

XBRL US Center for Data Quality

Data Quality Committee Guidance and Validation Rules Public Exposure and Comment

Public review and comment is a critical part of improving the usability of XBRL filed with the SEC. The following proposed rules and guidance address common XBRL input errors and are **available for comment via the public exposure process through August 31, 2016** at <https://xbrl.us/public-review>.

This document contains details for all rules and guidance exposed during this period. To post your comments, you will need an XBRL US Web account and will need to agree to these [Terms and Conditions for Public Comments](#) as part of the comment process. Comments received can be reviewed without logging in.

When providing feedback about a rule or guidance, please consider the following:

- What is the concern with the proposed rule or guidance? Please be as specific as possible and include examples using data submitted to the SEC.
- How should the rule or guidance be revised?
- How does the revision to the rule or guidance improve the usability of the data?

Use this link for [general feedback on all rules and guidance](#).

Table of Contents

DQC_0001

Axis with Inappropriate Members

Certain axes in the US GAAP taxonomy should only have certain members as shown in the US GAAP taxonomy. This rule tests whether these axes have inappropriate members.

DQC_0013

Negative Values with Dependence

The US GAAP Taxonomy is designed so that the majority of elements have a positive value. This rule tests that the values for a given list of elements are negative when a precondition is met for another element.

DQC_0014

Negative Values with No Dimensions

The US GAAP Taxonomy is designed so that the majority of elements have a positive value. This rule tests that the values for a given list of elements with no dimensions are negative. If the value has a dimension member, then the rule will not fire.

DQC_0015-V2

Negative Values – Additions to Existing Rule

Additional elements added.

DQC_0018

Deprecated Element is Used in the Filing

This rule evaluates if the company has used a deprecated element in the filing. The rule specifically checks if a deprecated element is included in the presentation relationship defined in the company's extension taxonomy. Deprecated elements are determined by taking all children of the "DeprecatedItems" element defined in the presentation tree of the US GAAP taxonomy.

DQC_0041

Axis with a Default Member that Differs from the US GAAP Taxonomy

This rule evaluates whether the dimension default is associated with a given axis in the company's extension taxonomy. Companies should not change the default member defined in the US GAAP Taxonomy for a given axis in their extension taxonomy.

GUIDANCE - TAGGING

Guidance on Tagging Axis and Members Using the US GAAP Taxonomy

Certain axes in the US GAAP taxonomy should only have certain members, otherwise consumption of the data is adversely impacted because the resulting axis and member combinations are nonsensical, e.g., reporting a type of currency as a member on a debt instrument axis. The following guidance provides limitations on the use of certain axis and member combinations that should be adhered to when tagging financial information using the US GAAP Taxonomy.

Axis with Inappropriate Members

Rule ID: DQC_0001 - https://xbrl.us/dqc_0001

Rule function

Certain axes in the US GAAP taxonomy should only have certain members as shown in the US GAAP taxonomy. This rule tests whether these axes have inappropriate members.

Certain axes can have custom or extended (i.e., company specific) members. This rule also tests whether only these axes have custom members and, therefore, limits the use of custom or extended members to those situations where they are appropriate because the member is unique to the filer.

The rule evaluates a company's extension taxonomy and instance document and flags an error when there is an inappropriate axis/member combination in the extension taxonomy even though there is no fact associated with the axis/member combination in the instance document.

Data Quality Guidance

This rule verifies compliance with DQC Guidance on Tagging Axis and Members Using the US GAAP Taxonomy.

Authoritative references

[SEC Staff Observations November 1, 2010](#)

Observations on Consolidated Registrant with Subsidiaries

The SEC identified where the "Legal Entity Axis" has been used for purposes other than to tag information about the consolidated entity and its subsidiaries. The following comments are used as the basis for this rule:

Consolidated Entity Facts:

For facts that apply only to the Consolidated Entity, do not use the LegalEntityAxis.

Not using this axis means all the facts in an instance relate to the consolidated entity. (EFM 6.6.5).

Parent Company Facts:

Use the domain member element "Parent Company Member" for facts that apply only to the parent holding company, corporate headquarters, or similar legal entity not associated with any specific subsidiary (EFM 6.6.7). (The entity associated with Corporate Headquarters can be used as a basis to determine what is the parent company.)

The parent company member should not be used as the default for the consolidated entity.

Subsidiary Facts:

Create a separate domain member element for each subsidiary. Typically, the element name for subsidiary ABCD would be "ABCDMember" and appear on the "Legal Entity Axis". (EFM 6.6.5).

Note that there is no restriction on using company-specific or period-specific information in the member name. (FAQ E.20)

Note that members created for an entity with subsidiaries apply collectively to all subsidiaries of that entity.

Observation on US GAAP modeling of Axis and Members

The SEC also noted circumstances where filers have not used the modeling of elements currently published in the US GAAP Taxonomy. The SEC suggested filers utilize the pre-defined table structures included in the taxonomy, and use the related line item elements and domain members to the extent they are applicable for their specific circumstances. (FAQ E.16)

FASB Implementation Guides

[FASB Taxonomy Implementation Guide Segment Reporting](#) (DQC_0001.70)

[FASB Taxonomy Implementation Guide Subsequent Events](#) (DQC_0001.74)

Problem solved by the rule

If certain axes have inappropriate standard members, consumption of the data is adversely impacted because the resulting axis and member combinations are nonsensical, e.g., reporting a type of currency as a member on a debt instrument axis.

If an axis has inappropriate custom or extended elements for members that are not unique to the filer, automated analysis is more difficult because the use of these members is not expected on the axis.

