

Mutual Fund Risk/Return Summary Taxonomy 2010 Architecture and Technical Guide

Date 2010-04-06

1 Goal

The purpose of this document is to convey to technical readers:

- Additional domain, logical and physical modeling conventions needed to extend the XBRL US GAAP Taxonomies v1.0 Architecture [ARCH] and Style Guide [STYLE] to cover areas that are unique to Mutual Fund Risk/Return Summaries;
- Organization of all the concepts and relationships in the taxonomy and their intended use in risk/return summaries; and
- Physical organization of the taxonomy components and their use in instances.

This document assumes prior exposure to “Rendering Risk/Return Instances for the SEC Viewer” [REND] and the XBRL US GAAP Taxonomies v1.0 Architecture dated 28 April 2008 [ARCH].

Contents

1	Goal	1
2	Requirements	2
3	Domain Model	4
3.1	Distinguish Clearly Between a Reporting Document and Reporting Data	4
3.2	Identify the Reporting Concepts a Prospectus Must Contain	5
3.3	Limit the Need for Extensions	5
4	Logical Model.....	6
4.1	Logical Data Types	6
4.1.1	Number	6
4.1.2	Ratio.....	7
4.1.3	Monetary.....	7
4.1.4	Date.....	7
4.1.5	Heading (Text).....	8
4.1.6	Disclosure (Plain Text).....	8
4.1.7	Abstract.....	8
4.1.8	Domain Member.....	8
4.1.9	Narrative or Footnote (Text Block)	8
4.1.10	Embedding Command (Table Block).....	9
4.2	Concepts.....	9
4.2.1	Labels.....	9
4.2.2	References	10
4.2.3	Documentation.....	10
4.2.4	Element naming US GAAP Taxonomy style guide exceptions	11
4.3	Dimensional relationships.....	11
4.3.1	Dimensional relationship style guide exceptions.....	12
4.4	Calculation relationships.....	12
4.5	Presentation relationships	12

4.6	Narrative & Footnote Concepts and Disclosure Texts.....	13
4.7	Fund Series & Fund Share Classes	14
5	Physical Model	15
5.1	Files (Serialization).....	15
5.2	Discoverable Taxonomy Sets.....	16
5.3	The Base Schema rr-2010-01-01.xsd.....	17
5.4	Standard Label Linkbase.....	17
5.5	Relationship to ICI 2006 Taxonomy.....	18
6	References.....	18

Figures

Figure 1.	Highlight of changes from 2008 to 2010	4
Figure 2.	DEI Elements, their uses and labels.....	5
Figure 3.	Numeric types defined in addition to us-types:.....	6
Figure 4.	Some common ratios and their alternative, monetary or ratio amount	7
Figure 5.	Occurrences of the date type.....	7
Figure 6.	Occurrences of the domain member type.....	8
Figure 7.	Occurrences of Narratives or Footnotes.....	9
Figure 8.	Occurrences of Table Text Blocks.....	9
Figure 9.	File List	16

2 Requirements

The XBRL US Mutual Fund Risk/Return Summary Taxonomy 2008 correctly anticipated the architecture and long term direction for Prospectus filings. In 2009 we gained practical experience in how filers want to configure their presentation and how to provide a greater degree of control over appearance, without compromising data integrity. It is therefore essential for any published taxonomy to align with the capabilities of a maintainable SEC Viewer and its underlying rendering engine.

The Mutual Fund Risk/Return Summary Taxonomy 2010 contains technical changes relative to XBRL US Mutual Fund Risk/Return Summary Taxonomy 2008 to achieve that goal. Although some elements have been deprecated (that is, they should not be used and may be deleted entirely from a future release), the 2010 taxonomy does not change the meaning of the remaining elements and its fundamental purpose is to add features to support flexible rendering. The set of requirements listed below merges the previously published requirements for XBRL US Mutual Fund Risk/Return Summary Taxonomy 2008 along with those related to rendering.

Instances of the Mutual Fund Risk/Return Summary Taxonomy are not financial statements. Although prospectuses do (a) contain historical information about fund performance, (b) contain a mix of narrative and numerical disclosures, and (c) are associated with a set of entities that are related to one another, there are important differences:

1. Risk/Return is formally defined in SEC Form N-1A which is prescriptive with respect to the order, naming, and even the tabular layouts of its disclosures than more general forms for financial statements. Moreover, the order and content of the Risk/Return section of Form N-1A as of the adoption date must be reflected in the taxonomy.
 - a. Although it is the integrity and usability of the data in the filing that is of primary interest to users of the document, consistent rendering of the XBRL instances via the Commission Viewer (“rendering engine”) has greater implications.

