



FpML Financial product Markup Language

Last Call Working Draft 13 September 2002

FX Component Definitions

Version: 3.0

This Version:

<http://www.fpml.org/spec/2002/lcwg-fpml-3-0-2002-09-13>

Latest Version:

<http://www.fpml.org/spec/fpml-3-0>

Previous Version:

<http://www.fpml.org/spec/2002/wd-fpml-3-0-2002-04-17>

Errata For This Version:

<http://www.groups.yahoo.com/group/fpml-issues/files/lcwg-fpml-3-0-2002-09-13-errata.html>

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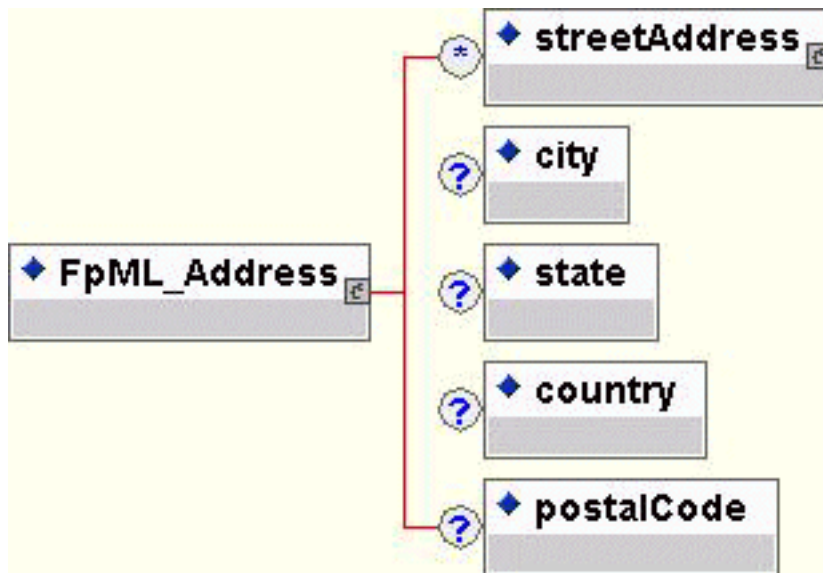
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FpML_Address

Description:

An entity that represents a physical postal address

Figure:



Contents:

streetAddress (zero or one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_StreetAddress)

- The set of street and building number information that identifies a postal address within a city.

city (zero or one occurrence; of type *string*)

- The city component of a postal address.

state (zero or one occurrence; of type *string*)

- A country subdivision used in postal addresses in some countries. For example, US states, Canadian provinces, Swiss cantons.

country (zero or one occurrence; of type *string*, an enumerated domain value defined by *countryScheme*)

- The ISO 3166 standard code for the country within which the postal address is located.

postalCode (zero or one occurrence; of type *string*)

- The code, required for computerised mail sorting systems, that is allocated to a physical address by a national postal authority.

Used by:

- routingAddress

DTD Fragment:

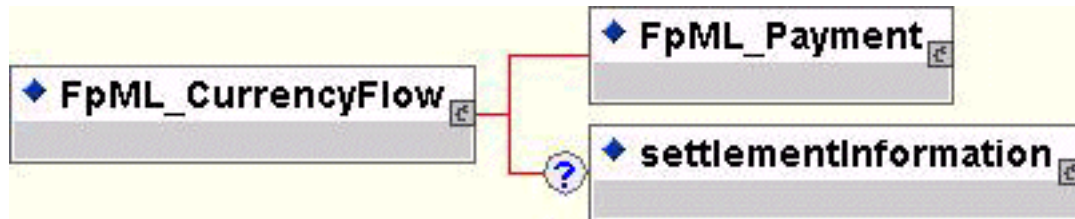
<!ENTITY % FpML_Address "streetAddress? , city? , state? , country? , postalCode?">

FpML_CurrencyFlow

Description:

An entity that is based upon the FpML_Payment entity, this allows for settlement instructions to be included as well. This entity, which represents the payment of an amount of currency from one party to another, is one of the key ingredients used for representing a standard foreign exchange transaction.

Figure:



Contents:

inherited element(s) (this entity inherits the element(s) defined by exactly one occurrence of the entity FpML_Payment)

- An entity for defining a payment between two parties.

settlementInformation (zero or one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_SettlementInformation)

- The information required to settle a currency payment that results from a trade.

Used by:

- exchangedCurrency1
- exchangedCurrency2

DTD Fragment:

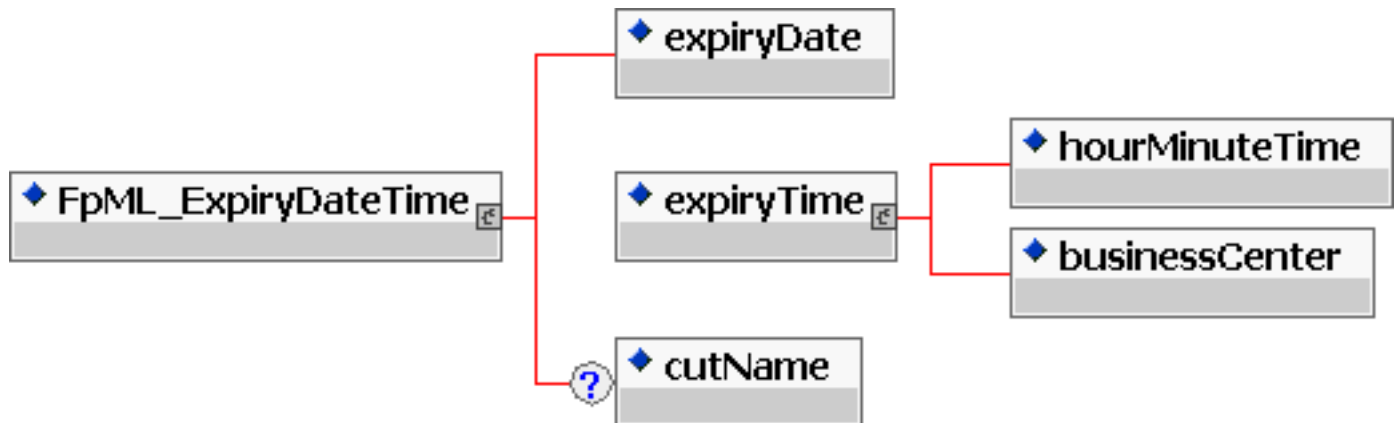
```
<!ENTITY % FpML_CurrencyFlow "%FpML_Payment; , settlementInformation?">
```

FpML_ExpiryDateTime

Description:

An entity that describes the date and time in a location of the option expiry. In the case of American options this is the latest possible expiry date and time.

Figure:



Contents:

expiryDate (exactly one occurrence; of type *date*)

- Represents a standard expiry date as defined for an FX OTC option.

expiryTime (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_BusinessCenterTime)

- The time in a location of the option expiry. In the case of american options this is the latest possible expiry time.

cutName (zero or one occurrence; of type *string*, an enumerated domain value defined by *cutNameScheme*)

- Allows for an expiryDateTime cut to be described by name.