Consumers, in certain circumstances, can use a standard axis to understand the nature of extension members. For example, if a company reports the values of underlying individual securities comprising equity or fixed income securities but does not report a subtotal for fixed income or equity securities, the nature of individual securities represented as extensions would be understood because the extensions would be represented as a component of the standard elements for equity or fixed income securities. If the company uses a standard member that is not a type of investment security it is impossible to understand the nature of the extensions used for underlying individual securities.

Example rule message

(Note: Presentation style of rule messages may differ among software implementations of the rules.)

There are two message types associated with this rule. The first two messages report when there is a fact associated with the axis member combination and the third message is reported when no fact is associated with the axis and member combination.

The rule message associated with an inappropriate extended member on an axis associated with a fact is as follows:

The extension member, Euro [Member] is used on the Currency [Axis] with the element Revenues with a value of 120,000,000. Extension members should not be used with the Currency [Axis].

The properties of this us-gaap:Revenues fact are:

Period: 2015-01-01 to 2015-09-30

Dimensions: CurrencyAxis = EuroMember

Unit: USD

Rule version: 1.0

The rule message associated with a member from the US GAAP taxonomy used with an inappropriate axis is as follows:

The member, Land [Member] is used on the axis Position [Axis] with the element Property Plant and Equipment Gross with a value of 150,000,000. This member should not be used with the Position [Axis].

The properties of this us-gAAP:PropertyPlantAndEquipmentGross fact are:

Period: 2015-01-01 to 2015-09-30

Dimensions: PositionAxis = LandMember

Unit: USD

Rule version: 1.0

The rule message associated with an inappropriate axis member combination where there is no associated fact, is as follows:

The member, Euro [Member], is used on the axis, Currency [Axis] in the disclosure group "004120 - Disclosure - Debt Instruments (Details)". There are no facts associated with this member and axis. Extension members should not be used with the Currency [Axis].

Rule version: 1.0

For Developers

The [Global Rule Logic](#) document contains general guidelines for implementation of rules. The rule message template contains text and parametric reference to arguments of the rule operation, using the syntax `${parameter}` to indicate that insertion of a parameter's value is to occur.

Message template

The rule template associated with an inappropriate extended member on an axis associated with a fact is as follows:

The extension member, `${Rule.member.label}` is used on the axis `${Rule.axis.label}` with the element `${fact1.label}` with a value of `${fact1.value}`. Extension members should not be used with the `${Rule.axis.label}`

The properties of this $\{\text{fact1.name}\}$ fact are:

Period: $\{\text{fact1.period}\}$

Dimensions: $\{\text{fact1.dimensions}\}$

Unit: $\{\text{fact1.unit}\}$

Rule version: $\{\text{ruleVersion}\}$

The rule template associated with a member from the US GAAP taxonomy used with an inappropriate axis is as follows:

The member, $\{\text{Rule.member.label}\}$ is used on the axis $\{\text{Rule.axis.label}\}$ with the element $\{\text{fact1.label}\}$ with a value of $\{\text{fact1.value}\}$. This member should not be used with the $\{\text{Rule.axis.label}\}$.

The properties of this $\{\text{fact1.name}\}$ fact are:

Period: $\{\text{fact1.period}\}$

Dimensions: $\{\text{fact1.dimensions}\}$

Unit: $\{\text{fact1.unit}\}$

Rule version: $\{\text{ruleVersion}\}$

The rule message associated with an inappropriate axis member combination where there is no associated fact, is as follows:

The member, $\{\text{Rule.member.label}\}$, is used on the axis, $\{\text{Rule.axis.label}\}$ in the disclosure group $\{\text{group}\}$. There are no facts associated with this member and axis. Extension members should not be used with the $\{\text{Rule.axis.label}\}$.

Rule version: $\{\text{ruleVersion}\}$

Rule element ID index

The rule element id is used to identify unique elements or combinations of elements tested in the rule.

See [DQC_0001_ListOfAxes](#) for rule element ids.

Comments: https://xbrl.us/data-rule/dqc_0001/#comments

Negative Values with Dependence

Rule ID: DQC_0013 - https://xbrl.us/dqc_0013

Rule function

The US GAAP Taxonomy is designed so that the majority of elements have a positive value. This rule tests that the values for a given list of elements are negative when a precondition is met for another element.

See file [DQC_0013_ListOfElements](#) which provides a list of elements that should not be negative if the precondition is met. The rule tests whether these elements have a negative value depending if another value in the document meets a specified criteria. The rule will not flag when the precondition has no value.

The member exclusions defined for rule [DQC_0015](#) apply to this rule.

The rule checks for a negative value irrespective of the decimal value of the fact.

Authoritative reference

SEC Staff Observations December 13, 2011, June 15, 2011, November 1, 2010, October 6, 2009

The US GAAP taxonomy is designed for the majority of elements to have a positive value, so that the value reported in the XBRL document represents the correct balance type for the element (e.g., debit balance type for assets and expenses and losses or credit balance type for liabilities and income and gains). If the value reported in the HTML document is shown with parentheses, the value reported in the XBRL document should still be positive, other than as described in the following sentence. In some limited cases, if the value also has a specified member associated with it, the value may be negative (e.g., when an element is used for an adjustment or elimination, the value may need to be negative).

If the value reported in the HTML document is shown in parenthesis (e.g., interest expense or loss on disposition of assets), you may use a negated label to present the value in parenthesis in the SEC Interactive Data viewer without changing the positive value reported in the XBRL document. The value reported in the XBRL document (e.g.,

interest expense or loss on disposition of assets) should be the same as the value reported in the HTML document, even though the value in the HTML document is shown in parenthesis. Therefore, it is an error to change the value reported in the XBRL document to a negative solely because the value reported in the HTML document is shown in parenthesis.

