FpML - Valuation Component Definitions

Version: 4.4

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Errata For This Version:

http://www.fpml.org/spec/fpml-4-4-7-tr-1/html/fpml-4-4-errata.html

Document built

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1 Global Complex Types

1.1 AssetValuation

1.1.1 Description:

A structure that holds a set of measures about an asset, including possibly their sensitivities.

1.1.2 Contents:

Inherited element(s): (This definition inherits the content defined by the type Valuation)

- A valuation of an valuable object - an asset or a pricing input. This is an abstract type, used as a base for values of pricing structures such as yield curves as well as asset values.

quote (zero or more occurrences; of the type Quotation) One or more numerical measures relating to the asset, possibly together with sensitivities of that measure to pricing inputs.

fxRate (zero or one occurrence; of the type FxRate) Indicates the rate of a currency conversion that may have been used to compute valuations.

1.1.3 Used by:

- Complex type: Position
- Complex type: ValuationSet

1.1.4 Derived Types:

1.1.5 Figure:

1.1.6 Schema Fragment:

```
<xsd:complexType name="AssetValuation">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A structure that holds a set of measures about an asset,
      including possibly their sensitivities.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="Valuation">
      <xsd:sequence>
        <xsd:element name="quote" type="Quotation" minOccurs="0" maxOccurs="unbounded">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              One or more numerical measures relating to the asset,
              possibly together with sensitivities of that measure to
              pricing inputs.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="fxRate" type="FxRate" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Indicates the rate of a currency conversion that may have
              been used to compute valuations.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

1.2 DerivedValuationScenario

1.2.1 Description:

A valuation scenario that is derived from another valuation scenario.

1.2.2 Contents:

name (zero or one occurrence; of the type xsd:string) The (optional) name for this valuation scenario, used for understandability. For example "EOD Valuations".

baseValuationScenario (exactly one occurrence; of the type ValuationScenarioReference) An (optional) reference to a valuation scenario from which this one is derived.

valuationDate (zero or one occurrence; of the type IdentifiedDate) The (optional) date for which the assets are valued. If not present, the valuation date will be that of the base valuation scenario.

marketReference (zero or one occurrence; of the type MarketReference) A reference to the market environment used to price the asset. If not present, the market will be that of the base valuation scenario.

shift (zero or more occurrences; of the type PricingParameterShift) A collection of shifts to be applied to market inputs prior to computation of the derivative.

1.2.3 Used by:

1.2.4 Derived Types:

1.2.5 Figure:

1.2.6 Schema Fragment:

```xsd
<xsd:complexType name="DerivedValuationScenario">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A valuation scenario that is derived from another valuation
      scenario.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="name" type="xsd:string" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The (optional) name for this valuation scenario, used for
          understandability. For example "EOD Valuations".
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="baseValuationScenario" type="ValuationScenarioReference">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          An (optional) reference to a valuation scenario from which
          this one is derived.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="valuationDate" type="IdentifiedDate" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The (optional) date for which the assets are valued. If not
          present, the valuation date will be that of the base
          valuation scenario.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="marketReference" type="MarketReference" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A reference to the market environment used to price the
          asset. If not present, the market will be that of the base
          valuation scenario.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="shift" type="PricingParameterShift" minOccurs="0" maxOccurs="unbounded">
      <xsd:annotation>
```

```
            <xsd:documentation xml:lang="en">
              A collection of shifts to be applied to market inputs prior
              to computation of the derivative.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
      <xsd:attribute name="id" type="xsd:ID"/>
</xsd:complexType>
```

1.3 Position

1.3.1 Description:

A collection of related trades or positions and the corresponding aggregate exposures generated by these.

1.3.2 Contents:

positionId (exactly one occurrence; of the type PositionId) A version-independent identifier for the position, possibly based on trade identifier.

version (zero or one occurrence; of the type xsd:positiveInteger) A version identifier. Version identifiers must be ascending, i.e. higher numbers imply newer versions. There is no requirement that version identifiers for a position be sequential or small, so for example timestamp-based version identifiers could be used.

reportingRoles (zero or one occurrence; of the type ReportingRoles) Information about the roles of the parties with respect to reporting the positions.

constituent (exactly one occurrence; of the type PositionConstituent) The components that create this position.

scheduledDate (zero or more occurrences; of the type ScheduledDate) Position level schedule date, such as final payment dates, in a simple and flexible format.

valuation (zero or more occurrences; of the type AssetValuation) Valuation reported for the position, such as NPV or accrued interest. The asset/object references in the valuations should refer to the deal or components of the deal in the position, e.g. legs, streams, or underlyers.

1.3.3 Used by:

- Complex type: DefinePosition
- Complex type: PositionReport

1.3.4 Derived Types:

- Complex type: DefinePosition

1.3.5 Figure:

1.3.6 Schema Fragment:

