



**Financial products Markup Language**

## **FpML - Equity Shared Component Definitions**

## ***Version: 4.3***

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### **Document built**

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## ***1 Global Complex Types***

## 1.1 AdditionalDisruptionEvents

### 1.1.1 Description:

A type for defining ISDA 2002 Equity Derivative Additional Disruption Events

### 1.1.2 Contents:

**changeInLaw** (exactly one occurrence; of the type xsd:boolean) If true, then change in law is applicable

**failureToDeliver** (zero or one occurrence; of the type xsd:boolean) Where the underlying is shares and the transaction is physically settled, then, if true, a failure to deliver the shares on the settlement date will not be an event of default for the purposes of the master agreement.

**insolvencyFiling** (exactly one occurrence; of the type xsd:boolean) If true, then insolvency filing is applicable

**hedgingDisruption** (exactly one occurrence; of the type xsd:boolean) If true, then hedging disruption is applicable

**lossOfStockBorrow** (exactly one occurrence; of the type xsd:boolean) If true, then loss of stock borrow is applicable

**increasedCostOfStockBorrow** (exactly one occurrence; of the type xsd:boolean) If true, then increased cost of stock borrow is applicable

**increasedCostOfHedging** (exactly one occurrence; of the type xsd:boolean) If true, then increased cost of hedging is applicable

**determiningPartyReference** (exactly one occurrence; of the type PartyReference) A reference to the party which determines additional disruption events

### 1.1.3 Used by:

- Complex type: ExtraordinaryEvents

### 1.1.4 Derived Types:

### 1.1.5 Figure:

### 1.1.6 Schema Fragment:

```
<xsd:complexType name="AdditionalDisruptionEvents">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type for defining ISDA 2002 Equity Derivative Additional
      Disruption Events
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="changeInLaw" type="xsd:boolean">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          If true, then change in law is applicable
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="failureToDeliver" type="xsd:boolean" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Where the underlying is shares and the transaction is
          physically settled, then, if true, a failure to deliver the
          shares on the settlement date will not be an event of default
          for the purposes of the master agreement.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="insolvencyFiling" type="xsd:boolean">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          If true, then insolvency filing is applicable
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="hedgingDisruption" type="xsd:boolean">
      <xsd:annotation>
```

```

        <xsd:documentation xml:lang="en">
            If true, then hedging disruption is applicable
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:element name="lossOfStockBorrow" type="xsd:boolean">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            If true, then loss of stock borrow is applicable
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:element name="increasedCostOfStockBorrow" type="xsd:boolean">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            If true, then increased cost of stock borrow is applicable
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:element name="increasedCostOfHedging" type="xsd:boolean">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            If true, then increased cost of hedging is applicable
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:element name="determiningPartyReference" type="PartyReference">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            A reference to the party which determines additional
            disruption events
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>

```

## 1.2 AdditionalPaymentAmount

### 1.2.1 Description:

Specifies the amount of the fee along with, when applicable, the formula that supports its determination.

### 1.2.2 Contents:

**paymentAmount** (zero or one occurrence; of the type Money) The currency amount of the payment.

**formula** (zero or one occurrence; of the type Formula) Specifies a formula, with its description and components.

### 1.2.3 Used by:

- Complex type: ReturnSwapAdditionalPayment

### 1.2.4 Derived Types:

### 1.2.5 Figure:

### 1.2.6 Schema Fragment:

```
<xsd:complexType name="AdditionalPaymentAmount">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the amount of the fee along with, when applicable, the
      formula that supports its determination.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="paymentAmount" type="Money" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The currency amount of the payment.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="formula" type="Formula" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies a formula, with its description and components.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

## 1.3 AdjustableDateOrRelativeDateSequence

### 1.3.1 Description:

A type describing a date defined as subject to adjustment or defined in reference to another date through one or several date offsets.

### 1.3.2 Contents:

Either

**adjustableDate** (exactly one occurrence; of the type AdjustableDate) A date that shall be subject to adjustment if it would otherwise fall on a day that is not a business day in the specified business centers, together with the convention for adjusting the date.

Or

**relativeDateSequence** (exactly one occurrence; of the type RelativeDateSequence) A date specified in relation to some other date defined in the document (the anchor date), where there is the opportunity to specify a combination of offset rules. This component will typically be used for defining the valuation date in relation to the payment date, as both the currency and the exchange holiday calendars need to be considered.

### 1.3.3 Used by:

- Complex type: EquityValuation

### 1.3.4 Derived Types:

### 1.3.5 Figure:

### 1.3.6 Schema Fragment:

```
<xsd:complexType name="AdjustableDateOrRelativeDateSequence">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing a date defined as subject to adjustment or
      defined in reference to another date through one or several date
      offsets.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:choice>
    <xsd:element name="adjustableDate" type="AdjustableDate">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A date that shall be subject to adjustment if it would
          otherwise fall on a day that is not a business day in the
          specified business centers, together with the convention for
          adjusting the date.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="relativeDateSequence" type="RelativeDateSequence">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A date specified in relation to some other date defined in
          the document (the anchor date), where there is the
          opportunity to specify a combination of offset rules. This
          component will typically be used for defining the valuation
          date in relation to the payment date, as both the currency
          and the exchange holiday calendars need to be considered.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:choice>
  <xsd:attribute name="id" type="xsd:ID"/>
</xsd:complexType>
```

## 1.4 BoundedCorrelation

### 1.4.1 Description:

A type describing correlation bounds, which form a cap and a floor on the realized correlation.

### 1.4.2 Contents:

**minimumBoundaryPercent** (zero or one occurrence; of the type xsd:decimal) Minimum Boundary as a percentage of the Strike Price.

**maximumBoundaryPercent** (zero or one occurrence; of the type xsd:decimal) Maximum Boundary as a percentage of the Strike Price.

### 1.4.3 Used by:

- Complex type: Correlation

### 1.4.4 Derived Types:

### 1.4.5 Figure:

### 1.4.6 Schema Fragment:

```
<xsd:complexType name="BoundedCorrelation">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing correlation bounds, which form a cap and a
      floor on the realized correlation.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="minimumBoundaryPercent" type="xsd:decimal" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Minimum Boundary as a percentage of the Strike Price.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="maximumBoundaryPercent" type="xsd:decimal" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Maximum Boundary as a percentage of the Strike Price.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

## 1.5 BoundedVariance

### 1.5.1 Description:

A type describing variance bounds, which are used to exclude money price values outside of the specified range In a Up Conditional Swap Underlyer price must be equal to or higher than Lower Barrier In a Down Conditional Swap Underlyer price must be equal to or lower than Upper Barrier In a Corridor Conditional Swap Underlyer price must be equal to or higher than Lower Barrier and must be equal to or lower than Upper Barrier.

### 1.5.2 Contents:

**realisedVarianceMethod** (exactly one occurrence; of the type RealisedVarianceMethodEnum) The contract specifies whether which price must satisfy the boundary condition.

**daysInRangeAdjustment** (exactly one occurrence; of the type xsd:boolean) The contract specifies whether the notional should be scaled by the Number of Days in Range divided by the Expected N. The number of Days in Ranges refers to the number of returns that contribute to the realized volatility.

**upperBarrier** (zero or one occurrence; of the type NonNegativeDecimal) All observations above this price level will be excluded from the variance calculation.

**lowerBarrier** (zero or one occurrence; of the type NonNegativeDecimal) All observations below this price level will be excluded from the variance calculation.

### 1.5.3 Used by:

- Complex type: Variance

### 1.5.4 Derived Types:

### 1.5.5 Figure:

### 1.5.6 Schema Fragment:

```
<xsd:complexType name="BoundedVariance">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing variance bounds, which are used to exclude
      money price values outside of the specified range In a Up
      Conditional Swap Underlyer price must be equal to or higher than
      Lower Barrier In a Down Conditional Swap Underlyer price must be
      equal to or lower than Upper Barrier In a Corridor Conditional
      Swap Underlyer price must be equal to or higher than Lower
      Barrier and must be equal to or lower than Upper Barrier.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="realisedVarianceMethod" type="RealisedVarianceMethodEnum">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The contract specifies whether which price must satisfy the
          boundary condition.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="daysInRangeAdjustment" type="xsd:boolean">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The contract specifies whether the notional should be scaled
          by the Number of Days in Range divided by the Expected N. The
          number of Days in Ranges refers to the number of returns that
          contribute to the realized volatility.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="upperBarrier" type="NonNegativeDecimal" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          All observations above this price level will be excluded from
          the variance calculation.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

```
<xsd:element name="lowerBarrier" type="NonNegativeDecimal" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      All observations below this price level will be excluded from
      the variance calculation.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
```

## 1.6 CalculatedAmount

### 1.6.1 Description:

An abstract base class for all calculated money amounts, which are in the currency of the cash multiplier of the calculation.

### 1.6.2 Contents:

**calculationDates** (zero or one occurrence; of the type AdjustableRelativeOrPeriodicDates) Specifies the date on which a calculation or an observation will be performed for the purpose of calculating the amount.

**observationStartDate** (zero or one occurrence; of the type AdjustableOrRelativeDate) The start of the period over which observations are made which are used in the calculation Used when the observation start date differs from the trade date such as for forward starting swaps.

**optionsExchangeDividends** (zero or one occurrence; of the type xsd:boolean) If present and true, then options exchange dividends are applicable.

**additionalDividends** (zero or one occurrence; of the type xsd:boolean) If present and true, then additional dividends are applicable.

**allDividends** (zero or one occurrence; of the type xsd:boolean) Represents the European Master Confirmation value of 'All Dividends' which, when applicable, signifies that, for a given Ex-Date, the daily observed Share Price for that day is adjusted (reduced) by the cash dividend and/or the cash value of any non cash dividend per Share (including Extraordinary Dividends) declared by the Issuer.

### 1.6.3 Used by:

- Complex type: CorrelationAmount
- Complex type: VarianceAmount

### 1.6.4 Derived Types:

- Complex type: CorrelationAmount
- Complex type: VarianceAmount

### 1.6.5 Figure:

### 1.6.6 Schema Fragment:

```
<xsd:complexType name="CalculatedAmount" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      An abstract base class for all calculated money amounts, which
      are in the currency of the cash multiplier of the calculation.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="calculationDates" type="AdjustableRelativeOrPeriodicDates" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the date on which a calculation or an observation
          will be performed for the purpose of calculating the amount.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="observationStartDate" type="AdjustableOrRelativeDate" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The start of the period over which observations are made
          which are used in the calculation Used when the observation
          start date differs from the trade date such as for forward
          starting swaps.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="optionsExchangeDividends" type="xsd:boolean" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          If present and true, then options exchange dividends are
          applicable.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

```

    </xsd:annotation>
  </xsd:element>
  <xsd:element name="additionalDividends" type="xsd:boolean" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        If present and true, then additional dividends are
        applicable.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="allDividends" type="xsd:boolean" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Represents the European Master Confirmation value of 'All
        Dividends' which, when applicable, signifies that, for a
        given Ex-Date, the daily observed Share Price for that day is
        adjusted (reduced) by the cash dividend and/or the cash value
        of any non cash dividend per Share (including Extraordinary
        Dividends) declared by the Issuer.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
</xsd:sequence>
</xsd:complexType>

```

## 1.7 CalculationFromObservation

### 1.7.1 Description:

Abstract base class for all calculation from observed values

### 1.7.2 Contents:

Either

**initialLevel** (exactly one occurrence; of the type xsd:decimal) Contract will strike off this initial level

Or

**closingLevel** (exactly one occurrence; of the type xsd:boolean) If true this contract will strike off the closing level of the default exchange traded contract

Or

**expiringLevel** (exactly one occurrence; of the type xsd:boolean) If true this contract will strike off the expiring level of the default exchange traded contract

**expectedN** (zero or one occurrence; of the type xsd:positiveInteger) Expected number of trading days

### 1.7.3 Used by:

- Complex type: Correlation
- Complex type: Variance

### 1.7.4 Derived Types:

- Complex type: Correlation
- Complex type: Variance

### 1.7.5 Figure:

### 1.7.6 Schema Fragment:

```
<xsd:complexType name="CalculationFromObservation" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Abstract base class for all calculation from observed values
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:choice>
      <xsd:element name="initialLevel" type="xsd:decimal">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            Contract will strike off this initial level
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="closingLevel" type="xsd:boolean">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            If true this contract will strike off the closing level of
            the default exchange traded contract
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="expiringLevel" type="xsd:boolean">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            If true this contract will strike off the expiring level of
            the default exchange traded contract
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:choice>
    <xsd:element name="expectedN" type="xsd:positiveInteger" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Expected number of trading days
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

```
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
```

## 1.8 Compounding

### 1.8.1 Description:

Specifies the compounding method and the compounding rate.

### 1.8.2 Contents:

**compoundingMethod** (exactly one occurrence; of the type CompoundingMethodEnum) If more than one calculation period contributes to a single payment amount this element specifies whether compounding is applicable, and if so, what compounding method is to be used. This element must only be included when more than one calculation period contributes to a single payment amount.

**compoundingRate** (exactly one occurrence; of the type CompoundingRate) Defines a compounding rate. The compounding interest can either point back to the interest calculation node on the Interest Leg, or be defined specifically.

### 1.8.3 Used by:

- Complex type: InterestCalculation

### 1.8.4 Derived Types:

### 1.8.5 Figure:

### 1.8.6 Schema Fragment:

```
<xsd:complexType name="Compounding">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the compounding method and the compounding rate.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="compoundingMethod" type="CompoundingMethodEnum">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          If more than one calculation period contributes to a single
          payment amount this element specifies whether compounding is
          applicable, and if so, what compounding method is to be used.
          This element must only be included when more than one
          calculation period contributes to a single payment amount.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="compoundingRate" type="CompoundingRate">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Defines a compounding rate. The compounding interest can
          either point back to the interest calculation node on the
          Interest Leg, or be defined specifically.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

## 1.9 CompoundingRate

### 1.9.1 Description:

A type defining a compounding rate. The compounding interest can either point back to the interest calculation node on the Interest Leg, or be defined specifically.

### 1.9.2 Contents:

Either

**interestLegRate** (exactly one occurrence; of the type InterestCalculationReference) Reference to the interest calculation node on the Interest Leg.

Or

**specificRate** (exactly one occurrence; of the type InterestAccrualsMethod) Defines a specific rate.

### 1.9.3 Used by:

- Complex type: Compounding

### 1.9.4 Derived Types:

### 1.9.5 Figure:

### 1.9.6 Schema Fragment:

```
<xsd:complexType name="CompoundingRate">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type defining a compounding rate. The compounding interest can
      either point back to the interest calculation node on the
      Interest Leg, or be defined specifically.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:choice>
    <xsd:element name="interestLegRate" type="InterestCalculationReference">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Reference to the interest calculation node on the Interest
          Leg.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="specificRate" type="InterestAccrualsMethod">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Defines a specific rate.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:choice>
</xsd:complexType>
```

## 1.10 Correlation

### 1.10.1 Description:

A type describing the correlation amount of a correlation swap

### 1.10.2 Contents:

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

- Abstract base class for all calculation from observed values

**notionalAmount** (exactly one occurrence; of the type Money) Notional amount, which is a cash multiplier

**correlationStrikePrice** (exactly one occurrence; of the type CorrelationValue) Correlation Strike Price

**boundedCorrelation** (zero or one occurrence; of the type BoundedCorrelation) Bounded Correlation

**numberOfDataSeries** (zero or one occurrence; of the type xsd:positiveInteger) Number of data series, normal market practice is that correlation data sets are drawn from geographic market areas, such as America, Europe and Asia Pacific, each of these geographic areas will have its own data series to avoid contagion

### 1.10.3 Used by:

- Complex type: CorrelationAmount

### 1.10.4 Derived Types:

### 1.10.5 Figure:

### 1.10.6 Schema Fragment:

```
<xsd:complexType name="Correlation">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the correlation amount of a correlation swap
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="CalculationFromObservation">
      <xsd:sequence>
        <xsd:element name="notionalAmount" type="Money">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Notional amount, which is a cash multiplier
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="correlationStrikePrice" type="CorrelationValue">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Correlation Strike Price
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="boundedCorrelation" type="BoundedCorrelation" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Bounded Correlation
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="numberOfDataSeries" type="xsd:positiveInteger" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Number of data series, normal market practice is that
              correlation data sets are drawn from geographic market
              areas, such as America, Europe and Asia Pacific, each of
              these geographic areas will have its own data series to
              avoid contagion
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

```
</xsd:complexContent>  
</xsd:complexType>
```

## 1.11 DeprecatedVariance

### 1.11.1 Description:

DEPRECATED This type will be removed in the next FpML major version. A type describing the variance amount of a variance swap.

### 1.11.2 Contents:

Either

**initialLevel** (exactly one occurrence; of the type xsd:decimal)

Or

**closingLevel** (exactly one occurrence; of the type xsd:boolean)

Or

**expiringLevel** (exactly one occurrence; of the type xsd:boolean) If present and true this contract will strike off the default exchange traded contract

**varianceAmount** (exactly one occurrence; of the type Money)

Either

**volatilityStrikePrice** (exactly one occurrence; of the type xsd:decimal)

Or

**varianceStrikePrice** (exactly one occurrence; of the type xsd:decimal)

**expectedN** (zero or one occurrence; of the type xsd:integer)

**varianceCap** (zero or one occurrence; of the type xsd:boolean)

**unadjustedVarianceCap** (zero or one occurrence; of the type xsd:decimal) For use when varianceCap is applicable. Contains the scaling factor of the Variance Cap that can differ on a trade-by-trade basis in the European market. For example, a Variance Cap of  $2.5^2 \times$  Variance Strike Price has an unadjustedVarianceCap of 2.5.

**exchangeTradedContractNearest** (zero or one occurrence; of the type ExchangeTradedContract)

**vegaNotionalAmount** (zero or one occurrence; of the type xsd:decimal) Vega Notional represents the approximate gain/loss at maturity for a 1% difference between RVol (realised vol) and KVol (strike vol). It does not necessarily represent the Vega Risk of the trade.

**fxFeature** (zero or one occurrence; of the type FxFeature) Quanto, Composite, or Cross Currency FX features

### 1.11.3 Used by:

- Complex type: LegAmount

### 1.11.4 Derived Types:

### 1.11.5 Figure:

### 1.11.6 Schema Fragment:

```
<xsd:complexType name="DeprecatedVariance" fpml-annotation:deprecated="true" fpml-annotation:de
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      DEPRECATED This type will be removed in the next FpML major
      version. A type describing the variance amount of a variance
      swap.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:choice>
      <xsd:element name="initialLevel" type="xsd:decimal"/>
      <xsd:element name="closingLevel" type="xsd:boolean"/>
      <xsd:element name="expiringLevel" type="xsd:boolean">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            If present and true this contract will strike off the
            default exchange traded contract
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:choice>
  </xsd:sequence>
  <xsd:element name="varianceAmount" type="Money"/>
  <xsd:element name="volatilityStrikePrice" type="xsd:decimal"/>
  <xsd:element name="varianceStrikePrice" type="xsd:decimal"/>
  <xsd:element name="expectedN" type="xsd:integer"/>
  <xsd:element name="varianceCap" type="xsd:boolean"/>
  <xsd:element name="unadjustedVarianceCap" type="xsd:decimal"/>
  <xsd:element name="exchangeTradedContractNearest" type="ExchangeTradedContract"/>
  <xsd:element name="vegaNotionalAmount" type="xsd:decimal"/>
  <xsd:element name="fxFeature" type="FxFeature"/>
</xsd:complexType>
```