Used by:

- expiryDateTime

DTD Fragment:

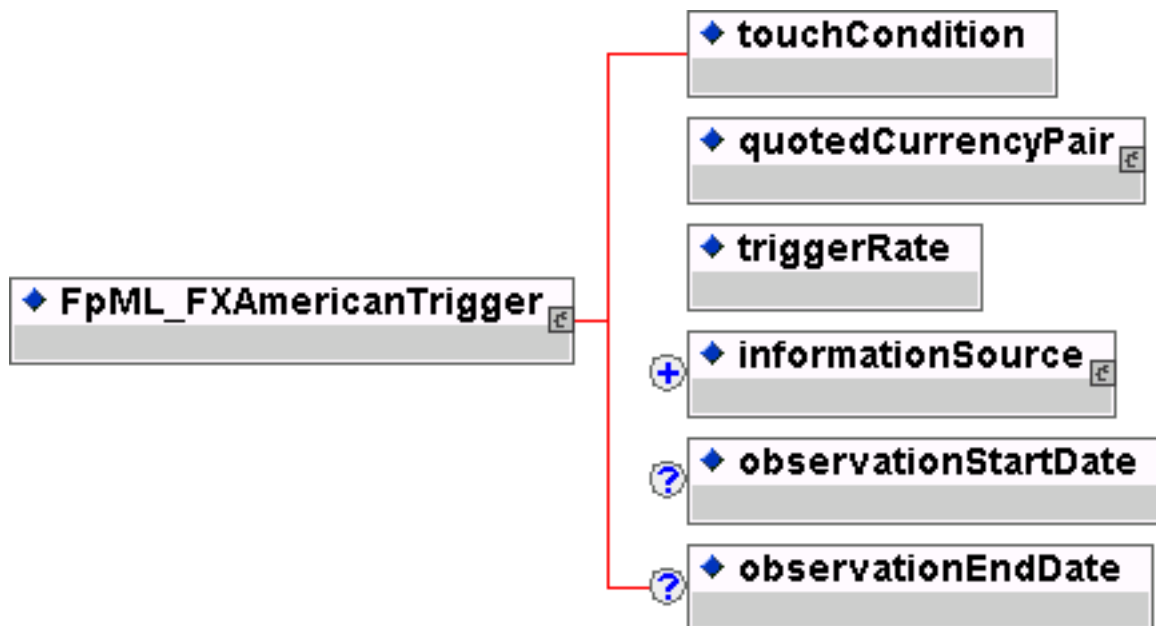
```
<!ENTITY % FpML_ExpiryDateTime "expiryDate , expiryTime , cutName?">
```

FpML_FXAmericanTrigger

Description:

An entity that defines a particular type of payout in an FX OTC exotic option. An American trigger occurs if the trigger criteria are met at any time from the initiation to the maturity of the option.

Figure:



Contents:

touchCondition (exactly one occurrence; of type *string*, an enumerated domain value defined by *touchConditionScheme*)

- The binary condition that applies to an American-style trigger. There can only be two domain values for this element: "touch" or "no touch".

quotedCurrencyPair (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_QuotedCurrencyPair)

- Defines the two currencies for an FX trade and the quotation relationship between the two currencies.

triggerRate (exactly one occurrence; of type *decimal*)

- The market rate is observed relative to the trigger rate, and if it is found to be on the predefined side of (above or below) the trigger rate, a trigger event is deemed to have occurred.

informationSource (one or more occurrences; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_InformationSource)

- The information source where a published or displayed market rate will be obtained, e.g. Telerate Page 3750.

observationStartDate (zero or one occurrence; of type *date*)

- The start of the period over which observations are made to determine whether a trigger

event has occurred.

observationEndDate (zero or one occurrence; of type *date*)

- The end of the period over which observations are made to determine whether a trigger event has occurred.

Used by:

- fxAmericanTrigger

DTD Fragment:

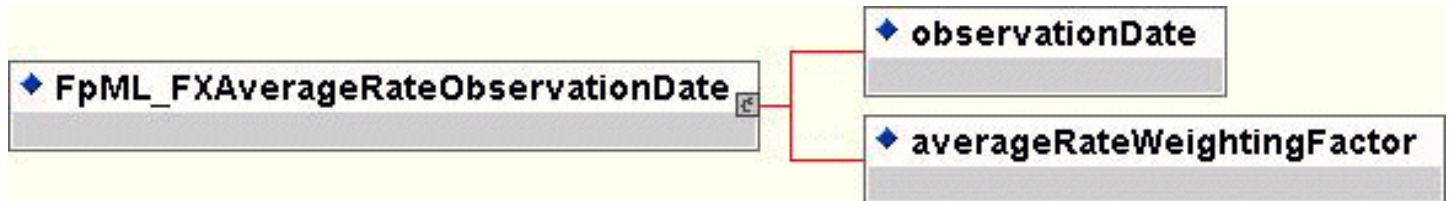
```
<!ENTITY % FpML_FXAmericanTrigger "touchCondition , quotedCurrencyPair , triggerRate ,  
informationSource+ , observationStartDate? , observationEndDate?">
```


FpML_FXAverageRateObservationDate

Description:

An entity that, for average rate options, is used to describe each specific observation date, as opposed to a parametric frequency of rate observations.

Figure:



Contents:

observationDate (exactly one occurrence; of type *date*)

- A specific date for which an observation against a particular rate will be made and will be used for subsequent computations.

averageRateWeightingFactor (exactly one occurrence; of type *decimal*)

- An optional factor that can be used for weighting certain observation dates. Typically, firms will weight each date with a factor of 1 if there are standard, unweighted adjustments.

Used by:

- averageRateObservationDate

DTD Fragment:

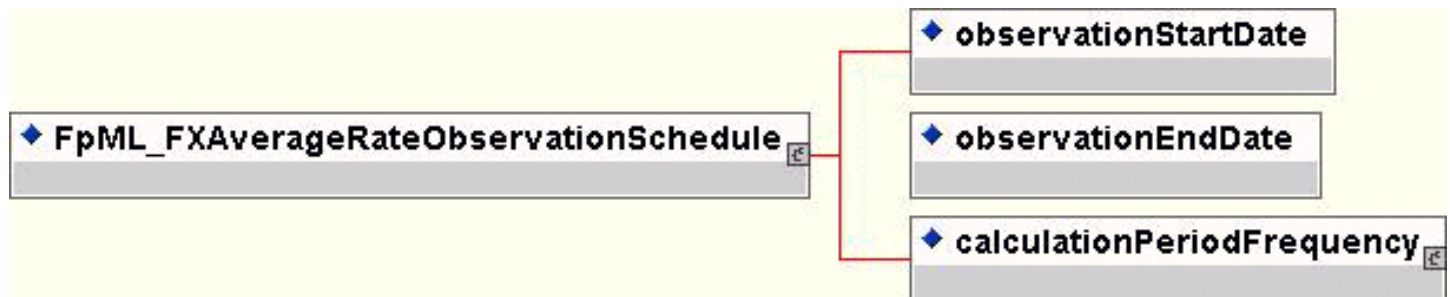
```
<!ENTITY % FpML_FXAverageRateObservationDate "observationDate , averageRateWeightingFactor">
```

FpML_FXAverageRateObservationSchedule

Description:

An entity that describes average rate options rate observations. This is used to describe a parametric frequency of rate observations against a particular rate. Typical frequencies might include daily, every Friday, etc.

Figure:



Contents:

observationStartDate (exactly one occurrence; of type *date*)

- The start of the period over which observations are made to determine whether a trigger event has occurred.

observationEndDate (exactly one occurrence; of type *date*)

- The end of the period over which observations are made to determine whether a trigger event has occurred.

calculationPeriodFrequency (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_CalculationPeriodFrequency)

- The frequency at which calculation period end dates occur within the regular part of the calculation period schedule and their roll date convention.