```
<xsd:complexType name="Position">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A collection of related trades or positions and the corresponding
      aggregate exposures generated by these.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:group ref="PositionIdAndVersion.model"/>
    <xsd:element name="reportingRoles" type="ReportingRoles" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Information about the roles of the parties with respect to
          reporting the positions.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="constituent" type="PositionConstituent">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The components that create this position.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="scheduledDate" type="ScheduledDate" minOccurs="0" maxOccurs="unbounded">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Position level schedule date, such as final payment dates, in
          a simple and flexible format.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="valuation" type="AssetValuation" minOccurs="0" maxOccurs="unbounded">
```

```
            <xsd:annotation>
              <xsd:documentation xml:lang="en">
                Valuation reported for the position, such as NPV or accrued
                interest. The asset/object references in the valuations
                should refer to the deal or components of the deal in the
                position, e.g. legs, streams, or underlyers.
              </xsd:documentation>
            </xsd:annotation>
          </xsd:element>
      </xsd:sequence>
      <xsd:attribute name="id" type="xsd:ID"/>
  </xsd:complexType>
```

1.4 PositionConstituent

1.4.1 Description:

The items (trades, trade references, holdings, other positions) that comprise this position. Currently a position may consist only of a single trade, a reference to a previously submitted position, or a reference to the trade. The choice structure is optional to allow extensions to be placed within this container.

1.4.2 Contents:

Either

trade (exactly one occurrence; of the type Trade) An element that allows the full details of the trade to be used as a mechanism for identifying the trade for which the post-trade event pertains.

Or

contract (exactly one occurrence; of the type Contract) An element that allows the full details of the contract to be used as a mechanism for identifying the contract (at allocation level) for which the post-trade event pertains.

Or

positionVersionReference (exactly one occurrence; of the type xsd:positiveInteger) A previously submitted version of the position.

Or

tradeReference (exactly one occurrence; of the type PartyTradeIdentifiers) The trade reference identifier(s) allocated to the trade by the parties involved.

Or

contractReference (exactly one occurrence; of the type ContractReference) The contract reference identifiers(s) allocated to the contract by the parties involved.

1.4.3 Used by:

- Complex type: Position

1.4.4 Derived Types:

1.4.5 Figure:

1.4.6 Schema Fragment:

```
<xsd:complexType name="PositionConstituent">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      The items (trades, trade references, holdings, other positions)
      that comprise this position. Currently a position may consist
      only of a single trade, a reference to a previously submitted
      position, or a reference to the trade. The choice structure is
      optional to allow extensions to be placed within this container.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:choice minOccurs="0">
    <xsd:element name="trade" type="Trade">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          An element that allows the full details of the trade to be
          used as a mechanism for identifying the trade for which the
          post-trade event pertains.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="contract" type="Contract">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          An element that allows the full details of the contract to be
          used as a mechanism for identifying the contract (at
          allocation level) for which the post-trade event pertains.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
```

```xml
      <xsd:element name="positionVersionReference" type="xsd:positiveInteger">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            A previously submitted version of the position.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="tradeReference" type="PartyTradeIdentifiers">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            The trade reference identifier(s) allocated to the trade by
            the parties involved.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="contractReference" type="ContractReference">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            The contract reference identifiers(s) allocated to the
            contract by the parties involved.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:choice>
</xsd:complexType>
```

1.5 Quotation

1.5.1 Description:

Some kind of numerical measure about an asset, eg. its NPV, together with characteristics of that measure, together with optional sensitivities.

1.5.2 Contents:

value (zero or one occurrence; of the type xsd:decimal) The value of the the quotation.

sensitivitySet (zero or more occurrences; of the type SensitivitySet) Zero or more sets of sensitivities of this measure to various input parameters.

1.5.3 Used by:

• Complex type: AssetValuation

1.5.4 Derived Types:

1.5.5 Figure:

1.5.6 Schema Fragment:

```
<xsd:complexType name="Quotation">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Some kind of numerical measure about an asset, eg. its NPV,
      together with characteristics of that measure, together with
      optional sensitivities.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:group ref="Quotation.model"/>
    <xsd:element name="sensitivitySet" type="SensitivitySet" minOccurs="0" maxOccurs="unbounded
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Zero or more sets of sensitivities of this measure to various
          input parameters.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

1.6 ReportingRoles

1.6.1 Description:

The roles of the parties in reporting information such as positions.

1.6.2 Contents:

baseParty (exactly one occurrence; of the type PartyReference) A reference to the party from whose perspective the position is valued, ie. the owner or holder of the position.

activityProvider (zero or one occurrence; of the type PartyReference) A reference to the party responsible for reporting trading activities.

positionProvider (zero or one occurrence; of the type PartyReference) A reference to the party responsible for reporting the position itself and its constituents.

valuationProvider (zero or one occurrence; of the type PartyReference) A reference to the party responsible for calculating and reporting the valuations of the positions.