```

        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
</xsd:choice>
<xsd:element name="varianceAmount" type="Money"/>
<xsd:choice>
    <xsd:element name="volatilityStrikePrice" type="xsd:decimal"/>
    <xsd:element name="varianceStrikePrice" type="xsd:decimal"/>
</xsd:choice>
<xsd:element name="expectedN" type="xsd:integer" minOccurs="0"/>
<xsd:element name="varianceCap" type="xsd:boolean" minOccurs="0"/>
<xsd:element name="unadjustedVarianceCap" type="xsd:decimal" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            For use when varianceCap is applicable. Contains the scaling
            factor of the Variance Cap that can differ on a
            trade-by-trade basis in the European market. For example, a
            Variance Cap of  $2.5^2 \times$  Variance Strike Price has an
            unadjustedVarianceCap of 2.5.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:element name="exchangeTradedContractNearest" type="ExchangeTradedContract" minOccurs="0">
<xsd:element name="vegaNotionalAmount" type="xsd:decimal" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            Vega Notional represents the approximate gain/loss at
            maturity for a 1% difference between RVol (realised vol) and
            KVol (strike vol). It does not necessarily represent the Vega
            Risk of the trade.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:element name="fxFeature" type="FxFeature" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            Quanto, Composite, or Cross Currency FX features
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>

```

## 1.12 DeprecatedVarianceAmount

### 1.12.1 Description:

**DEPRECATED** This type will be removed in the next FpML major version. Return Swap model should not be used for Variance Swaps, use the Variance Swap Product. Specifies, in relation to each Equity Payment Date, the amount to which the Equity Payment Date relates for Variance Swaps. Unless otherwise specified, this term has the meaning defined in the ISDA 2002 Equity Derivatives Definitions.

### 1.12.2 Contents:

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

- Specifies, in relation to each Payment Date, the amount to which the Payment Date relates. For Equity Swaps this element is equivalent to the Equity Amount term as defined in the ISDA 2002 Equity Derivatives Definitions.

**cashSettlementPaymentDate** (zero or one occurrence; of the type AdjustableOrRelativeDate) Typically specified as a number of days following the valuation date, such as one settlement cycle following the valuation date. Number of days can vary in the European market.

**observationStartDate** (zero or one occurrence; of the type StartingDate) The start of the period over which observations are made to determine the variance. Used when the date differs from the trade date such as for forward starting variance swaps.

**allDividends** (zero or one occurrence; of the type xsd:boolean) Represents the European Master Confirmation value of "All Dividends" which, when applicable, signifies that, for a given Ex-Date, the daily observed Share Price for that day is adjusted (reduced) by the cash dividend and/or the cash value of any non cash dividend per Share (including Extraordinary Dividends) declared by the Issuer.

### 1.12.3 Used by:

- Complex type: DeprecatedVarianceLeg

### 1.12.4 Derived Types:

### 1.12.5 Figure:

### 1.12.6 Schema Fragment:

```
<xsd:complexType name="DeprecatedVarianceAmount" fpml-annotation:deprecated="true" fpml-annotat
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      DEPRECATED This type will be removed in the next FpML major
      version. Return Swap model should not be used for Variance Swaps,
      use the Variance Swap Product. Specifies, in relation to each
      Equity Payment Date, the amount to which the Equity Payment Date
      relates for Variance Swaps. Unless otherwise specified, this term
      has the meaning defined in the ISDA 2002 Equity Derivatives
      Definitions.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="ReturnSwapAmount">
      <xsd:sequence>
        <xsd:element name="cashSettlementPaymentDate" type="AdjustableOrRelativeDate" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Typically specified as a number of days following the
              valuation date, such as one settlement cycle following
              the valuation date. Number of days can vary in the
              European market.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="observationStartDate" type="StartingDate" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              The start of the period over which observations are made
              to determine the variance. Used when the date differs
              from the trade date such as for forward starting variance
```

```

        swaps.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="allDividends" type="xsd:boolean" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Represents the European Master Confirmation value of "All
        Dividends" which, when applicable, signifies that, for a
        given Ex-Date, the daily observed Share Price for that
        day is adjusted (reduced) by the cash dividend and/or the
        cash value of any non cash dividend per Share (including
        Extraordinary Dividends) declared by the Issuer.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
</xsd:sequence>
</xsd:extension>
</xsd:complexContent>
</xsd:complexType>

```

## 1.13 DeprecatedVarianceLeg

### 1.13.1 Description:

DEPRECATED This type will be removed in the next FpML major version. Return Swap model should not be used for Variance Swaps, use the Variance Swap Product. A type describing the variance leg of the return swap.

### 1.13.2 Contents:

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

- The abstract base class for all types of Return Swap Leg.

**underlyer** (exactly one occurrence; of the type Underlyer) Specifies the underlyer of the leg.

**equityValuation** (exactly one occurrence; of the type EquityValuation) Valuation of the underlyer.

**equityAmount** (exactly one occurrence; of the type DeprecatedVarianceAmount) Specifies, in relation to each Equity Payment Date, the amount to which the Equity Payment Date relates. Unless otherwise specified, this term has the meaning defined in the ISDA 2002 Equity Derivatives Definitions.

### 1.13.3 Used by:

- Element: varianceLeg

### 1.13.4 Derived Types:

### 1.13.5 Figure:

### 1.13.6 Schema Fragment:

```
<xsd:complexType name="DeprecatedVarianceLeg" fpml-annotation:deprecated="true" fpml-annotation:
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      DEPRECATED This type will be removed in the next FpML major
      version. Return Swap model should not be used for Variance Swaps,
      use the Variance Swap Product. A type describing the variance leg
      of the return swap.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="ReturnSwapLeg">
      <xsd:sequence>
        <xsd:element name="underlyer" type="Underlyer">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies the underlyer of the leg.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="equityValuation" type="EquityValuation">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Valuation of the underlyer.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="equityAmount" type="DeprecatedVarianceAmount">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies, in relation to each Equity Payment Date, the
              amount to which the Equity Payment Date relates. Unless
              otherwise specified, this term has the meaning defined in
              the ISDA 2002 Equity Derivatives Definitions.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

## 1.14 DirectionalLeg

### 1.14.1 Description:

An abstract base class for all directional leg types with effective date, termination date, where a payer makes a stream of payments of greater than zero value to a receiver.

### 1.14.2 Contents:

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

- A supertype of leg. All swap legs extend this type.

**payerPartyReference** (exactly one occurrence; of the type PartyOrAccountReference) A reference to the party responsible for making the payments defined by this structure.

**receiverPartyReference** (exactly one occurrence; of the type PartyOrAccountReference) A reference to the party that receives the payments corresponding to this structure.

**effectiveDate** (zero or one occurrence; of the type AdjustableOrRelativeDate) Specifies the effective date of this leg of the swap. When defined in relation to a date specified somewhere else in the document (through the relativeDate component), this element will typically point to the effective date of the other leg of the swap.

**terminationDate** (zero or one occurrence; of the type AdjustableOrRelativeDate) Specifies the termination date of this leg of the swap. When defined in relation to a date specified somewhere else in the document (through the relativeDate component), this element will typically point to the termination date of the other leg of the swap.

### 1.14.3 Used by:

- Complex type: DirectionalLegUnderlyer
- Complex type: FixedPaymentLeg

### 1.14.4 Derived Types:

- Complex type: DirectionalLegUnderlyer
- Complex type: FixedPaymentLeg

### 1.14.5 Figure:

### 1.14.6 Schema Fragment:

```
<xsd:complexType name="DirectionalLeg" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      An abstract base class for all directional leg types with
      effective date, termination date, where a payer makes a stream of
      payments of greater than zero value to a receiver.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="Leg">
      <xsd:sequence>
        <xsd:group ref="PayerReceiver.model"/>
        <xsd:element name="effectiveDate" type="AdjustableOrRelativeDate" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies the effective date of this leg of the swap.
              When defined in relation to a date specified somewhere
              else in the document (through the relativeDate
              component), this element will typically point to the
              effective date of the other leg of the swap.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="terminationDate" type="AdjustableOrRelativeDate" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies the termination date of this leg of the swap.
              When defined in relation to a date specified somewhere
              else in the document (through the relativeDate
              component), this element will typically point to the
```

```
        termination date of the other leg of the swap.
    </xsd:documentation>
</xsd:annotation>
</xsd:element>
</xsd:sequence>
<xsd:attribute name="id" type="xsd:ID"/>
</xsd:extension>
</xsd:complexContent>
</xsd:complexType>
```

## 1.15 DirectionalLegUnderlyer

### 1.15.1 Description:

An abstract base class for all directional leg types with effective date, termination date, and underlyer where a payer makes a stream of payments of greater than zero value to a receiver.

### 1.15.2 Contents:

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

- An abstract base class for all directional leg types with effective date, termination date, where a payer makes a stream of payments of greater than zero value to a receiver.

**underlyer** (exactly one occurrence; of the type Underlyer) Specifies the underlyer of the leg.

**settlementType** (zero or one occurrence; of the type SettlementTypeEnum)

**settlementDate** (zero or one occurrence; of the type AdjustableOrRelativeDate)

**fxFeature** (zero or one occurrence; of the type FxFeature) Quanto, Composite, or Cross Currency FX features.

### 1.15.3 Used by:

- Complex type: DirectionalLegUnderlyerValuation
- Complex type: DividendLeg

### 1.15.4 Derived Types:

- Complex type: DirectionalLegUnderlyerValuation
- Complex type: DividendLeg

### 1.15.5 Figure:

### 1.15.6 Schema Fragment:

```
<xsd:complexType name="DirectionalLegUnderlyer" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      An abstract base class for all directional leg types with
      effective date, termination date, and underlyer where a payer
      makes a stream of payments of greater than zero value to a
      receiver.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="DirectionalLeg">
      <xsd:sequence>
        <xsd:element name="underlyer" type="Underlyer">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies the underlyer of the leg.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:group ref="OptionSettlement.model"/>
        <xsd:element name="fxFeature" type="FxFeature" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Quanto, Composite, or Cross Currency FX features.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

## 1.16 DirectionalLegUnderlyerValuation

### 1.16.1 Description:

An abstract base class for all directional leg types with effective date, termination date, and underlyer, where a payer makes a stream of payments of greater than zero value to a receiver.

### 1.16.2 Contents:

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

- An abstract base class for all directional leg types with effective date, termination date, and underlyer where a payer makes a stream of payments of greater than zero value to a receiver.

**valuation** (exactly one occurrence; of the type EquityValuation) Valuation of the underlyer.

### 1.16.3 Used by:

- Complex type: CorrelationLeg
- Complex type: VarianceLeg

### 1.16.4 Derived Types:

- Complex type: CorrelationLeg
- Complex type: VarianceLeg

### 1.16.5 Figure:

### 1.16.6 Schema Fragment:

```
<xsd:complexType name="DirectionalLegUnderlyerValuation" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      An abstract base class for all directional leg types with
      effective date, termination date, and underlyer, where a payer
      makes a stream of payments of greater than zero value to a
      receiver.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="DirectionalLegUnderlyer">
      <xsd:sequence>
        <xsd:element name="valuation" type="EquityValuation">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Valuation of the underlyer.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

## 1.17 DividendAdjustment

### 1.17.1 Description:

Container for Dividend Adjustment Periods, which are used to calculate the Deviation between Expected Dividend and Actual Dividend in that Period.

### 1.17.2 Contents:

**dividendPeriod** (one or more occurrences; of the type DividendPeriodDividend) A single Dividend Adjustment Period.

### 1.17.3 Used by:

- Complex type: OptionFeatures

### 1.17.4 Derived Types:

### 1.17.5 Figure:

### 1.17.6 Schema Fragment:

```
<xsd:complexType name="DividendAdjustment">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Container for Dividend Adjustment Periods, which are used to
      calculate the Deviation between Expected Dividend and Actual
      Dividend in that Period.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="dividendPeriod" type="DividendPeriodDividend" maxOccurs="unbounded">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A single Dividend Adjustment Period.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

## 1.18 DividendPeriod

### 1.18.1 Description:

Abstract base class of all time bounded dividend period types.

### 1.18.2 Contents:

**unadjustedStartDate** (exactly one occurrence; of the type IdentifiedDate) Unadjusted inclusive dividend period start date.

**unadjustedEndDate** (exactly one occurrence; of the type IdentifiedDate) Unadjusted inclusive dividend period end date.

**dateAdjustments** (exactly one occurrence; of the type BusinessDayAdjustments) Date adjustments for all unadjusted dates in this dividend period.

**underlyerReference** (zero or one occurrence; of the type AssetReference) Reference to the underlyer which is paying dividends. This should be used in all cases, and must be used where there are multiple underlying assets, to avoid any ambiguity about which asset the dividend period relates to.

### 1.18.3 Used by:

- Complex type: DividendPeriodDividend
- Complex type: DividendPeriodPayment

### 1.18.4 Derived Types:

- Complex type: DividendPeriodDividend
- Complex type: DividendPeriodPayment

### 1.18.5 Figure:

### 1.18.6 Schema Fragment:

```
<xsd:complexType name="DividendPeriod" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Abstract base class of all time bounded dividend period types.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="unadjustedStartDate" type="IdentifiedDate">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Unadjusted inclusive dividend period start date.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="unadjustedEndDate" type="IdentifiedDate">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Unadjusted inclusive dividend period end date.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="dateAdjustments" type="BusinessDayAdjustments">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Date adjustments for all unadjusted dates in this dividend
          period.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="underlyerReference" type="AssetReference" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Reference to the underlyer which is paying dividends. This
          should be used in all cases, and must be used where there are
          multiple underlying assets, to avoid any ambiguity about
          which asset the dividend period relates to.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

```
</xsd:sequence>  
<xsd:attribute name="id" type="xsd:ID"/>  
</xsd:complexType>
```

## 1.19 DividendPeriodDividend

### 1.19.1 Description:

A time bounded dividend period, with an expected dividend for each period.

### 1.19.2 Contents:

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

- Abstract base class of all time bounded dividend period types.

**dividend** (exactly one occurrence; of the type Money) Expected dividend in this period.

**multiplier** (exactly one occurrence; of the type PositiveDecimal) Multiplier is a percentage value which is used to produce Deviation by multiplying the difference between Expected Dividend and Actual Dividend Deviation = Multiplier \* (Expected Dividend — Actual Dividend).

### 1.19.3 Used by:

- Complex type: DividendAdjustment

### 1.19.4 Derived Types:

### 1.19.5 Figure:

### 1.19.6 Schema Fragment:

```
<xsd:complexType name="DividendPeriodDividend">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A time bounded dividend period, with an expected dividend for
      each period.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="DividendPeriod">
      <xsd:sequence>
        <xsd:element name="dividend" type="Money">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Expected dividend in this period.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="multiplier" type="PositiveDecimal">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Multiplier is a percentage value which is used to produce
              Deviation by multiplying the difference between Expected
              Dividend and Actual Dividend Deviation = Multiplier *
              (Expected Dividend — Actual Dividend).
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

## 1.20 EquityCorporateEvents

### 1.20.1 Description:

A type for defining the merger events and their treatment.

### 1.20.2 Contents:

**shareForShare** (exactly one occurrence; of the type ShareExtraordinaryEventEnum) The consideration paid for the original shares following the Merger Event consists wholly of new shares.

**shareForOther** (exactly one occurrence; of the type ShareExtraordinaryEventEnum) The consideration paid for the original shares following the Merger Event consists wholly of cash/securities other than new shares.

**shareForCombined** (exactly one occurrence; of the type ShareExtraordinaryEventEnum) The consideration paid for the original shares following the Merger Event consists of both cash/securities and new shares.

### 1.20.3 Used by:

- Complex type: ExtraordinaryEvents

### 1.20.4 Derived Types:

### 1.20.5 Figure:

### 1.20.6 Schema Fragment:

```
<xsd:complexType name="EquityCorporateEvents">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type for defining the merger events and their treatment.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="shareForShare" type="ShareExtraordinaryEventEnum">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The consideration paid for the original shares following the
          Merger Event consists wholly of new shares.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="shareForOther" type="ShareExtraordinaryEventEnum">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The consideration paid for the original shares following the
          Merger Event consists wholly of cash/securities other than
          new shares.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="shareForCombined" type="ShareExtraordinaryEventEnum">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The consideration paid for the original shares following the
          Merger Event consists of both cash/securities and new shares.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

## 1.21 EquityPremium

### 1.21.1 Description:

A type used to describe the amount paid for an equity option.

### 1.21.2 Contents:

**payerPartyReference** (exactly one occurrence; of the type PartyOrAccountReference) A reference to the party responsible for making the payments defined by this structure.

**receiverPartyReference** (exactly one occurrence; of the type PartyOrAccountReference) A reference to the party that receives the payments corresponding to this structure.

**premiumType** (zero or one occurrence; of the type PremiumTypeEnum) Forward start Premium type

**paymentAmount** (zero or one occurrence; of the type Money) The currency amount of the payment.

**paymentDate** (zero or one occurrence; of the type AdjustableDate) The payment date. This date is subject to adjustment in accordance with any applicable business day convention.

**swapPremium** (zero or one occurrence; of the type xsd:boolean) Specifies whether or not the premium is to be paid in the style of payments under an interest rate swap contract.

**pricePerOption** (zero or one occurrence; of the type Money) The amount of premium to be paid expressed as a function of the number of options.

**percentageOfNotional** (zero or one occurrence; of the type xsd:decimal) The amount of premium to be paid expressed as a percentage of the notional value of the transaction. A percentage of 5% would be expressed as 0.05.

### 1.21.3 Used by:

- Complex type: EquityDerivativeShortFormBase
- Complex type: EquityOption

### 1.21.4 Derived Types:

### 1.21.5 Figure:

### 1.21.6 Schema Fragment:

```
<xsd:complexType name="EquityPremium">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type used to describe the amount paid for an equity option.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:group ref="PayerReceiver.model"/>
    <xsd:element name="premiumType" type="PremiumTypeEnum" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Forward start Premium type
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="paymentAmount" type="Money" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The currency amount of the payment.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="paymentDate" type="AdjustableDate" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The payment date. This date is subject to adjustment in
          accordance with any applicable business day convention.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="swapPremium" type="xsd:boolean" minOccurs="0">
      <xsd:annotation>
```

```

    <xsd:documentation xml:lang="en">
        Specifies whether or not the premium is to be paid in the
        style of payments under an interest rate swap contract.
    </xsd:documentation>
</xsd:annotation>
</xsd:element>
<xsd:element name="pricePerOption" type="Money" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            The amount of premium to be paid expressed as a function of
            the number of options.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:element name="percentageOfNotional" type="xsd:decimal" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            The amount of premium to be paid expressed as a percentage of
            the notional value of the transaction. A percentage of 5%
            would be expressed as 0.05.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>

```

## 1.22 EquityStrike

### 1.22.1 Description:

A type for defining the strike price for an equity option. The strike price is either: (i) in respect of an index option transaction, the level of the relevant index specified or otherwise determined in the transaction; or (ii) in respect of a share option transaction, the price per share specified or otherwise determined in the transaction. This can be expressed either as a percentage of notional amount or as an absolute value.

### 1.22.2 Contents:

Either

**strikePrice** (exactly one occurrence; of the type xsd:decimal) The price or level at which the option has been struck.

