more than 24 hours, but in practice, the validation applies to all instance types.

9.8 Units

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|---|---|------------------------------------|---|-------------|
| There are no equivalent i:unit elements. | 1 | Duplicate Units | Е | § 6.5.11 |
| The concept type and unit of a fact must be consistent as defined by the XII Unit Type Registry (UTR) | | Incompatible Numeric Type And Unit | | § 6.5.35 |

Notes and special cases:

1. Units are equivalent if they have equivalent measures or equivalent numerator and denominator. Measures are equivalent if their contents are equivalent QNames. Numerators and Denominators are equivalent if they have a set of equivalent measures.

9.9 Non-US English Facts

The default value of the xml:lang attribute on non-numeric facts and on element link:footnote in EDGAR is en-us (EFM v68 § 6.5.13). There are a small number of instance types, such as AF.FPI, in which a few text fragments may be expressed in a language other than English. An instance having a fact with non-nil content and the xml:lang attribute not equal to en-us must also contain a fact using the same element and all other attributes with an xml:lang attribute that is effectively en-us. For example, the US English fact below may appear in an instance without the French fact, but the French fact must not appear without the US English fact.

<eg:answer contextRef="x">YES</eg:answer>
<eg:answer contextRef="x" xml:lang="fr">OUI</eg:answer>

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|--|---|----------------------------|---|-------------|
| If a non-numeric fact exists with an xml:lang attribute value not starting with en, then there must be a corresponding fact in the same context with no xml:lang attribute or xml:lang value en-US. | 1 | English Text Missing | Е | § 6.5.14 |
| If a link:footnote exists with an xml:lang attribute value not starting with en, then there must be a footnote having the same xlink:label value with no xml:lang attribute or xml:lang value en-US. | 1 | English Text Missing | Е | § 6.5.14 |

Notes and special cases:

1. The appearance of attribute xml:lang or lang on XHTML elements is not checked.

9.10 Duplicate facts

An instance must not have more than one fact having S-Equal element names, equal contextref attributes, and if they are present V-Equal unitRef attributes and xml:lang attributes effective values, respectively, unless their values are consistent, as described below, in which case the distinct facts are consolidated into a single fact for all other validations.

For numeric facts, all such values must be consistent with having been rounded from a single value. Where the decimals attribute of such of facts is the same, the values MUST be numerically equal. Where the decimals attribute is different, consistency is determined by considering a closed interval centered on each fact value, and of size 10 to the nth power where n is the value of the decimals attribute and checking for overlap of all such intervals. For example, a value of 500 with a decimals attribute of -2 would result in an interval of 450 to 550, inclusive. A value of 550 with decimals attribute of -1 results in an interval of 545 to 555. These values are considered consistent as the intervals overlap; they are both consistent with having been rounded from a value in the range 545 to 550. The use of a closed interval means that intervals are inclusive of the end values.

Consistent numeric facts are consolidated into a single fact having the value of the fact with the maximum specified decimals value for purposes of validation and rendering.

For non-numeric facts, the values are consistent only if they are V-Equal.

The xml:lang attribute effective value is relevant only for types derived from i:normalizedStringItemType or i:stringItemType. A fact is an occurrence in an instance of an element with a contextRef attribute. The values of the id attributes are not relevant to detection of duplicate facts. Other rules forbidding equivalent i:context and i:unit elements ensure that duplicate values of the contextRef and unitRef attributes can be detected without dereferencing.

The predicate V-Equal is defined in XBRL 2.1 section 1.4 and specifies that non-numeric values are compared after whitespace normalization.

Calculation inconsistencies have no impact on the validity of EDGAR submissions, and therefore the effect of numeric fact duplication in XBRL 2.1 section 5.2.5.2 is moot.

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|---|---|--------------------|---|-------------|
| All numeric facts having the same concept, context, and unit must have values that are consistent with having been rounded from a single value. | | Duplicate Facts | Е | § 6.5.12 |
| All non-numeric facts having the same concept, context, and unit must have equal values. | | Duplicate Facts | Е | § 6.5.12 |

Notes and special cases: none.

9.11 Linkbase References

Use of element link: linkbaseRef in XBRL instances has been deprecated by XII.

| Check | f | On failure | S | EFM v68 Ref |
|---|--------------|-------------|---|-------------|
| No link:linkbaseRef elements appear in an | 1 Deprecated | | W | n/a |
| instance. | 1 | LinkbaseRef | | |

Notes and special cases: none.

10 Validation Details on Custom Taxonomies

Section 5.5 above provided an informal list of validations that apply to all custom taxonomies.

10.1 Custom namespace and role URIs

For the purposes of this guide, the *effective authority* of a URI consists of the last part of the URI between the // and the first / and containing at most one dot.

| Regex locating the effective authority in a URI | |
|---|--|
| https?://[^/]*(([a-z]+\.)?[a-z]+)/.* | |

For example, the effective authority of URI http://xbrl.sec.gov/dei/2025 is sec.gov and the effective authority of URI http://uww/20251031 is uww. The path is any part after the authority.

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|---|---|---------------------------------------|---|-------------|
| The attribute targetNamespace value starts with http:// | | Taxonomy Valid Target Namespace | Е | § 6.7.3 |
| The authority part of the attribute targetNamespace value does not have the same authority as any standard namespace URI. | 1 | Taxonomy Valid Target Namespace | Е | § 6.7.4 |
| The path part of the attribute targetNamespace value is a date in the pattern /yyyymmdd. | | Taxonomy Valid Target Namespace | Е | § 6.7.6 |
| Element xs:schema binds a recommended namespace prefix for the targetNamespace attribute value that does not contain the underscore character. | 2 | Taxonomy Valid Target Namespace | Е | § 6.7.7 |
| Within an xs:schema element, the effective authority of element link:roleType attribute roleURI value is the same as the effective authority part of the targetNamespace URI. | | Role Namespace Mismatch | Е | § 6.7.9 |

Notes and special cases:

- 1. The effective authority is a domain name controlled by the registrant, a domain name controlled by the publisher of the schema, or if neither exists, then a mnemonic name for the registrant such as its trading symbol or CIK (EFM v68 § 6.7.5).
- 2. A mnemonic such as a trading symbol of the company in lowercase is suitable.

10.2 Roles

A custom taxonomy link:roleType declaration is important for associating the role with the custom taxonomy namespace, providing a name for a group of relationships, and ordering the appearance of calculation, definition, and presentation groups to a user of the taxonomy. Custom roles used with

presentation relationships also communicate the order, the level of fact detail, and a human readable title for a group of relationships and facts. The link:definition element text contains a Sort Code, a Type, and a Title:

SortCode - Type - Title

The Type is used only to arrange presentation groups in a hierarchical menu during the rendering process. The Title communicates the meaning of the presentation group. The SortCode is used only to sort base sets for display. The sort code is sorted alphanumerically, not numerically, so sort code "10" would appear before "2".

