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1 Global Complex Types

1.1 AnyAssetReference

1.1.1 Description:

A reference to an asset, e.g. a portfolio, trade, or reference instrument..

1.1.2 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.

1.1.3 Used by:

- Complex type: PricingMethod
- Complex type: ScheduledDate
- Complex type: Valuation
- Complex type: VolatilityRepresentation

1.1.4 Derived Types:

1.1.5 Figure:

1.1.6 Schema Fragment:

```
<xsd:complexType name="AnyAssetReference">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A reference to an asset, e.g. a portfolio, trade, or reference
      instrument..
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="Reference">
      <xsd:attribute name="href" type="xsd:IDREF" use="required"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

1.2 AssetMeasureType

1.2.1 Description:

A scheme identifying the types of measures that can be used to describe an asset.

1.2.2 Contents:

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

•

1.2.3 Used by:

1.2.4 Derived Types:

1.2.5 Figure:

1.2.6 Schema Fragment:

```
<xsd:complexType name="AssetMeasureType">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A scheme identifying the types of measures that can be used to
      describe an asset.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:simpleContent>
    <xsd:extension base="xsd:normalizedString">
      <xsd:attribute name="assetMeasureScheme" default="http://www.fpml.org/coding-scheme/asset" />
    </xsd:extension>
  </xsd:simpleContent>
</xsd:complexType>
```


1.3 BasicQuotation

1.3.1 Description:

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

1.3.2 Contents:

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

1.3.3 Used by:

- Complex type: BasicAssetValuation
- Complex type: CashflowObservation

1.3.4 Derived Types:

1.3.5 Figure:

1.3.6 Schema Fragment:

```
<xsd:complexType name="BasicQuotation">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Some kind of numerical measure about an asset, eg. its NPV,
      together with characteristics of that measure.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:group ref="Quotation.model"/>
  </xsd:sequence>
</xsd:complexType>
```

1.4 PriceQuoteUnits

1.4.1 Description:

The units in which a price is quoted.

1.4.2 Contents:

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

•

1.4.3 Used by:

- Complex type: ParametricAdjustment
- Complex type: PricingParameterShift

1.4.4 Derived Types:

1.4.5 Figure:

1.4.6 Schema Fragment:

```
<xsd:complexType name="PriceQuoteUnits">
  <xsd:annotation>
    <xsd:documentation source="http://www.FpML.org" xml:lang="en">
      The units in which a price is quoted.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:simpleContent>
    <xsd:extension base="xsd:normalizedString">
      <xsd:attribute name="priceQuoteUnitsScheme" type="xsd:anyURI" default="http://www.fpml.org" />
    </xsd:extension>
  </xsd:simpleContent>
</xsd:complexType>
```

1.5 QuotationCharacteristics

1.5.1 Description:

A type representing a set of characteristics that describe a quotation.

1.5.2 Contents:

measureType (zero or one occurrence; of the type AssetMeasureType) The type of the value that is measured. This could be an NPV, a cash flow, a clean price, etc.

quoteUnits (zero or one occurrence; of the type PriceQuoteUnits) The optional units that the measure is expressed in. If not supplied, this is assumed to be a price/value in currency units.

side (zero or one occurrence; of the type QuotationSideEnum) The side (bid/mid/ask) of the measure.

currency (zero or one occurrence; of the type Currency) The optional currency that the measure is expressed in. If not supplied, this is defaulted from the reportingCurrency in the valuationScenarioDefinition.

timing (zero or one occurrence; of the type QuoteTiming) When during a day the quote is for. Typically, if this element is supplied, the QuoteLocation needs also to be supplied.

informationSource (zero or more occurrences; of the type InformationSource) The information source where a published or displayed market rate will be obtained, e.g. Telerate Page 3750.

time (zero or one occurrence; of the type xsd:dateTime) When the quote was observed or derived.

valuationDate (zero or one occurrence; of the type xsd:date) When the quote was computed.

expiryTime (zero or one occurrence; of the type xsd:dateTime) When does the quote cease to be valid.

cashFlowType (zero or one occurrence; of the type CashflowType) For cash flows, the type of the cash flows. Examples include: Coupon payment, Premium Fee, Settlement Fee, Brokerage Fee, etc.

1.5.3 Used by:

- Complex type: PositionReport
- Complex type: Price
- Complex type: SensitivitySetDefinition
- Complex type: ValuationSet

1.5.4 Derived Types:

1.5.5 Figure:

1.5.6 Schema Fragment:

```
<xsd:complexType name="QuotationCharacteristics">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type representing a set of characteristics that describe a
      quotation.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:group ref="QuotationCharacteristics.model"/>
  </xsd:sequence>
</xsd:complexType>
```

1.6 QuoteTiming

1.6.1 Description:

The type of the time of the quote.

1.6.2 Contents:

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

•

1.6.3 Used by:

1.6.4 Derived Types:

1.6.5 Figure:

1.6.6 Schema Fragment:

```
<xsd:complexType name="QuoteTiming">
  <xsd:annotation>
    <xsd:documentation source="http://www.FpML.org" xml:lang="en">
      The type of the time of the quote.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:simpleContent>
    <xsd:extension base="xsd:normalizedString">
      <xsd:attribute name="quoteTimingScheme" type="xsd:anyURI" default="http://www.fpml.org/co
    </xsd:extension>
  </xsd:simpleContent>
</xsd:complexType>
```

2 Groups

2.1 Quotation.model

2.1.1 Description:

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

2.1.2 Contents:

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

measureType (zero or one occurrence; of the type AssetMeasureType) The type of the value that is measured. This could be an NPV, a cash flow, a clean price, etc.

quoteUnits (zero or one occurrence; of the type PriceQuoteUnits) The optional units that the measure is expressed in. If not supplied, this is assumed to be a price/value in currency units.

side (zero or one occurrence; of the type QuotationSideEnum) The side (bid/mid/ask) of the measure.

currency (zero or one occurrence; of the type Currency) The optional currency that the measure is expressed in. If not supplied, this is defaulted from the reportingCurrency in the valuationScenarioDefinition.

timing (zero or one occurrence; of the type QuoteTiming) When during a day the quote is for. Typically, if this element is supplied, the QuoteLocation needs also to be supplied.

informationSource (zero or more occurrences; of the type InformationSource) The information source where a published or displayed market rate will be obtained, e.g. Telerate Page 3750.

time (zero or one occurrence; of the type xsd:dateTime) When the quote was observed or derived.

valuationDate (zero or one occurrence; of the type xsd:date) When the quote was computed.

expiryTime (zero or one occurrence; of the type xsd:dateTime) When does the quote cease to be valid.

cashFlowType (zero or one occurrence; of the type CashflowType) For cash flows, the type of the cash flows. Examples include: Coupon payment, Premium Fee, Settlement Fee, Brokerage Fee, etc.

2.1.3 Used by:

- Complex type: BasicQuotation
- Complex type: PricingStructurePoint
- Complex type: Quotation

2.1.4 Figure:

2.1.5 Schema Fragment:

```
<xsd:group name="Quotation.model">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Some kind of numerical measure about an asset, eg. its price or
      NPV, together with characteristics of that measure.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="value" type="xsd:decimal" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The value of the the quotation.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:group ref="QuotationCharacteristics.model">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The characteristics of the quotation.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:group>
  </xsd:sequence>
</xsd:group>
```

2.2 QuotationCharacteristics.model

2.2.1 Description:

A group collecting a set of characteristics that can be used to describe a quotation.

2.2.2 Contents:

measureType (zero or one occurrence; of the type AssetMeasureType) The type of the value that is measured. This could be an NPV, a cash flow, a clean price, etc.

quoteUnits (zero or one occurrence; of the type PriceQuoteUnits) The optional units that the measure is expressed in. If not supplied, this is assumed to be a price/value in currency units.

side (zero or one occurrence; of the type QuotationSideEnum) The side (bid/mid/ask) of the measure.

currency (zero or one occurrence; of the type Currency) The optional currency that the measure is expressed in. If not supplied, this is defaulted from the reportingCurrency in the valuationScenarioDefinition.

timing (zero or one occurrence; of the type QuoteTiming) When during a day the quote is for. Typically, if this element is supplied, the QuoteLocation needs also to be supplied.

Either

businessCenter (exactly one occurrence; of the type BusinessCenter) A city or other business center.

Or

exchangeld (exactly one occurrence; of the type Exchangeld) The exchange (e.g. stock or futures exchange) from which the quote is obtained.

informationSource (zero or more occurrences; of the type InformationSource) The information source where a published or displayed market rate will be obtained, e.g. Telerate Page 3750.

time (zero or one occurrence; of the type xsd:dateTime) When the quote was observed or derived.

valuationDate (zero or one occurrence; of the type xsd:date) When the quote was computed.

expiryTime (zero or one occurrence; of the type xsd:dateTime) When does the quote cease to be valid.

cashFlowType (zero or one occurrence; of the type CashflowType) For cash flows, the type of the cash flows. Examples include: Coupon payment, Premium Fee, Settlement Fee, Brokerage Fee, etc.

2.2.3 Used by:

- Complex type: MultiDimensionalPricingData
- Complex type: QuotationCharacteristics

2.2.4 Figure:

2.2.5 Schema Fragment:

```
<xsd:group name="QuotationCharacteristics.model">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A group collecting a set of characteristics that can be used to
      describe a quotation.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="measureType" type="AssetMeasureType" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The type of the value that is measured. This could be an NPV,
          a cash flow, a clean price, etc.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="quoteUnits" type="PriceQuoteUnits" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The optional units that the measure is expressed in. If not
          supplied, this is assumed to be a price/value in currency
          units.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:group>
```

```

<xsd:element name="side" type="QuotationSideEnum" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      The side (bid/mid/ask) of the measure.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="currency" type="Currency" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      The optional currency that the measure is expressed in. If
      not supplied, this is defaulted from the reportingCurrency in
      the valuationScenarioDefinition.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="timing" type="QuoteTiming" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      When during a day the quote is for. Typically, if this
      element is supplied, the QuoteLocation needs also to be
      supplied.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:group ref="QuoteLocation.model" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Where the quote is from.
    </xsd:documentation>
  </xsd:annotation>
</xsd:group>
<xsd:element name="informationSource" type="InformationSource" minOccurs="0" maxOccurs="unbounded">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      The information source where a published or displayed market
      rate will be obtained, e.g. Telerate Page 3750.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="time" type="xsd:dateTime" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      When the quote was observed or derived.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="valuationDate" type="xsd:date" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      When the quote was computed.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="expiryTime" type="xsd:dateTime" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      When does the quote cease to be valid.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="cashFlowType" type="CashflowType" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      For cash flows, the type of the cash flows. Examples include:
      Coupon payment, Premium Fee, Settlement Fee, Brokerage Fee,
      etc.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:group>

```


2.3 QuoteLocation.model

2.3.1 Description:

A group describing where a quote was or will be obtained, e.g. observed or calculated.

2.3.2 Contents:

Either

businessCenter (exactly one occurrence; of the type BusinessCenter) A city or other business center.

Or

exchangeId (exactly one occurrence; of the type ExchangeId) The exchange (e.g. stock or futures exchange) from which the quote is obtained.

2.3.3 Used by:

2.3.4 Figure:

2.3.5 Schema Fragment:

```
<xsd:group name="QuoteLocation.model">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A group describing where a quote was or will be obtained, e.g.
      observed or calculated.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:choice>
    <xsd:element name="businessCenter" type="BusinessCenter">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A city or other business center.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="exchangeId" type="ExchangeId">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The exchange (e.g. stock or futures exchange) from which the
          quote is obtained.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:choice>
</xsd:group>
```

3 Schema listing