Used by:

- averageRateObservationSchedule

DTD Fragment:

```
<!ENTITY % FpML_FXAverageRateObservationSchedule "observationStartDate , observationEndDate ,
calculationPeriodFrequency">
```

FpML_FXAverageRateOption

Description:

An entity that is used for an option whose payout is based on the average of the price of the underlying over a specific period of time. The payout is the difference between the predetermined, fixed strike price and the average of spot rates observed and is used for hedging against prevailing spot rates over a given time period.

Figure:



Contents:

inherited element(s) (this entity inherits the element(s) defined by exactly one occurrence of the entity FpML Product)

- The base entity which all FpML products extend.

buyerPartyReference (exactly one occurrence; an *empty* element containing an *href* attribute)

- A pointer style reference to a party identifier defined elsewhere in the document. The party referenced is the buyer of the instrument.

sellerPartyReference (exactly one occurrence; an *empty* element containing an *href* attribute)

- A pointer style reference to a party identifier defined elsewhere in the document. The party referenced is the seller of the instrument.

expiryDateTime (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML ExpiryDateTime)

- The date and time in a location of the option expiry. In the case of american options this is the latest possible expiry date and time.

exerciseStyle (exactly one occurrence; of type *string*, an enumerated domain value defined by *exerciseStyleScheme*)

- The manner in which the option can be exercised.

fxOptionPremium (zero or more occurrences; contains the sub-element(s) defined by exactly one occurrence of the entity FpML FXOptionPremium)

- Premium amount or premium installment amount for an option.

valueDate (exactly one occurrence; of type *date*)

- The date on which both currencies traded will settle.

putCurrencyAmount (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML Money)

- The currency amount that the option gives the right to sell.

callCurrencyAmount (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML Money)

- The currency amount that the option gives the right to buy.

fxStrikePrice (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML FXStrikePrice)

- TBA

spotRate (zero or one occurrence; of type *decimal*)

- An optional element used for FX forwards and certain types of FX OTC options. For deals consummated in the FX Forwards Market, this represents the current market rate for a particular currency pair. For barrier and digital/binary options, it can be useful to include the spot rate at the time the option was executed to make it easier to know whether the option needs to move "up" or "down" to be triggered.

payoutCurrency (exactly one occurrence; of type *string*, an enumerated domain value defined by *currencyScheme*)

- The ISO code of the currency in which a payout (if any) is to be made when a trigger is hit on a digital or barrier option.

averageRateQuoteBasis (exactly one occurrence; of type *string*, an enumerated domain value

defined by *strikeQuoteBasisScheme*)

- The method by which the average rate that is being observed is quoted.

precision (zero or one occurrence; of type *nonNegativeInteger*)

- Specifies the rounding precision in terms of a number of decimal places. Note how a percentage rate rounding of 5 decimal places is expressed as a rounding precision of 7 in the FpML document since the percentage is expressed as a decimal, e.g. 9.876543% (or 0.09876543) being rounded to the nearest 5 decimal places is 9.87654% (or 0.0987654).

payoutFormula (zero or one occurrence; of type *string*)

- The description of the mathematical computation for how the payout is computed.

primaryRateSource (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_InformationSource)

- The primary source for where the rate observation will occur. Will typically be either a page or a reference bank published rate.

secondaryRateSource (zero or one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_InformationSource)

- An alternative, or secondary, source for where the rate observation will occur. Will typically be either a page or a reference bank published rate.

fixingTime (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_BusinessCenterTime)

- The time at which the spot currency exchange rate will be observed. It is specified as a time in a specific business center, e.g. 11:00 am London time.

Either

averageRateObservationSchedule (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_FXAverageRateObservationSchedule)

- Parametric schedule of rate observations.

Or

averageRateObservationDate (one or more occurrences; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_FXAverageRateObservationDate)

- One of more specific rate observation dates.

observedRates (zero or more occurrences; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_ObservedRates)

- Describes prior rate observations within average rate options. Periodically, an average rate option agreement will be struck whereby some rates have already been observed in the past but will become part of computation of the average rate of the option. This structure provides for these previously observed rates to be included in the description of the trade.

Used by:

- fxAverageRateOption

DTD Fragment:

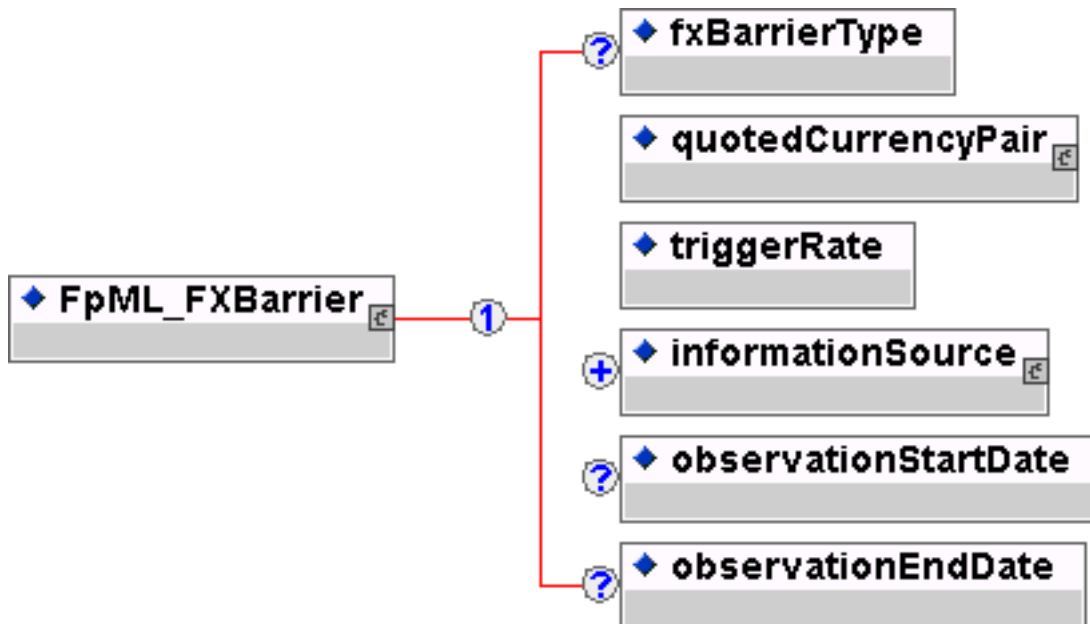
```
<!ENTITY % FpML_FXAverageRateOption "%FpML_Product; , buyerPartyReference , sellerPartyReference ,
expiryDateTime , exerciseStyle , fxOptionPremium* , valueDate , putCurrencyAmount , callCurrencyAmount ,
fxStrikePrice , spotRate? , payoutCurrency , averageRateQuoteBasis , precision? , payoutFormula? ,
primaryRateSource , secondaryRateSource? , fixingTime , (averageRateObservationSchedule |
averageRateObservationDate+) , observedRates*">
```

FpML_FXBarrier

Description:

An entity that is used within the FX barrier option definition to define one or more barrier levels that determine whether the option will be knocked-in or knocked-out.