For instances in the financial statement submission sets AF, EBP, QF, RF, and HF (only) as governed by the text of 17 CFR 232.405-407 (i.e., regulation S-T rules 405 through 407), filers must choose a scheme for their sort code and declare separate role types to achieve the different levels of tagging that the rule implies:

| Level | Content |
|-------|--|
| 0 | Cover page and other material preceding financial statements; |
| 1 | Detail tagging of amounts in financial statements, and block-tagged notes to the financial |
| | statements; |
| 2 | Each significant accounting policy, block-tagged; |
| 3 | Each table, block-tagged; |
| 4 | Detail tagging of amounts in the notes to financial statements. |

Presentation group ordering:

- 1. Level 0: any cover page detail tags or block tagged content from sections of the Form appearing before the statements.
 - a. Use Type "Document" for these roles.
- 2. Level 1: Each statement (income, balance sheet, *etc.*) in at least one presentation group, in the order the statement appeared in the Inline XBRL (or original HTML/ASCII) document.
 - a. Use the Type "Statement" for these roles.
 - b. If a lengthy statement is split across more than one role, the SortCode must preserve the original ordering.
 - c. A statement that contains parenthetical disclosures on one or more rows must have a presentation group immediately following that of the Statement, where all facts in its parenthetical disclosures appear in relationships.
- 3. Level 1: All presentation group containing the content of notes to the financial statements;
 - a. Use the Type "Disclosure" for these and all subsequent roles.
 - b. A text block fact containing each note appearing as the target of one presentation relationship in a base set.
- 4. Level 2: All presentation groups containing accounting policies, each as a separate text block.
 - a. End the Title of these roles with the text "(Policy)" or "(Policies)".
- 5. Level 3: All presentation groups containing each table that appeared in the notes, each as a separate table text block.
 - a. End the Title of these roles with the text " (Table)" or " (Tables)".

- 6. Level 4: All presentation groups containing sets of detail tagged amounts from the text and tables of the notes.
 - a. End the Title of these roles with the text " (Detail)" or " (Details)".

| Check | f | On failure | S | EFM v68 Ref |
|---|---------------|--|---|-------------|
| The path part of the attribute roleURI value matches regex (/.+)?/role/[^/]+ | | Role Ending Mismatch | W | § 6.7.9 |
| The DTS does not contain more than one link:roleType having the same roleURI attribute value. | | Role Type Duplicates | Е | § 6.7.10 |
| The text of element link: usedOn must match regex link: (calculation definition presentation)Link | | Role Type Declaration Incomplete | Е | § 6.7.11 |
| Element link:roleType must have three distinct occurrences of link:usedOn. | | Role Type Declaration Incomplete | Е | § 6.7.11 |
| The text of element link:definition must match regex \d+\ -\ (Document Statement Disclosure Schedule)\+ with no leading or trailing whitespace. | 1, 2, 3 | Role Definition Mismatch | Е | § 6.7.12 |
| Level 1 presentation groups precede level 2 presentation groups, level 2 precedes level 3, and level 3 precede level 4. | | Presentation Base Set Order | W | § 6.7.12 |

Notes and special cases:

- 1. If an instance type is not in submission sets AF, QF, RF, or HF but nevertheless has facts presented in roles with Type statement, it will be rendered as if it were conforming to the four-level tagging scheme above.
- 2. For instances of instance types without financial statements, it is conventional but not mandatory for roles that contain presentation relationships to have Disclosure as their Type, while roles that are used in a custom taxonomy only for definition or calculation relationships have Document as their Type.
- 3. The Type schedule has been replaced in practice by Disclosure and will soon be deprecated.

10.3 Concepts

When constructing a custom concept name, a common convention is to capitalize the first letter, then use mainly lowercase characters, omitting punctuation and using capitalization only to indicate a natural word break, for example LongTermDebt or YtdReturn. If the name is originally based on a label that changes in a subsequent version of the schema, that label changes, the name attribute must not be changed merely to maintain agreement.

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|--|---|------------------------------|---|-------------|
| The element xs:element attribute name value does not equal any xs:element attribute name value in a standard taxonomy in the same DTS. | 1 | Element Name Same As Base | Е | § 6.7.16 |
| The element xs:element attribute name value does not start with the underscore character. | | Element Id | E | § 6.7.17 |

| Check | f | On failure | S | EFM v68 Ref |
|---|---|---------------------|---|-------------|
| The xs:element attribute id must consist of the recommended namespace prefix of its namespace, followed by one underscore, followed only by its name attribute. | | Element Id | Е | § 6.7.17 |
| The xs:element attribute substitutionGroup must not be a member of a substitution group with head i:tuple. | | No Tuple Element | Е | § 6.7.19 |

1. It is not necessary to compare the name attribute to all element declarations in all standard taxonomy schemas. Only those schemas that are present in the DTS of a specific instance being validated are relevant.

10.4 Relationships

Arcs in custom taxonomies, whether they import standard taxonomy relationships or not, may form patterns of relationships that have ambiguous or contradictory semantics; these validations test for such patterns among relationships.

| Abbreviation | Relationship arc role URIs |
|---------------------|---|
| all | http://xbrl.org/int/dim/arcrole/all |
| dimension-domain | http://xbrl.org/int/dim/arcrole/dimension-domain |
| dimension-default | http://xbrl.org/int/dim/arcrole/dimension-default |
| domain-member | http://xbrl.org/int/dim/arcrole/domain-member |
| hypercube-dimension | http://xbrl.org/int/dim/arcrole/hypercube-dimension |
| notAll | http://xbrl.org/int/dim/arcrole/notAll |
| summation-item | Either http://www.xbrl.org/2003/role/summation-item |
| | Or http://xbrl.org/2023/role/summation-item |

| Check | f | On failure | S | EFM v68 Ref |
|--|----|--|---|-------------|
| An arc is not ineffectual. | 1 | Relationship Ineffectual | Е | § 6.9.3 |
| All effective presentation relationships in the same base set with the same source element have distinct values of the order attribute. | | Presentation Order Duplicates | Е | § 6.12.2 |
| There are no effective presentation relationships in the same base set having the same source concept, target concept, and preferredLabel value. | | Preferred Label Duplicates | Е | § 6.12.5 |
| A presentation group has only one concept (the "root") that is not the target of any arc in that set. | | Multiple Root Nodes | W | § 6.12.6 |
| There are no directed cycles in effective summation- item relationships. | | Circular Calculation | Е | § 6.14.4 |
| The target of a dimension-domain Or dimension-default relationship has type domainItemType. | | Dimension Domain Target Mismatch | | § 6.16.3 |
| There are no undirected cycles in any effective domain-member and dimension-domain directed relationship set. | 2, | Domain Is Tangled | Е | § 6.16.4 |
| A concept is the source of at most one all relationship in each base set. | | Primary Element Has Redundant Tables | Е | § 6.16.5 |
| A notall relationship has attribute closed value of false. | | Not All Relationship Is Closed | Е | § 6.16.6 |

| Check | f | On failure | S | EFM v68 Ref |
|--|---|---|---|-------------|
| If an arc has attribute targetRole, then it has a consecutive relationship. | 3 | Target Role With No Consecutive Relationships | Е | § 6.16.9 |
| An axis element that is the target of an effective relationship with arc role hypercube-dimension that is consecutive from a relationship with arc role notAll must also be the target of an effective relationship in a link:definitionLink having the same value of xlink:role and which itself is consecutive from an effective relationship with arc role all. | 4 | Axis Excluded Not In Table | Е | § 6.16.7 |
| An arc with arc role notall is not the target of an effective arc with an xlink:arcrole attribute equal to all in link:definitionLink elements having equal values of xlink:role. | 4 | Table Excludes Itself | Е | § 6.16.8 |
| A base set having one effective presentation relationship whose target has the same local name as the unitref attribute value of a fact of a source or target element in the same base set should provide an ordering for all such unitref attribute values. | 5 | Presented Units Incomplete Order | W | § 6.12.9 |