**currency** (zero or one occurrence; of the type Currency) The currency in which an amount is denominated.

### 1.22.3 Used by:

- Complex type: EquityDerivativeShortFormBase
- Complex type: EquityOption

### 1.22.4 Derived Types:

### 1.22.5 Figure:

### 1.22.6 Schema Fragment:

```
<xsd:complexType name="EquityStrike">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type for defining the strike price for an equity option. The
      strike price is either: (i) in respect of an index option
      transaction, the level of the relevant index specified or
      otherwise determined in the transaction; or (ii) in respect of a
      share option transaction, the price per share specified or
      otherwise determined in the transaction. This can be expressed
      either as a percentage of notional amount or as an absolute
      value.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:choice>
      <xsd:element name="strikePrice" type="xsd:decimal">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            The price or level at which the option has been struck.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:sequence>
        <xsd:element name="strikePercentage" type="xsd:decimal">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              The price or level expressed as a percentage of the
              forward starting spot price.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="strikeDeterminationDate" type="AdjustableOrRelativeDate" minOccurs="1">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              The date on which the strike is determined, where this is
              not the effective date of a forward starting option.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:choice>
    <xsd:element name="currency" type="Currency" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The currency in which an amount is denominated.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

```
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
```

## 1.23 EquityValuation

### 1.23.1 Description:

A type for defining how and when an equity option is to be valued.

### 1.23.2 Contents:

Either

**valuationDate** (exactly one occurrence; of the type AdjustableDateOrRelativeDateSequence) The term "Valuation Date" is assumed to have the meaning as defined in the ISDA 2002 Equity Derivatives Definitions.

Or

**valuationDates** (exactly one occurrence; of the type AdjustableRelativeOrPeriodicDates) Specifies the interim equity valuation dates of the swap.

**valuationTimeType** (zero or one occurrence; of the type TimeTypeEnum) The time of day at which the calculation agent values the underlying, for example the official closing time of the exchange.

**valuationTime** (zero or one occurrence; of the type BusinessCenterTime) The specific time of day at which the calculation agent values the underlying.

**futuresPriceValuation** (zero or one occurrence; of the type xsd:boolean) The official settlement price as announced by the related exchange is applicable, in accordance with the ISDA 2002 definitions.

**optionsPriceValuation** (zero or one occurrence; of the type xsd:boolean) The official settlement price as announced by the related exchange is applicable, in accordance with the ISDA 2002 definitions.

### 1.23.3 Used by:

- Complex type: DeprecatedEquityLegValuationPrice
- Complex type: DeprecatedVarianceLeg
- Complex type: DirectionalLegUnderlyerValuation
- Complex type: EquityExerciseValuationSettlement
- Complex type: ReturnLegValuationPrice

### 1.23.4 Derived Types:

### 1.23.5 Figure:

### 1.23.6 Schema Fragment:

```
<xsd:complexType name="EquityValuation">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type for defining how and when an equity option is to be
      valued.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:choice minOccurs="0">
      <xsd:element name="valuationDate" type="AdjustableDateOrRelativeDateSequence">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            The term "Valuation Date" is assumed to have the meaning as
            defined in the ISDA 2002 Equity Derivatives Definitions.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="valuationDates" type="AdjustableRelativeOrPeriodicDates">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            Specifies the interim equity valuation dates of the swap.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:choice>
    <xsd:element name="valuationTimeType" type="TimeTypeEnum" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The time of day at which the calculation agent values the
```

```

        underlying, for example the official closing time of the
        exchange.
    </xsd:documentation>
</xsd:annotation>
</xsd:element>
<xsd:element name="valuationTime" type="BusinessCenterTime" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            The specific time of day at which the calculation agent
            values the underlying.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:element name="futuresPriceValuation" type="xsd:boolean" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            The official settlement price as announced by the related
            exchange is applicable, in accordance with the ISDA 2002
            definitions.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:element name="optionsPriceValuation" type="xsd:boolean" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            The official settlement price as announced by the related
            exchange is applicable, in accordance with the ISDA 2002
            definitions.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
</xsd:sequence>
<xsd:attribute name="id" type="xsd:ID"/>
</xsd:complexType>

```

## 1.24 ExtraordinaryEvents

### 1.24.1 Description:

Where the underlying is shares, defines market events affecting the issuer of those shares that may require the terms of the transaction to be adjusted.

### 1.24.2 Contents:

**mergerEvents** (zero or one occurrence; of the type EquityCorporateEvents) Occurs when the underlying ceases to exist following a merger between the Issuer and another company.

**tenderOffer** (zero or one occurrence; of the type xsd:boolean) If present and true, then tender offer is applicable.

**tenderOfferEvents** (zero or one occurrence; of the type EquityCorporateEvents) ISDA 2002 Equity Tender Offer Events.

**compositionOfCombinedConsideration** (zero or one occurrence; of the type xsd:boolean) If present and true, then composition of combined consideration is applicable.

**indexAdjustmentEvents** (zero or one occurrence; of the type IndexAdjustmentEvents) ISDA 2002 Equity Index Adjustment Events.

Either

**additionalDisruptionEvents** (exactly one occurrence; of the type AdditionalDisruptionEvents) ISDA 2002 Equity Additional Disruption Events.

Or

**failureToDeliver** (exactly one occurrence; of the type xsd:boolean) If true, failure to deliver is applicable.

**representations** (zero or one occurrence; of the type Representations) ISDA 2002 Equity Derivative Representations.

**nationalisationOrInsolvency** (zero or one occurrence; of the type NationalisationOrInsolvencyOrDelistingEventEnum) The terms "Nationalisation" and "Insolvency" have the meaning as defined in the ISDA 2002 Equity Derivatives Definitions.

**delisting** (zero or one occurrence; of the type NationalisationOrInsolvencyOrDelistingEventEnum) The term "Delisting" has the meaning defined in the ISDA 2002 Equity Derivatives Definitions.

### 1.24.3 Used by:

- Complex type: EquityDerivativeLongFormBase
- Complex type: NettedSwapBase
- Complex type: ReturnSwap

### 1.24.4 Derived Types:

### 1.24.5 Figure:

### 1.24.6 Schema Fragment:

```
<xsd:complexType name="ExtraordinaryEvents">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Where the underlying is shares, defines market events affecting
      the issuer of those shares that may require the terms of the
      transaction to be adjusted.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="mergerEvents" type="EquityCorporateEvents" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Occurs when the underlying ceases to exist following a merger
          between the Issuer and another company.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="tenderOffer" type="xsd:boolean" minOccurs="0">
```

```

<xsd:annotation>
  <xsd:documentation xml:lang="en">
    If present and true, then tender offer is applicable.
  </xsd:documentation>
</xsd:annotation>
</xsd:element>
<xsd:element name="tenderOfferEvents" type="EquityCorporateEvents" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      ISDA 2002 Equity Tender Offer Events.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="compositionOfCombinedConsideration" type="xsd:boolean" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      If present and true, then composition of combined
      consideration is applicable.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="indexAdjustmentEvents" type="IndexAdjustmentEvents" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      ISDA 2002 Equity Index Adjustment Events.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:choice>
  <xsd:element name="additionalDisruptionEvents" type="AdditionalDisruptionEvents">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        ISDA 2002 Equity Additional Disruption Events.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="failureToDeliver" type="xsd:boolean">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        If true, failure to deliver is applicable.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
</xsd:choice>
<xsd:element name="representations" type="Representations" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      ISDA 2002 Equity Derivative Representations.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="nationalisationOrInsolvency" type="NationalisationOrInsolvencyOrDelistingEventEnum" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      The terms "Nationalisation" and "Insolvency" have the meaning
      as defined in the ISDA 2002 Equity Derivatives Definitions.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="delisting" type="NationalisationOrInsolvencyOrDelistingEventEnum" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      The term "Delisting" has the meaning defined in the ISDA 2002
      Equity Derivatives Definitions.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>

```

## 1.25 IndexAdjustmentEvents

### 1.25.1 Description:

Defines the specification of the consequences of Index Events as defined by the 2002 ISDA Equity Derivatives Definitions.

### 1.25.2 Contents:

**indexModification** (exactly one occurrence; of the type IndexEventConsequenceEnum) Consequence of index modification.

**indexCancellation** (exactly one occurrence; of the type IndexEventConsequenceEnum) Consequence of index cancellation.

**indexDisruption** (exactly one occurrence; of the type IndexEventConsequenceEnum) Consequence of index disruption.

### 1.25.3 Used by:

- Complex type: ExtraordinaryEvents

### 1.25.4 Derived Types:

### 1.25.5 Figure:

### 1.25.6 Schema Fragment:

```
<xsd:complexType name="IndexAdjustmentEvents">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Defines the specification of the consequences of Index Events as
      defined by the 2002 ISDA Equity Derivatives Definitions.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="indexModification" type="IndexEventConsequenceEnum">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Consequence of index modification.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="indexCancellation" type="IndexEventConsequenceEnum">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Consequence of index cancellation.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="indexDisruption" type="IndexEventConsequenceEnum">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Consequence of index disruption.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

## 1.26 InterestCalculation

### 1.26.1 Description:

Specifies the calculation method of the interest rate leg of the equity swap. Includes the floating or fixed rate calculation definitions, along with the determination of the day count fraction.

### 1.26.2 Contents:

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

- A type describing the method for accruing interests on dividends. Can be either a fixed rate reference or a floating rate reference.

**dayCountFraction** (exactly one occurrence; of the type DayCountFraction) The day count fraction.

**compounding** (zero or one occurrence; of the type Compounding) Defines compounding rates on the Interest Leg.

### 1.26.3 Used by:

- Complex type: InterestLeg

### 1.26.4 Derived Types:

### 1.26.5 Figure:

### 1.26.6 Schema Fragment:

```
<xsd:complexType name="InterestCalculation">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the calculation method of the interest rate leg of the
      equity swap. Includes the floating or fixed rate calculation
      definitions, along with the determination of the day count
      fraction.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="InterestAccrualsMethod">
      <xsd:sequence>
        <xsd:element name="dayCountFraction" type="DayCountFraction">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              The day count fraction.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="compounding" type="Compounding" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Defines compounding rates on the Interest Leg.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
      <xsd:attribute name="id" type="xsd:ID"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

## 1.27 InterestCalculationReference

### 1.27.1 Description:

Reference to an interest calculation component.

### 1.27.2 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.

### 1.27.3 Used by:

- Complex type: CompoundingRate

### 1.27.4 Derived Types:

### 1.27.5 Figure:

### 1.27.6 Schema Fragment:

```
<xsd:complexType name="InterestCalculationReference">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Reference to an interest calculation component.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="Reference">
      <xsd:attribute name="href" type="xsd:IDREF" use="required" ecore:reference="InterestCalculationReference"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

## 1.28 InterestLeg

### 1.28.1 Description:

A type describing the fixed income leg of the equity swap.

### 1.28.2 Contents:

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

- The abstract base class for all types of Return Swap Leg.

**interestLegCalculationPeriodDates** (exactly one occurrence; of the type InterestLegCalculationPeriodDates) Component that holds the various dates used to specify the interest leg of the equity swap. It is used to define the InterestPeriodDates identifier.

**notional** (exactly one occurrence; of the type ReturnSwapNotional) Specifies the notional of a return type swap. When used in the equity leg, the definition will typically combine the actual amount (using the notional component defined by the FpML industry group) and the determination method. When used in the interest leg, the definition will typically point to the definition of the equity leg.

**interestAmount** (exactly one occurrence; of the type LegAmount) Specifies, in relation to each Interest Payment Date, the amount to which the Interest Payment Date relates. Unless otherwise specified, this term has the meaning defined in the ISDA 2000 ISDA Definitions.

**interestCalculation** (exactly one occurrence; of the type InterestCalculation) Specifies the calculation method of the interest rate leg of the equity swap. Includes the floating or fixed rate calculation definitions, along with the determination of the day count fraction.

**stubCalculationPeriod** (zero or one occurrence; of the type StubCalculationPeriod) Specifies the stub calculation period

### 1.28.3 Used by:

- Element: interestLeg

### 1.28.4 Derived Types:

### 1.28.5 Figure:

### 1.28.6 Schema Fragment:

```
<xsd:complexType name="InterestLeg">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the fixed income leg of the equity swap.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="ReturnSwapLeg">
      <xsd:sequence>
        <xsd:element name="interestLegCalculationPeriodDates" type="InterestLegCalculationPeriodDates">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Component that holds the various dates used to specify
              the interest leg of the equity swap. It is used to define
              the InterestPeriodDates identifier.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="notional" type="ReturnSwapNotional">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies the notional of a return type swap. When used
              in the equity leg, the definition will typically combine
              the actual amount (using the notional component defined
              by the FpML industry group) and the determination method.
              When used in the interest leg, the definition will
              typically point to the definition of the equity leg.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="interestAmount" type="LegAmount">

```

```

<xsd:annotation>
  <xsd:documentation xml:lang="en">
    Specifies, in relation to each Interest Payment Date, the
    amount to which the Interest Payment Date relates. Unless
    otherwise specified, this term has the meaning defined in
    the ISDA 2000 ISDA Definitions.
  </xsd:documentation>
</xsd:annotation>
</xsd:element>
<xsd:element name="interestCalculation" type="InterestCalculation">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the calculation method of the interest rate leg
      of the equity swap. Includes the floating or fixed rate
      calculation definitions, along with the determination of
      the day count fraction.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="stubCalculationPeriod" type="StubCalculationPeriod" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the stub calculation period
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:extension>
</xsd:complexContent>
</xsd:complexType>

```

## 1.29 InterestLegCalculationPeriodDates

### 1.29.1 Description:

Component that holds the various dates used to specify the interest leg of the equity swap. It is used to define the InterestPeriodDates identifier.

### 1.29.2 Contents:

**effectiveDate** (exactly one occurrence; of the type AdjustableOrRelativeDate) Specifies the effective date of the equity swap. This global element is valid within the equity swaps namespace. Within the FpML namespace, another effectiveDate global element has been defined, that is different in the sense that it does not propose the choice of referring to another date in the document.

**terminationDate** (exactly one occurrence; of the type AdjustableOrRelativeDate) Specifies the termination date of the equity swap. This global element is valid within the equity swaps namespace. Within the FpML namespace, another terminationDate global element has been defined, that is different in the sense that it does not propose the choice of referring to another date in the document.

**interestLegResetDates** (exactly one occurrence; of the type InterestLegResetDates) Specifies the reset dates of the interest leg of the swap.

**interestLegPaymentDates** (exactly one occurrence; of the type AdjustableOrRelativeDates) Specifies the payment dates of the interest leg of the swap. When defined in relation to a date specified somewhere else in the document (through the relativeDates component), this element will typically point to the payment dates of the equity leg of the swap.

### 1.29.3 Used by:

- Complex type: InterestLeg

### 1.29.4 Derived Types:

### 1.29.5 Figure:

### 1.29.6 Schema Fragment:

```
<xsd:complexType name="InterestLegCalculationPeriodDates">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Component that holds the various dates used to specify the
      interest leg of the equity swap. It is used to define the
      InterestPeriodDates identifier.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="effectiveDate" type="AdjustableOrRelativeDate">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the effective date of the equity swap. This global
          element is valid within the equity swaps namespace. Within
          the FpML namespace, another effectiveDate global element has
          been defined, that is different in the sense that it does not
          propose the choice of referring to another date in the
          document.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="terminationDate" type="AdjustableOrRelativeDate">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the termination date of the equity swap. This
          global element is valid within the equity swaps namespace.
          Within the FpML namespace, another terminationDate global
          element has been defined, that is different in the sense that
          it does not propose the choice of referring to another date in
          the document.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="interestLegResetDates" type="InterestLegResetDates">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the reset dates of the interest leg of the swap.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

```

        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:element name="interestLegPaymentDates" type="AdjustableOrRelativeDates">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            Specifies the payment dates of the interest leg of the swap.
            When defined in relation to a date specified somewhere else
            in the document (through the relativeDates component), this
            element will typically point to the payment dates of the
            equity leg of the swap.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
</xsd:sequence>
<xsd:attribute name="id" type="xsd:ID" use="required"/>
</xsd:complexType>

```

## 1.30 InterestLegCalculationPeriodDatesReference

### 1.30.1 Description:

Reference to the calculation period dates of the interest leg.

### 1.30.2 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.

### 1.30.3 Used by:

- Complex type: InterestLegResetDates

### 1.30.4 Derived Types:

### 1.30.5 Figure:

### 1.30.6 Schema Fragment:

```
<xsd:complexType name="InterestLegCalculationPeriodDatesReference">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Reference to the calculation period dates of the interest leg.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="Reference">
      <xsd:attribute name="href" type="xsd:IDREF" use="required" ecore:reference="InterestLegCa
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

## 1.31 InterestLegResetDates

### 1.31.1 Description:

### 1.31.2 Contents:

**calculationPeriodDatesReference** (exactly one occurrence; of the type InterestLegCalculationPeriodDatesReference) A pointer style reference to the associated calculation period dates component defined elsewhere in the document.

Either

**resetRelativeTo** (exactly one occurrence; of the type ResetRelativeToEnum) Specifies whether the reset dates are determined with respect to each adjusted calculation period start date or adjusted calculation period end date. If the reset frequency is specified as daily this element must not be included.

Or

**resetFrequency** (exactly one occurrence; of the type ResetFrequency) The frequency at which reset dates occur. In the case of a weekly reset frequency, also specifies the day of the week that the reset occurs. If the reset frequency is greater than the calculation period frequency then this implies that more than one reset date is established for each calculation period and some form of rate averaging is applicable.

**initialFixingDate** (zero or one occurrence; of the type RelativeDateOffset) Initial fixing date expressed as an offset to another date defined elsewhere in the document.

**fixingDates** (zero or one occurrence; of the type AdjustableDatesOrRelativeDateOffset) Specifies the fixing date relative to the reset date in terms of a business days offset, or by providing a series of adjustable dates

### 1.31.3 Used by:

- Complex type: InterestLegCalculationPeriodDates

### 1.31.4 Derived Types:

### 1.31.5 Figure:

### 1.31.6 Schema Fragment:

```
<xsd:complexType name="InterestLegResetDates">
  <xsd:sequence>
    <xsd:element name="calculationPeriodDatesReference" type="InterestLegCalculationPeriodDatesReference">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A pointer style reference to the associated calculation
          period dates component defined elsewhere in the document.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:choice>
      <xsd:element name="resetRelativeTo" type="ResetRelativeToEnum">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            Specifies whether the reset dates are determined with
            respect to each adjusted calculation period start date or
            adjusted calculation period end date. If the reset
            frequency is specified as daily this element must not be
            included.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="resetFrequency" type="ResetFrequency">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            The frequency at which reset dates occur. In the case of a
            weekly reset frequency, also specifies the day of the week
            that the reset occurs. If the reset frequency is greater
            than the calculation period frequency then this implies
            that more than one reset date is established for each
            calculation period and some form of rate averaging is
            applicable.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:choice>
  </xsd:sequence>
</xsd:complexType>
```

```
</xsd:choice>
<xsd:element name="initialFixingDate" type="RelativeDateOffset" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Initial fixing date expressed as an offset to another date
      defined elsewhere in the document.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="fixingDates" type="AdjustableDatesOrRelativeDateOffset" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the fixing date relative to the reset date in terms
      of a business days offset, or by providing a series of
      adjustable dates
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
```

## 1.32 LegAmount

### 1.32.1 Description:

A type describing the amount that will paid or received on each of the payment dates. This type is used to define both the Equity Amount and the Interest Amount.

### 1.32.2 Contents:

Either

**currency** (exactly one occurrence; of the type Currency) The currency in which an amount is denominated.

Or

**determinationMethod** (exactly one occurrence; of the type DeterminationMethod) Specifies the method according to which an amount or a date is determined.

Or

**currencyReference** (exactly one occurrence; of the type IdentifiedCurrencyReference) The currency in which an amount is denominated.

**paymentCurrency** (zero or one occurrence; of the type PaymentCurrency) Currency in which the payment relating to the leg amount (equity amount or interest amount) or the dividend will be denominated.

Either

**referenceAmount** (exactly one occurrence; of the type ReferenceAmount) Specifies the reference Amount when this term either corresponds to the standard ISDA Definition (either the 2002 Equity Definition for the Equity Amount, or the 2000 Definition for the Interest Amount), or points to a term defined elsewhere in the swap document.