Problem solved by the rule

Filers continue to have incorrect negative amounts in files, which is inconsistent with the balance types and definitions of the elements used and the structure of the US GAAP Taxonomy. Incorrect values in a filing make it difficult or impossible to use that data for automated analysis. This rule differs from [DQC_0015](#) because in some instances a value can be negative. This rule first evaluates a value in the filing, and if a certain condition is true the rule will fire if the element specified in [DQC_0013_ListOfElements](#) is negative.

Example rule message

An example of the general rule message is shown below. If a message is not defined for a specific set of elements, the general rule message is used.

General rule message example

Tax Credits has a value of -0.04 which is less than zero. This element should not have a negative value when the value for the element Net Income Loss Before Tax is greater than zero.

The properties of this us-gaap:EffectiveIncomeTaxRateReconciliationTaxCredits fact are:

Period: 2012-12-31

Dimensions: none

Unit: USD

Rule version: 1.0

For Developers

The [Global Rule Logic](#) document contains general guidelines for implementation of rules. The rule message template contains text and parametric reference to arguments

of the rule operation, using the syntax `#{parameter}` to indicate that insertion of a parameter's value is to occur.

General message template

`#{fact1.label}` has a value of `#{fact1.value}` which is less than zero. This element should not have a negative value when the value for the element `#{preconditionfact.label}` is greater than zero.

The properties of this `#{fact1.name}` fact are:

Period: `#{fact1.period}`

Unit: `#{fact1.unit}`

Rule version: `#{ruleVersion}`

Rule element ID index

The rule element id is used to identify unique elements or combinations of elements tested in the rule.

See [DQC_0013_ListOfElements](#) spreadsheet for rule element ids.

Comments: https://xbrl.us/data-rule/dqc_0013/#comments

Negative Values with No Dimensions

Rule ID: DQC_0014 - https://xbrl.us/dqc_0014

Rule function

The US GAAP Taxonomy is designed so that the majority of elements have a positive value. This rule tests that the values for a given list of elements with no dimensions are negative. If the value has a dimension member, then the rule will not fire.

See file [DQC_0014_ListOfElements](#) which provides a list of elements that should not be negative. The rule tests whether these elements have a negative value in an XBRL document. The elements in this list are distinct from the elements listed in [DQC_0015_ListOfElements](#) because these elements will only be tested when no dimensions are associated with the values.

Authoritative reference

SEC Staff Observations December 13, 2011, June 15, 2011, November 1, 2010, October 6, 2009

The US GAAP taxonomy is designed for the majority of elements to have a positive value, so that the value reported in the XBRL document represents the correct balance type for the element (e.g., debit balance type for assets and expenses and losses or credit balance type for liabilities and income and gains). If the value reported in the HTML document is shown with parentheses, the value reported in the XBRL document should still be positive, other than as described in the following sentence. In some limited cases, if the value also has a specified member associated with it, the value may be negative (e.g., when an element is used for an adjustment or elimination, the value may need to be negative).

If the value reported in the HTML document is shown in parenthesis (e.g., interest expense or loss on disposition of assets), you may use a negated label to present the value in parenthesis in the SEC Interactive Data viewer without changing the positive value reported in the XBRL document. The value reported in the XBRL document (e.g., interest expense or loss on disposition of assets) should be the same as the value reported in the HTML document, even though the value in the HTML document is shown

in parenthesis. Therefore, it is an error to change the value reported in the XBRL document to a negative solely because the value reported in the HTML document is shown in parenthesis.

Problem solved by the rule

Filers continue to have incorrect negative amounts in files, which is inconsistent with the balance types and definitions of the elements used and the structure of the US GAAP Taxonomy. Incorrect values in a filing make it difficult or impossible to use that data for automated analysis.

Example rule message

An example of the general rule message is shown below. If a message is not defined for a specific set of elements, the general rule message is used.

General rule message example

Derivative Assets has a value of -400,000 which is less than zero. This element should not have a negative value. The properties of this us-gAAP:DerivativeAssets fact are:

Period: 2012-12-31

Dimensions: none

Unit: USD

Rule version: 1.0

For Developers

The [Global Rule Logic](#) document contains general guidelines for implementation of rules. The rule message template contains text and parametric reference to arguments of the rule operation, using the syntax `#{parameter}` to indicate that insertion of a parameter's value is to occur.

General message template

`#{fact1.label}` has a value of `#{fact1.value}` which is less than zero. This element should not have a negative value. The properties of this `#{fact1.name}` fact are:

Period: \${fact1.period}

Unit: \${fact1.unit}

Rule version: \${ruleVersion}

Rule element ID index

The rule element id is used to identify unique elements or combinations of elements tested in the rule.

See [DQC_0014_ListOfElements](#) spreadsheet for rule element ids.

Comments: https://xbrl.us/data-rule/dqc_0014/#comments

Negative Values – Additions to Existing Rule DQC_0015

Rule ID: DQC_0015-V2 - https://xbrl.us/dqc_0015-v2/

This rule was initially approved by the Committee on November 18, 2015 – below are additions to the initial release on which the Committee is requesting comment.

Additional Non-negative Elements

See file [DQC_0015 List of Elements V2](#) which provides a list of additional elements that should not be negative. The rule tests whether these elements have a negative value in an XBRL document. The elements are listed in order of most commonly occurring errors.

Please use the [General Feedback](#) form to comment on the previously-approved rule.

Comments: https://xbrl.us/data-rule/dqc_0015-v2/#comments

Deprecated Element is Used in the Filing

Rule ID: DQC_0018 - https://xbrl.us/dqc_0018

Rule function

This rule evaluates if the company has used a deprecated element in the filing. The rule specifically checks if a deprecated element is included in the presentation relationship defined in the company's extension taxonomy. Deprecated elements are determined by taking all children of the "DeprecatedItems" element defined in the presentation tree of the US GAAP taxonomy. Errors are reported for each deprecated element, including errors for each line item with an associated deprecated member or axis.