- 1. Arcs are *ineffectual* when there is an equivalent relationship with the same or higher value of the priority attribute or when it overrides an unprohibited arc. An arc with use="prohibited" takes precedence over arcs with use="optional" when their priorities are the same. Checks apply only to relationships in custom taxonomies; a custom relationship may override a prohibited standard taxonomy relationship of a lower priority; it must not override another custom relationship.
- 2. This also impacts financial statement line items, so that the balance at the start and end of a roll forward cannot appear twice under a single axis. The same rendering effect is achieved by including only the ending balance in the domain-member relationships, so that the beginning balance will appear simply as the ending balance of the previous period.
- 3. The terms *consecutive relationship* and *directed relationship set* are related to targetRole attributes and are defined in detail in the XBRL Dimensions specification.
- 4. The notall are role does not appear in any standard taxonomies and will soon be deprecated in custom taxonomies.
- 5. The renderer displays sets of facts having multiple units of measure that cannot be merged into columns (or rows) in one of two ways. Either the units are ordered by the order they are declared in the instance, or by using the built-in unit axis ordered by relationships in a presentation group. The presentation group should either order all the units used, or none of them, so that the ordering is not mixed.

10.5 Concept types and relationships

The validity of relationships may depend on the concepts that are their sources and targets.

| Check | f | On failure | S | EFM v68 Ref |
|--|---|---|---|-------------|
| An axis concept that is a target in an effective presentation group is the source of at least one presentation relationship that is a domain member. | | Axis Requires Domain Child | W | § 6.12.8 |
| The source and target concepts of a summation- item arc have the same attribute i:periodType value. | | Calculation Relationship Has Different Period Types | Е | § 6.14.3 |

Notes and special cases: none.

10.6 Concept labels and roles

Label roles fall into a few related categories that impact their use on different concept types.

| I abal antagamy | Label role URI | | | | |
|-----------------|---|--|--|--|--|
| Label category | | | | | |
| standard | http://www.xbrl.org/2003/role/label | | | | |
| documentation | http://www.xbrl.org/2003/role/documentation | | | | |
| | http://xbrl.us/us-gaap/role/label/periodStart | | | | |
| instant | http://xbrl.us/us-gaap/role/label/periodEnd | | | | |
| Instant | http://xbrl.us/us-gaap/role/label/negatedPeriodStart | | | | |
| | http://xbrl.us/us-gaap/role/label/negatedPeriodEnd | | | | |
| | http://www.xbrl.org/2003/role/positiveLabel | | | | |
| | http://www.xbrl.org/2003/role/positiveTerseLabel | | | | |
| | http://www.xbrl.org/2003/role/positiveVerboseLabel | | | | |
| | http://www.xbrl.org/2003/role/negativeLabel | | | | |
| | http://www.xbrl.org/2003/role/negativeTerseLabel | | | | |
| | http://www.xbrl.org/2003/role/negativeVerboseLabel | | | | |
| | http://www.xbrl.org/2003/role/zeroLabel | | | | |
| | http://www.xbrl.org/2003/role/zeroTerseLabel | | | | |
| | http://www.xbrl.org/2003/role/zeroVerboseLabel | | | | |
| | http://www.xbrl.org/2003/role/totalLabel | | | | |
| numeric | http://www.xbrl.org/2009/role/negatedLabel | | | | |
| | http://www.xbrl.org/2009/role/negatedPeriodEndLabel | | | | |
| | http://www.xbrl.org/2009/role/negatedPeriodStartLabel | | | | |
| | http://www.xbrl.org/2009/role/negatedTotalLabel | | | | |
| | http://www.xbrl.org/2009/role/negatedNetLabel | | | | |
| | http://www.xbrl.org/2009/role/negatedTerseLabel | | | | |
| | http://xbrl.us/us-gaap/role/label/negated | | | | |
| | http://xbrl.us/us-gaap/role/label/negatedTotal | | | | |
| | http://xbrl.us/us-gaap/role/label/negatedPeriodStart | | | | |
| | http://xbrl.us/us-gaap/role/label/negatedPeriodEnd | | | | |

| Check | f | On failure | S | EFM v68 Ref |
|---|---|---|---|-------------|
| If the xlink:role of element link:label is not documentation, then its text is whitespace normalized, contains no < characters, and is fewer than 511 characters. | 1 | Label Disallowed | Е | § 6.10.6 |
| The text of element link:label has no leading or trailing white space. | | Label Not Trimmed | Е | § 6.10.8 |
| A concept has at most one label for any combination of xlink:role and xml:lang values. | | Element Used Has Duplicate Label | | § 6.10.2 |
| If a concept is used in an instance as a fact, dimension, or domain member, then it has a standard label with xml:lang attribute en-us. | | Element Used Standard English Label | Е | § 6.10.3 |

| Check | f | On failure | S | EFM v68 Ref |
|--|---|--|---|-------------|
| More than one concept has the same standard label with xml:lang value en-US. | | English Standard Labels Duplicated | Е | § 6.10.4 |
| A concept in a standard namespace does not have a custom documentation label. | | Custom Documentation Standard Element | Е | § 6.10.5 |
| A non-numeric concept does not have any label with a numeric role. | | Numeric Label Role | Е | § 6.10.9 |
| The target of an effective presentation relationship with a preferredLabel value that is an instant role does not have period type duration. | | Period Type Preferred Label Mismatch | W | § 6.12.7 |

1. All labels may contain the XML whitespace characters ASCII 9, 10, 13 and 32 anywhere except at their start or end. Documentation labels may contain sequences of extra whitespace; all other labels must be normalized.

10.7 Rendering validations

Because the rendering process involves both facts in the instance and the content of the taxonomy, it has validations that involve both.

10.7.1 Each axis that is presented requires at least one child element.

If the default member of an Axis does not appear in an effective presentation relationship base set, then the only facts that can be displayed by that presentation base set are facts in contexts having a non-defaulted member on that Axis.

| Check | f | On failure | S | EFM v68 Ref |
|---|---|-----------------------|---|-------------|
| If an effective presentation relationship base set has an explicit Axis element without its default member as a descendant, then there is at least one fact displayed having a non-defaulted member on that axis. | | All Facts Filtered | Е | § 6.26.1 |

Notes and special cases:

1. If every fact in the group is defaulted on such an axis, then all facts would be filtered out. If the instance contains no non-default member facts, then the base set will never display anything.

10.7.2 Matching instant and duration facts

Facts presented in an effective presentation relationship base set using period start or period end preferred labels should contain alternating instant and duration facts. The renderer lays out a set of facts with at least one column for each period, ordering the columns by increasing duration and descending date.

An effective presentation group in which facts are presented with the period start and period end roles as described in 6.7 above is considered a movement analysis. When the renderer presents a movement analysis of a set of facts consisting of beginning and ending values and changes that occurred during the period, it orders the periods by alternating the instants and durations, in decreasing duration and increasing end date order.

| Check | f | On failure | S | EFM v68 Ref |
|---|---|--|---|-------------|
| For each date-time of instant facts displayed with a period start or period end label, there is at least one duration fact in the same movement analysis presentation group with a matching start or end date-time. | 1 | Instant Without Matching Duration | W | § 6.26.2 |

10.7.3 Changes in Equity presentation instant and duration type facts.

An effective presentation relationship base set that is recognized as representing a statement of changes is a table with sets of rows having instant and duration-type elements on alternate lines.