1.6.3 Used by:

• Complex type: Position

1.6.4 Derived Types:

1.6.5 Figure:

1.6.6 Schema Fragment:

```
<xsd:complexType name="ReportingRoles">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      The roles of the parties in reporting information such as
      positions.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="baseParty" type="PartyReference">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A reference to the party from whose perspective the position
          is valued, ie. the owner or holder of the position.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="activityProvider" type="PartyReference" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A reference to the party responsible for reporting trading
          activities.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="positionProvider" type="PartyReference" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A reference to the party responsible for reporting the
          position itself and its constituents.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="valuationProvider" type="PartyReference" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A reference to the party responsible for calculating and
          reporting the valuations of the positions.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

1.7 ScheduledDate

1.7.1 Description:

An servicing date relevant for a trade structure, such as a payment or a reset.

1.7.2 Contents:

Either

adjustedDate (exactly one occurrence; of the type xsd:date)

type (exactly one occurrence; of the type ScheduledDateType) The type of the date, e.g. next or previous payment.

assetReference (zero or one occurrence; of the type AnyAssetReference) A reference to the leg (or other product component) for which these dates occur.

Either

associatedValue (exactly one occurrence; of the type AssetValuation) The value that is associated with the scheduled date.

Or

associatedValueReference (exactly one occurrence; of the type ValuationReference) A reference to the value associated with this scheduled date.

1.7.3 Used by:

- Complex type: Position
- Complex type: ScheduledDates

1.7.4 Derived Types:

1.7.5 Figure:

1.7.6 Schema Fragment:

```
<xsd:complexType name="ScheduledDate">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      An servicing date relevant for a trade structure, such as a
      payment or a reset.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:group ref="AdjustedAndOrUnadjustedDate.model"/>
    <xsd:element name="type" type="ScheduledDateType">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The type of the date, e.g. next or previous payment.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="assetReference" type="AnyAssetReference" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A reference to the leg (or other product component) for which
          these dates occur.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:group ref="AssociatedValue.model" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
```

1.8 ScheduledDates

1.8.1 Description:

A list of dates (cash flows, resets, etc.) that are relevant for this structure, e.g. next cash flow, last reset, etc. Provides a way to list upcoming or recent servicing dates related to this trade stream in a way that is simpler and more flexible than the FpML "cashflows" structure.

1.8.2 Contents:

scheduledDate (one or more occurrences; of the type ScheduledDate) A single stream level scheduled servicing date.

1.8.3 Used by:

1.8.4 Derived Types:

1.8.5 Figure:

1.8.6 Schema Fragment:

```
<xsd:complexType name="ScheduledDates">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A list of dates (cash flows, resets, etc.) that are relevant for
      this structure, e.g. next cash flow, last reset, etc. Provides a
      way to list upcoming or recent servicing dates related to this
      trade stream in a way that is simpler and more flexible than the
      FpML "cashflows" structure.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="scheduledDate" type="ScheduledDate" maxOccurs="unbounded">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A single stream level scheduled servicing date.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

1.9 ScheduledDateType

1.9.1 Description:

A scheme used to identify the type of a stream scheduled servicing date.

1.9.2 Contents:

Inherited element(s): (This definition inherits the content defined by the type xsd:normalizedString)

-

1.9.3 Used by:

- Complex type: ScheduledDate

1.9.4 Derived Types:

1.9.5 Figure:

1.9.6 Schema Fragment:

```
<xsd:complexType name="ScheduledDateType">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A scheme used to identify the type of a stream scheduled
      servicing date.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:simpleContent>
    <xsd:extension base="xsd:normalizedString">
      <xsd:attribute name="scheduledDateTypeScheme" type="xsd:anyURI" default="http://www.fpml.
    </xsd:extension>
  </xsd:simpleContent>
</xsd:complexType>
```

1.10 Sensitivity

1.10.1 Description:

The sensitivity of a value to a defined change in input parameters.

1.10.2 Contents:

Inherited element(s): (This definition inherits the content defined by the type xsd:decimal)

*

1.10.3 Used by:

* Complex type: SensitivitySet

1.10.4 Derived Types:

1.10.5 Figure:

1.10.6 Schema Fragment:

```
<xsd:complexType name="Sensitivity">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      The sensitivity of a value to a defined change in input
      parameters.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:simpleContent>
    <xsd:extension base="xsd:decimal">
      <xsd:attribute name="name" type="xsd:normalizedString">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            A optional name for this sensitivity. This is primarily
            intended for display purposes.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:attribute>
      <xsd:attribute name="definitionRef" type="xsd:IDREF">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            A optional (but normally supplied) reference to the
            definition of this sensitivity.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:attribute>
    </xsd:extension>
  </xsd:simpleContent>
</xsd:complexType>
```

1.11 SensitivitySet

1.11.1 Description:

A collection of sensitivities. References a definition that explains the meaning/type of the sensitivities.