Figure:



Contents:

fxBarrierType (zero or one occurrence; of type *string*, an enumerated domain value defined by *fxBarrierTypeScheme*)

- This specifies whether the option becomes effective ("knock-in") or is annulled ("knock-out") when the respective trigger event occurs.

quotedCurrencyPair (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_QuotedCurrencyPair)

- Defines the two currencies for an FX trade and the quotation relationship between the two currencies.

triggerRate (exactly one occurrence; of type *decimal*)

- The market rate is observed relative to the trigger rate, and if it is found to be on the predefined side of (above or below) the trigger rate, a trigger event is deemed to have occurred.

informationSource (one or more occurrences; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_InformationSource)

- The information source where a published or displayed market rate will be obtained, e.g. Telerate Page 3750.

observationStartDate (zero or one occurrence; of type *date*)

- The start of the period over which observations are made to determine whether a trigger

event has occurred.

observationEndDate (zero or one occurrence; of type *date*)

- The end of the period over which observations are made to determine whether a trigger event has occurred.

Used by:

- fxBarrier

DTD Fragment:

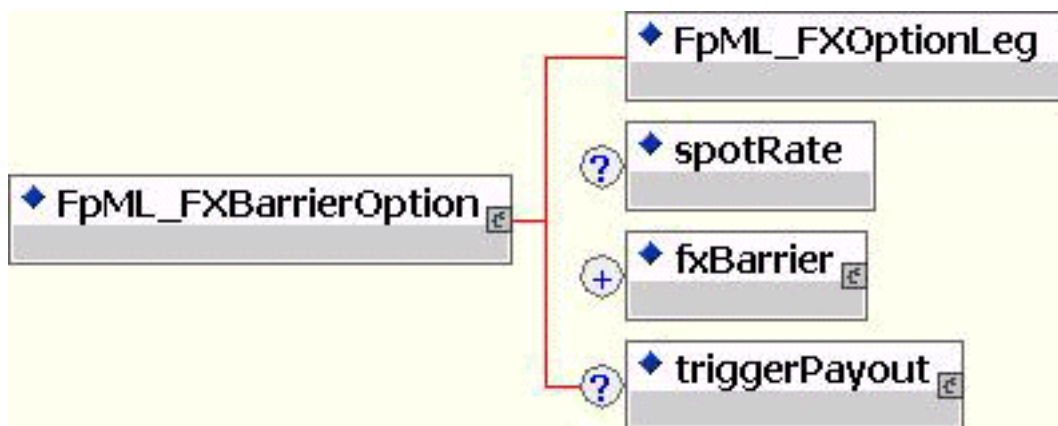
```
<!ENTITY % FpML_FXBarrier "fxBarrierType? , quotedCurrencyPair , triggerRate , informationSource+ ,  
observationStartDate? , observationEndDate?">
```


FpML_FXBarrierOption

Description:

An entity that describes an option with a put/call component, but also one or more associated barrier rates. If the market rate moves to reach a barrier rate a trigger event occurs. The trigger event may for example be necessary to enable the option, or may annul the option contract. [Since the barriers reduce the probability of exercise, the premium for an option with barriers is likely to be cheaper than one without].

Figure:



Contents:

inherited element(s) (this entity inherits the element(s) defined by exactly one occurrence of the entity FpML_FXOptionLeg)

- An entity that is used for describing a standard FX OTC option (European or American) which may be a complete trade in its own right or part of a trade strategy.

spotRate (zero or one occurrence; of type *decimal*)

- An optional element used for FX forwards and certain types of FX OTC options. For deals consummated in the FX Forwards Market, this represents the current market rate for a particular currency pair. For barrier and digital/binary options, it can be useful to include the spot rate at the time the option was executed to make it easier to know whether the option needs to move "up" or "down" to be triggered.

fxBarrier (one or more occurrences; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_FXBarrier)

- Information about a barrier rate in a Barrier Option - specifying the exact criteria for a trigger event to occur.

triggerPayout (zero or one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_FXOptionPayout)

- The amount of currency which becomes payable if and when a trigger event occurs.

Used by:

- fxBarrierOption

DTD Fragment:

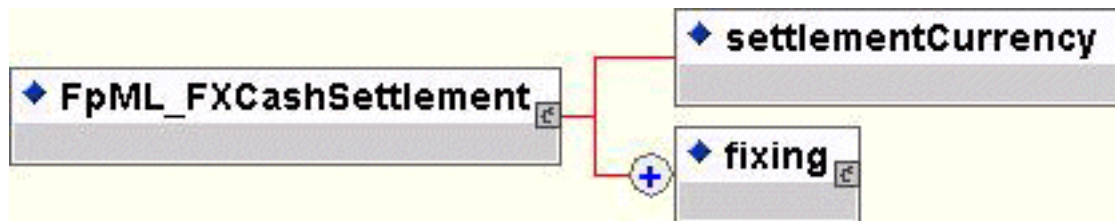
<!ENTITY % FpML_FXBarrierOption "%FpML_FXOptionLeg; , spotRate? , fxBarrier+ , triggerPayout?">

FpML_FXCashSettlement

Description:

An entity that is used for describing cash settlement of an option / non deliverable forward. It includes the currency to settle into together with the fixings required to calculate the currency amount.

Figure:



Contents:

settlementCurrency (exactly one occurrence; of type *string*, an enumerated domain value defined by *currencyScheme*)

- The currency in which a cash settlement for non-deliverable forward and non-deliverable options.

fixing (one or more occurrences; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_FXFixing)

- Specifies the source for and timing of a fixing of an exchange rate. This is used in the agreement of non-deliverable forward trades as well as various types of FX OTC options that require observations against a particular rate.

Used by:

- cashSettlementTerms
- nonDeliverableForward

DTD Fragment:

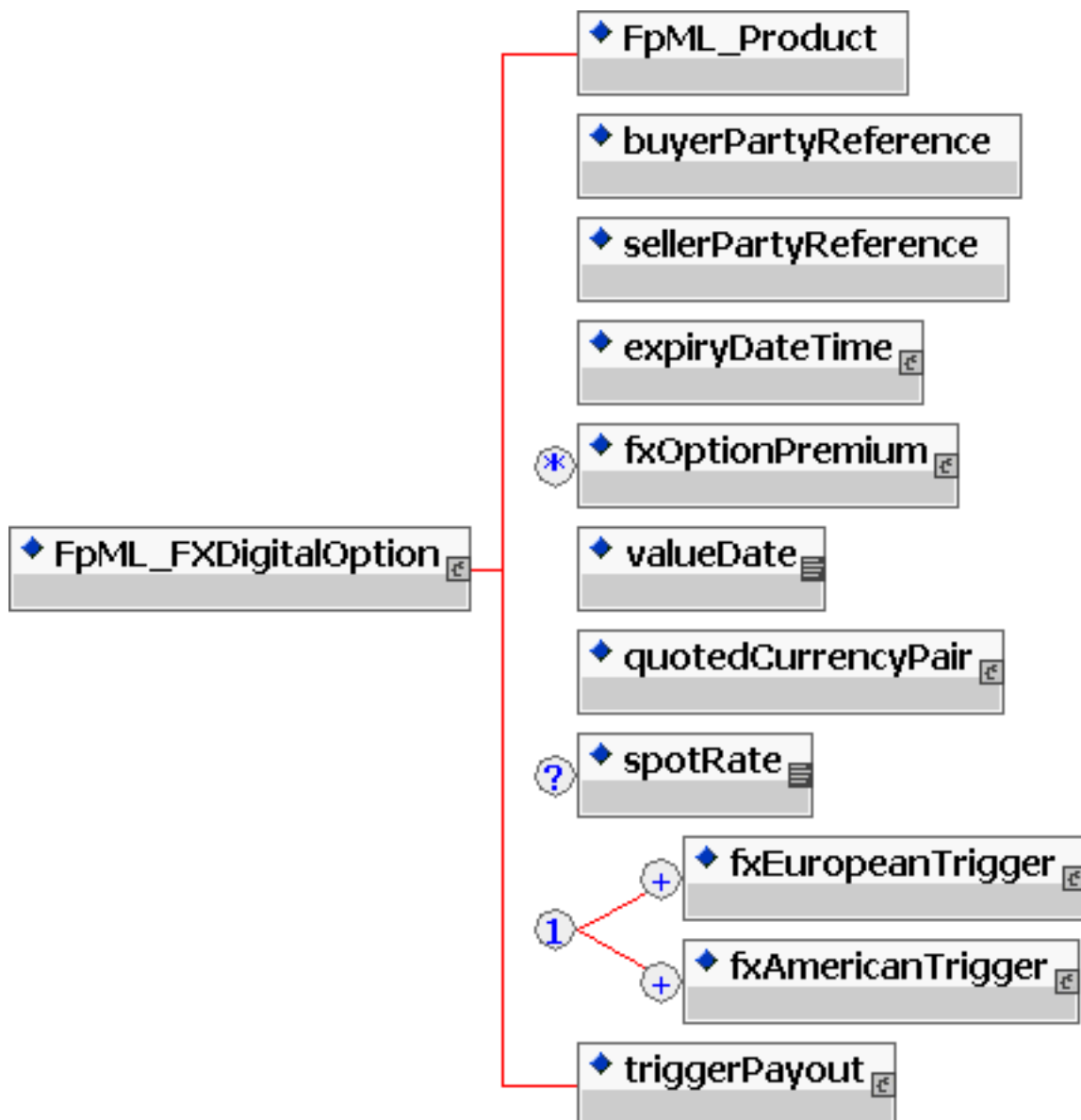
```
<!ENTITY % FpML_FXCashSettlement "settlementCurrency , fixing+">
```

FpML_FXDigitalOption

Description:

An entity that describes an option without a put/call component (and so no associated exercise), but with one or more trigger rates) Examples are "one-touch", "no-touch", and "double-no-touch" options. For a specified period the market rate is observed relative to the trigger rates, and on a trigger event a fixed payout may become due to the buyer of the option, or alternatively the option contract may be annulled.

Figure:



Contents:

inherited element(s) (this entity inherits the element(s) defined by exactly one occurrence of the entity FpML_Product)

- The base entity which all FpML products extend.

buyerPartyReference (exactly one occurrence; an *empty* element containing an *href* attribute)

- A pointer style reference to a party identifier defined elsewhere in the document. The party referenced is the buyer of the instrument.

sellerPartyReference (exactly one occurrence; an *empty* element containing an *href* attribute)

- A pointer style reference to a party identifier defined elsewhere in the document. The party referenced is the seller of the instrument.

expiryDateTime (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML ExpiryDateTime)

- The date and time in a location of the option expiry. In the case of american options this is the latest possible expiry date and time.

fxOptionPremium (zero or more occurrences; contains the sub-element(s) defined by exactly one occurrence of the entity FpML FXOptionPremium)

- Premium amount or premium installment amount for an option.

valueDate (exactly one occurrence; of type *date*)

- The date on which both currencies traded will settle.

quotedCurrencyPair (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML QuotedCurrencyPair)

- Defines the two currencies for an FX trade and the quotation relationship between the two currencies.

spotRate (zero or one occurrence; of type *decimal*)

- An optional element used for FX forwards and certain types of FX OTC options. For deals consummated in the FX Forwards Market, this represents the current market rate for a particular currency pair. For barrier and digital/binary options, it can be useful to include the spot rate at the time the option was executed to make it easier to know whether the option needs to move "up" or "down" to be triggered.

Either

fxEuropeanTrigger (one or more occurrences; contains the sub-element(s) defined by exactly one occurrence of the entity FpML FXEuropeanTrigger)

- A European trigger occurs if the trigger criteria are met, but these are valid (and an observation is made) only at the maturity of the option.

Or

fxAmericanTrigger (one or more occurrences; contains the sub-element(s) defined by exactly one occurrence of the entity FpML FXAmericanTrigger)

- An American trigger occurs if the trigger criteria are met at any time from the initiation to the maturity of the option.

triggerPayout (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML FXOptionPayout)

- The amount of currency which becomes payable if and when a trigger event occurs.

Used by:

- fxDigitalOption

DTD Fragment:

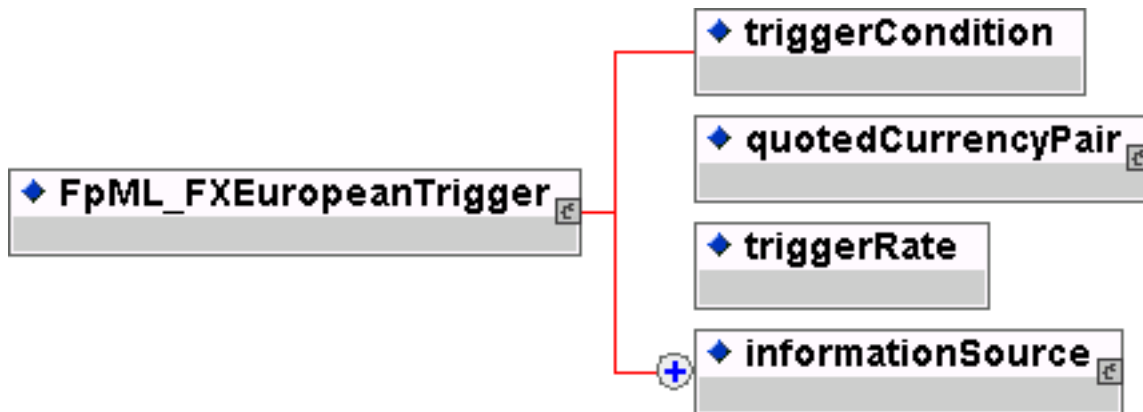
```
<!ENTITY % FpML_FXDigitalOption "%FpML_Product; , buyerPartyReference , sellerPartyReference ,  
expiryDateTime , fxOptionPremium* , valueDate , quotedCurrencyPair , spotRate? , (fxEuropeanTrigger+ |  
fxAmericanTrigger+ ) , triggerPayout">
```

FpML_FXEuropeanTrigger

Description:

An entity that defines a particular type of payout in an FX OTC exotic option. A European trigger occurs if the trigger criteria are met, but these are valid (and an observation is made) only at the maturity of the option.

Figure:



Contents:

triggerCondition (exactly one occurrence; of type *string*, an enumerated domain value defined by *triggerConditionScheme*)

- The binary condition that applies to a European-style trigger, determining where the spot rate must be relative to the triggerRate for the option to be exercisable. There can only be two domain values for this element: "aboveTrigger" or "belowTrigger".

quotedCurrencyPair (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_QuotedCurrencyPair)

- Defines the two currencies for an FX trade and the quotation relationship between the two currencies.

triggerRate (exactly one occurrence; of type *decimal*)

- The market rate is observed relative to the trigger rate, and if it is found to be on the predefined side of (above or below) the trigger rate, a trigger event is deemed to have occurred.

informationSource (one or more occurrences; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_InformationSource)

- The information source where a published or displayed market rate will be obtained, e.g. Telerate Page 3750.