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|--|---|--------------------------|---|-------------|
| For each date-time of instant facts in a statement of changes in equity, there is at least one duration fact with a matching start or end date-time. | 1 | No Matching Durations | W | § 6.26.3 |

Notes and special cases:

2. A nil-valued duration fact will satisfy this check.

10.7.4 Text blocks containing embedding commands.

Facts of type "text block" having text content containing an embedding command must have valid embedding command syntax. A text block fact may contain an Embedding Command. The following text is an example of an embedding command:

```
~ http://xbrl.sec.gov/rr/role/ShareholderFeesData
column period compact *
row dei_LegalEntityAxis compact (eg_AaaMember, eg_BbbMember)
row rr_ProspectusShareClassAxis compact *
```

The beginning and ending "~" (tilde, ASCII hex 7E) indicate that the content of the enclosing element is an embedding command. Any text appearing before the first or after the second tilde is ignored.

An embedding command consists of one role URI followed by zero or more iterators. Each iterator consists of case-sensitive tokens separated by whitespace.

Any token with "_" (underscore, ASCII hex 5F) must denote an element. The text before the first underscore is the element preferred namespace prefix as defined in 7.2 above. The string after the first underscore must be nonempty and must be the element local name.

| Check | f | On failure | S | EFM v68 Ref |
|---|---|---|---|-------------|
| The first token of an iterator must be row or column. | | Embedding Command Malformed Direction Token | Е | § 6.26.4 |
| The second token of an iterator is one of period, unit, primary, or a token with an underscore that denotes an Axis as defined in 6.4 above. | | Embedding Command Malformed Axis | Е | § 6.26.4 |
| The third token is the word compact. | | Embedding Command Malformed Style Token | Е | § 6.26.4 |
| The fourth token is either * meaning all, a token with an underscore that denotes a domain member, or a parenthesized list of domain members. | | Embedding Command Malformed Member | Е | § 6.26.4 |
| The domain members are presentation descendants of the axis, in the presentation relationships of the role URI used to display the facts. | 1 | Embedding Command Invalid Member | Е | § 6.26.4 |

1. A role URI having no presentation relationships would signal this error.

10.7.5 Rows and columns both required.

An embedding command must have at least one row iterator and one column iterator, either explicit or defaulted. Embedding results in a different layout than the default layout of non-embedded reports. In an embedding command, the primary axis is on the rows by default and all other axes are the default columns (prior to transposition, which reverses rows and columns).

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|--|---|--|---|-------------|
| The embedding command contains both row and column iterators. | 1 | Embedding Command Missing Iterator | W | § 6.26.5 |
| The embedding command contains both row and column iterators after applying the {Transpose} token. | 1 | Embedding Command Missing Iterator After Transposition | W | § 6.26.5 |

Notes and special cases:

2. The warning message should indicate whether the missing iterator is column or row.

10.7.6 Completeness of axes in an embedding command.

An embedding command and the effective presentation relationship base set designated by its role URI should together provide an ordering of row axes and column axes for all facts it displays. The order of axes displayed on rows and the axes displayed on columns first considers the order of iterators in the embedding command. Then, for axes not named in the embedding command but used in the contexts of facts to be displayed, axis ordering is determined by the effective presentation relationship base set whose role URI is that of the embedding command.

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|--|---|----------------------|---|-------------|
| If an axis is used in the context of facts that are selected from an embedding command, then the axis appears in the presentation group named by the command role URI. | 1 | Axis Has No Order | W | § 6.26.6 |

Notes and special cases:

3. The axes will be sorted by their labels.

10.7.7 Bar Chart selected Annual Return facts

Embedding commands for bar charts are limited to AnnualReturn facts (6.22.2 above).

| Check | f | On failure | s | EFM v68 Ref |
|--|---|------------------------------------|---|-------------|
| If the role URI of an embedding command contains the case-insensitive substring Barchart, then it contains at least one AnnualReturn fact. | 1 | Bar Chart Has No Facts | W | § 6.26.7 |
| If the role URI of an embedding command contains the case-insensitive substring BarChart, then it contains no more than twenty AnnualReturn facts that are not duplicates. | 1 | Too Many Annual Return Facts | Е | § 6.26.8 |

4. The row and column iterators define a set of Annual Return facts.

10.7.8 The {Elements} token implies "column primary" embedding.

The layout qualifier {Elements} forces the primary axis to be displayed as rows.

Validations:

| Check | f | On failure | S | EFM v68 Ref |
|---|---|-------------------------|---|-------------|
| An embedding command does not have both the token {Elements} in the definition text of its URI, and an iterator with direction token column and axis token primary. | | Primary Axis On Rows | W | § 6.26.9 |

Notes and special cases: none.

10.8 Namespace-specific Customizations

In general, concepts having a namespace starting with http://xbrl.sec.gov/xyz/ may be termed "XYZ concepts" and may impose various restrictions on custom arcs involving them, including:

- Only overrides: Custom arcs with XYZ elements as source and target must have the same role, arc role, source, and target as an arc in the standard taxonomy, subject to all other validations. In effect such custom arcs must appear in pairs that together prohibit and override existing relationships having priority less than 10, thereby altering only values of arc attributes such as order.
- Only new domain members: If an arc has a specific role and/or arc role and the target concept is a domain member, then the source element must be one of a few specific XYZ elements or a descendant thereof with the same role and arc role.
- No XYZ sources or targets: XYZ concepts must not appear as the source or target of any custom arc, except as an override of an existing arc or addition of a new domain member.

10.8.1 CEF (Closed-end Fund) Customization

(Formerly EFM v68 § 6.12.10) Concepts having a namespace starting with http://xbrl.sec.gov/cef/are "CEF concepts".

Custom parent-child arcs with CEF Concepts as both source and target may only appear in role http://xbrl.sec.gov/cef/role/N2 and must be valid overrides.

Custom parent-child arcs in role http://xbrl.sec.gov/cef/role/N2 with a target that is not a CEF concept must have a domain member as target and have a source that is one of the Concepts in a standard namespace: AllCoregistrantsMember, AllSecuritiesMember, AllRisksMember,

ClassOfStockDomain, DebtInstrumentNameDomain, or a parent-child descendant thereof.

In instance type RD.CEF (only) no other custom parent-child arcs with a CEF concept as source or target are permitted in any role.

(Formerly EFM v68 § 6.14.6) No custom summation-item arc in any role may have a CEF concept as either source or target.

(Formerly EFM v68 § 6.16.10) Custom domain-member arcs with CEF Concepts as both source and target may only appear in role http://xbrl.sec.gov/cef/role/N2 and must be overrides.

Custom domain-member arcs with a CEF Concept as source must have link role http://xbrl.sec.gov/cef/role/CorregistrantOnly,

http://xbrl.sec.gov/cef/role/SecurityOnly, Or http://xbrl.sec.gov/cef/role/RiskOnly. The target may be a domain member in any namespace.

No other custom arcs having arc roles starting with http://xbrl.org/int/dim/arcrole and any CEF Concepts as source or target are permitted.

10.8.2 ECD (Executive Compensation Disclosure) Customization

(Formerly EFM v68 § 6.14.8) Concepts having a namespace starting with http://xbrl.sec.gov/ecd/are "ECD concepts".