```
<xsd:schema ecore:nsPrefix="fpml" ecore:package="org.fpml" ecore:documentRoot="FpML" targetNameSpace="http://www.fpml.org" >
  <xsd:include schemaLocation="fpml-shared-4-3.xsd"/>
  <xsd:complexType name="AnyAssetReference">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        A reference to an asset, e.g. a portfolio, trade, or reference instrument..
      </xsd:documentation>
    </xsd:annotation>
    <xsd:complexContent>
      <xsd:extension base="Reference">
        <xsd:attribute name="href" type="xsd:IDREF" use="required"/>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:complexType name="AssetMeasureType">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        A scheme identifying the types of measures that can be used to describe an asset.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:simpleContent>
      <xsd:extension base="xsd:normalizedString">
        <xsd:attribute name="assetMeasureScheme" default="http://www.fpml.org/coding-scheme/assetMeasureScheme" type="xsd:string"/>
      </xsd:extension>
    </xsd:simpleContent>
  </xsd:complexType>
  <xsd:complexType name="BasicQuotation">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Some kind of numerical measure about an asset, eg. its NPV, together with characteristics of that measure.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:group ref="Quotation.model"/>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="PriceQuoteUnits">
    <xsd:annotation>
      <xsd:documentation source="http://www.FpML.org" xml:lang="en">
        The units in which a price is quoted.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:simpleContent>
      <xsd:extension base="xsd:normalizedString">
        <xsd:attribute name="priceQuoteUnitsScheme" type="xsd:anyURI" default="http://www.fpml.org/coding-scheme/priceQuoteUnitsScheme"/>
      </xsd:extension>
    </xsd:simpleContent>
  </xsd:complexType>
  <xsd:complexType name="QuotationCharacteristics">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        A type representing a set of characteristics that describe a quotation.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:group ref="QuotationCharacteristics.model"/>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="QuoteTiming">
    <xsd:annotation>
      <xsd:documentation source="http://www.FpML.org" xml:lang="en">
        The type of the time of the quote.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:simpleContent>
      <xsd:extension base="xsd:normalizedString">
        <xsd:attribute name="quoteTimingScheme" type="xsd:anyURI" default="http://www.fpml.org/coding-scheme/quoteTimingScheme"/>
      </xsd:extension>
    </xsd:simpleContent>
  </xsd:complexType>
  <xsd:group name="Quotation.model">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Some kind of numerical measure about an asset, eg. its price or NPV, together with characteristics of that measure.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:group>
</xsd:schema>
```

```

    </xsd:documentation>
  </xsd:annotation>
<xsd:sequence>
  <xsd:element name="value" type="xsd:decimal" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        The value of the the quotation.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:group ref="QuotationCharacteristics.model">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        The characteristics of the quotation.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:group>
</xsd:sequence>
</xsd:group>
<xsd:group name="QuotationCharacteristics.model">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A group collecting a set of characteristics that can be used to
      describe a quotation.
    </xsd:documentation>
  </xsd:annotation>
<xsd:sequence>
  <xsd:element name="measureType" type="AssetMeasureType" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        The type of the value that is measured. This could be an
        NPV, a cash flow, a clean price, etc.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="quoteUnits" type="PriceQuoteUnits" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        The optional units that the measure is expressed in. If not
        supplied, this is assumed to be a price/value in currency
        units.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="side" type="QuotationSideEnum" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        The side (bid/mid/ask) of the measure.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="currency" type="Currency" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        The optional currency that the measure is expressed in. If
        not supplied, this is defaulted from the reportingCurrency
        in the valuationScenarioDefinition.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="timing" type="QuoteTiming" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        When during a day the quote is for. Typically, if this
        element is supplied, the QuoteLocation needs also to be
        supplied.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:group ref="QuoteLocation.model" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Where the quote is from.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:group>
  <xsd:element name="informationSource" type="InformationSource" minOccurs="0" maxOccurs="1">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        The information source where a published or displayed
        market rate will be obtained, e.g. Telerate Page 3750.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>

```

```

</xsd:element>
<xsd:element name="time" type="xsd:dateTime" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      When the quote was observed or derived.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="valuationDate" type="xsd:date" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      When the quote was computed.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="expiryTime" type="xsd:dateTime" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      When does the quote cease to be valid.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="cashFlowType" type="CashflowType" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      For cash flows, the type of the cash flows. Examples
      include: Coupon payment, Premium Fee, Settlement Fee,
      Brokerage Fee, etc.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:group>
<xsd:group name="QuoteLocation.model">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A group describing where a quote was or will be obtained, e.g.
      observed or calculated.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:choice>
    <xsd:element name="businessCenter" type="BusinessCenter">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A city or other business center.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="exchangeId" type="ExchangeId">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The exchange (e.g. stock or futures exchange) from which
          the quote is obtained.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:choice>
</xsd:group>
</xsd:schema>

```