- b. It is important that there be at least two distinct “views” of the information in an instance, one which resembles the historically familiar document layout, and one which resembles a detailed list of every individual data point (fact) in the document no matter how or where it might have been rendered.
2. Automation of prospectus filings through content management systems is more advanced in the market than for corporate filings, hence automation for metadata-rich output files is much more feasible.
 - a. Preservation of similar or identical element naming relative to earlier mutual fund risk/return summary taxonomies is important to filers and vendors. Many instances filed with the SEC already provide a sample from which to observe live experience with usage.
3. The scope of information in a document is rarely a single, simple corporate entity with one or a few equity classes:
 - a. An SEC filed prospectus has some disclosures common to all classes or series, and others specific to one or more classes or series, and may disclose the same information about a class or series in different documents within a single submission.
 - b. The SEC’s EDGAR system has a strict convention for Class and Series identifiers in addition to the CIK.
 - c. There are requirements for data that refer to external broadly available market performance measures.
4. Prospectuses are “point in time” documents that contain historical data points among other information:
 - a. Prospectuses are frequently amended, not only on an annual basis, but at other times of the year, and some of the information in them is aligned to calendar years rather to their own fiscal year ends.
 - b. Prospectuses state the management and other fees to be charged in the future, and even contain a table that discloses future expenses for a hypothetical \$10,000 investment.
5. Experience with financial statement filings in EDGAR using XBRL US GAAP Taxonomies v1.0 and XBRL US GAAP Taxonomies 2009, experience with side-by-side analysis of multiple instances, and the constraints of the EDGAR system have resulted in important changes to the intended organization of an Interactive Data instance of Mutual Fund Risk/Return Summary Taxonomy 2010:
 - a. Although the taxonomy provides standard labels, they are only meant to be copied and edited, not included as a linkbase *per se*.
 - b. Conversely, there are now portions of the Presentation and Definition linkbases that are required for compliance with Form N-1A, and these cannot be overridden by the filer.

The changes from XBRL US Mutual Fund Risk/Return Summary Taxonomy 2008 to Mutual Fund Risk/Return Summary Taxonomy 2010 are summarized in the table below.

Figure 1. Highlight of changes from 2008 to 2010

	2008 Count	2010 New	2010 Unused	Reason for Change
Text Block Concepts	30	+8		Add Table text blocks that give filers the freedom to control the positioning of tables. This is necessary for filings with prospectuses, multiple series, multiple classes, and stickers.
Line Item Concepts	145	0	-18	Correcting a rendering problem in Average Annual Return elements by moving properties such as "After Tax" to a separate axis. Also, correct misspelling of "Availability" in two elements.
Dimension and Domain Concepts	3	+4	0	The Average Annual Return elements could not be shown correctly when different classes and indexes are associated with one series in the same filing. This is a fix.
Abstract Concepts	44	+5	-7	These elements do not appear in filings, they are only grouping elements to facilitate rendering layouts.
Definition ("Documentation" text)		The purpose of new elements is only presentation, or has same definition as existing element.		N/A
Authoritative reference material		Remove the URI part contents.		The URI field could not be used without an accompanying, unofficial HTML file. New elements' authoritative references are copies of existing elements.
Labels		Labels are no longer in the DTS of the entry point that contains presentation, definition and calculation.		Preparation is simplified because all labels are now fully customizable by preparers, just as with other Interactive Data filings.
Presentation Groups	1	9 (one typical layout per table, and a standard group for a main page, and two standard groups for 'detail' pages.)		Reduce the amount of customization work that filers need to do in order to achieve an adequate rendering while complying with Commission rules.
Dimension (Definition) Groups	6	+8 (one default group, four axis groups, and nine tables).		Organize data into distinct, common axes (series, class, etc.) and require these axes to be used in fewer, consistently normalized, and closed data tables, so as to improve data validation and usability.

3 Domain Model

The goals of the XBRL US GAAP Taxonomies Architecture's domain model are achieved in the Mutual Fund Risk/Return Summary Taxonomy 2010 as explained in the sections below.

3.1 Distinguish Clearly Between a Reporting Document and Reporting Data

In the Mutual Fund Risk/Return Summary Taxonomy there is a single instance, which may contain any number of distinct prospectuses that may overlap in terms of the fund series and classes whose data they contain. Different presentation groups (roles) present the same data in

different ways, and features of the SEC Viewer rendering engine are leveraged to make the results readable by end users.

3.2 Identify the Reporting Concepts a Prospectus Must Contain

The authoritative source for the XBRL US Mutual Fund Risk/Return Summary Taxonomy concepts is Form N-1A and from data, as commonly used or as required by, the EDGAR system. Form N-1A has items arranged into a section – subsection – paragraph – subparagraph hierarchy, with instructions that cover one or more items. The taxonomy has at least one concept or combination of concepts for each item appearing in Form N-1A, and vice versa.

Form N-1A has requirements that refer to the contents of a prospectus using terms such as headings, narratives, tables, line Items in the tables, and required footnotes on specific line items. Therefore the Mutual Fund Risk/Return Summary Taxonomy domain model is that the form and presentation of an instance is dictated by the regulation itself, and that part of the regulation indicates what a table is, what a narrative is, where the footnotes must appear, and so on.