Or

**formula** (exactly one occurrence; of the type Formula) Specifies a formula, with its description and components.

Or

**encodedDescription** (exactly one occurrence; of the type xsd:base64Binary) Description of the leg amount when represented through an encoded image.

Or

**variance** (exactly one occurrence; of the type DeprecatedVariance) DEPRECATED This element will be removed in the next FpML major version. Return Swap model should not be used for Variance Swaps, use the Variance Swap Product. Specifies Variance for Variance Leg.

**calculationDates** (zero or one occurrence; of the type AdjustableRelativeOrPeriodicDates) Specifies the date on which a calculation or an observation will be performed for the purpose of defining the Equity Amount, and in accordance to the definition terms of this latter.

### 1.32.3 Used by:

- Complex type: ReturnSwapAmount
- Complex type: InterestLeg

### 1.32.4 Derived Types:

- Complex type: ReturnSwapAmount

### 1.32.5 Figure:

### 1.32.6 Schema Fragment:

```
<xsd:complexType name="LegAmount">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the amount that will paid or received on each
      of the payment dates. This type is used to define both the Equity
      Amount and the Interest Amount.
    </xsd:documentation>
  </xsd:annotation>
</xsd:complexType>
```

```

</xsd:annotation>
<xsd:sequence>
  <xsd:choice minOccurs="0">
    <xsd:element name="currency" type="Currency">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The currency in which an amount is denominated.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="determinationMethod" type="DeterminationMethod">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the method according to which an amount or a date
          is determined.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="currencyReference" type="IdentifiedCurrencyReference">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The currency in which an amount is denominated.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:choice>
  <xsd:element name="paymentCurrency" type="PaymentCurrency" minOccurs="0" fpml-annotation:de
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Currency in which the payment relating to the leg amount
        (equity amount or interest amount) or the dividend will be
        denominated.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:choice>
    <xsd:element name="referenceAmount" type="ReferenceAmount">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the reference Amount when this term either
          corresponds to the standard ISDA Definition (either the
          2002 Equity Definition for the Equity Amount, or the 2000
          Definition for the Interest Amount), or points to a term
          defined elsewhere in the swap document.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="formula" type="Formula">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies a formula, with its description and components.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="encodedDescription" type="xsd:base64Binary">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Description of the leg amount when represented through an
          encoded image.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="variance" type="DeprecatedVariance" fpml-annotation:deprecated="true"
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          DEPRECATED This element will be removed in the next FpML
          major version. Return Swap model should not be used for
          Variance Swaps, use the Variance Swap Product. Specifies
          Variance for Variance Leg.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:choice>
  <xsd:element name="calculationDates" type="AdjustableRelativeOrPeriodicDates" minOccurs="0"
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Specifies the date on which a calculation or an observation
        will be performed for the purpose of defining the Equity
        Amount, and in accordance to the definition terms of this
        latter.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>

```

```
</xsd:sequence>  
</xsd:complexType>
```

## 1.33 MakeWholeProvisions

### 1.33.1 Description:

### 1.33.2 Contents:

**makeWholeDate** (exactly one occurrence; of the type xsd:date) Date through which option can not be exercised without penalty.

**recallSpread** (exactly one occurrence; of the type xsd:decimal) Spread used if exercised before make whole date. Early termination penalty. Expressed in bp, e.g. 25 bp.

### 1.33.3 Used by:

- Complex type: EquityExerciseValuationSettlement

### 1.33.4 Derived Types:

### 1.33.5 Figure:

### 1.33.6 Schema Fragment:

```
<xsd:complexType name="MakeWholeProvisions">
  <xsd:annotation>
    <xsd:documentation>
      A type to hold early exercise provisions.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="makeWholeDate" type="xsd:date">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Date through which option can not be exercised without
          penalty.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="recallSpread" type="xsd:decimal">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Spread used if exercised before make whole date. Early
          termination penalty. Expressed in bp, e.g. 25 bp.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

## 1.34 NettedSwapBase

### 1.34.1 Description:

An abstract base class for all swap types which have a single netted leg, such as Variance Swaps, and Correlation Swaps.

### 1.34.2 Contents:

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

- The base type which all FpML products extend.

**additionalPayment** (zero or more occurrences; of the type ClassifiedPayment) Specifies additional payment(s) between the principal parties to the netted swap.

**extraordinaryEvents** (zero or one occurrence; of the type ExtraordinaryEvents) Where the underlying is shares, specifies events affecting the issuer of those shares that may require the terms of the transaction to be adjusted.

### 1.34.3 Used by:

- Complex type: CorrelationSwap
- Complex type: VarianceSwap

### 1.34.4 Derived Types:

- Complex type: CorrelationSwap
- Complex type: VarianceSwap

### 1.34.5 Figure:

### 1.34.6 Schema Fragment:

```
<xsd:complexType name="NettedSwapBase" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      An abstract base class for all swap types which have a single
      netted leg, such as Variance Swaps, and Correlation Swaps.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="Product">
      <xsd:sequence>
        <xsd:element name="additionalPayment" type="ClassifiedPayment" minOccurs="0" maxOccurs="1">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies additional payment(s) between the principal
              parties to the netted swap.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="extraordinaryEvents" type="ExtraordinaryEvents" minOccurs="0" maxOccurs="1">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Where the underlying is shares, specifies events
              affecting the issuer of those shares that may require the
              terms of the transaction to be adjusted.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

## 1.35 OptionFeatures

### 1.35.1 Description:

A type for defining option features.

### 1.35.2 Contents:

**asian** (zero or one occurrence; of the type Asian) An option where and average price is taken on valuation.

**barrier** (zero or one occurrence; of the type Barrier) An option with a barrier feature.

**knock** (zero or one occurrence; of the type Knock) A knock feature.

**passThrough** (zero or one occurrence; of the type PassThrough) Pass through payments from the underlyer, such as dividends.

**dividendAdjustment** (zero or one occurrence; of the type DividendAdjustment) Dividend adjustment of the contract is driven by the difference between the Expected Dividend, and the Actual Dividend, which is multiplied by an agreed Factor to produce a Deviation, which is used as the basis for adjusting the contract. The parties acknowledge that in determining the Call Strike Price of the Transaction the parties have assumed that the Dividend scheduled to be paid by the Issuer to holders of record of the Shares, in the period set out in Column headed Relevant Period will equal per Share the amount stated in respect of such Relevant Period.

### 1.35.3 Used by:

- Complex type: EquityDerivativeLongFormBase

### 1.35.4 Derived Types:

### 1.35.5 Figure:

### 1.35.6 Schema Fragment:

```
<xsd:complexType name="OptionFeatures">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type for defining option features.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="asian" type="Asian" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          An option where and average price is taken on valuation.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="barrier" type="Barrier" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          An option with a barrier feature.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="knock" type="Knock" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A knock feature.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="passThrough" type="PassThrough" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Pass through payments from the underlyer, such as dividends.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="dividendAdjustment" type="DividendAdjustment" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Dividend adjustment of the contract is driven by the
          difference between the Expected Dividend, and the Actual
          Dividend, which is multiplied by an agreed Factor to produce
```

a Deviation, which is used as the basis for adjusting the contract. The parties acknowledge that in determining the Call Strike Price of the Transaction the parties have assumed that the Dividend scheduled to be paid by the Issuer to holders of record of the Shares, in the period set out in Column headed Relevant Period will equal per Share the amount stated in respect of such Relevant Period.

</xsd:documentation>

</xsd:annotation>

</xsd:element>

</xsd:sequence>

</xsd:complexType>

## 1.36 PrincipalExchangeAmount

### 1.36.1 Description:

Specifies the principal exchange amount, either by explicitly defining it, or by point to an amount defined somewhere else in the swap document.

### 1.36.2 Contents:

Either

**amountRelativeTo** (exactly one occurrence; of the type AmountReference) Reference to an amount defined elsewhere in the document.

Or

**determinationMethod** (exactly one occurrence; of the type DeterminationMethod) Specifies the method according to which an amount or a date is determined.

Or

**principalAmount** (exactly one occurrence; of the type Money) Principal exchange amount when explicitly stated.

### 1.36.3 Used by:

- Complex type: PrincipalExchangeDescriptions

### 1.36.4 Derived Types:

### 1.36.5 Figure:

### 1.36.6 Schema Fragment:

```
<xsd:complexType name="PrincipalExchangeAmount">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the principal exchange amount, either by explicitly
      defining it, or by point to an amount defined somewhere else in
      the swap document.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:choice>
    <xsd:element name="amountRelativeTo" type="AmountReference">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Reference to an amount defined elsewhere in the document.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="determinationMethod" type="DeterminationMethod">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the method according to which an amount or a date
          is determined.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="principalAmount" type="Money">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Principal exchange amount when explicitly stated.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:choice>
</xsd:complexType>
```

## 1.37 PrincipalExchangeDescriptions

### 1.37.1 Description:

Specifies each of the characteristics of the principal exchange cashflows, in terms of paying/receiving counterparties, amounts and dates.

### 1.37.2 Contents:

**payerPartyReference** (exactly one occurrence; of the type PartyOrAccountReference) A reference to the party responsible for making the payments defined by this structure.

**receiverPartyReference** (exactly one occurrence; of the type PartyOrAccountReference) A reference to the party that receives the payments corresponding to this structure.

**principalExchangeAmount** (exactly one occurrence; of the type PrincipalExchangeAmount) Specifies the principal exchange amount, either by explicitly defining it, or by point to an amount defined somewhere else in the swap document.

**principalExchangeDate** (zero or one occurrence; of the type AdjustableOrRelativeDate) Date on which each of the principal exchanges will take place. This date is either explicitly stated, or is defined by reference to another date in the swap document. In this latter case, it will typically refer to one other date of the equity leg: either the effective date (initial exchange), or the last payment date (final exchange).

### 1.37.3 Used by:

- Complex type: PrincipalExchangeFeatures

### 1.37.4 Derived Types:

### 1.37.5 Figure:

### 1.37.6 Schema Fragment:

```
<xsd:complexType name="PrincipalExchangeDescriptions">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies each of the characteristics of the principal exchange
      cashflows, in terms of paying/receiving counterparties, amounts
      and dates.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:group ref="PayerReceiver.model"/>
    <xsd:element name="principalExchangeAmount" type="PrincipalExchangeAmount">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the principal exchange amount, either by explicitly
          defining it, or by point to an amount defined somewhere else
          in the swap document.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="principalExchangeDate" type="AdjustableOrRelativeDate" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Date on which each of the principal exchanges will take
          place. This date is either explicitly stated, or is defined by
          reference to another date in the swap document. In this
          latter case, it will typically refer to one other date of the
          equity leg: either the effective date (initial exchange), or
          the last payment date (final exchange).
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

## 1.38 PrincipalExchangeFeatures

### 1.38.1 Description:

A type describing the principal exchange features of the equity swap.

### 1.38.2 Contents:

**principalExchanges** (zero or one occurrence; of the type PrincipalExchanges) The true/false flags indicating whether initial, intermediate or final exchanges of principal should occur.

**principalExchangeDescriptions** (one or more occurrences; of the type PrincipalExchangeDescriptions) Specifies each of the characteristics of the principal exchange cashflows, in terms of paying/receiving counterparties, amounts and dates.

### 1.38.3 Used by:

- Complex type: ReturnSwapBase

### 1.38.4 Derived Types:

### 1.38.5 Figure:

### 1.38.6 Schema Fragment:

```
<xsd:complexType name="PrincipalExchangeFeatures">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the principal exchange features of the equity
      swap.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="principalExchanges" type="PrincipalExchanges" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The true/false flags indicating whether initial, intermediate
          or final exchanges of principal should occur.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="principalExchangeDescriptions" type="PrincipalExchangeDescriptions" maxOccurs="unbounded">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies each of the characteristics of the principal
          exchange cashflows, in terms of paying/receiving
          counterparties, amounts and dates.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

## 1.39 Representations

### 1.39.1 Description:

A type for defining ISDA 2002 Equity Derivative Representations.

### 1.39.2 Contents:

**nonReliance** (exactly one occurrence; of the type xsd:boolean) If true, then non reliance is applicable.

**agreementsRegardingHedging** (exactly one occurrence; of the type xsd:boolean) If true, then agreements regarding hedging are applicable.

**indexDisclaimer** (zero or one occurrence; of the type xsd:boolean) If present and true, then index disclaimer is applicable

**additionalAcknowledgements** (exactly one occurrence; of the type xsd:boolean) If true, then additional acknowledgements are applicable.

### 1.39.3 Used by:

- Complex type: ExtraordinaryEvents

### 1.39.4 Derived Types:

### 1.39.5 Figure:

### 1.39.6 Schema Fragment:

```
<xsd:complexType name="Representations">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type for defining ISDA 2002 Equity Derivative Representations.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="nonReliance" type="xsd:boolean">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          If true, then non reliance is applicable.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="agreementsRegardingHedging" type="xsd:boolean">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          If true, then agreements regarding hedging are applicable.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="indexDisclaimer" type="xsd:boolean" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          If present and true, then index disclaimer is applicable
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="additionalAcknowledgements" type="xsd:boolean">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          If true, then additional acknowledgements are applicable.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

## 1.40 Return

### 1.40.1 Description:

A type describing the dividend return conditions applicable to the swap.

### 1.40.2 Contents:

**returnType** (exactly one occurrence; of the type ReturnTypeEnum) Defines the type of return associated with the equity swap.

**dividendConditions** (zero or one occurrence; of the type DividendConditions) Specifies the conditions governing the payment of the dividends to the receiver of the equity return. With the exception of the dividend payout ratio, which is defined for each of the underlying components.

### 1.40.3 Used by:

- Complex type: DeprecatedEquityLeg
- Complex type: ReturnLeg

### 1.40.4 Derived Types:

### 1.40.5 Figure:

### 1.40.6 Schema Fragment:

```
<xsd:complexType name="Return">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the dividend return conditions applicable to
      the swap.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="returnType" type="ReturnTypeEnum">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Defines the type of return associated with the equity swap.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="dividendConditions" type="DividendConditions" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the conditions governing the payment of the
          dividends to the receiver of the equity return. With the
          exception of the dividend payout ratio, which is defined for
          each of the underlying components.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

## 1.41 ReturnLeg

### 1.41.1 Description:

A type describing the return leg of a return type swap.

### 1.41.2 Contents:

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

- A base class for all return leg types with an underlyer.

**rateOfReturn** (exactly one occurrence; of the type ReturnLegValuation) Element named "valuation" in versions prior to FpML 4.2 Second Working Draft. Specifies the terms of the initial price of the return type swap and of the subsequent valuations of the underlyer.

**notional** (exactly one occurrence; of the type ReturnSwapNotional) Specifies the notional of a return type swap. When used in the equity leg, the definition will typically combine the actual amount (using the notional component defined by the FpML industry group) and the determination method. When used in the interest leg, the definition will typically point to the definition of the equity leg.

**amount** (exactly one occurrence; of the type ReturnSwapAmount) Element named "equityAmount" in versions prior to FpML 4.2 Second Working Draft. Specifies, in relation to each Payment Date, the amount to which the Payment Date relates. For equity swaps this element is equivalent to the Equity Amount term as defined in the ISDA 2002 Equity Derivatives Definitions.

**return** (exactly one occurrence; of the type Return) Specifies the conditions under which dividend affecting the underlyer will be paid to the receiver of the amounts.

**notionalAdjustments** (exactly one occurrence; of the type NotionalAdjustmentEnum) Specifies the conditions that govern the adjustment to the number of units of the equity swap.

**fxFeature** (zero or one occurrence; of the type FxFeature) A quanto or composite FX feature.

### 1.41.3 Used by:

- Element: returnLeg

### 1.41.4 Derived Types:

### 1.41.5 Figure:

### 1.41.6 Schema Fragment:

```
<xsd:complexType name="ReturnLeg">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the return leg of a return type swap.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="ReturnSwapLegUnderlyer">
      <xsd:sequence>
        <xsd:element name="rateOfReturn" type="ReturnLegValuation">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Element named "valuation" in versions prior to FpML 4.2
              Second Working Draft. Specifies the terms of the initial
              price of the return type swap and of the subsequent
              valuations of the underlyer.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="notional" type="ReturnSwapNotional">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies the notional of a return type swap. When used
              in the equity leg, the definition will typically combine
              the actual amount (using the notional component defined
              by the FpML industry group) and the determination method.
              When used in the interest leg, the definition will
              typically point to the definition of the equity leg.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

```

    </xsd:annotation>
  </xsd:element>
  <xsd:element name="amount" type="ReturnSwapAmount">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Element named "equityAmount" in versions prior to FpML
        4.2 Second Working Draft. Specifies, in relation to each
        Payment Date, the amount to which the Payment Date
        relates. For equity swaps this element is equivalent to
        the Equity Amount term as defined in the ISDA 2002 Equity
        Derivatives Definitions.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="return" type="Return">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Specifies the conditions under which dividend affecting
        the underlying will be paid to the receiver of the
        amounts.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="notionalAdjustments" type="NotionalAdjustmentEnum">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Specifies the conditions that govern the adjustment to
        the number of units of the equity swap.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="fxFeature" type="FxFeature" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        A quanto or composite FX feature.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
</xsd:sequence>
</xsd:extension>
</xsd:complexContent>
</xsd:complexType>

```

## 1.42 ReturnLegValuation

### 1.42.1 Description:

A type describing the initial and final valuation of the underlying.

### 1.42.2 Contents:

**initialPrice** (exactly one occurrence; of the type ReturnLegValuationPrice) Specifies the initial reference price of the underlying. This price can be expressed either as an actual amount/currency, as a determination method, or by reference to another value specified in the swap document.

**notionalReset** (exactly one occurrence; of the type xsd:boolean) Element named "equityNotionalReset" in versions prior to FpML 4.2 Second Working Draft. For equity swaps, this element is equivalent to the term "Equity Notional Reset" as defined in the ISDA 2002 Equity Derivatives Definitions. The reference to the ISDA definition is either "Applicable" or "Inapplicable".

**valuationPriceInterim** (zero or one occurrence; of the type ReturnLegValuationPrice) Specifies the interim valuation price of the underlying. This price can be expressed either as an actual amount/currency, as a determination method, or by reference to another value specified in the swap document.

**valuationPriceFinal** (exactly one occurrence; of the type ReturnLegValuationPrice) Specifies the final valuation price of the underlying. This price can be expressed either as an actual amount/currency, as a determination method, or by reference to another value specified in the swap document.

**paymentDates** (exactly one occurrence; of the type ReturnSwapPaymentDates) Element named "equityPaymentDates" in versions prior to FpML 4.2 Second Working Draft. Specifies the payment dates of the swap.

**exchangeTradedContractNearest** (zero or one occurrence; of the type ExchangeTradedContract) References a Contract on the Exchange.

### 1.42.3 Used by:

- Complex type: ReturnLeg

### 1.42.4 Derived Types:

### 1.42.5 Figure:

### 1.42.6 Schema Fragment:

```
<xsd:complexType name="ReturnLegValuation">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the initial and final valuation of the
      underlying.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="initialPrice" type="ReturnLegValuationPrice">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the initial reference price of the underlying. This
          price can be expressed either as an actual amount/currency,
          as a determination method, or by reference to another value
          specified in the swap document.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="notionalReset" type="xsd:boolean">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Element named "equityNotionalReset" in versions prior to FpML
          4.2 Second Working Draft. For equity swaps, this element is
          equivalent to the term "Equity Notional Reset" as defined in
          the ISDA 2002 Equity Derivatives Definitions. The reference
          to the ISDA definition is either "Applicable" or
          "Inapplicable".
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="valuationPriceInterim" type="ReturnLegValuationPrice" minOccurs="0">
```

```

<xsd:annotation>
  <xsd:documentation xml:lang="en">
    Specifies the interim valuation price of the underlyer. This
    price can be expressed either as an actual amount/currency,
    as a determination method, or by reference to another value
    specified in the swap document.
  </xsd:documentation>
</xsd:annotation>
</xsd:element>
<xsd:element name="valuationPriceFinal" type="ReturnLegValuationPrice">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the final valuation price of the underlyer. This
      price can be expressed either as an actual amount/currency,
      as a determination method, or by reference to another value
      specified in the swap document.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="paymentDates" type="ReturnSwapPaymentDates">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Element named "equityPaymentDates" in versions prior to FpML
      4.2 Second Working Draft. Specifies the payment dates of the
      swap.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="exchangeTradedContractNearest" type="ExchangeTradedContract" minOccurs="1">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      References a Contract on the Exchange.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>

```

## 1.43 ReturnLegValuationPrice

### 1.43.1 Description:

### 1.43.2 Contents:

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

- A type describing the strike price.

**valuationRules** (zero or one occurrence; of the type EquityValuation) Element named "equityValuation" in versions prior to FpML 4.2 Second Working Draft.

### 1.43.3 Used by:

- Complex type: ReturnLegValuation

### 1.43.4 Derived Types:

### 1.43.5 Figure:

### 1.43.6 Schema Fragment:

```
<xsd:complexType name="ReturnLegValuationPrice">
  <xsd:complexContent>
    <xsd:extension base="Price">
      <xsd:sequence>
        <xsd:element name="valuationRules" type="EquityValuation" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Element named "equityValuation" in versions prior to FpML
              4.2 Second Working Draft.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

## 1.44 ReturnSwap

### 1.44.1 Description:

A type describing return swaps including equity swaps (long form), total return swaps, and variance swaps.