Authoritative reference

None.

Problem solved by the rule

Users of the data do not expect that deprecated elements will be used in a filing. These elements should be replaced with another element in the taxonomy or removed from the company filing. By eliminating values using these elements in the filing the filing will not include inappropriate elements and be more accurate.

Noncontrolling Interest, Increase from Equity Issuance or Sale of Parent Equity Interest is a deprecated item, but has been included in the company's presentation tree. Deprecated items should not be used in the filing.

Guidance on the replacement item to use for this item is provided in the Deprecated Label of the MinorityInterestIncreaseFromStockIssuance concept.

Rule version: 2.0

For Developers

The [Global Rule Logic](#) document contains general guidelines for implementation of rules. The rule message template contains text and parametric reference to arguments of the rule operation, using the syntax `$(parameter)` to indicate that insertion of a parameter's value is to occur.

Message template

`{element.label}` is a deprecated item, but has been included in the company's presentation tree. Deprecated items should not be used in the filing.

Guidance on the replacement item to use for this item is provided in the Deprecated Label of the `{element.name}` concept.

Rule element ID index

The rule element id is used to identify unique elements or combinations of elements tested in the rule.

Rule element ID	Parent Element	Children
DQC_0018.34	DeprecatedItems	All

Comments: https://xbrl.us/data-rule/dqc_0018/#comments

Axis with a Default Member that Differs from the US GAAP Taxonomy

Rule ID: DQC_0041 - https://xbrl.us/dqc_0041

Rule function

This rule evaluates whether the dimension default is associated with a given axis in the company's extension taxonomy. Companies should not change the default member defined in the US GAAP Taxonomy for a given axis in their extension taxonomy.

Authoritative reference

This issue is addressed in Question E.16 (Updated 02/05/2013) (formerly Question 38) of the SEC Staff Interpretations and FAQs Related to Interactive Data Disclosure.

Specifically this guidance states "In addition, filers should also avoid creating new domains or changing default member elements for pre-defined dimensions."

Problem solved by the rule

Users of the data do not expect that the default member will be changed and assume that any value reported with an axis has the same default member across all filers. For example, if a company reports a value of Revenues with no dimensions it is assumed that this represents revenues of the consolidated entity. However, if the company changed the default member of the Legal Entity axis to the parent company member then every value without a dimension would represent the parent company and not the revenue of the consolidated entity.

Example rule message

The dimension default defined for the axis in the US GAAP Taxonomy should not be changed in a company extension taxonomy. The default for the DebtInstrumentAxis in the base taxonomy is DebtInstrumentNameDomain, but the default has been replaced with DebtInstrumentDomain.

Rule version: 1.0

For Developers

The Global Rule Logic document contains general guidelines for implementation of rules. The rule message template contains text and parametric reference to arguments of the rule operation, using the syntax `${parameter}` to indicate that insertion of a parameter's value is to occur.

Message template

The dimension default defined for the axis in the US GAAP taxonomy should not be changed in a company extension taxonomy. The default for the `${axis_name}` in the base taxonomy is `${axis_default_name}`, but the default has been replaced with `${def_name}`.

Rule version: 1.0

Rule element ID index

The rule element id is used to identify unique elements or combinations of elements tested in the rule.

Rule element ID	Axis Name	Member name
DQC_0041.73	All Axes	Default

Comments: https://xbrl.us/data-rule/dqc_0041/#comments

Guidance on Tagging Axis and Members Using the US GAAP Taxonomy

Guidance - <https://xbrl.us/guid-tag/>

The XBRL US Data Quality Committee (DQC) has developed prescriptive guidance for issuers submitting XBRL files that contain financial statements to the Securities Exchange Commission (SEC). This guidance provides for uniform, consistent tagging of financial data using the US GAAP taxonomy to improve the usability of such data. The DQC has also developed rules that test XBRL files for conformity with the guidance. The guidance in this document provides links and references, where applicable, to the associated rules developed by the DQC. It is expected that issuers will comply with the guidance presented in this document when tagging their financial statements for submission to the SEC.

Appropriate Modeling of Axis and Members

In its Staff Observations¹, the SEC suggested filers utilize the pre-defined table structures included in the US GAAP taxonomy. Certain axes in the US GAAP taxonomy should only have certain members, otherwise consumption of the data is adversely impacted because the resulting axis and member combinations are nonsensical, e.g., reporting a type of currency as a member on a debt instrument axis. The following guidance provides limitations on the use of certain axis and member combinations that should be adhered to when tagging financial information using the US GAAP Taxonomy.

¹ SEC Staff Observations November 1, 2010 stated that “the SEC noted circumstances where filers have not used the modeling of elements currently published in the US GAAP Taxonomy. The SEC suggested filers utilize the pre-defined table structures included in the taxonomy, and use the related line item elements and domain members to the extent they are applicable for their specific circumstances. (FAQ E.16)”

Default Dimension

The default dimension should not be changed from that defined in the US GAAP taxonomy. Users of XBRL data expect that the default member of an axis will be the same across filings. For example, if a company reports a value of Revenues with no dimensions it is assumed that this represents revenues of the consolidated entity. However, if the company changed the default member of the Legal Entity axis to the parent company member then every value without a dimension would represent the parent company and not the revenue of the consolidated entity. (DQC_0041.73).