There is significant overlap between Form N-1A information items and items that already appear in the DEI domain model of an entity; these elements are given different standard labels to clarify their meaning in a prospectus:

Figure 2. DEI Elements, their uses and labels

Element in DEI Namespace	Used as	Label provided
DocumentInformationDocumentAxis	Prospectus axis	Prospectus [Axis]
DocumentInformaitonDocumentDomain	Prospectus axis default	Prospectus
LegalEntityAxis	Series axis	Series [Axis]
LegalEntityDomain	Series axis default, covering all Series sharing a common CIK.	Series
DocumentCreationDate	Filing date for registration statement	Registration Statement Filing Date
DocumentEffectiveDate	Effective date for registration statement	Registration Statement Effective Date

3.3 Limit the Need for Extensions

Custom elements required in extensions to the Mutual Fund Risk/Return Summary Taxonomy domain model are motivated mainly by the need to partition the facts in the prospectus according to:

- **Prospectus** document in which the facts appear. Two different prospectuses in the same instance could, for example, show data about different share classes of the same fund series.
- **Fund series** as modeled using the DEI Taxonomy “Legal Entity” Axis, with strict restrictions on element naming.
- **Share class** within the fund series (or groups of classes); this is not the same as the XBRL US GAAP Taxonomy’s “Class of Stock” axis. Stock classes of different series must be distinguishable across all prospectuses even if they happen to be called (say) “Class A”, and this also leads to restrictions on element naming.
- **External market indexes** presented in the baseline performance comparison. The domain model of the XBRL US GAAP Taxonomies v1.0 and 2009 did not contain a notion of external performance index, so it is modeled in the Mutual Fund Risk/Return Summary

Taxonomy using a new axis that can be extended by the preparer to include any number of external indexes.

An SEC Financial Statement using XBRL always require extension linkbases because:

- At level 1 tagging, the face of a financial statement needs customized labels, presentation ordering, and often, calculations.
- At level 1 tagging, the financial statement footnotes (“Notes to the Financial Statements”) require presentation ordering.
- At level 1 tagging, an instance for multiple registrants contains facts pertaining to different business entities.
- At levels 2 through 4 tagging, a detailed segment disclosure, consolidating statement, or schedule of investments contain facts that apply to only one legal entity, business segment, geographic region or other part of an entity.

The Financial Statement domain model applies only partially to a Prospectus:

(1) There are no formal “levels of tagging detail” for prospectuses; there are text blocks (level 1), and there are dates, numbers and strings (level 4), but the need for level 3 is satisfied by using table blocks with embedded commands.

(2) The presentation ordering of individual line items is fixed by Form N-1A. There will rarely be any need to prohibit (override) any of the presentation relationships in the Mutual Fund Risk/Return Summary Taxonomy. Extensions to the Mutual Fund Risk/Return Summary Taxonomy presentation linkbase are usually to order custom domain members.

(3) The calculations are minimal, and defined by Form N-1A, but customizable. Therefore the calculations are required, but can be overridden.

4 Logical Model

The structure of the Mutual Fund Risk/Return Summary Taxonomy consists of data types, elements (including labels, definitions and references) and their organization by dimensional and calculation relationships, presentation views and relationships. The logical model covers both the standard (published, not modifiable) aspects as well as the content of custom extensions (consisting of elements in schemas, labels, definition, calculation and presentation relationships in linkbases).

4.1 Logical Data Types

4.1.1 Number

Some reported amounts could never be negative and others could never be positive. Also, ratios in a Form N-1A are required to have percentages represented in basis points (hundredths of percents). Thus, there are four new types:

Figure 3. Numeric types defined in addition to us-types:

rr_NonNegativePure4Type
rr_NonPositivePure4Type
rr_NonNegativeMonetaryType
rr_NonPositiveMonetaryType

4.1.2 Ratio

Ratios are conventionally rendered as percentages, but this does not change their underlying mathematical nature as a “pure” (dimensionless) real number, here known as a ratio. The naming convention for ratios uses one of the words “Rate” “Yield” “Return” or “Over” to indicate a ratio. For example, when an “Exchange Fee” is actually an “exchange fee as a percentage of redemption amount,” then the corresponding concept is “Exchange Fee over Redemption”. There are 61 such concepts.

4.1.3 Monetary

Monetary amounts denote those which are conventionally shown as a dollar amount. They have either the word “Fee” or “Expense” in their name. There are 13 such concepts.

There are often two variants on a concept, one in which the denominator is the typical denominator, and an alternative concept which may either have a different denominator or no denominator at all. For example:

Figure 4. Some common ratios and their alternative, monetary or ratio amount

Frequently Reported Ratio	Alternative Amount Reported
Exchange Fee over Redemption	Exchange Fee
Maximum Account Fee over Assets	Maximum Account Fee
Maximum Cumulative Sales Charge over Offering Price	Maximum Cumulative Sales Charge over Other
Maximum Deferred Sales Charge over Offering Price	Maximum Deferred Sales Charge over Other
Redemption Fee over Redemption	Redemption Fee

4.1.3.1 Monetary item US GAAP Taxonomy style guide exception

Monetary elements in a prospectus have neither “credit” nor “debit” balance type.