### 1.44.2 Contents:

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

- A type describing the components that are common for return type swaps, including short and long form equity swaps representations.

**additionalPayment** (zero or more occurrences; of the type ReturnSwapAdditionalPayment) Specifies additional payment(s) between the principal parties to the trade. This component extends some of the features of the additionalPayment component developed by the FpML industry group. Appropriate discussions will determine whether it would be appropriate to extend the shared component in order to meet the further requirements of equity swaps.

**earlyTermination** (zero or more occurrences; of the type ReturnSwapEarlyTermination) Specifies, for one or for both the parties to the trade, the date from which it can early terminate it.

**extraordinaryEvents** (zero or one occurrence; of the type ExtraordinaryEvents) Where the underlying is shares, specifies events affecting the issuer of those shares that may require the terms of the transaction to be adjusted.

### 1.44.3 Used by:

- Element: equitySwap
- Element: returnSwap

### 1.44.4 Derived Types:

### 1.44.5 Figure:

### 1.44.6 Schema Fragment:

```
<xsd:complexType name="ReturnSwap">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing return swaps including equity swaps (long
      form), total return swaps, and variance swaps.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="ReturnSwapBase">
      <xsd:sequence>
        <xsd:element name="additionalPayment" type="ReturnSwapAdditionalPayment" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies additional payment(s) between the principal
              parties to the trade. This component extends some of the
              features of the additionalPayment component developed by
              the FpML industry group. Appropriate discussions will
              determine whether it would be appropriate to extend the
              shared component in order to meet the further
              requirements of equity swaps.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="earlyTermination" type="ReturnSwapEarlyTermination" minOccurs="0" maxOccurs="2">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies, for one or for both the parties to the trade,
              the date from which it can early terminate it.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="extraordinaryEvents" type="ExtraordinaryEvents" minOccurs="0" maxOccurs="1">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Where the underlying is shares, specifies events
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

affecting the issuer of those shares that may require the  
terms of the transaction to be adjusted.

```
</xsd:documentation>
</xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:extension>
</xsd:complexContent>
</xsd:complexType>
```

## 1.45 ReturnSwapAdditionalPayment

### 1.45.1 Description:

A type describing the additional payment(s) between the principal parties to the trade. This component extends some of the features of the additionalPayment component previously developed in FpML. Appropriate discussions will determine whether it would be appropriate to extend the shared component in order to meet the further requirements of equity swaps.

### 1.45.2 Contents:

**payerPartyReference** (exactly one occurrence; of the type PartyOrAccountReference) A reference to the party responsible for making the payments defined by this structure.

**receiverPartyReference** (exactly one occurrence; of the type PartyOrAccountReference) A reference to the party that receives the payments corresponding to this structure.

**additionalPaymentAmount** (exactly one occurrence; of the type AdditionalPaymentAmount) Specifies the amount of the fee along with, when applicable, the formula that supports its determination.

**additionalPaymentDate** (exactly one occurrence; of the type AdjustableOrRelativeDate) Specifies the value date of the fee payment/receipt.

**paymentType** (zero or one occurrence; of the type PaymentType) Classification of the payment

### 1.45.3 Used by:

- Complex type: ReturnSwap

### 1.45.4 Derived Types:

### 1.45.5 Figure:

### 1.45.6 Schema Fragment:

```
<xsd:complexType name="ReturnSwapAdditionalPayment">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the additional payment(s) between the principal
      parties to the trade. This component extends some of the features
      of the additionalPayment component previously developed in FpML.
      Appropriate discussions will determine whether it would be
      appropriate to extend the shared component in order to meet the
      further requirements of equity swaps.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:group ref="PayerReceiver.model"/>
    <xsd:element name="additionalPaymentAmount" type="AdditionalPaymentAmount">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the amount of the fee along with, when applicable,
          the formula that supports its determination.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="additionalPaymentDate" type="AdjustableOrRelativeDate">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the value date of the fee payment/receipt.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="paymentType" type="PaymentType" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Classification of the payment
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

## 1.46 ReturnSwapAmount

### 1.46.1 Description:

Specifies, in relation to each Payment Date, the amount to which the Payment Date relates. For Equity Swaps this element is equivalent to the Equity Amount term as defined in the ISDA 2002 Equity Derivatives Definitions.

### 1.46.2 Contents:

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

- A type describing the amount that will paid or received on each of the payment dates. This type is used to define both the Equity Amount and the Interest Amount.

**cashSettlement** (exactly one occurrence; of the type xsd:boolean) If true, then cash settlement is applicable.

**optionsExchangeDividends** (zero or one occurrence; of the type xsd:boolean) If present and true, then options exchange dividends are applicable.

**additionalDividends** (zero or one occurrence; of the type xsd:boolean) If present and true, then additional dividends are applicable.

### 1.46.3 Used by:

- Complex type: DeprecatedVarianceAmount
- Complex type: DeprecatedEquityLeg
- Complex type: ReturnLeg

### 1.46.4 Derived Types:

- Complex type: DeprecatedVarianceAmount

### 1.46.5 Figure:

### 1.46.6 Schema Fragment:

```
<xsd:complexType name="ReturnSwapAmount">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies, in relation to each Payment Date, the amount to which
      the Payment Date relates. For Equity Swaps this element is
      equivalent to the Equity Amount term as defined in the ISDA 2002
      Equity Derivatives Definitions.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="LegAmount">
      <xsd:sequence>
        <xsd:element name="cashSettlement" type="xsd:boolean">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              If true, then cash settlement is applicable.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="optionsExchangeDividends" type="xsd:boolean" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              If present and true, then options exchange dividends are
              applicable.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="additionalDividends" type="xsd:boolean" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              If present and true, then additional dividends are
              applicable.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

```
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

## 1.47 ReturnSwapBase

### 1.47.1 Description:

A type describing the components that are common for return type swaps, including short and long form equity swaps representations.

### 1.47.2 Contents:

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

- The base type which all FpML products extend.

**buyerPartyReference** (exactly one occurrence; of the type PartyOrTradeSideReference) A reference to the party that buys this instrument, ie. pays for this instrument and receives the rights defined by it. See 2000 ISDA definitions Article 11.1 (b). In the case of FRAs this the fixed rate payer.

**sellerPartyReference** (exactly one occurrence; of the type PartyOrTradeSideReference) A reference to the party that sells ("writes") this instrument, i.e. that grants the rights defined by this instrument and in return receives a payment for it. See 2000 ISDA definitions Article 11.1 (a). In the case of FRAs this is the floating rate payer.

**returnSwapLeg** (one or more occurrences; of the type ReturnSwapLeg) An placeholder for the actual Return Swap Leg definition.

**principalExchangeFeatures** (zero or one occurrence; of the type PrincipalExchangeFeatures) This is used to document a Fully Funded Return Swap.

### 1.47.3 Used by:

- Complex type: EquitySwapTransactionSupplement
- Complex type: ReturnSwap

### 1.47.4 Derived Types:

- Complex type: EquitySwapTransactionSupplement
- Complex type: ReturnSwap

### 1.47.5 Figure:

### 1.47.6 Schema Fragment:

```
<xsd:complexType name="ReturnSwapBase" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the components that are common for return type
      swaps, including short and long form equity swaps
      representations.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="Product">
      <xsd:sequence>
        <xsd:group ref="BuyerSeller.model" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              BuyerSeller.model has been included as an optional child
              of ReturnSwapBase to support the situation where an
              implementor wishes to indicate who has manufactured the
              Swap through representing them as the Seller. It may be
              removed in future major revisions.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:group>
        <xsd:element ref="returnSwapLeg" maxOccurs="unbounded"/>
        <xsd:element name="principalExchangeFeatures" type="PrincipalExchangeFeatures" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              This is used to document a Fully Funded Return Swap.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

```
        </xsd:sequence>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
```

## 1.48 ReturnSwapEarlyTermination

### 1.48.1 Description:

A type describing the date from which each of the party may be allowed to terminate the trade.

### 1.48.2 Contents:

**partyReference** (exactly one occurrence; of the type PartyReference) Reference to a party defined elsewhere in this document which may be allowed to terminate the trade.

**startingDate** (exactly one occurrence; of the type StartingDate) Specifies the date from which the early termination clause can be exercised.

### 1.48.3 Used by:

- Complex type: ReturnSwap

### 1.48.4 Derived Types:

### 1.48.5 Figure:

### 1.48.6 Schema Fragment:

```
<xsd:complexType name="ReturnSwapEarlyTermination">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the date from which each of the party may be
      allowed to terminate the trade.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="partyReference" type="PartyReference">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Reference to a party defined elsewhere in this document which
          may be allowed to terminate the trade.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="startingDate" type="StartingDate">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the date from which the early termination clause
          can be exercised.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

## 1.49 ReturnSwapLeg

### 1.49.1 Description:

The abstract base class for all types of Return Swap Leg.

### 1.49.2 Contents:

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

- A supertype of leg. All swap legs extend this type.

**payerPartyReference** (exactly one occurrence; of the type PartyOrAccountReference) A reference to the party responsible for making the payments defined by this structure.

**receiverPartyReference** (exactly one occurrence; of the type PartyOrAccountReference) A reference to the party that receives the payments corresponding to this structure.

**paymentFrequency** (zero or one occurrence; of the type Interval) DEPRECATED This element will be removed in the next FpML major version. Frequency at which this leg pays.

### 1.49.3 Used by:

- Element: returnSwapLeg
- Complex type: DeprecatedEquityLeg
- Complex type: DeprecatedVarianceLeg
- Complex type: InterestLeg
- Complex type: ReturnSwapLegUnderlyer

### 1.49.4 Derived Types:

- Complex type: DeprecatedEquityLeg
- Complex type: DeprecatedVarianceLeg
- Complex type: InterestLeg
- Complex type: ReturnSwapLegUnderlyer

### 1.49.5 Figure:

### 1.49.6 Schema Fragment:

```
<xsd:complexType name="ReturnSwapLeg" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      The abstract base class for all types of Return Swap Leg.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="Leg">
      <xsd:sequence>
        <xsd:group ref="PayerReceiver.model"/>
        <xsd:element name="paymentFrequency" type="Interval" minOccurs="0" fpml-annotation:depr
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              DEPRECATED This element will be removed in the next FpML
              major version. Frequency at which this leg pays.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
      <xsd:attribute name="legIdentifier" type="xsd:ID" fpml-annotation:deprecated="true" fpml-
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            DEPRECATED This element will be renamed to id in the next
            major FpML version.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:attribute>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```



## 1.50 ReturnSwapLegUnderlyer

### 1.50.1 Description:

A base class for all return leg types with an underlyer.

### 1.50.2 Contents:

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

- The abstract base class for all types of Return Swap Leg.

**effectiveDate** (exactly one occurrence; of the type AdjustableOrRelativeDate) Specifies the effective date of this leg of the swap. When defined in relation to a date specified somewhere else in the document (through the relativeDate component), this element will typically point to the effective date of the other leg of the swap.

**terminationDate** (exactly one occurrence; of the type AdjustableOrRelativeDate) Specifies the termination date of this leg of the swap. When defined in relation to a date specified somewhere else in the document (through the relativeDate component), this element will typically point to the termination date of the other leg of the swap.

**underlyer** (exactly one occurrence; of the type Underlyer) Specifies the underlying component of the leg, which can be either one or many and consists in either equity, index or convertible bond component, or a combination of these.

### 1.50.3 Used by:

- Complex type: ReturnLeg

### 1.50.4 Derived Types:

- Complex type: ReturnLeg

### 1.50.5 Figure:

### 1.50.6 Schema Fragment:

```
<xsd:complexType name="ReturnSwapLegUnderlyer" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A base class for all return leg types with an underlyer.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="ReturnSwapLeg">
      <xsd:sequence>
        <xsd:element name="effectiveDate" type="AdjustableOrRelativeDate">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies the effective date of this leg of the swap.
              When defined in relation to a date specified somewhere
              else in the document (through the relativeDate
              component), this element will typically point to the
              effective date of the other leg of the swap.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="terminationDate" type="AdjustableOrRelativeDate">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies the termination date of this leg of the swap.
              When defined in relation to a date specified somewhere
              else in the document (through the relativeDate
              component), this element will typically point to the
              termination date of the other leg of the swap.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="underlyer" type="Underlyer">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies the underlying component of the leg, which can
              be either one or many and consists in either equity,
              index or convertible bond component, or a combination of
```

```
        these.  
      </xsd:documentation>  
    </xsd:annotation>  
  </xsd:element>  
</xsd:sequence>  
</xsd:extension>  
</xsd:complexContent>  
</xsd:complexType>
```

## 1.51 ReturnSwapNotional

### 1.51.1 Description:

Specifies the notional of return type swap. When used in the equity leg, the definition will typically combine the actual amount (using the notional component defined by the FpML industry group) and the determination method. When used in the interest leg, the definition will typically point to the definition of the equity leg.

### 1.51.2 Contents:

Either

**amountRelativeTo** (exactly one occurrence; of the type AmountReference) Reference to an amount defined elsewhere in this document.

Or

**determinationMethod** (exactly one occurrence; of the type DeterminationMethod) Specifies the method according to which an amount or a date is determined.

Or

**notionalAmount** (exactly one occurrence; of the type Money) The notional amount.

### 1.51.3 Used by:

- Complex type: DeprecatedEquityLeg
- Complex type: InterestLeg
- Complex type: ReturnLeg

### 1.51.4 Derived Types:

### 1.51.5 Figure:

### 1.51.6 Schema Fragment:

```
<xsd:complexType name="ReturnSwapNotional">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the notional of return type swap. When used in the
      equity leg, the definition will typically combine the actual
      amount (using the notional component defined by the FpML industry
      group) and the determination method. When used in the interest
      leg, the definition will typically point to the definition of the
      equity leg.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:choice>
    <xsd:element name="amountRelativeTo" type="AmountReference">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Reference to an amount defined elsewhere in this document.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="determinationMethod" type="DeterminationMethod">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the method according to which an amount or a date
          is determined.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="notionalAmount" type="Money">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The notional amount.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:choice>
  <xsd:attribute name="id" type="xsd:ID"/>
</xsd:complexType>
```

## 1.52 ReturnSwapPaymentDates

### 1.52.1 Description:

A type describing the return payment dates of the swap.

### 1.52.2 Contents:

**paymentDatesInterim** (zero or one occurrence; of the type AdjustableOrRelativeDates) Element named "equityPaymentDatesInterim" in versions prior to FpML 4.2 Second Working Draft. Specifies the interim payment dates of the swap. When defined in relation to a date specified somewhere else in the document (through the relativeDates component), this element will typically refer to the valuation dates and add a lag corresponding to the settlement cycle of the underlying.

**paymentDateFinal** (exactly one occurrence; of the type AdjustableOrRelativeDate) Element named "equityPaymentDateFinal" in versions prior to FpML 4.2 Second Working Draft. Specifies the final payment date of the swap. When defined in relation to a date specified somewhere else in the document (through the relativeDate component), this element will typically refer to the final valuation date and add a lag corresponding to the settlement cycle of the underlying.

### 1.52.3 Used by:

- Complex type: ReturnLegValuation

### 1.52.4 Derived Types:

### 1.52.5 Figure:

### 1.52.6 Schema Fragment:

```
<xsd:complexType name="ReturnSwapPaymentDates">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the return payment dates of the swap.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="paymentDatesInterim" type="AdjustableOrRelativeDates" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Element named "equityPaymentDatesInterim" in versions prior
          to FpML 4.2 Second Working Draft. Specifies the interim
          payment dates of the swap. When defined in relation to a date
          specified somewhere else in the document (through the
          relativeDates component), this element will typically refer
          to the valuation dates and add a lag corresponding to the
          settlement cycle of the underlying.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="paymentDateFinal" type="AdjustableOrRelativeDate">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Element named "equityPaymentDateFinal" in versions prior to
          FpML 4.2 Second Working Draft. Specifies the final payment
          date of the swap. When defined in relation to a date
          specified somewhere else in the document (through the
          relativeDate component), this element will typically refer to
          the final valuation date and add a lag corresponding to the
          settlement cycle of the underlying.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
  <xsd:attribute name="id" type="xsd:ID"/>
</xsd:complexType>
```

## 1.53 StartingDate

### 1.53.1 Description:

A type specifying the date from which the early termination clause can be exercised.

### 1.53.2 Contents:

Either

**dateRelativeTo** (exactly one occurrence; of the type DateReference) Reference to a date defined elsewhere in the document

Or

**adjustableDate** (exactly one occurrence; of the type AdjustableDate) Date from which early termination clause can be exercised

### 1.53.3 Used by:

- Complex type: DeprecatedVarianceAmount
- Complex type: ReturnSwapEarlyTermination

### 1.53.4 Derived Types:

### 1.53.5 Figure:

### 1.53.6 Schema Fragment:

```
<xsd:complexType name="StartingDate">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type specifying the date from which the early termination
      clause can be exercised.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:choice>
    <xsd:element name="dateRelativeTo" type="DateReference">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Reference to a date defined elsewhere in the document
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="adjustableDate" type="AdjustableDate">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Date from which early termination clause can be exercised
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:choice>
</xsd:complexType>
```

## 1.54 StubCalculationPeriod

### 1.54.1 Description:

A type describing the Stub Calculation Period

### 1.54.2 Contents:

Either

**finalStub** (exactly one occurrence; of the type Stub)

### 1.54.3 Used by:

- Complex type: InterestLeg

### 1.54.4 Derived Types:

### 1.54.5 Figure:

### 1.54.6 Schema Fragment:

```
<xsd:complexType name="StubCalculationPeriod">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the Stub Calculation Period
    </xsd:documentation>
  </xsd:annotation>
  <xsd:choice>
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Choice group between mandatory specification of initial stub
        and optional specification of final stub, or mandatory final
        stub.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:element name="initialStub" type="Stub"/>
      <xsd:element name="finalStub" type="Stub" minOccurs="0"/>
    </xsd:sequence>
    <xsd:element name="finalStub" type="Stub"/>
  </xsd:choice>
</xsd:complexType>
```

## 1.55 Variance

### 1.55.1 Description:

A type describing the variance amount of a variance swap

### 1.55.2 Contents:

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

- Abstract base class for all calculation from observed values

**varianceAmount** (exactly one occurrence; of the type Money) Variance amount, which is a cash multiplier.  
Either

**volatilityStrikePrice** (exactly one occurrence; of the type NonNegativeDecimal)

Or

**varianceStrikePrice** (exactly one occurrence; of the type NonNegativeDecimal)

**varianceCap** (zero or one occurrence; of the type xsd:boolean) If present and true, then variance cap is applicable.

**unadjustedVarianceCap** (zero or one occurrence; of the type PositiveDecimal) For use when varianceCap is applicable. Contains the scaling factor of the Variance Cap that can differ on a trade-by-trade basis in the European market. For example, a Variance Cap of  $2.5^2 \times$  Variance Strike Price has an unadjustedVarianceCap of 2.5.

**boundedVariance** (zero or one occurrence; of the type BoundedVariance) Conditions which bound variance. The contract specifies one or more boundary levels. These levels are expressed as prices for confirmation purposes Underlyer price must be equal to or higher than Lower Barrier is known as Up Conditional Swap Underlyer price must be equal to or lower than Upper Barrier is known as Down Conditional Swap Underlyer price must be equal to or higher than Lower Barrier and must be equal to or lower than Upper Barrier is known as Barrier Conditional Swap.

**exchangeTradedContractNearest** (zero or one occurrence; of the type ExchangeTradedContract) Specification of the exchange traded contract nearest.

**vegaNotionalAmount** (zero or one occurrence; of the type xsd:decimal) Vega Notional represents the approximate gain/loss at maturity for a 1% difference between RVol (realised vol) and KVol (strike vol). It does not necessarily represent the Vega Risk of the trade.

### 1.55.3 Used by:

- Complex type: VarianceAmount

### 1.55.4 Derived Types:

### 1.55.5 Figure:

### 1.55.6 Schema Fragment:

```
<xsd:complexType name="Variance">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the variance amount of a variance swap
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="CalculationFromObservation">
      <xsd:sequence>
        <xsd:element name="varianceAmount" type="Money">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Variance amount, which is a cash multiplier.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:choice>
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
```

```

        Choice between expressing the strike as volatility or
        variance.
    </xsd:documentation>
</xsd:annotation>
<xsd:element name="volatilityStrikePrice" type="NonNegativeDecimal"/>
<xsd:element name="varianceStrikePrice" type="NonNegativeDecimal"/>
</xsd:choice>
<xsd:element name="varianceCap" type="xsd:boolean" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            If present and true, then variance cap is applicable.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:element name="unadjustedVarianceCap" type="PositiveDecimal" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            For use when varianceCap is applicable. Contains the
            scaling factor of the Variance Cap that can differ on a
            trade-by-trade basis in the European market. For example,
            a Variance Cap of  $2.5^2$  x Variance Strike Price has an
            unadjustedVarianceCap of 2.5.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:element name="boundedVariance" type="BoundedVariance" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            Conditions which bound variance. The contract specifies
            one or more boundary levels. These levels are expressed
            as prices for confirmation purposes Underlyer price must
            be equal to or higher than Lower Barrier is known as Up
            Conditional Swap Underlyer price must be equal to or
            lower than Upper Barrier is known as Down Conditional
            Swap Underlyer price must be equal to or higher than
            Lower Barrier and must be equal to or lower than Upper
            Barrier is known as Barrier Conditional Swap.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:element name="exchangeTradedContractNearest" type="ExchangeTradedContract" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            Specification of the exchange traded contract nearest.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:element name="vegaNotionalAmount" type="xsd:decimal" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            Vega Notional represents the approximate gain/loss at
            maturity for a 1% difference between RVol (realised vol)
            and KVol (strike vol). It does not necessarily represent
            the Vega Risk of the trade.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:extension>
</xsd:complexContent>
</xsd:complexType>

```

## ***2 Global Elements***

## **2.1 interestLeg**

### **2.1.1 Description:**

The fixed income amounts of the return type swap.

### **2.1.2 Contents:**

Element interestLeg is defined by the complex type InterestLeg

### **2.1.3 Used by:**

### **2.1.4 Substituted by:**

### **2.1.5 Figure:**

### **2.1.6 Schema Fragment:**

```
<xsd:element name="interestLeg" type="InterestLeg" substitutionGroup="returnSwapLeg">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      The fixed income amounts of the return type swap.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

## **2.2 returnLeg**

### **2.2.1 Description:**

Return amounts of the return type swap.

### **2.2.2 Contents:**

Element returnLeg is defined by the complex type ReturnLeg

### **2.2.3 Used by:**

### **2.2.4 Substituted by:**

### **2.2.5 Figure:**

### **2.2.6 Schema Fragment:**

```
<xsd:element name="returnLeg" type="ReturnLeg" substitutionGroup="returnSwapLeg">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Return amounts of the return type swap.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

## 2.3 returnSwap

### 2.3.1 Description:

Specifies the structure of a return type swap. It can represent equity swaps, total return swaps, variance swaps.

### 2.3.2 Contents:

Element returnSwap is defined by the complex type ReturnSwap

### 2.3.3 Used by:

### 2.3.4 Substituted by:

### 2.3.5 Figure:

### 2.3.6 Schema Fragment:

```
<xsd:element name="returnSwap" type="ReturnSwap" substitutionGroup="product">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the structure of a return type swap. It can represent
      equity swaps, total return swaps, variance swaps.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

## 2.4 returnSwapLeg

### 2.4.1 Description:

An placeholder for the actual Return Swap Leg definition.

### 2.4.2 Contents:

Element returnSwapLeg is defined by the complex type ReturnSwapLeg

### 2.4.3 Used by:

- Complex type: ReturnSwapBase

### 2.4.4 Substituted by:

- Element: equityLeg
- Element: interestLeg
- Element: returnLeg
- Element: varianceLeg

### 2.4.5 Figure:

### 2.4.6 Schema Fragment:

```
<xsd:element name="returnSwapLeg" type="ReturnSwapLeg" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      An placeholder for the actual Return Swap Leg definition.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

## 2.5 varianceLeg

### 2.5.1 Description:

DEPRECATED This element will be removed in the next FpML major version. Return Swap model should not be used for Variance Swaps, use the Variance Swap Product. The variance leg of the return swap.

### 2.5.2 Contents:

Element varianceLeg is defined by the complex type DeprecatedVarianceLeg

### 2.5.3 Used by:

### 2.5.4 Substituted by:

### 2.5.5 Figure:

### 2.5.6 Schema Fragment:

```
<xsd:element name="varianceLeg" type="DeprecatedVarianceLeg" substitutionGroup="returnSwapLeg">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      DEPRECATED This element will be removed in the next FpML major
      version. Return Swap model should not be used for Variance Swaps,
      use the Variance Swap Product. The variance leg of the return
      swap.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

**3 Groups**

## 3.1 Feature.model

### 3.1.1 Description:

A group containing Swap and Derivative features

### 3.1.2 Contents:

**feature** (zero or one occurrence; of the type OptionFeatures) Asian, Barrier, Knock and Pass Through features

**fxFeature** (zero or one occurrence; of the type FxFeature) Quanto, Composite, or Cross Currency FX features

### 3.1.3 Used by:

- Complex type: EquityDerivativeBase

### 3.1.4 Figure:

### 3.1.5 Schema Fragment:

```
<xsd:group name="Feature.model">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A group containing Swap and Derivative features
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="feature" type="OptionFeatures" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Asian, Barrier, Knock and Pass Through features
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="fxFeature" type="FxFeature" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Quanto, Composite, or Cross Currency FX features
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:group>
```

## 4 Schema listing

```
<xsd:schema ecore:nsPrefix="fpml" ecore:package="org.fpml" ecore:documentRoot="FpML" targetNameSpace="org.fpml">
  <xsd:include schemaLocation="fpml-option-shared-4-3.xsd"/>
  <xsd:complexType name="AdditionalDisruptionEvents">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        A type for defining ISDA 2002 Equity Derivative Additional
        Disruption Events
      </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:element name="changeInLaw" type="xsd:boolean">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            If true, then change in law is applicable
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="failureToDeliver" type="xsd:boolean" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            Where the underlying is shares and the transaction is
            physically settled, then, if true, a failure to deliver the
            shares on the settlement date will not be an event of
            default for the purposes of the master agreement.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="insolvencyFiling" type="xsd:boolean">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            If true, then insolvency filing is applicable
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="hedgingDisruption" type="xsd:boolean">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            If true, then hedging disruption is applicable
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="lossOfStockBorrow" type="xsd:boolean">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            If true, then loss of stock borrow is applicable
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="increasedCostOfStockBorrow" type="xsd:boolean">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            If true, then increased cost of stock borrow is applicable
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="increasedCostOfHedging" type="xsd:boolean">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            If true, then increased cost of hedging is applicable
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="determiningPartyReference" type="PartyReference">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            A reference to the party which determines additional
            disruption events
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="AdditionalPaymentAmount">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Specifies the amount of the fee along with, when applicable,
        the formula that supports its determination.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:complexType>
</xsd:schema>
```

```

<xsd:sequence>
  <xsd:element name="paymentAmount" type="Money" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        The currency amount of the payment.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="formula" type="Formula" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Specifies a formula, with its description and components.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="AdjustableDateOrRelativeDateSequence">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing a date defined as subject to adjustment or
      defined in reference to another date through one or several
      date offsets.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:choice>
    <xsd:element name="adjustableDate" type="AdjustableDate">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A date that shall be subject to adjustment if it would
          otherwise fall on a day that is not a business day in the
          specified business centers, together with the convention
          for adjusting the date.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="relativeDateSequence" type="RelativeDateSequence">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A date specified in relation to some other date defined in
          the document (the anchor date), where there is the
          opportunity to specify a combination of offset rules. This
          component will typically be used for defining the valuation
          date in relation to the payment date, as both the currency
          and the exchange holiday calendars need to be considered.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:choice>
  <xsd:attribute name="id" type="xsd:ID"/>
</xsd:complexType>
<xsd:complexType name="BoundedCorrelation">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing correlation bounds, which form a cap and a
      floor on the realized correlation.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="minimumBoundaryPercent" type="xsd:decimal" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Minimum Boundary as a percentage of the Strike Price.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="maximumBoundaryPercent" type="xsd:decimal" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Maximum Boundary as a percentage of the Strike Price.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="BoundedVariance">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing variance bounds, which are used to exclude
      money price values outside of the specified range In a Up
      Conditional Swap Underlyer price must be equal to or higher
      than Lower Barrier In a Down Conditional Swap Underlyer price
      must be equal to or lower than Upper Barrier In a Corridor
    </xsd:documentation>
  </xsd:annotation>

```

```

        Conditional Swap Underlyer price must be equal to or higher
        than Lower Barrier and must be equal to or lower than Upper
        Barrier.
    </xsd:documentation>
</xsd:annotation>
<xsd:sequence>
    <xsd:element name="realisedVarianceMethod" type="RealisedVarianceMethodEnum">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                The contract specifies whether which price must satisfy the
                boundary condition.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>
    <xsd:element name="daysInRangeAdjustment" type="xsd:boolean">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                The contract specifies whether the notional should be
                scaled by the Number of Days in Range divided by the
                Expected N. The number of Days in Ranges refers to the
                number of returns that contribute to the realized
                volatility.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>
    <xsd:element name="upperBarrier" type="NonNegativeDecimal" minOccurs="0">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                All observations above this price level will be excluded
                from the variance calculation.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>
    <xsd:element name="lowerBarrier" type="NonNegativeDecimal" minOccurs="0">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                All observations below this price level will be excluded
                from the variance calculation.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="CalculatedAmount" abstract="true">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            An abstract base class for all calculated money amounts, which
            are in the currency of the cash multiplier of the calculation.
        </xsd:documentation>
    </xsd:annotation>
</xsd:sequence>
    <xsd:element name="calculationDates" type="AdjustableRelativeOrPeriodicDates" minOccurs="0">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                Specifies the date on which a calculation or an observation
                will be performed for the purpose of calculating the
                amount.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>
    <xsd:element name="observationStartDate" type="AdjustableOrRelativeDate" minOccurs="0">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                The start of the period over which observations are made
                which are used in the calculation Used when the observation
                start date differs from the trade date such as for forward
                starting swaps.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>
    <xsd:element name="optionsExchangeDividends" type="xsd:boolean" minOccurs="0">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                If present and true, then options exchange dividends are
                applicable.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>
    <xsd:element name="additionalDividends" type="xsd:boolean" minOccurs="0">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                If present and true, then additional dividends are
                applicable.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>

```

```

    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="allDividends" type="xsd:boolean" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Represents the European Master Confirmation value of 'All
      Dividends' which, when applicable, signifies that, for a
      given Ex-Date, the daily observed Share Price for that day
      is adjusted (reduced) by the cash dividend and/or the cash
      value of any non cash dividend per Share (including
      Extraordinary Dividends) declared by the Issuer.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="CalculationFromObservation" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Abstract base class for all calculation from observed values
    </xsd:documentation>
  </xsd:annotation>
</xsd:sequence>
  <xsd:choice>
    <xsd:element name="initialLevel" type="xsd:decimal">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Contract will strike off this initial level
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="closingLevel" type="xsd:boolean">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          If true this contract will strike off the closing level
          of the default exchange traded contract
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="expiringLevel" type="xsd:boolean">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          If true this contract will strike off the expiring level
          of the default exchange traded contract
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:choice>
  <xsd:element name="expectedN" type="xsd:positiveInteger" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Expected number of trading days
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Compounding">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the compounding method and the compounding rate.
    </xsd:documentation>
  </xsd:annotation>
</xsd:sequence>
  <xsd:element name="compoundingMethod" type="CompoundingMethodEnum">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        If more than one calculation period contributes to a single
        payment amount this element specifies whether compounding
        is applicable, and if so, what compounding method is to be
        used. This element must only be included when more than one
        calculation period contributes to a single payment amount.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="compoundingRate" type="CompoundingRate">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Defines a compounding rate. The compounding interest can
        either point back to the interest calculation node on the
        Interest Leg, or be defined specifically.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>

```

```

        </xsd:annotation>
    </xsd:element>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="CompoundingRate">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            A type defining a compounding rate. The compounding interest
            can either point back to the interest calculation node on the
            Interest Leg, or be defined specifically.
        </xsd:documentation>
    </xsd:annotation>
    <xsd:choice>
        <xsd:element name="interestLegRate" type="InterestCalculationReference">
            <xsd:annotation>
                <xsd:documentation xml:lang="en">
                    Reference to the interest calculation node on the Interest
                    Leg.
                </xsd:documentation>
            </xsd:annotation>
        </xsd:element>
        <xsd:element name="specificRate" type="InterestAccrualsMethod">
            <xsd:annotation>
                <xsd:documentation xml:lang="en">
                    Defines a specific rate.
                </xsd:documentation>
            </xsd:annotation>
        </xsd:element>
    </xsd:choice>
</xsd:complexType>
<xsd:complexType name="Correlation">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            A type describing the correlation amount of a correlation swap
        </xsd:documentation>
    </xsd:annotation>
    <xsd:complexContent>
        <xsd:extension base="CalculationFromObservation">
            <xsd:sequence>
                <xsd:element name="notionalAmount" type="Money">
                    <xsd:annotation>
                        <xsd:documentation xml:lang="en">
                            Notional amount, which is a cash multiplier
                        </xsd:documentation>
                    </xsd:annotation>
                </xsd:element>
                <xsd:element name="correlationStrikePrice" type="CorrelationValue">
                    <xsd:annotation>
                        <xsd:documentation xml:lang="en">
                            Correlation Strike Price
                        </xsd:documentation>
                    </xsd:annotation>
                </xsd:element>
                <xsd:element name="boundedCorrelation" type="BoundedCorrelation" minOccurs="0">
                    <xsd:annotation>
                        <xsd:documentation xml:lang="en">
                            Bounded Correlation
                        </xsd:documentation>
                    </xsd:annotation>
                </xsd:element>
                <xsd:element name="numberOfDataSeries" type="xsd:positiveInteger" minOccurs="0">
                    <xsd:annotation>
                        <xsd:documentation xml:lang="en">
                            Number of data series, normal market practice is that
                            correlation data sets are drawn from geographic market
                            areas, such as America, Europe and Asia Pacific, each
                            of these geographic areas will have its own data series
                            to avoid contagion
                        </xsd:documentation>
                    </xsd:annotation>
                </xsd:element>
            </xsd:sequence>
        </xsd:extension>
    </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="DeprecatedVariance" fpml-annotation:deprecated="true" fpml-annotation:
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            DEPRECATED This type will be removed in the next FpML major
            version. A type describing the variance amount of a variance
            swap.
        </xsd:documentation>
    </xsd:annotation>

```

```

<xsd:sequence>
  <xsd:choice>
    <xsd:element name="initialLevel" type="xsd:decimal"/>
    <xsd:element name="closingLevel" type="xsd:boolean"/>
    <xsd:element name="expiringLevel" type="xsd:boolean">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          If present and true this contract will strike off the
          default exchange traded contract
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:choice>
  <xsd:element name="varianceAmount" type="Money"/>
  <xsd:choice>
    <xsd:element name="volatilityStrikePrice" type="xsd:decimal"/>
    <xsd:element name="varianceStrikePrice" type="xsd:decimal"/>
  </xsd:choice>
  <xsd:element name="expectedN" type="xsd:integer" minOccurs="0"/>
  <xsd:element name="varianceCap" type="xsd:boolean" minOccurs="0"/>
  <xsd:element name="unadjustedVarianceCap" type="xsd:decimal" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        For use when varianceCap is applicable. Contains the
        scaling factor of the Variance Cap that can differ on a
        trade-by-trade basis in the European market. For example, a
        Variance Cap of 2.5^2 x Variance Strike Price has an
        unadjustedVarianceCap of 2.5.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="exchangeTradedContractNearest" type="ExchangeTradedContract" minOccurs="0"/>
  <xsd:element name="vegaNotionalAmount" type="xsd:decimal" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Vega Notional represents the approximate gain/loss at
        maturity for a 1% difference between RVol (realised vol)
        and KVol (strike vol). It does not necessarily represent
        the Vega Risk of the trade.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="fxFeature" type="FxFeature" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Quanto, Composite, or Cross Currency FX features
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="DeprecatedVarianceAmount" fpml-annotation:deprecated="true" fpml-annot
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      DEPRECATED This type will be removed in the next FpML major
      version. Return Swap model should not be used for Variance
      Swaps, use the Variance Swap Product. Specifies, in relation to
      each Equity Payment Date, the amount to which the Equity
      Payment Date relates for Variance Swaps. Unless otherwise
      specified, this term has the meaning defined in the ISDA 2002
      Equity Derivatives Definitions.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="ReturnSwapAmount">
      <xsd:sequence>
        <xsd:element name="cashSettlementPaymentDate" type="AdjustableOrRelativeDate" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Typically specified as a number of days following the
              valuation date, such as one settlement cycle following
              the valuation date. Number of days can vary in the
              European market.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="observationStartDate" type="StartingDate" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              The start of the period over which observations are
              made to determine the variance. Used when the date
              differs from the trade date such as for forward
              starting variance swaps.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>