Used by:

- fxEuropeanTrigger

DTD Fragment:

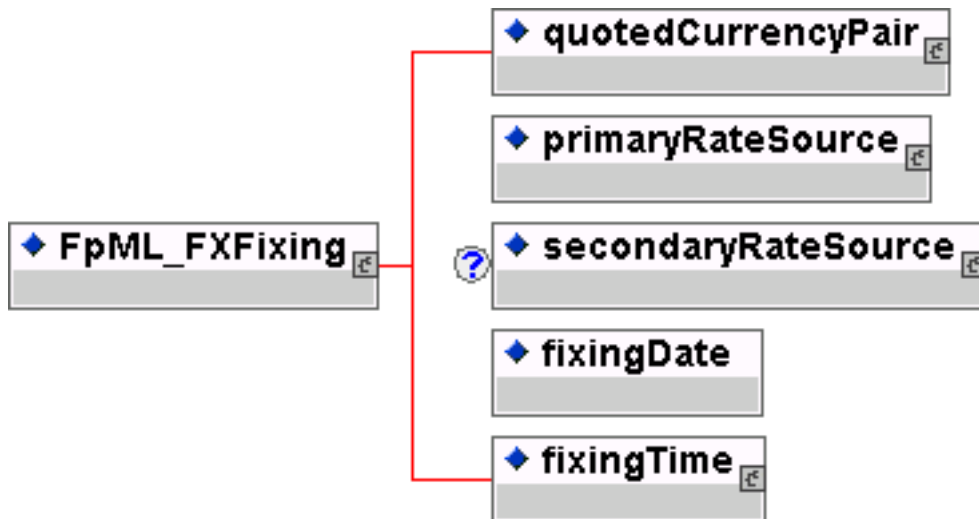
```
<!ENTITY % FpML_FXEuropeanTrigger "triggerCondition , quotedCurrencyPair , triggerRate ,
informationSource+">
```

FpML_FXFixing

Description:

An entity that specifies the source for and timing of a fixing of an exchange rate. This is used in the agreement of non-deliverable forward trades as well as various types of FX OTC options that require observations against a particular rate.

Figure:



Contents:

quotedCurrencyPair (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_QuotedCurrencyPair)

- Defines the two currencies for an FX trade and the quotation relationship between the two currencies.

primaryRateSource (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_InformationSource)

- The primary source for where the rate observation will occur. Will typically be either a page or a reference bank published rate.

secondaryRateSource (zero or one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_InformationSource)

- An alternative, or secondary, source for where the rate observation will occur. Will typically be either a page or a reference bank published rate.

fixingDate (exactly one occurrence; of type *date*)

- Describes the specific date when a non-deliverable forward or non-deliverable option will "fix" against a particular rate, which will be used to compute the ultimate cash settlement.

fixingTime (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_BusinessCenterTime)

- The time at which the spot currency exchange rate will be observed. It is specified as a time in a specific business center, e.g. 11:00 am London time.

Used by:

- fixing

DTD Fragment:

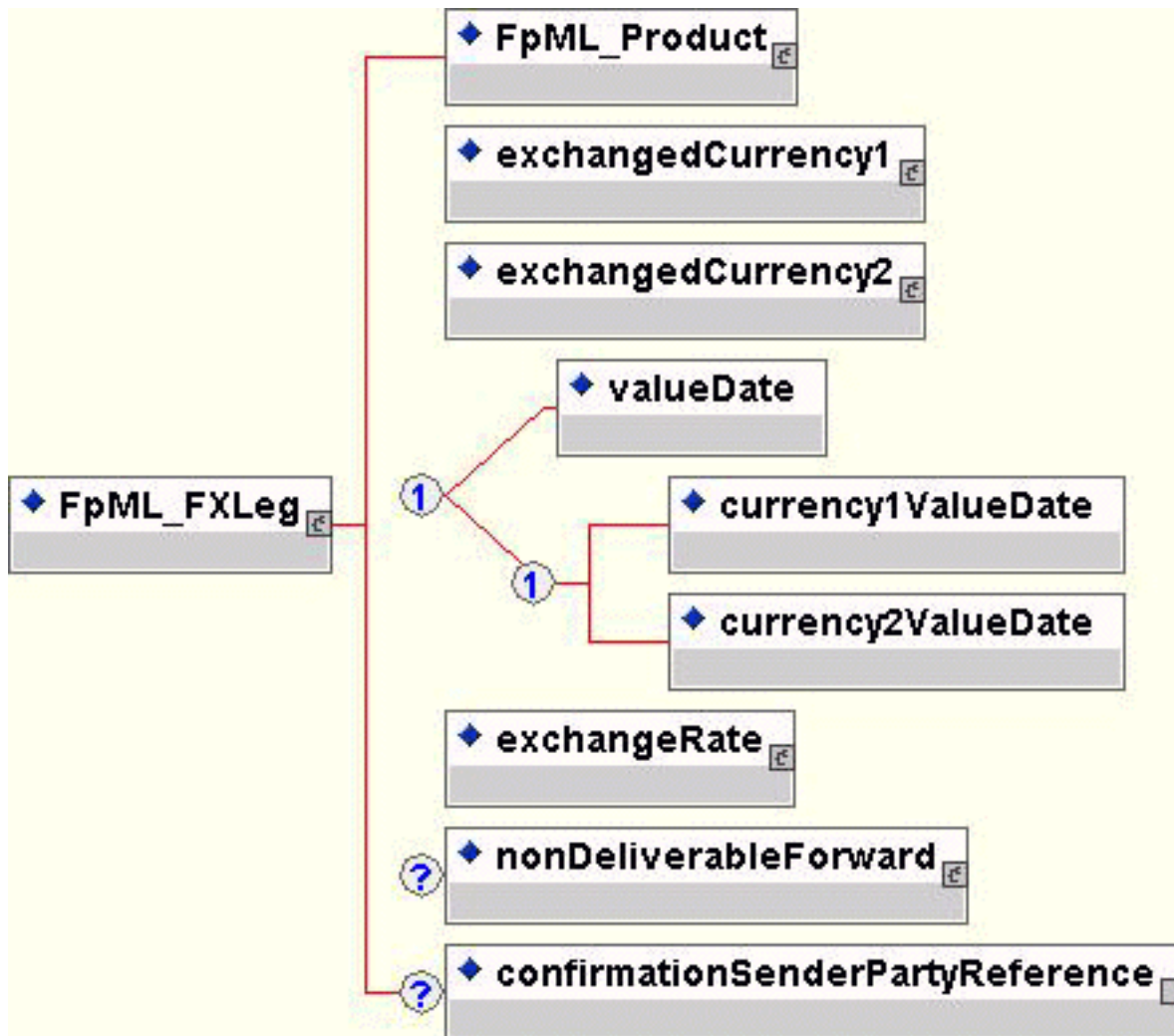
```
<!ENTITY % FpML_FXFixing "quotedCurrencyPair , primaryRateSource , secondaryRateSource? , fixingDate  
, fixingTime">
```

FpML_FXLeg

Description:

An entity that represents a single exchange of one currency for another. This is used for representing FX spot, forward, and swap transactions.