(Formerly EFM v68 § 6.14.9) No custom summation-item arc in any role may have an ECD concept as either source or target.

(Formerly EFM v68 § 6.16.12) Custom domain-member arcs with ECD Concepts as both source and target may only appear in roles with URI starting http://xbrl.sec.gov/ecd/role/ and ending with only. Such arcs must be overrides.

Custom domain-member arcs with ECD Concepts as source may only appear in roles with URI starting http://xbrl.sec.gov/ecd/role/ and ending in only. The target may be a domain member in any namespace.

No other custom arcs having arc roles starting with http://xbrl.org/int/dim/arcrole/ and any ECD Concept as source or target are permitted in any role.

10.8.3 FFD (Filing Fee Disclosure) Customization

Customization of EX-FILING FEES is not permitted.

10.8.4 OEF (Open-end Fund) Customization

(Formerly EFM v68 § 6.16.13) Concepts having a namespace starting with http://xbrl.sec.gov/oef/ are "OEF concepts".

Other than instance type RD.OEF, no custom summation-item arc in any role may have an OEF concept as either source or target.

Custom domain-member arcs with OEF Concepts as both source and target may only appear in roles with URI starting http://xbrl.sec.gov/rr/role/ or http://xbrl.sec.gov/oef/role/ and ending with only. Such arcs must be overrides.

Custom domain-member arcs with OEF Concepts as source may only appear in roles with URI starting http://xbrl.sec.gov/rr/role/ or http://xbrl.sec.gov/oef/role/ and ending in only. The target may be a domain member in any namespace.

No other custom arcs having arc roles starting with http://xbrl.org/int/dim/arcrole/ and any OEF Concept as source or target are permitted in any role.

10.8.5 RXP (Resource Extraction Payments) Customization

(Formerly EFM v68 § 6.14.10) Concepts in a namespace starting with http://xbrl.sec.gov/rxp/ are "RXP concepts".

A custom summation-item arc must not have a source or target RXP Concept in any role.

(Formerly EFM § 6.16.14) Custom domain-member arcs are restricted both with respect to RXP Concepts and definition links with "RXP roles" (defined as role URIs starting with http://xbrl.sec.gov/rxp/).

The following RXP roles permit custom domain-member arcs with no targetRole attribute, the indicated source concept (only), and target concept in a custom namespace.

| Definition link role URI | Permitted source concept |
|--|--------------------------|
| http://xbrl.sec.gov/rxp/role/ProjectsOnly | rxp:AllProjectsMember |
| http://xbrl.sec.gov/rxp/role/GovernmentsOnly | rxp:AllGovernmentsMember |
| http://xbrl.sec.gov/rxp/role/SegmentsOnly | rxp:AllSegmentsMember |
| http://xbrl.sec.gov/rxp/role/EntitiesOnly | dei:EntityDomain |
| http://xbrl.sec.gov/rxp/role/ResourcesOnly | rxp:AllResourcesMember |

Custom definition arcs must not appear in any other RXP role.

Custom definition arcs with arc roles starting http://xbrl.org/int/dim/arcrole/ in any role must not have an RXP Concept as either source or target.

A member concept must not be the target of a domain-member arc in more than one RXP role.

10.8.6 VIP (Variable Insurance Products) Customization

(Formerly EFM v68 § 6.12.11) Concepts having a namespace starting with http://xbrl.sec.gov/vip/are "VIP concepts".

Custom parent-child arcs with VIP Concepts as both source and target may only appear in roles matching regex http://xbrl.sec.gov/vip/role/N[346] and must be valid overrides.

Custom parent-child arcs in roles matching regex http://xbrl.sec.gov/vip/role/N[346], with a target that is not a VIP Concept, must have a domain member as target or a parent-child descendant thereof.

No other custom parent-child arcs with a VIP concept as source or target are permitted in any role.

(Formerly EFM v68 § 6.14.7) No custom summation-item arc in any link role may have a VIP concept as either source or target.

(Formerly EFM v68 § 6.16.11) Custom domain-member arcs with VIP concepts as both source and target may only appear in roles with URI starting http://xbrl.sec.gov/vip/role/ and ending with only. Such arcs must be overrides.

Custom domain-member arcs with VIP Concepts as source may only appear in roles with URI starting http://xbrl.sec.gov/vip/role/ and ending in only. The target may be a domain member in any namespace.

No other custom arcs having arc roles starting with http://xbrl.org/int/dim/arcrole/ and any VIP Concept as source or target are permitted in any role.

10.8.7 SRO (Self-regulatory Organization) Customization

Concepts having a namespace URI matching .*sec.gov/sro/.* are "SRO concepts".

Custom domain-member arcs with SRO concepts as source may only appear in roles with a URI matching .*sec.gov/sro/([^/]*/)*role/[^/]*only, and only as descendants of the default member of an SRO concept explicit axis.

No other custom arcs having arc roles starting with http://xbrl.org/int/dim/arcrole/ and any SRO Concept as source or target are permitted in any role.

10.8.8 SBS (Security-based Swaps) Customization

Concepts having a namespace URI matching .*sec.gov/sbs/.* are "SBS concepts".

There are no restrictions on using SBS concepts in a custom taxonomy.

10.8.9 CYD (Cybersecurity Disclosure) Customization

Concepts having a namespace URI matching .*sec.gov/cyd/.* are "CYD concepts".

There are no restrictions on using CYD concepts in a custom taxonomy.

11 Inline XBRL Restrictions

Refer to EFM § 5.2.5, "Inline XBRL", for restrictions specific to Inline XBRL attachments.

12 Tables from Filer Manual volume II Chapter 6

The tables are copied here for ease of reference and differ in no way from those in Edgar Filer Manual version 69, volume II chapter 6.