Fair Value, Hierarchy [Axis] *(FairValueByFairValueHierarchyLevelAxis)*

This axis is used to categorize the valuation techniques used to measure the fair value of an asset or liability. It is expected that only three members from the US GAAP taxonomy will be used on this axis representing the three separate levels defined by the FASB (i.e., level 1, level 2 and level 3 members defined on this axis). Extensions on this axis are limited to those cases where the company combines multiple hierarchical levels together such as, combinations of level 1 and level 2 and combinations of level 2 and level 3. The element names to be used for these extension members are:

Fair Value Inputs Level 1 And Level 2 [Member]

Fair Value Inputs Level 2 And Level 3 [Member]

Do not use the Estimate of Fair Value Measurement [Member] element on this axis. This member is often used incorrectly to represent a total for this axis. The total does not need a member associated with it on this axis. (DQC_0001.51)

Reclassification out of Accumulated Other Comprehensive Income [Axis]

(ReclassificationOutOfAccumulatedOtherComprehensiveIncomeAxis)

This axis is used to indicate that an item was reclassified from accumulated other comprehensive income into income. The element Reclassification out of Accumulated Other Comprehensive Income [Member] is the only member permitted on this axis. Do not create extensions members on this axis. (DQC_0001.52)

Other Ownership Interests Name [Axis] (*OtherOwnershipInterestsByNameAxis*)

This axis is used to define the specific ownership interests of the company by specific name. Given that these are specific to the reporting company, the members on this axis must be defined as extension elements. The company extension element name should match the legal name of the legal entity if it is available and should remain consistent across filing periods and should be consistent within a single filing. The label of the member can be a short name or full name. (DQC_0001.53)

Legal Entity [Axis] (*LegalEntityAxis*)

This axis is used to define the details of specific legal entities. Only extension members representing specific legal entities should be used on this axis in addition to members that represent classes of legal entities defined in the US GAAP taxonomy. The members in the US GAAP taxonomy that can be used on this axis include the members on the Legal Entity [Axis] and the members on the Federal Home Loan Bank Advances Branch Of FHLB Bank [Axis]. The following members are also permitted: Predecessor [Member], CoVenturer [Member], SpinOff [Member], Partnership [Member], Limited Liability Company [Member], and Trust For Benefit Of Employees [Member]. (DQC_0001.54)

Unique Name [Axis] (*NoncashOrPartNoncashDivestituresByUniqueNameAxis*)

This axis is used to provide divestiture information by unique name of asset or business. Given that these are specific to the reporting company, the members on this axis must be defined as extension elements. (DQC_0001.56)

Investment, Name [Axis] (*ScheduleOfEquityMethodInvestmentEquityMethodInvesteeNameAxis*)

This axis is used to provide the name of each investee accounted for under the equity method of accounting. Given that these are specific to the reporting company, the members on this axis must be defined as extension elements. In many cases, companies have incorrectly used the element Equity Method Investments[Member] in conjunction with a financial statement line item like revenues to represent summary financial information for equity method investments. This member should not be used

as specific equity method line items are defined for financial statement line items.
(DQC_0001.57)

Counterparty Name [Axis] *(CounterpartyNameAxis)*

This axis is used to provide the name of the counterparty. Given that these are specific to the reporting entity, the members on this axis should be extensions. There are a number of members defined in the US GAAP taxonomy that can also be used on this axis. The table below lists the allowable members. Some companies have used generic members defined in the taxonomy like Subsidiary Issuer [Member] or Director [Member]. These should only be used where these members are synonymous with a single entity. The Parent Company [Member] should not be used as the consolidated entity is comprised of the parent. If a subsidiary had a transaction with the parent, the subsidiary would be the counterparty. (DCQ_0001.58)

Element Name	Label	Namespace	Documentation
AffiliatedEntityMember	Affiliated Entity [Member]	us-gaap	An affiliate is a party that, directly or indirectly through one or more intermediaries, controls, is controlled by, or is under common control with the entity.
InvestorMember	Investor [Member]	us-gaap	Business entity or individual that puts money, by purchase or expenditure, in something offering potential profitable returns, such as interest income or appreciation in value.
VariableInterestEntityNotPrimaryBeneficiaryMember	Variable Interest Entity, Not Primary Beneficiary [Member]	us-gaap	Variable Interest Entities (VIE) in which the entity does not have a controlling financial interest (as defined) and of which it is therefore not the primary beneficiary. VIEs of which the entity is not the primary beneficiary because it does not have the power to direct the activities of the VIE that most significantly impact the VIE's economic performance and for which it does not have the obligation to absorb losses of the VIE that could potentially be significant to the VIE or the right to receive benefits from the VIE that could potentially be significant to the VIE are not included in the consolidated financial statements of the entity.

ChiefFinancialOfficerMember	Chief Financial Officer [Member]	us-gaap	Senior executive officer responsible for overseeing the financial activities of the entity.
IndividualMember	Individual Counterparty [Member]	us-gaap	Individual person that is legally permitted to enter into a contract and be sued if that person fails to meet the obligations imposed by a contract.
GovernmentMember	Government [Member]	us-gaap	Organization that is the governing authority of a community.
GuarantorSubsidiariesMember	Guarantor Subsidiaries [Member]	us-gaap	Entity owned or controlled by another entity which has guaranteed the issue of securities by another subsidiary of the parent or has guaranteed the issue of securities by the parent.
SubsidiaryIssuerMember	Subsidiary Issuer [Member]	us-gaap	A company controlled, directly or indirectly, by its parent, which has issued securities and those securities are guaranteed by its parent and another subsidiary of the parent.
DirectorMember	Director [Member]	us-gaap	Person serving on the board of directors (who collectively have responsibility for governing the entity).
ChiefExecutiveOfficerMember	Chief Executive Officer [Member]	us-gaap	Highest ranking executive officer, who has ultimate managerial responsibility for the entity and who reports to the board of directors. In addition, the chief executive officer (CEO) may also be the chairman of the board or president.
ChiefOperatingOfficerMember	Chief Operating Officer [Member]	us-gaap	Senior executive officer responsible for management of day-to-day activities of the entity.
GeneralPartnerMember	General Partner [Member]	us-gaap	Party to a partnership business who has unlimited liability.
CorporateJointVentureMember	Corporate Joint Venture [Member]	us-gaap	Corporation owned and operated by a small group of ventures to accomplish a mutually beneficial venture or project.
SubsidiaryOfCommonParentMember	Subsidiary of Common Parent [Member]	us-gaap	Refers to an entity under the control of the same parent as another entity (that is, a sister company).