1.11.2 Contents:

name (zero or one occurrence; of the type xsd:string)

definitionReference (zero or one occurrence; of the type SensitivitySetReference) A reference to a sensitivity set definition.

sensitivity (zero or more occurrences; of the type Sensitivity)

1.11.3 Used by:

* Complex type: Quotation

1.11.4 Derived Types:

1.11.5 Figure:

1.11.6 Schema Fragment:

```
<xsd:complexType name="SensitivitySet">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A collection of sensitivities. References a definition that
      explains the meaning/type of the sensitivities.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="name" type="xsd:string" minOccurs="0"/>
    <xsd:element name="definitionReference" type="SensitivitySetReference" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A reference to a sensitivity set definition.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="sensitivity" type="Sensitivity" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
  <xsd:attribute name="id" type="xsd:ID"/>
</xsd:complexType>
```

1.12 SensitivitySetReference

1.12.1 Description:

Reference to a sensitivity set.

1.12.2 Contents:

Inherited element(s): (This definition inherits the content defined by the type Reference)

• The abstract base class for all types which define intra-document pointers.

1.12.3 Used by:

• Complex type: SensitivitySet

1.12.4 Derived Types:

1.12.5 Figure:

1.12.6 Schema Fragment:

```
<xsd:complexType name="SensitivitySetReference">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Reference to a sensitivity set.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="Reference">
      <xsd:attribute name="href" type="xsd:IDREF" use="required" ecore:reference="SensitivitySe
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

1.13 Valuations

1.13.1 Description:

A set of valuation.

1.13.2 Contents:

Either
valuation (exactly one occurrence; of the type AssetValuation)
Or
valuationReference (exactly one occurrence; of the type ValuationReference) A reference to a quotation

1.13.3 Used by:

1.13.4 Derived Types:

1.13.5 Figure:

1.13.6 Schema Fragment:

```
<xsd:complexType name="Valuations">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A set of valuation.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:group ref="AssetValuationOrReference.model" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
```

1.14 ValuationSet

1.14.1 Description:

A set of valuation inputs and results. This structure can be used for requesting valuations, or for reporting them. In general, the request fills in fewer elements.

1.14.2 Contents:

name (zero or one occurrence; of the type xsd:string) The name of the valuation set, used to understand what it means. E.g., "EOD Values and Risks for Party A".

valuationScenario (zero or more occurrences; of the type ValuationScenario) Valuation scenerios used (requested/reported) in this valuation set. E.g., the EOD valuation scenario for a particular value date. Used for the first occurrence of a valuation scenario in a document.

valuationScenarioReference (zero or more occurrences; of the type ValuationScenarioReference) References to valuation scenarios used (requested/reported) in this valuation set. E..g, a reference to the EOD valuation scenario for a particular value date. Used for subsequence occurrences of a valuation set in an FpML document.

baseParty (zero or one occurrence; of the type PartyReference) Reference to the party from whose point of view the assets are valued.

quotationCharacteristics (zero or more occurrences; of the type QuotationCharacteristics) Charactistics (measure types, units, sides, etc.) of the quotes used (requested/reported) in the valuation set.

sensitivitySetDefinition (zero or more occurrences; of the type SensitivitySetDefinition) Definition(s) of sensitivity sets used (requested or reported) in this valuation set.

detail (zero or one occurrence; of the type ValuationSetDetail) Does this valuation set include a market environment?

assetValuation (zero or more occurrences; of the type AssetValuation) Valuations reported in this valuation set. These values can be values (NPVs, prices, etc.) or risks (DAR, etc.) and can include sensitivities.

1.14.3 Used by:

- Element: valuationSet

1.14.4 Derived Types:

1.14.5 Figure:

1.14.6 Schema Fragment:

```
<xsd:complexType name="ValuationSet">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A set of valuation inputs and results. This structure can be used
      for requesting valuations, or for reporting them. In general, the
      request fills in fewer elements.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="name" type="xsd:string" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The name of the valuation set, used to understand what it
          means. E.g., "EOD Values and Risks for Party A".
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="valuationScenario" type="ValuationScenario" minOccurs="0" maxOccurs="unk
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Valuation scenerios used (requested/reported) in this
          valuation set. E.g., the EOD valuation scenario for a
          particular value date. Used for the first occurrence of a
          valuation scenario in a document.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="valuationScenarioReference" type="ValuationScenarioReference" minOccurs=
```