Table 6-1. Submission Sets

| Code | Definition | Submission Types | |
|------|------------------------------------|--|--|
| 6K | Report of FPI | 6-K, 6-K/A | |
| 8K | Current Report | 8-K, 8-K/A, 8-K12B, 8-K12B/A, 8-K12G3, 8-K12G3/A, 8-K15D5, 8-K15D5/A | |
| AF | Annual Financial | 10-K, 10-K/A, 10-KT, 10-KT/A, 20-F, 20-F/A, 40-F, 40-F/A, N-CSR, N-CSR/A, SP 15D2, SP 15D2/A | |
| AM | Amending | 6-K/A, 8-K/A, 8-K12B/A, 8-K12G3/A, 8-K15D5/A, 10-K/A, 10-KT/A, 11-K/A, 11-KT/A, 20-F/A, 40-F/A, N-CSR/A, SP 15D2/A, N-CSRS/A, 17AD-27/A, SD/A#201, 424H/A, 10-Q/A, 10-QT/A, F-1/A, F-10/A, F-3/A, F-4/A, N-14 8C/A, S-1/A, S-11/A, S-3/A, S-4/A, S-6/A, SF-1/A, SF-3/A, 10-12B/A, 10-12G/A, 40FR12B/A, 40FR12G/A, SC 13E1/A, SC 13E3/A, SC TO-I/A, SC TO-T/A, SC13E4F/A, SC14D1F/A, N-8B 2/A, N-1A/A, N-2/A, N-3/A, N-4/A, N-6/A, SBSEF/A, SBSEF-FIN-QTR/A, SBSEF-FIN-REQ/A, SBSEF-CCO-RPT/A, SDR/A%KL | |
| EBP | Employee Benefit Plan Annual | 11-K, 11-K/A, 11-KT, 11-KT/A | |
| FAST | FAST Act covered | 8-K, 8-K/A, 8-K12B, 8-K12B/A, 8-K12G3, 8-K12G3/A, 8-K15D5, 8-K15D5/A, 10-K, 10-K/A, 10-KT, 10-KT/A, 20-F, 20-F/A, 40-F, 40-F/A, 10-Q, 10-Q/A, 10-QT, 10-QT/A | |
| FE | Fee Exhibit | POS AM, F-1, F-1/A, F-10, F-10/A, F-10EF, F-1MEF, F-3, F-3/A, F-3ASR, F-3D, F-3MEF, F-4, F-4/A, F-4MEF, N-14 8C, N-14 8C/A, N-14MEF, N-2, N-2 POSASR, N-2/A, N-2ASR, N-2MEF, POSASR, S-1, S-1/A, S-11, S-11/A, S-11MEF, S-1MEF, S-3, S-3/A, S-3ASR, S-3D, S-3MEF, S-4, S-4/A, S-4EF, S-4MEF, S-8, SF-1, SF-1/A, SF-1MEF, SF-3, SF-3/A, SF-3MEF, PREM14A, PREM14C, PRER14A, PRER14C, 424B1, 424B2, 424B3, 424B4, 424B5, 424B7, 424B8, 424H, 424H/A, 424I, SC 13E1, SC 13E1/A, SC 13E3/A, SC TO-I, SC TO-I/A, SC TO-T, SC TO-T/A, SC13E4F, SC13E4F/A, SC14D1F, SC14D1F/A | |

| Code | Definition | Submission Types |
|------|--|---|
| HF | Semi-annual (half year) Financial | N-CSRS, N-CSRS/A |
| OA | Other Annual | 17AD-27, 17AD-27/A, SBSEF-CCO-RPT, SBSEF-CCO-RPT/A, SD%201, SD/A%201, SD/AKL, SD/A#KL |
| PRO | Prospectus | 424A, 424B1, 424B2, 424B3, 424B4, 424B5, 424B7, 424B8, 424H, 424I, 425 |
| PX | Proxy | DEF 14A, DEF 14C, DEFA14A, DEFA14C, DEFC14A, DEFC14C, DEFM14A, DEFM14C, DEFR14A, DEFR14C, PRE 14A, PRE 14C, PREC14A, PREC14C, PREM14A, PREM14C, PRER14A, PRER14C |
| QF | Quarterly Financial | 10-Q, 10-Q/A, 10-QT, 10-QT/A, SBSEF-FIN-QTR, SBSEF-FIN-QTR/A |
| RF | Requested Financial | SBSEF-FIN-REQ, SBSEF-FIN-REQ/A |
| R33 | 33 Act Registration Only | F-1, F-1/A, F-10, F-10/A, F-10EF, F-1MEF, F-3, F-3/A, F-3ASR, F-3D, F-3MEF, F-4, F-4/A, F-4MEF, N-14 8C, N-14 8C/A, N-14MEF, POS AM#S1, POS AM#S3, POS462B#S1, POS462B#S1, POS462C#S1, POS462C#S3, POSASR#F3, POSASR#S3, S-1, S-1/A, S-11, S-11/A, S-11MEF, S-1MEF, S-3, S-3/A, S-3ASR, S-3D, S-3MEF, S-4, S-4/A, S-4EF, S-4MEF, S-6, S-6/A, S-8, SF-1, SF-1/A, SF-1MEF, SF-3, SF-3/A, SF-3MEF |
| R34 | 34 Act Registration Only | 10-12B, 10-12B/A, 10-12G, 10-12G/A, 40FR12B, 40FR12B/A, 40FR12G, 40FR12G/A, SC 13E1, SC 13E1/A, SC 13E3, SC 13E3/A, SC TO-I, SC TO-I/A, SC TO-T, SC TO-T/A, SC13E4F, SC13E4F/A, SC14D1F, SC14D1F/A |
| R40 | 40 Act Registration Only | N-8B-2, N-8B-2/A |
| RD | 33 and/or 40 Act (dual) registration | 485APOS#N1, 485APOS#N3, 485APOS#N4, 485APOS#N6, 485BPOS#N1, 485BPOS#N3, 485BPOS#N4, 485BPOS#N6, 485BXT#N1, 485BXT#N3, 485BXT#N4, 485BXT#N6, 486APOS#N2, 486BPOS#N2, 486BXT#N2, 497#N1, 497#N3, 497#N4, 497#N6, N-1A, N-1A/A, N-2, N-2 POSASR, N-2/A, N-2ASR, N-2MEF, N-3, N-3/A, N-4, N-4/A, N-6, N-6/A, POS 8C#N1, POS 8C#N2, POS 8C#N3, POS 8C#N4, POS 8C#N6, POS AMI#N1, POS AMI#N2, POS AMI#N3, POS AMI#N4, POS AMI#N6 |
| SE | Reg. SE Registration | SBSEF, SBSEF/A |
| TF | Transitional Financial | 10-KT, 10-KT/A, 10-QT, 10-QT/A, 11-KT, 11-KT/A |

Table 6-2. Submission Set Suffixes

| Suffix | Meaning |
|--------|---|
| #N1 | The form is an N-1A. |
| #N2 | The form is an N-2. |
| #N3 | The form is an N-3. |
| #N4 | The form is an N-4. |
| #N6 | The form is an N-6. |
| #S1 | The form is an S-1. |
| #S3 | The form is an S-3. |
| #F1 | The form is an F-1. |
| #F3 | The form is an F-3. |
| %201 | There is an Exhibit 2.01 in the submission. |
| %KL | There is an exhibit K SDR or L SDR in the submission. |

Table 6-3. Entity Sets

| Code | Description | |
|-------|--|--|
| ALL | Any registrant | |
| BDC | Business Development Company | |
| CA | Canadian Issuer | |
| FPI | Foreign Private Issuer | |
| OEF | Open-end Fund | |
| CEF | Closed-end Fund | |
| V3 | Separate Account Registered as Open-end Fund | |
| V4 | Variable Annuity UIT Separate Account | |
| V6 | Variable Life UIT Separate Account | |
| RT | Real Estate Investment Trust | |
| SBSEF | Security-based Swap Execution Facility | |
| SDR | Security-based Swap Data Repository | |
| SF | Structured Finance Company | |
| SRO | Self-regulatory Organization | |
| UIT | Unit Investment Trust | |
| US | US Operating Company | |