Figure:



Contents:

inherited element(s) (this entity inherits the element(s) defined by exactly one occurrence of the entity FpML_Product)

- The base entity which all FpML products extend.

exchangedCurrency1 (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_CurrencyFlow)

- This is the first of the two currency flows that define a single leg of a standard foreign exchange transaction.

exchangedCurrency2 (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_CurrencyFlow)

- This is the second of the two currency flows that define a single leg of a standard foreign exchange transaction.

Either

valueDate (exactly one occurrence; of type *date*)

- The date on which both currencies traded will settle.

Or

currency1ValueDate (exactly one occurrence; of type *date*)

- The date on which the currency1 amount will be settled. To be used in a split value date scenario.

Or

currency2ValueDate (exactly one occurrence; of type *date*)

- The date on which the currency2 amount will be settled. To be used in a split value date scenario.

exchangeRate (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_FXRate)

- The rate of exchange between the two currencies.

nonDeliverableForward (zero or one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_FXCashSettlement)

- Used to describe a particular type of FX forward transaction that is settled in a single currency.

confirmationSenderPartyReference (zero or one occurrence; an *empty* element containing an *href* attribute)

- The party that is sending the current document as a confirmation of the trade.

Used by:

- fxSingleLeg

DTD Fragment:

```
<!ENTITY % FpML_FXLeg "%FpML_Product; , exchangedCurrency1 , exchangedCurrency2 , (valueDate |
(currency1ValueDate , currency2ValueDate)) , exchangeRate , nonDeliverableForward? ,
confirmationSenderPartyReference?">
```

FpML_FXOptionLeg

Description:

An entity that is used for describing a standard FX OTC option (European or American) which may be a complete trade in its own right or part of a trade strategy.

Figure:



Contents:

inherited element(s) (this entity inherits the element(s) defined by exactly one occurrence of the

entity FpML_Product)

- The base entity which all FpML products extend.

buyerPartyReference (exactly one occurrence; an *empty* element containing an *href* attribute)

- A pointer style reference to a party identifier defined elsewhere in the document. The party referenced is the buyer of the instrument.

sellerPartyReference (exactly one occurrence; an *empty* element containing an *href* attribute)

- A pointer style reference to a party identifier defined elsewhere in the document. The party referenced is the seller of the instrument.

expiryDateTime (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_ExpiryDateTime)

- The date and time in a location of the option expiry. In the case of american options this is the latest possible expiry date and time.

exerciseStyle (exactly one occurrence; of type *string*, an enumerated domain value defined by *exerciseStyleScheme*)

- The manner in which the option can be exercised.

fxOptionPremium (zero or more occurrences; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_FXOptionPremium)

- Premium amount or premium installment amount for an option.

valueDate (exactly one occurrence; of type *date*)

- The date on which both currencies traded will settle.

cashSettlementTerms (zero or one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_FXCashSettlement)

- This optional element is only used if an option has been specified at execution time to be settled into a single cash payment. This would be used for a non-deliverable option.

putCurrencyAmount (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_Money)

- The currency amount that the option gives the right to sell.

callCurrencyAmount (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_Money)

- The currency amount that the option gives the right to buy.

fxStrikePrice (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_FXStrikePrice)

- TBA

quotedAs (zero or one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_QuotedAs)

- Describes how the option was quoted.

Used by:

- FpML_FXBarrierOption
- fxSimpleOption

DTD Fragment:

```
<!ENTITY % FpML_FXOptionLeg "%FpML_Product; , buyerPartyReference , sellerPartyReference ,
```

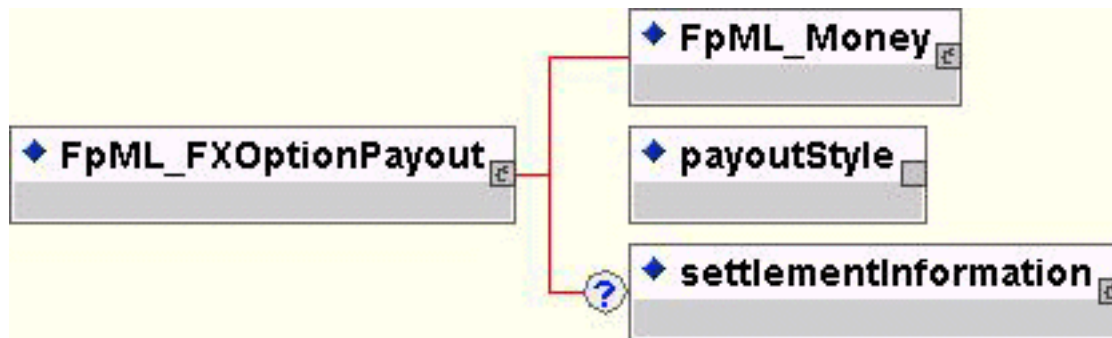
expiryDateTime , exerciseStyle , fxOptionPremium* , valueDate , cashSettlementTerms? , putCurrencyAmount
, callCurrencyAmount , fxStrikePrice , quotedAs?">

FpML_FXOptionPayout

Description:

An entity that contains full details of a predefined fixed payout which may occur (or not) in a Barrier Option or Digital Option when a trigger event occurs (or not).

Figure:



Contents:

inherited element(s) (this entity inherits the element(s) defined by exactly one occurrence of the entity FpML_Money)

- An entity for defining a currency amount.

payoutStyle (exactly one occurrence; of type *string*, an enumerated domain value defined by *payoutScheme*)

- The trigger event and payout may be asynchronous. A payout may become due on the trigger event, or the payout may (by agreement at initiation) be deferred (for example) to the maturity date.

settlementInformation (zero or one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_SettlementInformation)

- The information required to settle a currency payment that results from a trade.

Used by:

- triggerPayout

DTD Fragment:

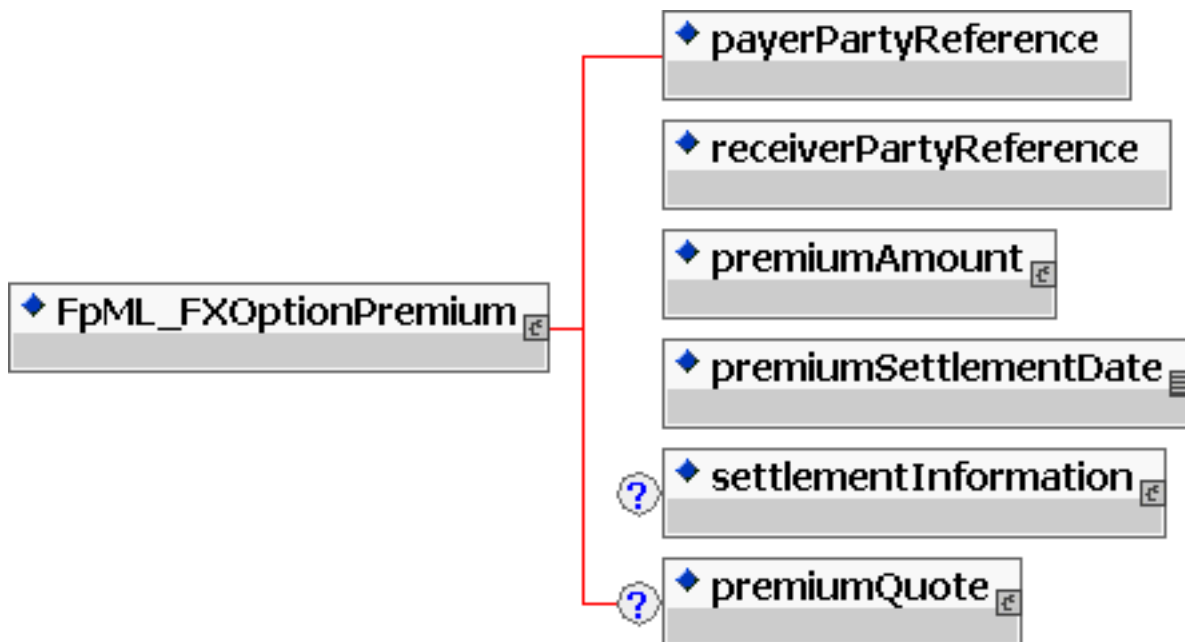
```
<!ENTITY % FpML_FXOptionPayout "%FpML_Money; , payoutStyle , settlementInformation?">
```