```xsd
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          References to valuation scenarios used (requested/reported)
          in this valuation set. E..g, a reference to the EOD valuation
          scenario for a particular value date. Used for subsequence
          occurrences of a valuation set in an FpML document.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="baseParty" type="PartyReference" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Reference to the party from whose point of view the assets
          are valued.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="quotationCharacteristics" type="QuotationCharacteristics" minOccurs="0"
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Charactistics (measure types, units, sides, etc.) of the
          quotes used (requested/reported) in the valuation set.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="sensitivitySetDefinition" type="SensitivitySetDefinition" minOccurs="0"
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Definition(s) of sensitivity sets used (requested or
          reported) in this valuation set.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="detail" type="ValuationSetDetail" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Does this valuation set include a market environment?
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="assetValuation" type="AssetValuation" minOccurs="0" maxOccurs="unbounded
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Valuations reported in this valuation set. These values can
          be values (NPVs, prices, etc.) or risks (DAR, etc.) and can
          include sensitivities.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
  <xsd:attribute name="id" type="xsd:ID"/>
</xsd:complexType>
```

1.15 ValuationSetDetail

1.15.1 Description:

The amount of detail provided in the valuation set, e.g. is market environment data provided, are risk definitions provided, etc.

1.15.2 Contents:

Inherited element(s): (This definition inherits the content defined by the type xsd:normalizedString)

-

1.15.3 Used by:

- Complex type: ValuationSet

1.15.4 Derived Types:

1.15.5 Figure:

1.15.6 Schema Fragment:

```
<xsd:complexType name="ValuationSetDetail">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      The amount of detail provided in the valuation set, e.g. is
      market environment data provided, are risk definitions provided,
      etc.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:simpleContent>
    <xsd:extension base="xsd:normalizedString">
      <xsd:attribute name="valuationSetDetailScheme" type="xsd:anyURI"/>
    </xsd:extension>
  </xsd:simpleContent>
</xsd:complexType>
```

2 Global Elements

2.1 valuationSet

2.1.1 Description:

2.1.2 Contents:

Element valuationSet is defined by the complex type ValuationSet

2.1.3 Used by:

- Complex type: PortfolioValuationItem
- Complex type: TradeValuationItem
- Complex type: ValuationDocument

2.1.4 Substituted by:

2.1.5 Figure:

2.1.6 Schema Fragment:

```
<xsd:element name="valuationSet" type="ValuationSet"/>
```

3 Groups

3.1 AdjustedAndOrUnadjustedDate.model

3.1.1 Description:

Contains at least one of an adjusted date and and unadjusted date, using the usual meanings of those terms.

3.1.2 Contents:

Either

adjustedDate (exactly one occurrence; of the type xsd:date)

3.1.3 Used by:

- Complex type: ScheduledDate

3.1.4 Figure:

3.1.5 Schema Fragment:

```
<xsd:group name="AdjustedAndOrUnadjustedDate.model">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Contains at least one of an adjusted date and and unadjusted
      date, using the usual meanings of those terms.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:choice>
    <xsd:sequence>
      <xsd:element name="unadjustedDate" type="xsd:date"/>
      <xsd:element name="adjustedDate" type="xsd:date" minOccurs="0"/>
    </xsd:sequence>
    <xsd:element name="adjustedDate" type="xsd:date"/>
  </xsd:choice>
</xsd:group>
```

3.2 AssetValuationOrReference.model

3.2.1 Description:

A quotation or a reference to a quotation.

3.2.2 Contents:

Either

valuation (exactly one occurrence; of the type AssetValuation)

Or

valuationReference (exactly one occurrence; of the type ValuationReference) A reference to a quotation

3.2.3 Used by:

• Complex type: Valuations

3.2.4 Figure:

3.2.5 Schema Fragment:

```
<xsd:group name="AssetValuationOrReference.model">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A quotation or a reference to a quotation.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:choice>
    <xsd:element name="valuation" type="AssetValuation">
      <xsd:annotation>
        <xsd:documentation xml:lang="en"/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="valuationReference" type="ValuationReference">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A reference to a quotation
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:choice>
</xsd:group>
```

3.3 AssociatedValue.model

3.3.1 Description:

An associated value or reference for a scheduled date.

3.3.2 Contents:

Either

associatedValue (exactly one occurrence; of the type AssetValuation) The value that is associated with the scheduled date.

Or

associatedValueReference (exactly one occurrence; of the type ValuationReference) A reference to the value associated with this scheduled date.

3.3.3 Used by:

- Complex type: ScheduledDate

3.3.4 Figure:

3.3.5 Schema Fragment:

```
<xsd:group name="AssociatedValue.model">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      An associated value or reference for a scheduled date.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:choice>
    <xsd:element name="associatedValue" type="AssetValuation">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The value that is associated with the scheduled date.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="associatedValueReference" type="ValuationReference">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A reference to the value associated with this scheduled date.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:choice>
</xsd:group>
```

4 Schema listing