Plan Name [Axis] *(PlanNameAxis)*

This axis is used to distinguish information by the name of an equity-based compensation arrangement plan. Given that these are specific to the reporting company, the members on this axis must be defined as extension elements. Members on this axis should represent discrete plans of the company such as Stock Option Plan 2016. (DCQ_0001.59)

Defined Contribution Plan Name [Axis] *(DefinedContributionPlanNameAxis)*

This axis is used to distinguish information by the name of the defined contribution plan. Given that these are specific to the reporting company, the members on this axis must be defined as extension elements. (DCQ_0001.60)

Currency [Axis] *(CurrencyAxis)*

This axis is used to indicate the currency that an instrument is denominated in and members are restricted to only valid currencies listed in the current taxonomy. The members on this axis should match the currency designators defined by ISO. Extension members are only permitted in those cases where the currency has not been incorporated into the taxonomy. When creating an extension for these items, they should match the element name defined for the allowable extensions below. (DCQ_0001.62)

Element Name	Label	Namespace	Documentation
SICAD1Member	SICA D1 [Member]	extension	Venezuelan complementary currency exchange system, Sistema Complementario de Administracion de Divisas 1
SICAD2Member	SICA D2 [Member]	extension	Venezuelan complementary currency exchange system, Sistema Complementario de Administracion de Divisas 2
OtherCurrencyMember	Other [Member]	extension	Represents all other currencies not specifically defined.
NonUSDollarMember	Non-U.S. Dollar	extension	Represents all other currencies that are not USD.

	[Member]		
--	----------	--	--

Position [Axis] *(PositionAxis)*

This axis is used to indicate the long or short position taken on a security. The US GAAP taxonomy includes a Long [Member] and Short [Member] that can be used on this axis. The rule also permits two extensions Net Long Positions [Member] and Net Short Positions [Member]. These two extension elements can be used on this axis to represent the notional amounts when long and short positions are netted. The Long [Member] and Short [Member] represent positions before any netting occurs.

For example, in the diagram below the company reports the notional amounts for purchases and sales and a third column of notional amounts that represent the net purchases and sales. All of the values in this table are reported using the notional line item with the various axes shown. In the final three columns, in red, are the notion values of the Long, Short and Net positions. In order to tag the column of Net Purchases and Sales, the extension members Net Long Positions [Member] and Net Short Positions [Member] are required. (DCQ_0001.63)

Derivative Instrument [Axis]	Hedging Designation [Axis]	Notional Line Items	Position [Axis]	Net Long [Member]	Net Short [Member]
Commodity	Accounting Treatment	Unit	Long [Member]	Short [Member]	Net Purchases/ (Sales) (in thousands)
FTRs	Mark to Market	MWh	Purchases (in thousands)	Sales (in thousands)	
Heating Oil Futures	Mark to Market	Gallons	6.9	-	6.9
Forward Power	Cash Flow		1,764.0	-	1,764.0
Contracts	Hedge	MWh	1,021.0	(2,197.9)	(1,176.9)
Forward Power	Mark to Market	MWh	2,510.7	(4,760.4)	(2,249.7)
Contracts	Cash Flow				
Interest Rate Swaps	Hedge	USD	\$ 160,000.0	\$ -	\$ 160,000.0

Measurement Frequency [Axis] *(FairValueByMeasurementFrequencyAxis)*

This axis is used to indicate if a measurement is on a recurring or non recurring basis. This axis can only have these two members defined in the US GAAP taxonomy associated with it. Extensions on this axis are not permitted. (DCQ_0001.64)

Measurement Basis [Axis] *(FairValueByMeasurementBasisAxis)*

This axis is used to indicate the measurement basis for a given asset or liability. This axis can only have five members that are defined in the US GAAP taxonomy associated with it. Extensions on this axis are not permitted. (DCQ_0001.65)

Hedging Designation [Axis] *(HedgingDesignationAxis)*

This axis is used to indicate if a derivative is designated as a hedging instrument or if a derivative is not designated as a derivative instrument. This axis can have these two members that are defined in the US GAAP taxonomy associated with it. This axis can also have two extension members (DCQ_0001.66):

- *NotDesignatedAsHedgingInstrumentEconomicHedgesMember*
- *NotDesignatedAsHedgingInstrumentTradingMember*

Products and Services [Axis] *(ProductOrServiceAxis)*

This axis is used to distinguish the details of products or services of the reporting entity. Given that products and services are generally specific to the reporting company, the members on this axis would be predominantly defined using extension elements. In the US GAAP taxonomy, a number of generic product and service members are defined for industries where the products are highly standardized such as, insurance or where the products are commodities such as, oil. In these cases, members from the US GAAP taxonomy can be used. The list of product and service members that can be used from the US GAAP taxonomy are those included on the following axis:

- *ProductOrServiceAxis*
- *ReinsurancePremiumsForInsuranceCompaniesByProductSegmentAxis, ScheduleOfMalpracticeInsuranceTypeAndTierIdentifierAxis*
- *AircraftTypeAxis*

In addition the members defined below can also be used. (DCQ_0001.69)