Table 6-4. Instance Types

| Subm ission Set | Included Entity Set | Excluded Entity Sets | Exhibit Type | Instance Type |
|-----------------------|------------------------|-------------------------|--------------|------------------|
| 6K | FPI | | | 6K.FPI |
| 8K | ALL | | | 8K.A |
| AF | BDC | | | AF.BDC |
| AF | CA | | | AF.CA |
| AF | CEF | | | AF.CEF |
| AF | FPI | | | AF.FPI |
| AF | OEF | | | AF.OEF |
| AF | US | | | AF.US |

| Subm | | | | |
|--------|------------|--------------------|----------------|----------|
| ission | Included | Excluded | | Instance |
| Set | Entity Set | Entity Sets | Exhibit Type | Type |
| EBP | ALL | | | EBP.A |
| FE | ALL | | EX-FILING FEES | FE.A |
| HF | OEF | | | HF.OEF |
| OA | CA | | EX-2.01 | RXP.CA |
| OA | FPI | | EX-2.01 | RXP.FPI |
| OA | SBSEF | | | CCO.SEF |
| OA | SDR | | EX-99.L SDR | L.SDR |
| OA | SRO | | | OA.SRO |
| OA | US | | EX-2.01 | RXP.US |
| OA | SDR | | EX-99.K SDR | K.SDR |
| PRO | ALL | CEF | | PRO.ANC |
| PRO | CEF | | | PRO.CEF |
| PX | ALL | | | PX.A |
| QF | BDC | | | QF.BDC |
| QF | US | | | QF.US |
| QF | SBSEF | | | QF.SEF |
| R33 | FPI | | | R33.FPI |
| R33 | UIT | | | R33.UIT |
| R33 | US | | | R33.US |
| R34 | CA | | | R34.CA |
| R34 | FPI | | | R34.FPI |
| R34 | US | | | R34.US |
| R40 | UIT | | | R40.UIT |
| RD | CEF | | | RD.CEF |
| RD | OEF | | | RD.OEF |
| RD | V3 | | | RD.V3 |
| RD | V4 | | | RD.V4 |
| RD | V6 | | | RD.V6 |
| RF | SBSEF | | | RF.SEF |
| SE | SBSEF | | EX-99.C.SBSEF | SE.OCX |
| SE | SBSEF | | EX-99.D.SBSEF | SE.OCX |
| SE | SBSEF | | EX-99.E.SBSEF | SE.OCX |
| SE | SBSEF | | EX-99.F.SBSEF | SE.OCX |
| SE | SBSEF | | EX-99.H.SBSEF | SE.OCX |
| SE | SBSEF | | EX-99.I.SBSEF | SE.FEX |
| SE | SBSEF | | EX-99.J.SBSEF | SE.FEX |
| SE | SBSEF | | EX-99.K.SBSEF | SE.OCX |
| SE | SBSEF | | EX-99.L.SBSEF | SE.OCX |
| SE | SBSEF | | EX-99.P.SBSEF | SE.OCX |
| SE | SBSEF | | EX-99.Q.SBSEF | SE.OCX |
| SE | SBSEF | | EX-99.R.SBSEF | SE.OCX |
| SE | SBSEF | | EX-99.S.SBSEF | SE.OCX |

Table 6-5. Standard Taxonomies on xbrl.sec.gov

| Abbreviation | Taxonomies on xbrl.sec.gov | Guide |
|--------------|---|--------------------|
| cef | Closed-end Fund | yes |
| country | Country (ISO 3166-1) | |
| currency | Currency (ISO 4217) | |
| cyd | Cybersecurity Disclosure | yes |
| dei | Document and Entity Information | |
| ecd | Executive Compensation Disclosure | yes |
| exch | Exchanges (ISO 10383 MIC) | |
| ffd | Filing Fee Disclosures | yes |
| fnd | Funds | yes |
| naics | North American Industry Classification System | |
| oef | Open-end Fund | yes |
| rr | Risk/Return (Deprecated as of 2023) | yes |
| rxp | Resource Extraction Payments | yes |
| sbs | Security-Based Swap | yes |
| sic | Standardized Industrial Codes | |
| snj | Subnational Jurisdiction (ISO 3166-2) | yes (in rxp guide) |
| sro | Self-regulating Organizations | yes |
| stpr | States and Provinces | |
| vip | Variable Insurance Products | yes |

Table 6-6. Standard Taxonomies not on xbrl.sec.gov

| Abbreviation | Taxonomies located elsewhere | Guide |
|----------------------|---|-------|
| ifrs | International Financial Reporting Standards | yes |
| ebp (or us-gaap-ebp) | Employee Benefit Plan Financial Reporting | yes |
| srt | SEC Reporting | yes |
| us-gaap | US GAAP Financial Reporting | yes |

Table 6-7. Instance Types Mapped to Entry Points

| Instance Type | Instance Types | Entry Point Required | | Entry Points Permitted |
|------------------|-------------------|----------------------|---|--|
| Included | Excluded | (Exactly one of) | | (Any or all) |
| ALL | FE.A | dei | 1 | dei-sub, dei-lab, dei-def, dei-pre, cef, cef-pre, country, country-def, currency, cyd, exch, naics, sic, snj, sro, srt, stpr |
| 6K.FPI | | dei | 2 | us-gaap, ifrs |
| 8K.A | | dei | | us-gaap |
| AF.BDC | | us-gaap | | cef |
| AF.CA | | us-gaap, ifrs | 2 | us-gaap, ifrs, ecd |
| AF.FPI | | us-gaap, ifrs | 2 | us-gaap, ifrs, ecd |
| AF.CEF | | us-gaap | 2 | cef, ifrs |
| AF.OEF | | oef-sr | | |
| AF.US | | us-gaap | | ifrs, ecd |

| Instance | Instance | | | |
|----------|----------|----------------------|---|------------------------|
| Type | Types | Entry Point Required | | Entry Points Permitted |
| Included | Excluded | (Exactly one of) | | (Any or all) |
| EBP.A | | ebp | | |
| FE.A | | ffd | 3 | |
| HF.OEF | | oef-sr | | |
| K.SDR | | us-gaap | | |
| L.SDR | | us-gaap | | |
| CCO.SEF | | sbs-sbsef-cco | 3 | |
| OA.SRO | | sro-17ad27 | 3 | |
| PRO.ANC | | dei | 2 | us-gaap, ifrs, ecd |
| PRO.CEF | | dei | | cef, us-gaap, ecd |
| PXY.A | | dei | | us-gaap, ifrs, ecd |
| QF.BDC | | us-gaap | 2 | cef, ecd |
| QF.US | | us-gaap | | ecd, ifrs |
| QF.SEF | | sbs-sbsef-fin | 2 | us-gaap, ifrs |
| R33.FPI | | dei | | us-gaap, ifrs |
| R33.UIT | | fnd-uit | | |
| R33.US | | us-gaap | | |
| R34.CA | | dei | 2 | us-gaap, ifrs |
| R34.FPI | | dei | 2 | us-gaap, ifrs |
| R34.US | | us-gaap | | ifrs |
| R40.UIT | | fnd-uit | | |
| RD.CEF | | cef, fnd-cef | | |
| RD.OEF | | fnd-oef, oef-rr, rr | 4 | |
| RD.V3 | | vip-n3 | | |
| RD.V4 | | vip-n4 | | |
| RD.V6 | | vip-n6 | | |
| RF.SEF | | sbs-sbsef-fin | 2 | us-gaap, ifrs |
| RXP.CA | | rxp | 3 | |
| RXP.FPI | | rxp | 3 | |
| RXP.US | | rxp | 3 | |
| SE.FEX | | sbsef-fex | 2 | us-gaap, ifrs |
| SE.OCX | | sbsef-ocx | 3 | |

¹ These required and permitted entry points apply to all instance types; they are mutually compatible when their year versions match.

² A company reporting under US Generally Accepted Accounting Principles (GAAP) will mainly use us-gaap and may reference ifrs and other taxonomies if needed; a company reporting under International Financial Reporting Standards (IFRS) will mainly use ifrs and may reference us-gaap and other taxonomies if needed.