```xsd
<xsd:schema ecore:nsPrefix="fpml" ecore:package="org.fpml" ecore:documentRoot="FpML" targetName
  <xsd:include schemaLocation="fpml-riskdef-4-4.xsd"/>
  <xsd:complexType name="AssetValuation">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
      A structure that holds a set of measures about an asset,
      including possibly their sensitivities.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:complexContent>
      <xsd:extension base="Valuation">
        <xsd:sequence>
          <xsd:element name="quote" type="Quotation" minOccurs="0" maxOccurs="unbounded">
            <xsd:annotation>
              <xsd:documentation xml:lang="en">
              One or more numerical measures relating to the asset,
              possibly together with sensitivities of that measure to
              pricing inputs.
              </xsd:documentation>
            </xsd:annotation>
          </xsd:element>
          <xsd:element name="fxRate" type="FxRate" minOccurs="0">
            <xsd:annotation>
              <xsd:documentation xml:lang="en">
              Indicates the rate of a currency conversion that may
              have been used to compute valuations.
              </xsd:documentation>
            </xsd:annotation>
          </xsd:element>
        </xsd:sequence>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:complexType name="DerivedValuationScenario">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
      A valuation scenario that is derived from another valuation
      scenario.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:element name="name" type="xsd:string" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
          The (optional) name for this valuation scenario, used for
          understandability. For example "EOD Valuations".
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="baseValuationScenario" type="ValuationScenarioReference">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
          An (optional) reference to a valuation scenario from which
          this one is derived.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="valuationDate" type="IdentifiedDate" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
          The (optional) date for which the assets are valued. If not
          present, the valuation date will be that of the base
          valuation scenario.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="marketReference" type="MarketReference" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
          A reference to the market environment used to price the
          asset. If not present, the market will be that of the base
          valuation scenario.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="shift" type="PricingParameterShift" minOccurs="0" maxOccurs="unbounded
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
          A collection of shifts to be applied to market inputs prior
```

```xsd
                  to computation of the derivative.
               </xsd:documentation>
            </xsd:annotation>
         </xsd:element>
      </xsd:sequence>
      <xsd:attribute name="id" type="xsd:ID"/>
   </xsd:complexType>
   <xsd:complexType name="Position">
      <xsd:annotation>
         <xsd:documentation xml:lang="en">
            A collection of related trades or positions and the
            corresponding aggregate exposures generated by these.
         </xsd:documentation>
      </xsd:annotation>
      <xsd:sequence>
         <xsd:group ref="PositionIdAndVersion.model"/>
         <xsd:element name="reportingRoles" type="ReportingRoles" minOccurs="0">
            <xsd:annotation>
               <xsd:documentation xml:lang="en">
                  Information about the roles of the parties with respect to
                  reporting the positions.
               </xsd:documentation>
            </xsd:annotation>
         </xsd:element>
         <xsd:element name="constituent" type="PositionConstituent">
            <xsd:annotation>
               <xsd:documentation xml:lang="en">
                  The components that create this position.
               </xsd:documentation>
            </xsd:annotation>
         </xsd:element>
         <xsd:element name="scheduledDate" type="ScheduledDate" minOccurs="0" maxOccurs="unbounded
            <xsd:annotation>
               <xsd:documentation xml:lang="en">
                  Position level schedule date, such as final payment dates,
                  in a simple and flexible format.
               </xsd:documentation>
            </xsd:annotation>
         </xsd:element>
         <xsd:element name="valuation" type="AssetValuation" minOccurs="0" maxOccurs="unbounded">
            <xsd:annotation>
               <xsd:documentation xml:lang="en">
                  Valuation reported for the position, such as NPV or accrued
                  interest. The asset/object references in the valuations
                  should refer to the deal or components of the deal in the
                  position, e.g. legs, streams, or underlyers.
               </xsd:documentation>
            </xsd:annotation>
         </xsd:element>
      </xsd:sequence>
      <xsd:attribute name="id" type="xsd:ID"/>
   </xsd:complexType>
   <xsd:complexType name="PositionConstituent">
      <xsd:annotation>
         <xsd:documentation xml:lang="en">
            The items (trades, trade references, holdings, other positions)
            that comprise this position. Currently a position may consist
            only of a single trade, a reference to a previously submitted
            position, or a reference to the trade. The choice structure is
            optional to allow extensions to be placed within this
            container.
         </xsd:documentation>
      </xsd:annotation>
      <xsd:choice minOccurs="0">
         <xsd:element name="trade" type="Trade">
            <xsd:annotation>
               <xsd:documentation xml:lang="en">
                  An element that allows the full details of the trade to be
                  used as a mechanism for identifying the trade for which the
                  post-trade event pertains.
               </xsd:documentation>
            </xsd:annotation>
         </xsd:element>
         <xsd:element name="contract" type="Contract">
            <xsd:annotation>
               <xsd:documentation xml:lang="en">
                  An element that allows the full details of the contract to
                  be used as a mechanism for identifying the contract (at
                  allocation level) for which the post-trade event pertains.
               </xsd:documentation>
            </xsd:annotation>
         </xsd:element>
         <xsd:element name="positionVersionReference" type="xsd:positiveInteger">
```