Element Name	Label	Namespace	Documentation
AuctionRateSecuritiesMember	Auction Rate Securities	us-gaap	Debt instrument securities (for example, but not limited to, corporate or municipal bonds) that typically have long-term nominal maturities for which the interest rate is reset through an

	[Member]		auction process.
AutomobileLoan Member	Automobile Loan [Member]	us-gaap	Loan to finance the purchase of a vehicle.
CommercialLoan Member	Commercial Loan [Member]	us-gaap	A loan, whether secured or unsecured, to a company for purposes such as seasonal working capital needs, inventory financing, equipment purchases and acquisitions.
CommercialReal EstateMember	Commercial Real Estate [Member]	us-gaap	Property that is solely used for business purposes.
ConstructionLoansMember	Construction Loans [Member]	us-gaap	A borrowing arrangement which provides the entity constructing a facility (such as a building and a landfill) with funds to effect construction, generally on a draw down, or as needed, basis.
ConsumerLoanMember	Consumer Loan [Member]	us-gaap	Loan or extension of credit for personal, family, or household use excluding real estate.
CrudeOilMember	Crude Oil [Member]	us-gaap	Unrefined, unprocessed oil, which may be used in a variety of applications, and from which, petroleum-based products are produced.
FuelMember	Fuel [Member]	us-gaap	Represents material used for the production of energy in the form of heat or power. Examples may include, but not be limited to heating, transpiration, etc.
GeneralLiabilityMember	General Liability [Member]	us-gaap	Type of business insurance which provides insurance coverage for a wide variety of liability exposures including, but not limited to, contractual liability, product liability and personal injury liability.
HeatingOilMember	Heating Oil [Member]	us-gaap	Fuel oil used to produce heat in an office, plant, or any other location where temperature is controlled or managed.
HomeEquityLoan Member	Home Equity Loan [Member]	us-gaap	Loan based on the equity of the borrower's residential property in which the borrower receives the loan amount upfront. Excludes home equity lines of credit.
HomeEquityMember	Home Equity Line of Credit [Member]	us-gaap	Revolving, open-end loan extended under a line of credit and secured by the borrower's residential property.

LetterOfCreditMember	Letter of Credit [Member]	us-gaap	A document typically issued by a financial institution which acts as a guarantee of payment to a beneficiary, or as the source of payment for a specific transaction (for example, wiring funds to a foreign exporter if and when specified merchandise is accepted pursuant to the terms of the letter of credit).
LineOfCreditMember	Line of Credit [Member]	us-gaap	A contractual arrangement with a lender under which borrowings can be made up to a specific amount at any point in time, and under which borrowings outstanding may be either short-term or long-term, depending upon the particulars.
LoansMember	Loans [Member]	us-gaap	When a lender gives money or property over other debt securities sold by the issuer. In the event the issuer goes bankrupt, senior debt holders receive priority for [must receive] repayment [prior] relative to junior and unsecured (general) creditors.
MortgageLoansOnRealEstateMember	Mortgage Loans on Real Estate [Member] (Deprecated 2015-01-31)	us-gaap	A loan to finance the purchase of real estate where the lender has a lien on the property as collateral for the loan.
NaturalGasLiquidsReservesMember	Natural Gas Liquids [Member]	us-gaap	Natural gas liquids that include, but are not limited to, ethane, propane, natural gasoline, butane and isobutane.
NaturalGasReservesMember	Natural Gas [Member]	us-gaap	Natural gas composed primarily of methane gas, excluding liquid or condensate natural gas.
OilReservesMember	Oil [Member]	us-gaap	Crude oil, which may also include condensate and natural gas liquids.
ProfessionalMalpracticeLiabilityMember	Professional Malpractice Liability Insurance [Member]	us-gaap	Business insurance coverage for professionals, such as doctors, lawyers, insurance agents, accountants, real estate agents, veterinarians, and others. This liability coverage insures losses for claims arising from mistakes and errors or omissions in the course of professional activities.
RealEstateLoanMember	Real Estate Loan [Member]	us-gaap	Loan to finance the purchase of real estate, including but not limited to, land or building.
ResidentialMortgageMember	Residential Mortgage	us-gaap	Loan to purchase or refinance residential real estate for example, but not limited to, a home, in which the real estate itself serves as

	[Member]		collateral for the loan.
SyntheticOilMember	Synthetic Oil [Member]	us-gaap	Lubricant consisting of chemical compounds that are synthetically made.

Consolidation Items [Axis] *(ConsolidationItemsAxis)*

This axis is used to reconcile the values reported for the operating segments and the totals reported for the consolidated entity. The values used on this axis are restricted to the members that appear on this axis in the US GAAP taxonomy. Generally, extension members should not be used on this axis except in cases where the company aggregates eliminations, material reconciling items and corporate items in various combinations. If these combinations are reported by the company, then use the extension members defined below. The use of this axis is discussed in detail in [FASB Segment Reporting guide](#). (DQC_0001.70)

Extension Element	Element Name	Documentation
Eliminations, Corporate and Reconciling items	CorporateReconcilingItemsAndEliminationsMember	Represents the aggregate total of adjustments for non operating corporate items, reconciling items and eliminations.
Corporate and Reconciling Items	CorporateAndReconcilingItemsMember	Represents the aggregate total of non operating corporate items and reconciling items
Corporate and Eliminations	CorporateAndEliminationsMember	Represents the aggregate total of non operating corporate items and elimination items
Eliminations and Reconciling Items	EliminationsAndReconcilingItemsMember	Represents the aggregate total of reconciling items and elimination items

Defined Benefit Plan, Asset Categories [Axis]

(DefinedBenefitPlanByPlanAssetCategoriesAxis)