4.1.4 Date

Dates play a key role in mutual fund prospectus disclosures, so as to require these seven dates to be specified precisely in ISO8601 format.

Figure 5. Occurrences of the date type

Concept
Prospectus Date
Fee Waiver or Reimbursement over Assets, Date of Termination
Bar Chart, Year To Date Return, Date
Bar Chart, Lowest Quarterly Return, Date
Bar Chart, Highest Quarterly Return, Date
Annual Return, Inception Date
Average Annual Return, Inception Date

4.1.4.1 Date item US GAAP Taxonomy style guide exception

The “date string” item type is not used because Form N-1A requires specific dates, not ranges.

4.1.5 Heading (Text)

Heading concepts allow section headings to be customizable by filers at the level of an instance. There are 13 heading concepts.

4.1.6 Disclosure (Plain Text)

There are a number of textual disclosures required in the Risk/Return Summary Section of Form N-1A. Some of these are very similar across different filings. Virtually all of them appear *inside* of narratives, not as distinctly identifiable items in a table or separate paragraphs. There are around 40 such concepts and they are all plain text.

4.1.7 Abstract

Abstract concepts are used only to order a set of elements for presentation. A number of these have been deprecated from the XBRL US Mutual Fund Risk/Return Summary Taxonomy 2008 as unnecessary; five new ones have been added.

4.1.8 Domain Member

Domain members are concepts that are used to partition or segment general concepts. For example, a general concept such as “Annual Return” must be further defined as to what share class it applies to, and whether it includes the effect of taxes or other fees. Domain members are not abstracts; they are essential for the integrity and consistency of the data.

Figure 6. Occurrences of the domain member type

Concept	Note
DocumentDomain	In dei namespace
EntityDomain	In dei namespace
ShareClassDomain	
PerformanceMeasureDomain	
AfterTaxesOnDistributionsAndSalesMember	
AfterTaxesOnDistributionsMember	

4.1.9 Narrative or Footnote (Text Block)

There are seven sections of narrative disclosure required in the Risk/Return Summary Section of Form N-1A and these are shown in the table below. In different prospectuses they may be only a sentence, in others they may be a mix of bulleted lists, and in some cases even tables.

Sometimes, a section called “footnotes” may actually contain narrative paragraphs without any footnote marks. These “Footnote Text Blocks” do **not** in any way replace or substitute for XBRL footnotes; XBRL footnotes are the preferred method for modeling footnotes appearing below a table. At some future release the “Footnote Text Blocks” are likely to be deprecated.

Figure 7. Occurrences of Narratives or Footnotes

Concept	Use	Note about Text Block
StrategyNarrativeTextBlock	Required	
ExpenseNarrativeTextBlock	Required	
ExpenseFootnotesTextBlock	Optional	If footnotes are used here, then XBRL Footnotes are preferred over this tag
RiskNarrativeTextBlock	Required	
ExpenseExampleNarrativeTextBlock	Required	
ExpenseExampleFootnotesTextBlock	Optional	If footnotes are used here, then XBRL Footnotes are preferred over this tag
BarChartNarrativeTextBlock	Required	
BarChartFootnotesTextBlock	Optional	If footnotes are used here, then XBRL Footnotes are preferred over this tag
PerformanceNarrativeTextBlock	Required	
PerformanceTableNarrativeTextBlock	Required	
PerformanceTableFootnotesTextBlock	Optional	If footnotes are used here, then XBRL Footnotes are preferred over this tag

4.1.10 Embedding Command (Table Block)

The 2010 Mutual Fund Risk/Return Summary Taxonomy introduces a new logical type, the Table Block. A table block is intended only to contain embedding commands as defined for the SEC Viewer. The embedding command allows the preparer to construct a layout for a table (choosing rows, columns, nesting, what series, class, and so on) using a presentation group. By creating several different table blocks for the same presentation group, the preparer can arrange for the same underlying data points (facts) to appear in different subsets and different ways.

Figure 8. Occurrences of Table Text Blocks

ShareholderFeesTableTextBlock
AnnualFundOperatingExpensesTableTextBlock
ExpenseExampleNoRedemptionTableTextBlock
ExpenseExampleWithRedemptionTableTextBlock
BarChartTableTextBlock
PerformanceTableTextBlock
MarketIndexPerformanceTableTextBlock
RiskReturnDetailTableTextBlock

4.2 Concepts

All concepts have a name, and conform to the naming, documentation and reference conventions of the XBRL US GAAP Taxonomies v1.0 and 2009 Architecture except for the exceptions described below.

4.2.1 Labels

The name of every element in LC3 also appears as its standard label, with exceptions for the DEI elements identified in Figure 2.