```

```

        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="allDividends" type="xsd:boolean" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Represents the European Master Confirmation value of
          "All Dividends" which, when applicable, signifies that,
          for a given Ex-Date, the daily observed Share Price for
          that day is adjusted (reduced) by the cash dividend
          and/or the cash value of any non cash dividend per
          Share (including Extraordinary Dividends) declared by
          the Issuer.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:extension>
</xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="DeprecatedVarianceLeg" fpml-annotation:deprecated="true" fpml-annotati
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      DEPRECATED This type will be removed in the next FpML major
      version. Return Swap model should not be used for Variance
      Swaps, use the Variance Swap Product. A type describing the
      variance leg of the return swap.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="ReturnSwapLeg">
      <xsd:sequence>
        <xsd:element name="underlyer" type="Underlyer">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies the underlyer of the leg.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="equityValuation" type="EquityValuation">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Valuation of the underlyer.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="equityAmount" type="DeprecatedVarianceAmount">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies, in relation to each Equity Payment Date, the
              amount to which the Equity Payment Date relates. Unless
              otherwise specified, this term has the meaning defined
              in the ISDA 2002 Equity Derivatives Definitions.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="DirectionalLeg" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      An abstract base class for all directional leg types with
      effective date, termination date, where a payer makes a stream
      of payments of greater than zero value to a receiver.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="Leg">
      <xsd:sequence>
        <xsd:group ref="PayerReceiver.model"/>
        <xsd:element name="effectiveDate" type="AdjustableOrRelativeDate" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies the effective date of this leg of the swap.
              When defined in relation to a date specified somewhere
              else in the document (through the relativeDate
              component), this element will typically point to the
              effective date of the other leg of the swap.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>

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<xsd:element name="terminationDate" type="AdjustableOrRelativeDate" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the termination date of this leg of the swap.
      When defined in relation to a date specified somewhere
      else in the document (through the relativeDate
      component), this element will typically point to the
      termination date of the other leg of the swap.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
<xsd:attribute name="id" type="xsd:ID"/>
</xsd:extension>
</xsd:complexType>
</xsd:complexType>
<xsd:complexType name="DirectionalLegUnderlyer" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      An abstract base class for all directional leg types with
      effective date, termination date, and underlyer where a payer
      makes a stream of payments of greater than zero value to a
      receiver.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="DirectionalLeg">
      <xsd:sequence>
        <xsd:element name="underlyer" type="Underlyer">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies the underlyer of the leg.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:group ref="OptionSettlement.model"/>
        <xsd:element name="fxFeature" type="FxFeature" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Quanto, Composite, or Cross Currency FX features.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="DirectionalLegUnderlyerValuation" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      An abstract base class for all directional leg types with
      effective date, termination date, and underlyer, where a payer
      makes a stream of payments of greater than zero value to a
      receiver.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="DirectionalLegUnderlyer">
      <xsd:sequence>
        <xsd:element name="valuation" type="EquityValuation">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Valuation of the underlyer.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="DividendAdjustment">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Container for Dividend Adjustment Periods, which are used to
      calculate the Deviation between Expected Dividend and Actual
      Dividend in that Period.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="dividendPeriod" type="DividendPeriodDividend" maxOccurs="unbounded">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A single Dividend Adjustment Period.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>

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        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="DividendPeriod" abstract="true">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            Abstract base class of all time bounded dividend period types.
        </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
        <xsd:element name="unadjustedStartDate" type="IdentifiedDate">
            <xsd:annotation>
                <xsd:documentation xml:lang="en">
                    Unadjusted inclusive dividend period start date.
                </xsd:documentation>
            </xsd:annotation>
        </xsd:element>
        <xsd:element name="unadjustedEndDate" type="IdentifiedDate">
            <xsd:annotation>
                <xsd:documentation xml:lang="en">
                    Unadjusted inclusive dividend period end date.
                </xsd:documentation>
            </xsd:annotation>
        </xsd:element>
        <xsd:element name="dateAdjustments" type="BusinessDayAdjustments">
            <xsd:annotation>
                <xsd:documentation xml:lang="en">
                    Date adjustments for all unadjusted dates in this dividend
                    period.
                </xsd:documentation>
            </xsd:annotation>
        </xsd:element>
        <xsd:element name="underlyerReference" type="AssetReference" minOccurs="0">
            <xsd:annotation>
                <xsd:documentation xml:lang="en">
                    Reference to the underlyer which is paying dividends. This
                    should be used in all cases, and must be used where there
                    are multiple underlying assets, to avoid any ambiguity
                    about which asset the dividend period relates to.
                </xsd:documentation>
            </xsd:annotation>
        </xsd:element>
    </xsd:sequence>
    <xsd:attribute name="id" type="xsd:ID"/>
</xsd:complexType>
<xsd:complexType name="DividendPeriodDividend">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            A time bounded dividend period, with an expected dividend for
            each period.
        </xsd:documentation>
    </xsd:annotation>
    <xsd:complexContent>
        <xsd:extension base="DividendPeriod">
            <xsd:sequence>
                <xsd:element name="dividend" type="Money">
                    <xsd:annotation>
                        <xsd:documentation xml:lang="en">
                            Expected dividend in this period.
                        </xsd:documentation>
                    </xsd:annotation>
                </xsd:element>
                <xsd:element name="multiplier" type="PositiveDecimal">
                    <xsd:annotation>
                        <xsd:documentation xml:lang="en">
                            Multiplier is a percentage value which is used to
                            produce Deviation by multiplying the difference between
                            Expected Dividend and Actual Dividend Deviation =
                            Multiplier * (Expected Dividend - Actual Dividend).
                        </xsd:documentation>
                    </xsd:annotation>
                </xsd:element>
            </xsd:sequence>
        </xsd:extension>
    </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="EquityCorporateEvents">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            A type for defining the merger events and their treatment.
        </xsd:documentation>
    </xsd:annotation>

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</xsd:annotation>
<xsd:sequence>
  <xsd:element name="shareForShare" type="ShareExtraordinaryEventEnum">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        The consideration paid for the original shares following
        the Merger Event consists wholly of new shares.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="shareForOther" type="ShareExtraordinaryEventEnum">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        The consideration paid for the original shares following
        the Merger Event consists wholly of cash/securities other
        than new shares.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="shareForCombined" type="ShareExtraordinaryEventEnum">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        The consideration paid for the original shares following
        the Merger Event consists of both cash/securities and new
        shares.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="EquityPremium">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type used to describe the amount paid for an equity option.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:group ref="PayerReceiver.model"/>
    <xsd:element name="premiumType" type="PremiumTypeEnum" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Forward start Premium type
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="paymentAmount" type="Money" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The currency amount of the payment.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="paymentDate" type="AdjustableDate" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The payment date. This date is subject to adjustment in
          accordance with any applicable business day convention.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="swapPremium" type="xsd:boolean" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies whether or not the premium is to be paid in the
          style of payments under an interest rate swap contract.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="pricePerOption" type="Money" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The amount of premium to be paid expressed as a function of
          the number of options.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="percentageOfNotional" type="xsd:decimal" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The amount of premium to be paid expressed as a percentage
          of the notional value of the transaction. A percentage of
          5% would be expressed as 0.05.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>

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        </xsd:annotation>
    </xsd:element>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="EquityStrike">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            A type for defining the strike price for an equity option. The
            strike price is either: (i) in respect of an index option
            transaction, the level of the relevant index specified or
            otherwise determined in the transaction; or (ii) in respect of
            a share option transaction, the price per share specified or
            otherwise determined in the transaction. This can be expressed
            either as a percentage of notional amount or as an absolute
            value.
        </xsd:documentation>
    </xsd:annotation>
</xsd:sequence>
    <xsd:choice>
        <xsd:element name="strikePrice" type="xsd:decimal">
            <xsd:annotation>
                <xsd:documentation xml:lang="en">
                    The price or level at which the option has been struck.
                </xsd:documentation>
            </xsd:annotation>
        </xsd:element>
        <xsd:sequence>
            <xsd:element name="strikePercentage" type="xsd:decimal">
                <xsd:annotation>
                    <xsd:documentation xml:lang="en">
                        The price or level expressed as a percentage of the
                        forward starting spot price.
                    </xsd:documentation>
                </xsd:annotation>
            </xsd:element>
            <xsd:element name="strikeDeterminationDate" type="AdjustableOrRelativeDate" minOccurs="0">
                <xsd:annotation>
                    <xsd:documentation xml:lang="en">
                        The date on which the strike is determined, where this
                        is not the effective date of a forward starting option.
                    </xsd:documentation>
                </xsd:annotation>
            </xsd:element>
        </xsd:sequence>
    </xsd:choice>
    <xsd:element name="currency" type="Currency" minOccurs="0">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                The currency in which an amount is denominated.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="EquityValuation">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            A type for defining how and when an equity option is to be
            valued.
        </xsd:documentation>
    </xsd:annotation>
</xsd:sequence>
    <xsd:choice minOccurs="0">
        <xsd:element name="valuationDate" type="AdjustableDateOrRelativeDateSequence">
            <xsd:annotation>
                <xsd:documentation xml:lang="en">
                    The term "Valuation Date" is assumed to have the meaning
                    as defined in the ISDA 2002 Equity Derivatives
                    Definitions.
                </xsd:documentation>
            </xsd:annotation>
        </xsd:element>
        <xsd:element name="valuationDates" type="AdjustableRelativeOrPeriodicDates">
            <xsd:annotation>
                <xsd:documentation xml:lang="en">
                    Specifies the interim equity valuation dates of the swap.
                </xsd:documentation>
            </xsd:annotation>
        </xsd:element>
    </xsd:choice>
    <xsd:element name="valuationTimeType" type="TimeTypeEnum" minOccurs="0">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">

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        The time of day at which the calculation agent values the
        underlying, for example the official closing time of the
        exchange.
    </xsd:documentation>
</xsd:annotation>
</xsd:element>
<xsd:element name="valuationTime" type="BusinessCenterTime" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            The specific time of day at which the calculation agent
            values the underlying.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:element name="futuresPriceValuation" type="xsd:boolean" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            The official settlement price as announced by the related
            exchange is applicable, in accordance with the ISDA 2002
            definitions.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:element name="optionsPriceValuation" type="xsd:boolean" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            The official settlement price as announced by the related
            exchange is applicable, in accordance with the ISDA 2002
            definitions.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
</xsd:sequence>
<xsd:attribute name="id" type="xsd:ID"/>
</xsd:complexType>
<xsd:complexType name="ExtraordinaryEvents">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            Where the underlying is shares, defines market events affecting
            the issuer of those shares that may require the terms of the
            transaction to be adjusted.
        </xsd:documentation>
    </xsd:annotation>
</xsd:sequence>
    <xsd:element name="mergerEvents" type="EquityCorporateEvents" minOccurs="0">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                Occurs when the underlying ceases to exist following a
                merger between the Issuer and another company.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>
    <xsd:element name="tenderOffer" type="xsd:boolean" minOccurs="0">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                If present and true, then tender offer is applicable.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>
    <xsd:element name="tenderOfferEvents" type="EquityCorporateEvents" minOccurs="0">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                ISDA 2002 Equity Tender Offer Events.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>
    <xsd:element name="compositionOfCombinedConsideration" type="xsd:boolean" minOccurs="0">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                If present and true, then composition of combined
                consideration is applicable.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>
    <xsd:element name="indexAdjustmentEvents" type="IndexAdjustmentEvents" minOccurs="0">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                ISDA 2002 Equity Index Adjustment Events.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>
</xsd:choice>
    <xsd:element name="additionalDisruptionEvents" type="AdditionalDisruptionEvents">

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        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            ISDA 2002 Equity Additional Disruption Events.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    <xsd:element name="failureToDeliver" type="xsd:boolean">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          If true, failure to deliver is applicable.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:choice>
  <xsd:element name="representations" type="Representations" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        ISDA 2002 Equity Derivative Representations.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="nationalisationOrInsolvency" type="NationalisationOrInsolvencyOrDelistingEventEnum" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        The terms "Nationalisation" and "Insolvency" have the
        meaning as defined in the ISDA 2002 Equity Derivatives
        Definitions.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="delisting" type="NationalisationOrInsolvencyOrDelistingEventEnum" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        The term "Delisting" has the meaning defined in the ISDA
        2002 Equity Derivatives Definitions.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="IndexAdjustmentEvents">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Defines the specification of the consequences of Index Events
      as defined by the 2002 ISDA Equity Derivatives Definitions.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="indexModification" type="IndexEventConsequenceEnum">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Consequence of index modification.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="indexCancellation" type="IndexEventConsequenceEnum">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Consequence of index cancellation.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="indexDisruption" type="IndexEventConsequenceEnum">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Consequence of index disruption.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="InterestCalculation">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the calculation method of the interest rate leg of
      the equity swap. Includes the floating or fixed rate
      calculation definitions, along with the determination of the
      day count fraction.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="InterestAccrualsMethod">
      <xsd:sequence>

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<xsd:element name="dayCountFraction" type="DayCountFraction">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      The day count fraction.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="compounding" type="Compounding" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Defines compounding rates on the Interest Leg.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
<xsd:attribute name="id" type="xsd:ID"/>
</xsd:extension>
</xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="InterestCalculationReference">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Reference to an interest calculation component.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="Reference">
      <xsd:attribute name="href" type="xsd:IDREF" use="required" ecore:reference="InterestCal
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="InterestLeg">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the fixed income leg of the equity swap.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="ReturnSwapLeg">
      <xsd:sequence>
        <xsd:element name="interestLegCalculationPeriodDates" type="InterestLegCalculationPer
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Component that holds the various dates used to specify
              the interest leg of the equity swap. It is used to
              define the InterestPeriodDates identifier.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="notional" type="ReturnSwapNotional">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies the notional of a return type swap. When used
              in the equity leg, the definition will typically
              combine the actual amount (using the notional component
              defined by the FpML industry group) and the
              determination method. When used in the interest leg,
              the definition will typically point to the definition
              of the equity leg.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="interestAmount" type="LegAmount">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies, in relation to each Interest Payment Date,
              the amount to which the Interest Payment Date relates.
              Unless otherwise specified, this term has the meaning
              defined in the ISDA 2000 ISDA Definitions.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="interestCalculation" type="InterestCalculation">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies the calculation method of the interest rate
              leg of the equity swap. Includes the floating or fixed
              rate calculation definitions, along with the
              determination of the day count fraction.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="stubCalculationPeriod" type="StubCalculationPeriod" minOccurs="0">

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        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            Specifies the stub calculation period
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:extension>
</xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="InterestLegCalculationPeriodDates">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Component that holds the various dates used to specify the
      interest leg of the equity swap. It is used to define the
      InterestPeriodDates identifier.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="effectiveDate" type="AdjustableOrRelativeDate">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the effective date of the equity swap. This
          global element is valid within the equity swaps namespace.
          Within the FpML namespace, another effectiveDate global
          element has been defined, that is different in the sense
          that it does not propose the choice of referring to another
          date in the document.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="terminationDate" type="AdjustableOrRelativeDate">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the termination date of the equity swap. This
          global element is valid within the equity swaps namespace.
          Within the FpML namespace, another terminationDate global
          element has been defined, that is different in the sense
          that it does not propose the choice of referring to another
          date in the document.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="interestLegResetDates" type="InterestLegResetDates">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the reset dates of the interest leg of the swap.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="interestLegPaymentDates" type="AdjustableOrRelativeDates">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the payment dates of the interest leg of the
          swap. When defined in relation to a date specified
          somewhere else in the document (through the relativeDates
          component), this element will typically point to the
          payment dates of the equity leg of the swap.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
  <xsd:attribute name="id" type="xsd:ID" use="required"/>
</xsd:complexType>
<xsd:complexType name="InterestLegCalculationPeriodDatesReference">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Reference to the calculation period dates of the interest leg.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="Reference">
      <xsd:attribute name="href" type="xsd:IDREF" use="required" ecore:reference="InterestLeg
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="InterestLegResetDates">
  <xsd:sequence>
    <xsd:element name="calculationPeriodDatesReference" type="InterestLegCalculationPeriodDatesReference">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A pointer style reference to the associated calculation
          period dates component defined elsewhere in the document.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>

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    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:choice>
  <xsd:element name="resetRelativeTo" type="ResetRelativeToEnum">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Specifies whether the reset dates are determined with
        respect to each adjusted calculation period start date or
        adjusted calculation period end date. If the reset
        frequency is specified as daily this element must not be
        included.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="resetFrequency" type="ResetFrequency">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        The frequency at which reset dates occur. In the case of
        a weekly reset frequency, also specifies the day of the
        week that the reset occurs. If the reset frequency is
        greater than the calculation period frequency then this
        implies that more than one reset date is established for
        each calculation period and some form of rate averaging
        is applicable.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
</xsd:choice>
<xsd:element name="initialFixingDate" type="RelativeDateOffset" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Initial fixing date expressed as an offset to another date
      defined elsewhere in the document.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="fixingDates" type="AdjustableDatesOrRelativeDateOffset" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the fixing date relative to the reset date in
      terms of a business days offset, or by providing a series
      of adjustable dates
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="LegAmount">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the amount that will paid or received on each
      of the payment dates. This type is used to define both the
      Equity Amount and the Interest Amount.
    </xsd:documentation>
  </xsd:annotation>
</xsd:sequence>
  <xsd:choice minOccurs="0">
    <xsd:element name="currency" type="Currency">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The currency in which an amount is denominated.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="determinationMethod" type="DeterminationMethod">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the method according to which an amount or a
          date is determined.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="currencyReference" type="IdentifiedCurrencyReference">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The currency in which an amount is denominated.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:choice>
<xsd:element name="paymentCurrency" type="PaymentCurrency" minOccurs="0" fpml-annotation="
  <xsd:annotation>