This axis is used to define the various categories of plan assets held by a defined benefit pension plan. This axis should only have members that represent assets of the plan. The members that appear on this axis can be extensions or members from within the US GAAP taxonomy that represent assets. Many companies have incorrectly used

members on this axis to define the actual pension plan type such as, US Pension Plans. Do not use members that represent various types of pension plans as types of plan assets. (DQC_0001.71)

Award Date [Axis] (*AwardDateAxis*)

This axis is used to distinguish equity-based compensation arrangements by the date or year of grant. Given that these are specific to the reporting company, the members on this axis must be defined as extension elements. (DQC_0001.72)

Subsequent Event Type [Axis] (*SubsequentEventTypeAxis*)

This axis is used to indicate that a value is reported subsequent to the balance sheet. The member element Subsequent Event [Member] is the only member permitted on this axis. The FASB Taxonomy Implementation Guide on subsequent events states: *"Subsequent Event [Member]", the member already included in the Taxonomy, is intended to be used to qualify the reported facts so as to "flag" the information being reported as a subsequent event. There are no other member elements that are appropriate for use with "Subsequent Event Type [Axis]".* (DQC_0001.74)

Comments: <https://xbrl.us/data-rule/guid-tag/#comments>

APPENDIX

Global Rule Logic

Release date: November 19, 2015

Revised: January 28, 2016

The following guidance applies to all rules, unless the rule documentation specifies otherwise

Rule Numbering Format

The message code of each DQC message is as follows: DQC.US.nnnn.mmm where nnnn is the rule identifier (e.g., 0015 for non-negative rules) and mmm is the index of test within the rule. (The index does not have leading zeros.)

Reporting Period End Date

The reporting period end is the ending date of the Required Context as defined in the SEC EDGAR Filer Manual.

Existence of Components

If one of the components in a comparison does not exist then the comparison will not occur. For example if the rule tests Assets = LiabilitiesAndShareholdersEquity and one of the elements is missing, the test will not run.

Element Name Comparison

When portions of an element name are matched to comparison strings, the comparison is case insensitive unless otherwise stated in the rule. When elements are matched based on their full qualified name (QName), the element name (local part of the QName) comparison is case sensitive and the namespace (URI) comparison follows IETF rules. Element labels are not used for matching unless otherwise stated in the rule.

Decimal Comparison

When comparing two numeric fact values in a rule, the comparison needs to take into account different decimals. Numbers are compared based on the lowest decimal value rounded per XBRL specification. For example, the number 532,000,000 with decimals of -6 is considered to be equivalent to 532,300,000 with a decimals value of -5. In this case the 532,300,000 is rounded to a million and then compared to the value of 532,000,000. (Note that XBRL specifies “round half to nearest even” so 532,500,000 with decimals -6 rounds to 532,000,000, and 532,500,001 rounds to 533,000,000.)

Dimensional Equivalence

All comparisons between fact values occur between facts of equivalent dimensions. A rule will produce a message for each occurrence of the compared facts in equivalent dimensions.

Units

If a non numeric fact is compared with a numeric fact then the rule does not match on units.

Message Format Syntax

The rule message template contains text and parametric reference to arguments of the rule operation, using the syntax `#{parameter}` to indicate that insertion of a parameter’s value is to occur.

Each rule has a dynamic message associated with it that uses `#{.}` to define the parametric references to elements that may be facts or other data of the filing.

Fact Properties

Facts identified by number

Messages for rules that return facts as model object references can refer to those facts ordinally, beginning with index 1. The references to these facts can include the following properties:

- `#{fact1.name}` Prefixed name of the fact’s concept.
- `#{fact1.localName}` The local name (without prefix) of the fact’s concept.

- `{fact1.label}` The label of the fact (standard role, English, although a tool may provide options to select another role, such as terse, and another language). The label is obtained from the extension (filing) taxonomy. If there is no label, the prefixed name is shown instead.
- `{fact1.value}` The value of the fact. If numeric, field separators are provided for thousands (comma in en-US locale).
- `{fact1.decimals}` The value of the decimals attribute if numeric.
- `{fact1.period}` The period (forever, instant date, or start-end dates).
 - `{fact1.period.startDate}` Start date
 - `{fact1.period.endDate}` End date or instant date
 - `{fact1.period.instant}` Instant date
 - `{fact1.period.durationDays}` End date – start date, in days
- `{fact1.dimensions}` prefixed dimension name = prefixed member name, for each non-defaulted dimension, or “none” if no or all-defaulted dimensions
- `{fact1.unit}` non-prefixed unit names, e.g., USD or shares, or “none” if no units.

Facts identified by prefixed name

Facts which are not ordinal arguments may be specified by prefixed name, such as `dei:DocumentPeriodEndDate.fact`. These are specified as `{dei:DocumentPeriodEndDate.fact.name}`, `{dei:DocumentPeriodEndDate.fact.value}`, etc. The fields are same as for ordinal fact references, as in the section above. The “.fact.” must appear between the prefixed name and property name.

Concepts identified by prefixed name

Concepts may be provided for message argument fact dimensions and their members, for example `{my:FooAxis.label}` or `{my:BarMember.label}`. Concepts have the following properties:

- `{fact1.name}` Prefixed name of the concept.
- `{fact1.localName}` The local name (without prefix) of the concept.
- `{fact1.label}` The label of the concept (standard role, English, although a tool may provide options to select another role, such as terse, and another language). The label is obtained from the extension (filing) taxonomy. If there is no label, the prefixed name is provided instead.

If there are variable references that can’t be resolved, such as missing facts, prefixed named concepts not passed in argument facts or their dimensions, or for any other reason, an error message is logged when using Arelle to indicate the unresolved references. The variable

reference substitutes as “unavailable” in the expanded message text in addition to the error indicating unresolved references.