```xml
              <xsd:annotation>
                <xsd:documentation xml:lang="en">
                  A previously submitted version of the position.
                </xsd:documentation>
              </xsd:annotation>
            </xsd:element>
            <xsd:element name="tradeReference" type="PartyTradeIdentifiers">
              <xsd:annotation>
                <xsd:documentation xml:lang="en">
                  The trade reference identifier(s) allocated to the trade by
                  the parties involved.
                </xsd:documentation>
              </xsd:annotation>
            </xsd:element>
            <xsd:element name="contractReference" type="ContractReference">
              <xsd:annotation>
                <xsd:documentation xml:lang="en">
                  The contract reference identifiers(s) allocated to the
                  contract by the parties involved.
                </xsd:documentation>
              </xsd:annotation>
            </xsd:element>
          </xsd:choice>
  </xsd:complexType>
  <xsd:complexType name="Quotation">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Some kind of numerical measure about an asset, eg. its NPV,
        together with characteristics of that measure, together with
        optional sensitivities.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:group ref="Quotation.model"/>
      <xsd:element name="sensitivitySet" type="SensitivitySet" minOccurs="0" maxOccurs="unbound
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            Zero or more sets of sensitivities of this measure to
            various input parameters.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="ReportingRoles">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        The roles of the parties in reporting information such as
        positions.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:element name="baseParty" type="PartyReference">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            A reference to the party from whose perspective the
            position is valued, ie. the owner or holder of the
            position.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="activityProvider" type="PartyReference" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            A reference to the party responsible for reporting trading
            activities.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="positionProvider" type="PartyReference" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            A reference to the party responsible for reporting the
            position itself and its constituents.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="valuationProvider" type="PartyReference" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            A reference to the party responsible for calculating and
            reporting the valuations of the positions.
          </xsd:documentation>
```

```
            </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="ScheduledDate">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        An servicing date relevant for a trade structure, such as a
        payment or a reset.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:group ref="AdjustedAndOrUnadjustedDate.model"/>
      <xsd:element name="type" type="ScheduledDateType">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            The type of the date, e.g. next or previous payment.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="assetReference" type="AnyAssetReference" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            A reference to the leg (or other product component) for
            which these dates occur.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:group ref="AssociatedValue.model" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="ScheduledDates">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        A list of dates (cash flows, resets, etc.) that are relevant
        for this structure, e.g. next cash flow, last reset, etc.
        Provides a way to list upcoming or recent servicing dates
        related to this trade stream in a way that is simpler and more
        flexible than the FpML "cashflows" structure.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:element name="scheduledDate" type="ScheduledDate" maxOccurs="unbounded">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            A single stream level scheduled servicing date.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="ScheduledDateType">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        A scheme used to identify the type of a stream scheduled
        servicing date.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:simpleContent>
      <xsd:extension base="xsd:normalizedString">
        <xsd:attribute name="scheduledDateTypeScheme" type="xsd:anyURI" default="http://www.fpm
      </xsd:extension>
    </xsd:simpleContent>
  </xsd:complexType>
  <xsd:complexType name="Sensitivity">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        The sensitivity of a value to a defined change in input
        parameters.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:simpleContent>
      <xsd:extension base="xsd:decimal">
        <xsd:attribute name="name" type="xsd:normalizedString">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              A optional name for this sensitivity. This is primarily
              intended for display purposes.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:attribute>
        <xsd:attribute name="definitionRef" type="xsd:IDREF">
          <xsd:annotation>
```

```
              <xsd:documentation xml:lang="en">
                A optional (but normally supplied) reference to the
                definition of this sensitivity.
              </xsd:documentation>
            </xsd:annotation>
          </xsd:attribute>
        </xsd:extension>
      </xsd:simpleContent>
  </xsd:complexType>
  <xsd:complexType name="SensitivitySet">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        A collection of sensitivities. References a definition that
        explains the meaning/type of the sensitivities.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:element name="name" type="xsd:string" minOccurs="0"/>
      <xsd:element name="definitionReference" type="SensitivitySetReference" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            A reference to a sensitivity set definition.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="sensitivity" type="Sensitivity" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
    <xsd:attribute name="id" type="xsd:ID"/>
  </xsd:complexType>
  <xsd:complexType name="SensitivitySetReference">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Reference to a sensitivity set.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:complexContent>
      <xsd:extension base="Reference">
        <xsd:attribute name="href" type="xsd:IDREF" use="required" ecore:reference="Sensitivity
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:complexType name="Valuations">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        A set of valuation.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:group ref="AssetValuationOrReference.model" maxOccurs="unbounded"/>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="ValuationSet">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        A set of valuation inputs and results. This structure can be
        used for requesting valuations, or for reporting them. In
        general, the request fills in fewer elements.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:element name="name" type="xsd:string" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            The name of the valuation set, used to understand what it
            means. E.g., "EOD Values and Risks for Party A".
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="valuationScenario" type="ValuationScenario" minOccurs="0" maxOccurs="u
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            Valuation scenerios used (requested/reported) in this
            valuation set. E.g., the EOD valuation scenario for a
            particular value date. Used for the first occurrence of a
            valuation scenario in a document.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="valuationScenarioReference" type="ValuationScenarioReference" minOccur
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            References to valuation scenarios used (requested/reported)
            in this valuation set. E..g, a reference to the EOD
```