4.2.1.1 FRTA 1.0 Exceptions

In addition to the exceptions already documented for XBRL US GAAP Taxonomies v1.0 and 2009 Architecture, the DTS of the XBRL US Mutual Fund Risk/Return Summary Taxonomy contains elements without standard labels. This means there are many violations of the “should” rule 2.1.10 in the DTS of the main Mutual Fund Risk/Return Summary Taxonomy 2010 entry point, though none Mutual Fund Risk/Return Summary Taxonomy 2010 taken as a whole.

4.2.2 References

Form N-1A, located at <http://www.sec.gov/about/forms/formn-1a.pdf> as of 2010-04-06, is the only source of references necessary for the Mutual Fund Risk/Return Summary Taxonomy 2010 and has a numbering and its own internal cross references. A snippet is shown here:

(iv) Adjacent to the table required by paragraph 2(c)(2)(iii), provide a brief explanation that:

(A) After-tax returns are calculated using the historical highest individual federal marginal income tax rates and do not reflect the impact of state and local taxes;

This snippet represents a “Subparagraph”, and would be fully represented using this reference:

<u>Part</u>	<u>Contents</u>
ref:Publisher	SEC
ref:Name	Form
ref:Number	N-1A
ref:IssueDate	2009-07-17
ref:Chapter	A
ref:Section	4
ref:Subsection	c
ref:Paragraph	2
ref:Subparagraph	iv
ref:Clause	A

4.2.3 Documentation

All elements other than abstracts have a documentation label. The documentation labels were generated automatically from the references, by copying the text from the corresponding parts of Form N-1A itself. When an element has several references, the documentation is simply the concatenation of the different texts. The table below shows two examples.

# Element	Documentation Label (“Definition”)
1 rr:AverageAnnualReturnCaption	A.4.c.2.iii.1.1: AVERAGE ANNUAL TOTAL RETURNS A.4.c.2.instructions.3.c: When a Multiple Class Fund offers more than one Class in the prospectus: A.4.c.2.instructions.3.d: If a Multiple Class Fund offers a Class in the prospectus that converts into another Class after a stated period, compute average annual total returns in the table by using the returns of the other Class for the period after conversion.
2 rr:PerformanceTableUsesHighestFederalRate	A.4.c.2.iv.A: After-tax returns are calculated using the historical highest individual federal marginal income tax rates and do not reflect the impact of state and local taxes.

4.2.4 Element naming US GAAP Taxonomy style guide exceptions

The phrase “since inception” is an exception to the general rule to use “because” instead of “since”. For Publisher “SEC”, Name of “Form” and Number “N-1A” are acceptable.

The “Form N-1A [Abstract]” element and the elements with years in their names require digits in their labels.

The “Bar Chart” section of Form N-1A requires the annual rate of returns of the fund to be aligned to calendar years no matter what the fiscal year of the fund is. These elements are rr:AnnualReturn1990 through rr:AnnualReturn2012. This reduces the number of additional contexts needed in instances.

The “Performance Table” section of Form N-1A requires that returns also be reported as an average annual rate for 1, 5, 10 years and the life of the fund. Again, rather than create additional contexts these are simply defined in the form “...Return01” “...Return05” “...Return10” and “...ReturnSinceInception”.

4.3 Dimensional relationships

Every concept used in the taxonomy (i.e., all non-abstract, non-deprecated concepts) appear in the definition linkbase as domain members in a closed hypercube. All closed hypercubes have a set of axes defined, and all axes have a default member. None of these relationships may be overridden or prohibited by filers; they are required.

For example, here is the full set of relationships for the “Expense Example” definition group. Note that there is one set of five primary elements and three axes. The three axes each have a default domain member; all relationships have priority attribute value 10 so that an EDGAR filing could not override them.

Element in “Expense Example” group	Relationship
rr:ExpenseExampleAbstract	
rr:ProspectusTable	All (Closed)
dei:DocumentInformationDocumentAxis	Hypercube-Dimension (target “Prospectus”)
dei:LegalEntityAxis	Hypercube-Dimension (target “Series”)
rr:ProspectusShareClassAxis	Hypercube-Dimension (target “Class”)
rr:ExpenseExampleByYearColumnName	Domain-member
rr:ExpenseExampleYear01	Domain-member
rr:ExpenseExampleYear03	Domain-member
rr:ExpenseExampleYear05	Domain-member
rr:ExpenseExampleYear10	Domain-member

4.3.1 Dimensional relationship style guide exceptions

Text blocks appear in the top level presentation and definition groups as members of tables, since each text block may appear in a specific document (prospectus), for a specific legal entity (fund series) or even share class.

The attribute `xbrldt:targetRole` is used in all hypercube definitions so as to ensure greater consistency of prospectus data.

4.4 Calculation relationships

Form N-1A has only one area in which XBRL calculations have any meaning -in the “Operating Expenses” section. In this section, filers do have a small amount of flexibility to show three additional types of fees other than Management Fees, Distribution (12b-1) fees, etc. There are only nine calculation arcs and the arrangement of corresponding presentation arcs is a three-deep nested “netting” pattern.