```

```

        <xsd:documentation xml:lang="en">
            Currency in which the payment relating to the leg amount
            (equity amount or interest amount) or the dividend will be
            denominated.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:choice>
    <xsd:element name="referenceAmount" type="ReferenceAmount">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                Specifies the reference Amount when this term either
                corresponds to the standard ISDA Definition (either the
                2002 Equity Definition for the Equity Amount, or the 2000
                Definition for the Interest Amount), or points to a term
                defined elsewhere in the swap document.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>
    <xsd:element name="formula" type="Formula">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                Specifies a formula, with its description and components.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>
    <xsd:element name="encodedDescription" type="xsd:base64Binary">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                Description of the leg amount when represented through an
                encoded image.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>
    <xsd:element name="variance" type="DeprecatedVariance" fpml-annotation:deprecated="true">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
                DEPRECATED This element will be removed in the next FpML
                major version. Return Swap model should not be used for
                Variance Swaps, use the Variance Swap Product. Specifies
                Variance for Variance Leg.
            </xsd:documentation>
        </xsd:annotation>
    </xsd:element>
</xsd:choice>
<xsd:element name="calculationDates" type="AdjustableRelativeOrPeriodicDates" minOccurs="1">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            Specifies the date on which a calculation or an observation
            will be performed for the purpose of defining the Equity
            Amount, and in accordance to the definition terms of this
            latter.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="MakeWholeProvisions">
    <xsd:annotation>
        <xsd:documentation>
            A type to hold early exercise provisions.
        </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
        <xsd:element name="makeWholeDate" type="xsd:date">
            <xsd:annotation>
                <xsd:documentation xml:lang="en">
                    Date through which option can not be exercised without
                    penalty.
                </xsd:documentation>
            </xsd:annotation>
        </xsd:element>
        <xsd:element name="recallSpread" type="xsd:decimal">
            <xsd:annotation>
                <xsd:documentation xml:lang="en">
                    Spread used if exercised before make whole date. Early
                    termination penalty. Expressed in bp, e.g. 25 bp.
                </xsd:documentation>
            </xsd:annotation>
        </xsd:element>
    </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="NettedSwapBase" abstract="true">

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```

<xsd:annotation>
  <xsd:documentation xml:lang="en">
    An abstract base class for all swap types which have a single
    netted leg, such as Variance Swaps, and Correlation Swaps.
  </xsd:documentation>
</xsd:annotation>
<xsd:complexContent>
  <xsd:extension base="Product">
    <xsd:sequence>
      <xsd:element name="additionalPayment" type="ClassifiedPayment" minOccurs="0" maxOccurs="1">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            Specifies additional payment(s) between the principal
            parties to the netted swap.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="extraordinaryEvents" type="ExtraordinaryEvents" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            Where the underlying is shares, specifies events
            affecting the issuer of those shares that may require
            the terms of the transaction to be adjusted.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:extension>
</xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="OptionFeatures">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type for defining option features.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="asian" type="Asian" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          An option where and average price is taken on valuation.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="barrier" type="Barrier" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          An option with a barrier feature.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="knock" type="Knock" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          A knock feature.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="passThrough" type="PassThrough" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Pass through payments from the underlyer, such as
          dividends.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="dividendAdjustment" type="DividendAdjustment" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Dividend adjustment of the contract is driven by the
          difference between the Expected Dividend, and the Actual
          Dividend, which is multiplied by an agreed Factor to
          produce a Deviation, which is used as the basis for
          adjusting the contract. The parties acknowledge that in
          determining the Call Strike Price of the Transaction the
          parties have assumed that the Dividend scheduled to be paid
          by the Issuer to holders of record of the Shares, in the
          period set out in Column headed Relevant Period will equal
          per Share the amount stated in respect of such Relevant
          Period.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>

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</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="PrincipalExchangeAmount">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the principal exchange amount, either by explicitly
      defining it, or by point to an amount defined somewhere else in
      the swap document.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:choice>
    <xsd:element name="amountRelativeTo" type="AmountReference">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Reference to an amount defined elsewhere in the document.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="determinationMethod" type="DeterminationMethod">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the method according to which an amount or a date
          is determined.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="principalAmount" type="Money">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Principal exchange amount when explicitly stated.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:choice>
</xsd:complexType>
<xsd:complexType name="PrincipalExchangeDescriptions">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies each of the characteristics of the principal exchange
      cashflows, in terms of paying/receiving counterparties, amounts
      and dates.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:group ref="PayerReceiver.model"/>
    <xsd:element name="principalExchangeAmount" type="PrincipalExchangeAmount">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the principal exchange amount, either by
          explicitly defining it, or by point to an amount defined
          somewhere else in the swap document.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="principalExchangeDate" type="AdjustableOrRelativeDate" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Date on which each of the principal exchanges will take
          place. This date is either explicitly stated, or is defined
          by reference to another date in the swap document. In this
          latter case, it will typically refer to one other date of
          the equity leg: either the effective date (initial
          exchange), or the last payment date (final exchange).
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="PrincipalExchangeFeatures">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the principal exchange features of the equity
      swap.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="principalExchanges" type="PrincipalExchanges" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          The true/false flags indicating whether initial,
          intermediate or final exchanges of principal should occur.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>

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</xsd:element>
<xsd:element name="principalExchangeDescriptions" type="PrincipalExchangeDescriptions" maxOccurs="1" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies each of the characteristics of the principal
      exchange cashflows, in terms of paying/receiving
      counterparties, amounts and dates.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Representations">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type for defining ISDA 2002 Equity Derivative
      Representations.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="nonReliance" type="xsd:boolean">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          If true, then non reliance is applicable.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="agreementsRegardingHedging" type="xsd:boolean">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          If true, then agreements regarding hedging are applicable.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="indexDisclaimer" type="xsd:boolean" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          If present and true, then index disclaimer is applicable
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="additionalAcknowledgements" type="xsd:boolean">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          If true, then additional acknowledgements are applicable.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Return">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the dividend return conditions applicable to
      the swap.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="returnType" type="ReturnTypeEnum">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Defines the type of return associated with the equity swap.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="dividendConditions" type="DividendConditions" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the conditions governing the payment of the
          dividends to the receiver of the equity return. With the
          exception of the dividend payout ratio, which is defined
          for each of the underlying components.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="ReturnLeg">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the return leg of a return type swap.
    </xsd:documentation>
  </xsd:annotation>

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```

<xsd:complexContent>
  <xsd:extension base="ReturnSwapLegUnderlyer">
    <xsd:sequence>
      <xsd:element name="rateOfReturn" type="ReturnLegValuation">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            Element named "valuation" in versions prior to FpML 4.2
            Second Working Draft. Specifies the terms of the
            initial price of the return type swap and of the
            subsequent valuations of the underlyer.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="notional" type="ReturnSwapNotional">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            Specifies the notional of a return type swap. When used
            in the equity leg, the definition will typically
            combine the actual amount (using the notional component
            defined by the FpML industry group) and the
            determination method. When used in the interest leg,
            the definition will typically point to the definition
            of the equity leg.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="amount" type="ReturnSwapAmount">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            Element named "equityAmount" in versions prior to FpML
            4.2 Second Working Draft. Specifies, in relation to
            each Payment Date, the amount to which the Payment Date
            relates. For equity swaps this element is equivalent to
            the Equity Amount term as defined in the ISDA 2002
            Equity Derivatives Definitions.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="return" type="Return">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            Specifies the conditions under which dividend affecting
            the underlyer will be paid to the receiver of the
            amounts.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="notionalAdjustments" type="NotionalAdjustmentEnum">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            Specifies the conditions that govern the adjustment to
            the number of units of the equity swap.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="fxFeature" type="FxFeature" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            A quanto or composite FX feature.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:extension>
</xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="ReturnLegValuation">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the initial and final valuation of the
      underlyer.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="initialPrice" type="ReturnLegValuationPrice">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the initial reference price of the underlyer.
          This price can be expressed either as an actual
          amount/currency, as a determination method, or by reference
          to another value specified in the swap document.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>

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</xsd:element>
<xsd:element name="notionalReset" type="xsd:boolean">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Element named "equityNotionalReset" in versions prior to
      FpML 4.2 Second Working Draft. For equity swaps, this
      element is equivalent to the term "Equity Notional Reset"
      as defined in the ISDA 2002 Equity Derivatives Definitions.
      The reference to the ISDA definition is either "Applicable"
      or "Inapplicable".
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="valuationPriceInterim" type="ReturnLegValuationPrice" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the interim valuation price of the underlyer.
      This price can be expressed either as an actual
      amount/currency, as a determination method, or by reference
      to another value specified in the swap document.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="valuationPriceFinal" type="ReturnLegValuationPrice">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the final valuation price of the underlyer. This
      price can be expressed either as an actual amount/currency,
      as a determination method, or by reference to another value
      specified in the swap document.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="paymentDates" type="ReturnSwapPaymentDates">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Element named "equityPaymentDates" in versions prior to
      FpML 4.2 Second Working Draft. Specifies the payment dates
      of the swap.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="exchangeTradedContractNearest" type="ExchangeTradedContract" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      References a Contract on the Exchange.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="ReturnLegValuationPrice">
  <xsd:complexContent>
    <xsd:extension base="Price">
      <xsd:sequence>
        <xsd:element name="valuationRules" type="EquityValuation" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Element named "equityValuation" in versions prior to
              FpML 4.2 Second Working Draft.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="ReturnSwap">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing return swaps including equity swaps (long
      form), total return swaps, and variance swaps.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="ReturnSwapBase">
      <xsd:sequence>
        <xsd:element name="additionalPayment" type="ReturnSwapAdditionalPayment" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies additional payment(s) between the principal
              parties to the trade. This component extends some of
              the features of the additionalPayment component
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>

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        developed by the FpML industry group. Appropriate
        discussions will determine whether it would be
        appropriate to extend the shared component in order to
        meet the further requirements of equity swaps.
    </xsd:documentation>
</xsd:annotation>
</xsd:element>
<xsd:element name="earlyTermination" type="ReturnSwapEarlyTermination" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            Specifies, for one or for both the parties to the
            trade, the date from which it can early terminate it.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
<xsd:element name="extraordinaryEvents" type="ExtraordinaryEvents" minOccurs="0">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            Where the underlying is shares, specifies events
            affecting the issuer of those shares that may require
            the terms of the transaction to be adjusted.
        </xsd:documentation>
    </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:extension>
</xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="ReturnSwapAdditionalPayment">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            A type describing the additional payment(s) between the
            principal parties to the trade. This component extends some of
            the features of the additionalPayment component previously
            developed in FpML. Appropriate discussions will determine
            whether it would be appropriate to extend the shared component
            in order to meet the further requirements of equity swaps.
        </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
        <xsd:group ref="PayerReceiver.model"/>
        <xsd:element name="additionalPaymentAmount" type="AdditionalPaymentAmount">
            <xsd:annotation>
                <xsd:documentation xml:lang="en">
                    Specifies the amount of the fee along with, when
                    applicable, the formula that supports its determination.
                </xsd:documentation>
            </xsd:annotation>
        </xsd:element>
        <xsd:element name="additionalPaymentDate" type="AdjustableOrRelativeDate">
            <xsd:annotation>
                <xsd:documentation xml:lang="en">
                    Specifies the value date of the fee payment/receipt.
                </xsd:documentation>
            </xsd:annotation>
        </xsd:element>
        <xsd:element name="paymentType" type="PaymentType" minOccurs="0">
            <xsd:annotation>
                <xsd:documentation xml:lang="en">
                    Classification of the payment
                </xsd:documentation>
            </xsd:annotation>
        </xsd:element>
    </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="ReturnSwapAmount">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            Specifies, in relation to each Payment Date, the amount to
            which the Payment Date relates. For Equity Swaps this element
            is equivalent to the Equity Amount term as defined in the ISDA
            2002 Equity Derivatives Definitions.
        </xsd:documentation>
    </xsd:annotation>
    <xsd:complexContent>
        <xsd:extension base="LegAmount">
            <xsd:sequence>
                <xsd:element name="cashSettlement" type="xsd:boolean">
                    <xsd:annotation>
                        <xsd:documentation xml:lang="en">
                            If true, then cash settlement is applicable.
                        </xsd:documentation>
                    </xsd:annotation>
                </xsd:element>
            </xsd:sequence>
        </xsd:extension>
    </xsd:complexContent>

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</xsd:element>
<xsd:element name="optionsExchangeDividends" type="xsd:boolean" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      If present and true, then options exchange dividends
      are applicable.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="additionalDividends" type="xsd:boolean" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      If present and true, then additional dividends are
      applicable.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:extension>
</xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="ReturnSwapBase" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the components that are common for return
      type swaps, including short and long form equity swaps
      representations.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="Product">
      <xsd:sequence>
        <xsd:group ref="BuyerSeller.model" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              BuyerSeller.model has been included as an optional
              child of ReturnSwapBase to support the situation where
              an implementor wishes to indicate who has manufactured
              the Swap through representing them as the Seller. It
              may be removed in future major revisions.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:group>
        <xsd:element ref="returnSwapLeg" maxOccurs="unbounded"/>
        <xsd:element name="principalExchangeFeatures" type="PrincipalExchangeFeatures" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              This is used to document a Fully Funded Return Swap.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="ReturnSwapEarlyTermination">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the date from which each of the party may be
      allowed to terminate the trade.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="partyReference" type="PartyReference">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Reference to a party defined elsewhere in this document
          which may be allowed to terminate the trade.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="startingDate" type="StartingDate">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Specifies the date from which the early termination clause
          can be exercised.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="ReturnSwapLeg" abstract="true">
  <xsd:annotation>

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<xsd:documentation xml:lang="en">
  The abstract base class for all types of Return Swap Leg.
</xsd:documentation>
</xsd:annotation>
<xsd:complexContent>
  <xsd:extension base="Leg">
    <xsd:sequence>
      <xsd:group ref="PayerReceiver.model"/>
      <xsd:element name="paymentFrequency" type="Interval" minOccurs="0" fpml-annotation:de
        <xsd:annotation>
          <xsd:documentation xml:lang="en">
            DEPRECATED This element will be removed in the next
            FpML major version. Frequency at which this leg pays.
          </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
    <xsd:attribute name="legIdentifier" type="xsd:ID" fpml-annotation:deprecated="true" fp
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          DEPRECATED This element will be renamed to id in the next
          major FpML version.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:attribute>
  </xsd:extension>
</xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="ReturnSwapLegUnderlyer" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A base class for all return leg types with an underlyer.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="ReturnSwapLeg">
      <xsd:sequence>
        <xsd:element name="effectiveDate" type="AdjustableOrRelativeDate">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies the effective date of this leg of the swap.
              When defined in relation to a date specified somewhere
              else in the document (through the relativeDate
              component), this element will typically point to the
              effective date of the other leg of the swap.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="terminationDate" type="AdjustableOrRelativeDate">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies the termination date of this leg of the swap.
              When defined in relation to a date specified somewhere
              else in the document (through the relativeDate
              component), this element will typically point to the
              termination date of the other leg of the swap.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="underlyer" type="Underlyer">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">
              Specifies the underlying component of the leg, which
              can be either one or many and consists in either
              equity, index or convertible bond component, or a
              combination of these.
            </xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="ReturnSwapNotional">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the notional of return type swap. When used in the
      equity leg, the definition will typically combine the actual
      amount (using the notional component defined by the FpML
      industry group) and the determination method. When used in the
      interest leg, the definition will typically point to the
      definition of the equity leg.
    </xsd:documentation>
  </xsd:annotation>

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</xsd:annotation>
<xsd:choice>
  <xsd:element name="amountRelativeTo" type="AmountReference">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Reference to an amount defined elsewhere in this document.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="determinationMethod" type="DeterminationMethod">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Specifies the method according to which an amount or a date
        is determined.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="notionalAmount" type="Money">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        The notional amount.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
</xsd:choice>
<xsd:attribute name="id" type="xsd:ID"/>
</xsd:complexType>
<xsd:complexType name="ReturnSwapPaymentDates">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type describing the return payment dates of the swap.
    </xsd:documentation>
  </xsd:annotation>
</xsd:sequence>
  <xsd:element name="paymentDatesInterim" type="AdjustableOrRelativeDates" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Element named "equityPaymentDatesInterim" in versions prior
        to FpML 4.2 Second Working Draft. Specifies the interim
        payment dates of the swap. When defined in relation to a
        date specified somewhere else in the document (through the
        relativeDates component), this element will typically refer
        to the valuation dates and add a lag corresponding to the
        settlement cycle of the underlying.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="paymentDateFinal" type="AdjustableOrRelativeDate">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Element named "equityPaymentDateFinal" in versions prior to
        FpML 4.2 Second Working Draft. Specifies the final payment
        date of the swap. When defined in relation to a date
        specified somewhere else in the document (through the
        relativeDate component), this element will typically refer
        to the final valuation date and add a lag corresponding to
        the settlement cycle of the underlying.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
</xsd:sequence>
<xsd:attribute name="id" type="xsd:ID"/>
</xsd:complexType>
<xsd:complexType name="StartingDate">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A type specifying the date from which the early termination
      clause can be exercised.
    </xsd:documentation>
  </xsd:annotation>
</xsd:choice>
  <xsd:element name="dateRelativeTo" type="DateReference">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Reference to a date defined elsewhere in the document
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="adjustableDate" type="AdjustableDate">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Date from which early termination clause can be exercised
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>

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        </xsd:annotation>
    </xsd:element>
</xsd:choice>
</xsd:complexType>
<xsd:complexType name="StubCalculationPeriod">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            A type describing the Stub Calculation Period
        </xsd:documentation>
    </xsd:annotation>
</xsd:choice>
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            Choice group between mandatory specification of initial stub
            and optional specification of final stub, or mandatory final
            stub.
        </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
        <xsd:element name="initialStub" type="Stub"/>
        <xsd:element name="finalStub" type="Stub" minOccurs="0"/>
    </xsd:sequence>
    <xsd:element name="finalStub" type="Stub"/>
</xsd:choice>
</xsd:complexType>
<xsd:complexType name="Variance">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">
            A type describing the variance amount of a variance swap
        </xsd:documentation>
    </xsd:annotation>
    <xsd:complexContent>
        <xsd:extension base="CalculationFromObservation">
            <xsd:sequence>
                <xsd:element name="varianceAmount" type="Money">
                    <xsd:annotation>
                        <xsd:documentation xml:lang="en">
                            Variance amount, which is a cash multiplier.
                        </xsd:documentation>
                    </xsd:annotation>
                </xsd:element>
                <xsd:choice>
                    <xsd:annotation>
                        <xsd:documentation xml:lang="en">
                            Choice between expressing the strike as volatility or
                            variance.
                        </xsd:documentation>
                    </xsd:annotation>
                    <xsd:element name="volatilityStrikePrice" type="NonNegativeDecimal"/>
                    <xsd:element name="varianceStrikePrice" type="NonNegativeDecimal"/>
                </xsd:choice>
                <xsd:element name="varianceCap" type="xsd:boolean" minOccurs="0">
                    <xsd:annotation>
                        <xsd:documentation xml:lang="en">
                            If present and true, then variance cap is applicable.
                        </xsd:documentation>
                    </xsd:annotation>
                </xsd:element>
                <xsd:element name="unadjustedVarianceCap" type="PositiveDecimal" minOccurs="0">
                    <xsd:annotation>
                        <xsd:documentation xml:lang="en">
                            For use when varianceCap is applicable. Contains the
                            scaling factor of the Variance Cap that can differ on a
                            trade-by-trade basis in the European market. For
                            example, a Variance Cap of 2.5^2 x Variance Strike
                            Price has an unadjustedVarianceCap of 2.5.
                        </xsd:documentation>
                    </xsd:annotation>
                </xsd:element>
                <xsd:element name="boundedVariance" type="BoundedVariance" minOccurs="0">
                    <xsd:annotation>
                        <xsd:documentation xml:lang="en">
                            Conditions which bound variance. The contract specifies
                            one or more boundary levels. These levels are expressed
                            as prices for confirmation purposes Underlyer price
                            must be equal to or higher than Lower Barrier is known
                            as Up Conditional Swap Underlyer price must be equal to
                            or lower than Upper Barrier is known as Down
                            Conditional Swap Underlyer price must be equal to or
                            higher than Lower Barrier and must be equal to or lower
                            than Upper Barrier is known as Barrier Conditional
                            Swap.
                        </xsd:documentation>
                    </xsd:annotation>
                </xsd:element>
            </xsd:sequence>
        </xsd:extension>
    </xsd:complexContent>

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    </xsd:annotation>
  </xsd:element>
  <xsd:element name="exchangeTradedContractNearest" type="ExchangeTradedContract" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Specification of the exchange traded contract nearest.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="vegaNotionalAmount" type="xsd:decimal" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        Vega Notional represents the approximate gain/loss at maturity for a 1% difference between RVol (realised vol) and KVol (strike vol). It does not necessarily represent the Vega Risk of the trade.
      </xsd:documentation>
    </xsd:annotation>
  </xsd:element>
</xsd:sequence>
</xsd:extension>
</xsd:complexContent>
</xsd:complexType>
<xsd:element name="interestLeg" type="InterestLeg" substitutionGroup="returnSwapLeg">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      The fixed income amounts of the return type swap.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="returnLeg" type="ReturnLeg" substitutionGroup="returnSwapLeg">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Return amounts of the return type swap.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="returnSwap" type="ReturnSwap" substitutionGroup="product">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Specifies the structure of a return type swap. It can represent equity swaps, total return swaps, variance swaps.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="returnSwapLeg" type="ReturnSwapLeg" abstract="true">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      An placeholder for the actual Return Swap Leg definition.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="varianceLeg" type="DeprecatedVarianceLeg" substitutionGroup="returnSwapLeg">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      DEPRECATED This element will be removed in the next FpML major version. Return Swap model should not be used for Variance Swaps, use the Variance Swap Product. The variance leg of the return swap.
    </xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:group name="Feature.model">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      A group containing Swap and Derivative features
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="feature" type="OptionFeatures" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Asian, Barrier, Knock and Pass Through features
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="fxFeature" type="FxFeature" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">
          Quanto, Composite, or Cross Currency FX features
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>

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    </xsd:sequence>
  </xsd:group>
</xsd:schema>
```