```
                        valuation scenario for a particular value date. Used for
                        subsequence occurrences of a valuation set in an FpML
                        document.
                     </xsd:documentation>
                  </xsd:annotation>
               </xsd:element>
               <xsd:element name="baseParty" type="PartyReference" minOccurs="0">
                  <xsd:annotation>
                     <xsd:documentation xml:lang="en">
                        Reference to the party from whose point of view the assets
                        are valued.
                     </xsd:documentation>
                  </xsd:annotation>
               </xsd:element>
               <xsd:element name="quotationCharacteristics" type="QuotationCharacteristics" minOccurs="(
                  <xsd:annotation>
                     <xsd:documentation xml:lang="en">
                        Charactistics (measure types, units, sides, etc.) of the
                        quotes used (requested/reported) in the valuation set.
                     </xsd:documentation>
                  </xsd:annotation>
               </xsd:element>
               <xsd:element name="sensitivitySetDefinition" type="SensitivitySetDefinition" minOccurs="(
                  <xsd:annotation>
                     <xsd:documentation xml:lang="en">
                        Definition(s) of sensitivity sets used (requested or
                        reported) in this valuation set.
                     </xsd:documentation>
                  </xsd:annotation>
               </xsd:element>
               <xsd:element name="detail" type="ValuationSetDetail" minOccurs="0">
                  <xsd:annotation>
                     <xsd:documentation xml:lang="en">
                        Does this valuation set include a market environment?
                     </xsd:documentation>
                  </xsd:annotation>
               </xsd:element>
               <xsd:element name="assetValuation" type="AssetValuation" minOccurs="0" maxOccurs="unbound
                  <xsd:annotation>
                     <xsd:documentation xml:lang="en">
                        Valuations reported in this valuation set. These values can
                        be values (NPVs, prices, etc.) or risks (DAR, etc.) and can
                        include sensitivities.
                     </xsd:documentation>
                  </xsd:annotation>
               </xsd:element>
            </xsd:sequence>
            <xsd:attribute name="id" type="xsd:ID"/>
         </xsd:complexType>
         <xsd:complexType name="ValuationSetDetail">
            <xsd:annotation>
               <xsd:documentation xml:lang="en">
                  The amount of detail provided in the valuation set, e.g. is
                  market environment data provided, are risk definitions
                  provided, etc.
               </xsd:documentation>
            </xsd:annotation>
            <xsd:simpleContent>
               <xsd:extension base="xsd:normalizedString">
                  <xsd:attribute name="valuationSetDetailScheme" type="xsd:anyURI"/>
               </xsd:extension>
            </xsd:simpleContent>
         </xsd:complexType>
         <xsd:element name="valuationSet" type="ValuationSet"/>
         <xsd:group name="AdjustedAndOrUnadjustedDate.model">
            <xsd:annotation>
               <xsd:documentation xml:lang="en">
                  Contains at least one of an adjusted date and and unadjusted
                  date, using the usual meanings of those terms.
               </xsd:documentation>
            </xsd:annotation>
            <xsd:choice>
               <xsd:sequence>
                  <xsd:element name="unadjustedDate" type="xsd:date"/>
                  <xsd:element name="adjustedDate" type="xsd:date" minOccurs="0"/>
               </xsd:sequence>
               <xsd:element name="adjustedDate" type="xsd:date"/>
            </xsd:choice>
         </xsd:group>
         <xsd:group name="AssetValuationOrReference.model">
            <xsd:annotation>
               <xsd:documentation xml:lang="en">
                  A quotation or a reference to a quotation.
```

```
          </xsd:documentation>
      </xsd:annotation>
      <xsd:choice>
        <xsd:element name="valuation" type="AssetValuation">
          <xsd:annotation>
            <xsd:documentation xml:lang="en"/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="valuationReference" type="ValuationReference">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              A reference to a quotation
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:choice>
    </xsd:group>
    <xsd:group name="AssociatedValue.model">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          An associated value or reference for a scheduled date.
        </xsd:documentation>
      </xsd:annotation>
      <xsd:choice>
        <xsd:element name="associatedValue" type="AssetValuation">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              The value that is associated with the scheduled date.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="associatedValueReference" type="ValuationReference">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              A reference to the value associated with this scheduled
              date.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:choice>
    </xsd:group>
</xsd:schema>
```