The “Other Expenses over Assets” line item has three calculation children: “Component1 ...”, “Component2 ...” and “Component3 ...”. This is because instruction 3.c.ii of Part A in Form N-1A says: “The Fund may subdivide this [Other Expenses] caption into no more than three subcaptions that identify the largest expense or expenses comprising ‘Other Expenses,’ but must include a total of all ‘Other Expenses.’” In other words, the filer may choose how to decompose “Other Expenses over Assets” but must use one of the three child elements and assign it a different label for presentation.

4.5 Presentation relationships

There are several different kinds of presentation groups. For most of them, their presentation relationships cannot be overridden in an EDGAR filing. Thus, if the instance contains data points in these presentation groups, the SEC Viewer will always show those data points. Of course, presentation groups and presentation relationships can always be added.

Group Name	Description	Relationships can be Overridden
Risk/Return Summary	A single list consisting only of Headings, Narratives, and Table Blocks. This is an {Unlabeled} group because the labels of the elements would normally never change.	No
Shareholder Fees Data	Shareholder Fees	No, except Redemption Fee concepts
Operating Expenses Data	Operating expenses	No, except Fee Waiver concepts
Expense Example	Expense example, which is shown as a {Transposed} table.	Yes
Expense Example, No Redemption	Additional expense example in which no redemption at the end of each period is assumed, shown as a {Transposed} table.	Yes
Bar Chart Data	A graphical bar chart consisting of annual data points.	No
Performance Table Data	A complex table using the three common axes and the Performance Measure axis, shown as a {Transposed} table.	No
Market Index Data	This group is defined but is not populated with presentation relationships; sometimes filers wish to divide the content of the performance table so that the market index data appears separately, a {Transposed} table.	N/A
Five groups, one for each of the axes and one for the default members.	Preparers may wish to list all the custom members of these axes in these groups.	No
Risk/Return Detail	A single Table Block for an embedding command that displays the Risk/Return Detail Data	No
Risk/Return Detail Data	All concepts displayed in the “{Elements}” style of report	No

The “Expense Example” and “Expense Example, No Redemption” are tables containing concepts that often will appear with labels such as “1 Year” and “5 Years” that are used on other elements as well. Since EDGAR validation requires that the standard label be distinct on each element, preparers will usually override these presentation relationships and assign a “terse” label to these elements, because there are no restrictions on whether elements can have the same terse label.

4.6 Narrative & Footnote Concepts and Disclosure Texts

The many-to-many relationship of document fragments to disclosure facts exists in a prospectus just as it does in financial statements. Therefore, text that appears inside a text block fact may also appear in other facts. In a prospectus, though, filers have less flexibility in the relationship between narratives and disclosures, so that when a text block has a set of presentation children that have type `xbri:stringItemType`, those facts appear in their immediate presentation parent and

it is not necessary to rearrange the presentation arcs. The narrative text appearing after the heading may be one or more paragraphs, but certain disclosures may be required within that text, and each of these is a distinct string.

Example Disclosures that appear in the “Risk/Return Summary” presentation group:
Performance Table [Heading]
Performance Table Narrative [Text Block]

Example Disclosures that appear in “Detail Data” presentation group
Performance Table Does Reflect Sales Loads
Performance Table Market Index Changed
Performance Table Uses Highest Federal Rate
Performance Table Not Relevant to Tax Deferred
Performance Table Explanation after Tax Higher
Performance Table One Class of Multiclass Fund

Consistent with the XBRL US GAAP Taxonomies v1.0 and 2009 Architecture this means that in an instance it is almost always the case that there is redundancy between the text that appears in a Narrative or Footnote, and that which appears in a xbrli:stringItemType element.

4.7 Fund Series & Fund Share Classes

A single prospectus may cover several fund series and within each of those series, several share classes. The EDGAR system enforces a naming convention that the XBRL US Mutual Fund Risk/Return Summary Taxonomy expects to be followed. Fund Series are identified by “S” followed by nine digits. Fund Classes are identified by “C” followed by nine digits. There is no necessary relationship among the numeric part of the identifier, although sometimes the “A, B, C...” classes have identifiers that end with sequential numbers (0993, 0994, 0995...). The filer’s extension defines these as domain members of the appropriate axis. For example, suppose a filer’s namespace prefix is “abc” and their market index of choice is the “XYZ Index”:

Example Standard label	Prefix	Element Name
Prospectus [Table]	rr	ProspectusTable
• Series [Axis]	dei	LegalEntityAxis
○ Series [Domain]	dei	EntityDomain
▪ ABC Fund	abc	S000999999Member
• Prospectus Share Class [Axis]	rr	ProspectusShareClassAxis
○ Share Class [Domain]	rr	ShareClassDomain
▪ Class A	abc	C011111111Member
▪ Class B	abc	C011111112Member
• Performance Measure [Axis]	rr	PerformanceMeasureAxis
○ Performance Measure [Domain]	rr	PerformanceMeasureDomain
▪ After Taxes on Distributions	rr	AfterTaxesOnDistributionsMember
▪ After Taxes on Distributions and Sales	rr	AfterTaxesOnDistributionsAndSalesMember
▪ XYZ Global 2500 Index	abc	XyzGlobal2500IndexMember

The table below shows how the combination of LegalEntityAxis and ProspectusShareClassAxis combine.