³ In practice, these instance types require no other standard taxonomy references.

⁴ The **rr** entry point was deprecated as of January 2023.

Table 6-8. Instance Type – Attachment Types and Acceptable Formats

| Included | Excluded | | | | Inline | |
|--------------------------------|--|--------|--|-----------|-----------|---------------------|
| Instance | Instance | | Inline XBRL | Processed | Redaction | xBRL-XML |
| Types | Types | Suffix | attachment | as IXDS | Allowed | attachment |
| FE.A | | .htm | EX-FILING FEES | No | No | - |
| RXP.CA, RXP. FPI, RXP.US | | .htm | EX-2.01 | No | - | - |
| RXP.CA, RXP. FPI, RXP.US | | .xml | - | - | - | EX-2.01.INS |
| K.SDR | | .xml | - | - | - | EX-99.K SD R.INS |
| L.SDR | | .xml | - | - | - | EX-99.L SD R.INS |
| OA.SRO | | .htm | 17AD-27 | Yes | Yes | - |
| SE.FEX | | .htm | EX-99.I.SBSEF, EX-99.J.SBSEF | No | Yes | - |
| SE.OCX | | .htm | EX-99.C.SBSEF, EX-99.D.SBSEF, EX 99.E.SBSEF, EX-99.F.SBSEF, EX-99.H.SBSEF, EX-99.L.SBSEF, EX-99.L.SBSEF, EX-99.P.SBSEF, EX-99.Q.SBSEF, EX-99.R.SBSEF, EX-99.S.SBSEF, | No | Yes | - |
| ALL | FE.A, K.SDR, L.SDR, RXP.CA, RXP.FPI, RXP.US | .htm | The primary document and exhibits other than EX-FILING FEES | Yes | No | - |

Table 6-9. Instance Type – Consequences of XBRL Errors

| Included | Excluded Instance | |
|----------------|---|--|
| Instance Types | Types | Consequences of XBRL Errors in the Instance |
| FE.A | | See EFM § 7.3.9.2 |
| K.SDR, L.SDR | | Suspend. |
| RXP.CA, | | Remove EX-2.01.INS and EX-2.01.SCH file attachments |
| RXP.FPI, | | and EX-2.01 if it is Inline XBRL. If there are no other |
| RXP.US | | exhibits in the submission, then suspend. |
| ALL | FE.A, K.SDR, L.SDR, RXP.CA, RXP.FPI, RXP.US | Remove all attachments in the Inline XBRL Document Set. If that included the primary document, then suspend. |

13 Change Log

| March | Initial version corresponding to EDGAR release 24.1. | | | | | |
|-----------------|--|--|--|--|--|--|
| 12, 2024 | | | | | | |
| July 8, 2024 | Version corresponding to release 24.2. | | | | | |
| 2024 | Substantive Changes | | | | | |
| | Inserted Section 6 Instance Content consisting of material from sections of EFM v68 formerly found in "Content" sections 6.6, 6.8, 6.10, 6.11, and 6.12. | | | | | |
| | • The section reorganizes the material to distinguish between guidance for general XBRL, Inline XBRL, and Inline XBRL Financial Statements. | | | | | |
| | • Added section "The Related Official Document" to support submission types that permit multiple Inline XBRL instances, quoting Regulation S-T. | | | | | |
| | Added former EFM v68 section 6.8.3 guidance to 5.12 Other custom Taxonomy Components. | | | | | |
| | Added conditions to Filing Fee Exhibit validation | | | | | |
| | • Added footnote to table 4.1.1 Security Types Based on Rule, conditions on rule 457(o) as it applies to Unallocated (Universal) Shelf security types. | | | | | |
| | Added a condition to 4.4 Offering table requiring at least one Fees Previously Paid line. | | | | | |
| | • Changed the field validation code "T" from 150 to 250 characters throughout 4.5 Offering Table Rule Flags. | | | | | |
| | • Added conditions to 4.5.2 Rule 457(o) Lines, 4.5.6 Rule "Other" Lines, 4.5.7 Rule 415(a)(6) Lines, 4.6.3 Rule 457(p) Lines, and 4 regarding Unallocated (Universal) Shelf securities, along with footnotes to validation table rows 2, 3, 6 and 7. | | | | | |
| | • Added a condition in 4.6 Offset Table regarding Claimed amounts and Prior Fee Amounts. | | | | | |
| | Validations | | | | | |
| | • Fill blank "severity" cell in the 3.1.2 Required Context validations table with "E". | | | | | |
| | • Add instance types SE.FEX and SE.OCX for Form SBSEF to 3.1.5 Form or Instance Types" validation table. | | | | | |
| | • Correct 3.1.6, Amendment Flag and Description validations table changing instance type OA.RXP to separate instance types RXP.US and RXP.FPI. | | | | | |
| | • Submission type EBP added to validation tables to indicate that several "cover page" facts are optional: | | | | | |
| | o 3.1.7 Document Period End Date. | | | | | |
| | 3.1.8 Document Fiscal Year and Period Focus. | | | | | |
| | o 3.1.12 Current Fiscal Year End Date. | | | | | |
| | 3.1.16 Auditor Name, Location, and Firm ID. | | | | | |
| | o 3.1.22.1 Street, City, and Zip. | | | | | |
| | o 3.1.22.2 Street Address Lines 2 and 3. | | | | | |
| | | | | | | |

- 3.1.22.3 State or Province and Country.
- o 3.1.22.4 Phone.
- o 3.1.23.1 Annual Report, Transition Report, Quarterly Report.
- Added section 9.11 to indicate that warnings will be raised for technical syntax deprecated by XBRL International.

Text Updates and Errata

- Updated the date of publication to July 2024.
- Retitle Section 3 as "Instance Validations".
- Added the dei: prefix to the concept tables in 3.1.23 Submission Flags.
- Added a note to 3.1.8 File Number (Securities Act File Number) and 3.1.24.1 N-2 Registration File Numbers that the regex for file numbers in the DEI taxonomy is less restrictive than is imposed on the EDGAR submission header.
- Removed blank rows from 3.1.11 Small Business, Emerging Growth Company validations table.
- Removed repeated text from 3.2.3 Common Stock Shares Outstanding.
- Conformed phrasing of the Checks in 3.2.4.1 Security Title to other validation tables.
- Corrected concept number {3} to {2} in 3.2.4.3 Security Exchange Name.
- Corrected 3.2.6 validation table; HF is a submission type, not an instance type.
- Corrected "on failure" text in 3.3.1 Currency and Total Payments validation table.
- Conformed format of the Context column in 3.3.5 Payment Contexts validation table.
- Corrected names of dei elements in Figure 8, Presentation Example and Figure 11, Custom Presentation and Label Relationships with a Custom Member.
- Renumbered section 6 to 7, 7 to 8, etc.
- Spelled out acronyms in titles of subsections 10.8.
- Updated tables in section 12 to conform to EFM v70 vol 2 chapter 6.

August, 2024

Version corresponding to EDGAR Release 24.3 Draft Filer Manual

Substantive Changes

• Sections 7.3.4 and 7.13 explain circumstances that lead to facts rendering as Uncategorized facts and yielding warnings.

Text Updates and Errata

- Updated the date of publication to August 2024.
- Added a Change Log
- Updated tables in section 12 with instance types RF.SEF, QF.SEF, and CCO.SEF.