#	LegalEntityAxis	ProspectusShareClassAxis	Meaning of facts in this context
1	(empty)	(empty)	Fact applies to all classes of all funds
2	abc:S000999999Member	(empty)	Fact applies to all classes of fund series
3	abc:S000999999Member	abc:C011111111Member	Fact applies only to one class of series
4	(empty)	abc:C011111111Member	N/A – the series must be specified

The table below shows the same combinations, but laid out in a way that illustrates the interaction between the legal entity axis and the share class axis:

Legal Entity Axis:	(empty)	Prospectus Share Class Axis: abc:C011111111 ("Class A")	abc:C011111112 ("Class B")
(empty)	1. Fact applies to entire prospectus (e.g., Prospectus Date)	4. Not Meaningful	Not Meaningful
abc:S000999999 ("ABC Fund")	2. Fact applies to all share classes of the Fund series	3. Fact applies to Class A shares of ABC Fund only	Fact applies to Class B shares of ABC Fund only

If there were a second series such as "DEF Fund" then it would have a different series identifier such as "S099999999" and an entirely different set of one or more share class identifiers.

5 Physical Model

5.1 Files (Serialization)

The physical model of the Mutual Fund Risk/Return Summary Taxonomy is similar to that of the "Non-GAAP" taxonomies found in the XBRL US GAAP Taxonomies 2009, but is not identical. This taxonomy contains more features that anticipate its use in the SEC EDGAR and Interactive Data Viewer systems than previous XBRL US taxonomies.

One difference is that the "ent" entry point contains no label linkbases. EDGAR will allow references to that entry point.

Another difference is that each linkbase is accompanied by a separate entry point schema for that linkbase alone; in this way a custom DTS can be constructed by using XML Schema "import" elements only.

The Mutual Fund Risk/Return Summary Taxonomy files are all rooted here:

<http://xbrl.sec.gov/rr/2010/>

The file naming convention used for the Mutual Fund Risk/Return Summary Taxonomy follows the XBRL US GAAP Taxonomies v1.0 naming convention; in this case the “-2010-02-28” in the file name indicates the release date. The following files constitute the Mutual Fund Risk/Return Summary Taxonomy (in the zip file “rr-entire-2010-02-28.zip”):

Figure 9. File List

#	File	File Type	Contents	EDGAR Allows
1	rr-2010-02-28.xsd	Schema	Element, Type and Role Declarations	Yes
2	rr-cal-2010-02-28.xml	Linkbase	Calculation Relationships	Yes
3	rr-cal-2010-02-28.xsd	Schema	Calculation Relationships	Yes
4	rr-def-2010-02-28.xml	Linkbase	Element, Type and Role Declarations	Yes
5	rr-def-2010-02-28.xsd	Schema	Dimensional Relationships	Yes
6	rr-pre-2010-02-28.xml	Linkbase	Presentation Relationships	Yes
7	rr-ent-2010-02-28.xsd	Schema	Entry Point – Presentation Relationships	Yes
8	rr-lab-2010-02-28.xml	Linkbase	Standard Labels	No
9	rr-lab-2010-02-28.xsd	Schema	Entry Point – Standard Labels	No
10	rr-doc-2010-02-28.xml	Linkbase	Documentation Labels	No
11	rr-doc-2010-02-28.xsd	Schema	Entry Point – Documentation Labels	No
12	rr-ref-2010-02-28.xml	Linkbase	Authoritative References	No
13	rr-ref-2010-02-28.xsd	Schema	Entry Point - References	No
14	rr-all-2010-02-28.xsd	Schema	Entry Point – Documentation, Labels and Reference Entry Points.	No
15	rr-entire-2010-02-28.xsd	Schema	All entry points and linkbases (for testing)	No

5.2 Discoverable Taxonomy Sets

The DTS of the rr-2010-02-28.xsd entry point contains these other files:

#	Location	Description
1	http://taxonomies.xbrl.us/us-gaap/2009/non-gaap/dei-2009-01-31.xsd	Document and Entity Element Declarations
2	http://taxonomies.xbrl.us/us-gaap/2009/elts/us-types-2009-01-31.xsd	US GAAP Type Declarations
3	http://taxonomies.xbrl.us/us-gaap/2009/elts/us-roles-2009-01-31.xsd	US GAAP Role Declarations
4	http://www.xbrl.org/2003/xbrl-instance-2003-12-31.xsd	XBRL core schema
5	http://www.xbrl.org/2003/xbrl-linkbase-2003-12-31.xsd	XBRL core schema
6	http://www.xbrl.org/2003/xl-2003-12-31.xsd	XBRL core schema
7	http://www.xbrl.org/2003/xlink-2003-12-31.xsd	XBRL core schema
8	http://www.xbrl.org/2006/ref-2006-02-27.xsd	FRTA 1.1 reference parts
9	http://www.xbrl.org/2005/xbrldt-2005.xsd	XBRL Dimensions 1.0 Taxonomy Declarations
10	http://www.xbrl.org/2006/xbrldi-2006.xsd	XBRL Dimensions 1.0 Instance Declarations

The DTS of the rr-ent-2010-02-28.xsd entry point contains rr-2010-02-28 and these other files that support these needs:

#	Location	Description
1	http://www.xbrl.org/lrr/role/negated-2008-03-31.xsd	Negated Labels
2	http://taxonomies.xbrl.us/us-gaap/2009/non-gaap/dei-2009-01-31.xsd	Document and Entity Element Declarations
3	http://taxonomies.xbrl.us/us-gaap/2009/elts/us-types-2009-01-31.xsd	US GAAP Type Declarations
4	http://taxonomies.xbrl.us/us-gaap/2009/elts/us-roles-2009-01-31.xsd	US GAAP Role Declarations
5	rr-cal-2010-02-28.xml	Calculation Groups
6	rr-def-2010-02-28.xml	Definition Groups
7	rr-pre-2010-02-28.xml	Presentation Groups

The other entry points would be used mainly during preparation as supporting documentation or as templates from which to copy-and-edit.

5.3 The Base Schema rr-2010-02-28.xsd

The namespace will change according to the version of the taxonomy.

Elements will not be deleted, but they may be deprecated from release to release.

Recommended Prefix	Namespace
rr	http://xbrl.sec.gov/rr/2010-02-28

The base schema declares the roles that are used in the presentation, calculation and definition linkbases. This is unlike the XBRL US GAAP Taxonomy 1.0 that declares roles in a file separate from elements.

These roles are named, defined and populated with arcs in calculation, definition and presentation linkbase that work with the SEC Viewer to produce a desired rendering of Mutual Fund Risk/Return Summary Taxonomy instances.

The base schema declares four item types:

```

rr:NonNegativePure4Type
rr:NonPositivePure4Type
rr:NonNegativeMonetaryType
rr:NonPositiveMonetaryType

```

The base schema declares about 8 new Text Block concepts intended for use for embedding tables, and deprecates 18 non-abstract concepts relative to the 2008 taxonomy. Preparers that use only taxonomy elements that appear in the presentation linkbase (rr-pre-2010-02-28.xml) should encounter no difficulties. For further detail, see the Architecture document.

5.4 Standard Label Linkbase

File rr-lab-2010-02-28.xml contains the "standard" labels for all concepts in the base schema rr-2010-02-28.xsd as well as for a few elements from namespace <http://xbrl.us/dei/2009-01-31>. For all elements in the rr namespace, the XBRL US GAAP Taxonomies v1.0 naming conventions are followed. The standard labels are not intended to be those actually present in the DTS of a

prospectus filing. This file is intended to be copied and edited to suit the needs of a specific prospectus.

5.5 Relationship to ICI 2006 Taxonomy

The SEC voluntary filing program included prospectus documents using the Mutual Fund Risk/Return Summary Taxonomy published in 2006 by the Investment Company Institute (ICI). There is a rough correspondence of elements between the ICI 2006 taxonomy, although the change of architecture and experience in the Voluntary Filing Program has led to numerous significant changes.

6 References

- [ARCH] XBRL US GAAP Taxonomies v1.0 Architecture
<http://usgaap.xbrl.us/>
- [ICI] 2006 Mutual Fund Risk/Return Summary Taxonomy <http://xbrl.ici.org/rtr/>
- [TECH] XBRL US GAAP Taxonomies v1.0 Technical Guide
<http://usgaap.xbrl.us/>
- [FRTA] Walter Hamscher (editor).
Financial Reporting Taxonomies Architecture 1.0 Recommendation with errata
corrections dated 2006-03-20.
<http://www.xbrl.org/TaxonomyGuidance/>
- [REND] Rendering Risk/Return Instances for the SEC Viewer.
Dated 2010-04-06
- [XBRL] Phillip Engel, Walter Hamscher, Geoff Shuetrim, David von Kannon, Hugh
Wallis.
Extensible Business Reporting Language (XBRL) 2.1 Recommendation with
corrected errata to 2008-07-02
<http://www.xbrl.org/SpecRecommendations/>
- [XDT] Ignacio Hernández-Ros, Hugh Wallis
XBRL Dimensions 1.0, RECOMMENDATION dated 2006-09-18 with
corrected errata to 2009-09-07
<http://www.xbrl.org/SpecRecommendations>