FpML_FXOptionPremium

Description:

An entity that specifies the premium exchanged for a single option trade or option strategy.

Figure:



Contents:

payerPartyReference (exactly one occurrence; an *empty* element containing an *href* attribute)

- A pointer style reference to a party identifier defined elsewhere in the document.

receiverPartyReference (exactly one occurrence; an *empty* element containing an *href* attribute)

- A pointer style reference to a party identifier defined elsewhere in the document.

premiumAmount (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_Money)

- The specific currency and amount of the option premium.

premiumSettlementDate (exactly one occurrence; of type *date*)

- The agreed-upon date when the option premium will be settled.

settlementInformation (zero or one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_SettlementInformation)

- The information required to settle a currency payment that results from a trade.

premiumQuote (zero or one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_PremiumQuote)

- This is the option premium as quoted. It is expected to be consistent with the premiumAmount and is for information only.

Used by:

- fxOptionPremium

DTD Fragment:

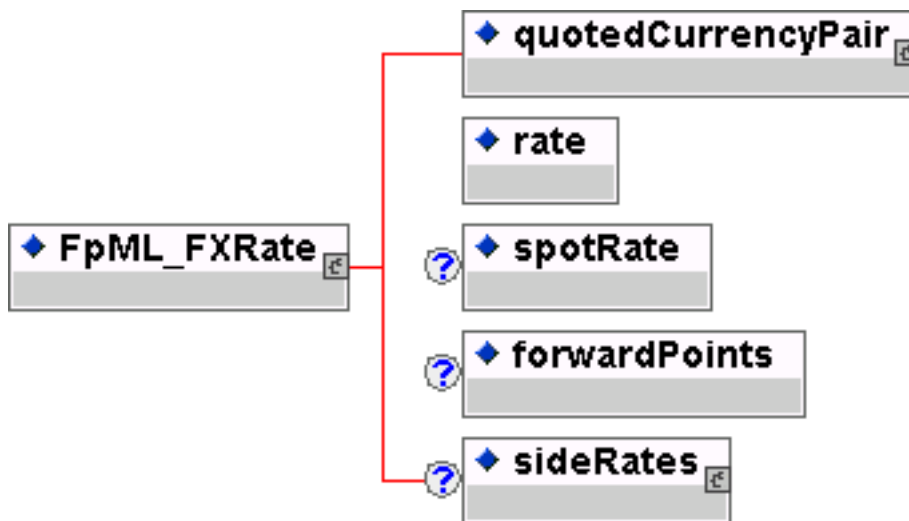
```
<!ENTITY % FpML_FXOptionPremium "payerPartyReference , receiverPartyReference , premiumAmount ,  
premiumSettlementDate , settlementInformation? , premiumQuote?">
```

FpML_FXRate

Description:

An entity that is used for describing the exchange rate for a particular transaction.

Figure:



Contents:

quotedCurrencyPair (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_QuotedCurrencyPair)

- Defines the two currencies for an FX trade and the quotation relationship between the two currencies.

rate (exactly one occurrence; of type *decimal*)

- The rate of exchange between the two currencies of the leg of a deal. Must be specified with a quote basis.

spotRate (zero or one occurrence; of type *decimal*)

- An optional element used for FX forwards and certain types of FX OTC options. For deals consummated in the FX Forwards Market, this represents the current market rate for a particular currency pair. For barrier and digital/binary options, it can be useful to include the spot rate at the time the option was executed to make it easier to know whether the option needs to move "up" or "down" to be triggered.

forwardPoints (zero or one occurrence; of type *decimal*)

- An optional element used for deals consummated in the FX Forwards market. Forward points represent the interest rate differential between the two currencies traded and are quoted as a premium or a discount. Forward points are added to, or subtracted from, the spot rate to create the rate of the forward trade.

sideRates (zero or one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_SideRates)

- An optional element that allow for definition of rates against base currency for non-base currency FX contracts.

Used by:

- exchangeRate

DTD Fragment:

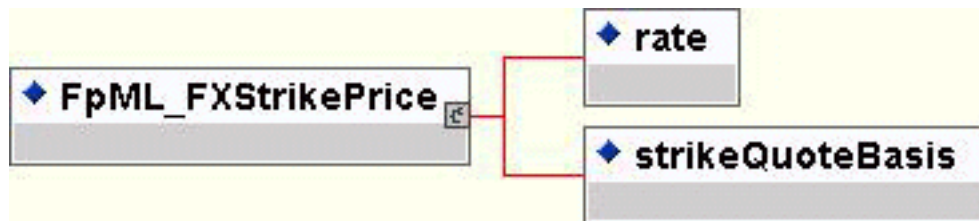
<!ENTITY % FpML_FXRate "quotedCurrencyPair , rate , spotRate? , forwardPoints? , sideRates?">

FpML_FXStrikePrice

Description:

An entity that describes the rate of exchange at which the option has been struck.

Figure:



Contents:

rate (exactly one occurrence; of type *decimal*)

- The rate of exchange between the two currencies of the leg of a deal. Must be specified with a quote basis.

strikeQuoteBasis (exactly one occurrence; of type *string*, an enumerated domain value defined by *strikeQuoteBasisScheme*)

- The method by which the strike rate is quoted.

Used by:

- fxStrikePrice

DTD Fragment:

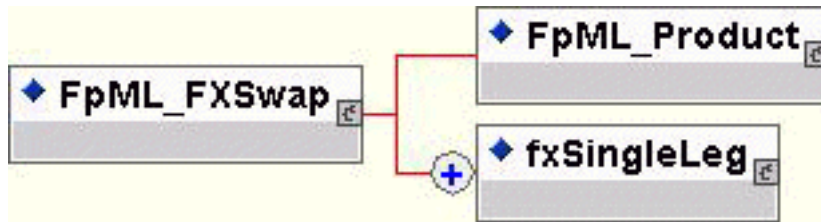
```
<!ENTITY % FpML_FXStrikePrice "rate , strikeQuoteBasis">
```

FpML_FXSwap

Description:

An entity that describes an FX swap. This is similar to FpML_FXLeg, but contains multiple legs for a particular trade.

Figure:



Contents:

inherited element(s) (this entity inherits the element(s) defined by exactly one occurrence of the entity FpML_Product)

- The base entity which all FpML products extend.

fxSingleLeg (one or more occurrences; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_FXLeg)

- A single-legged FX transaction definition (e.g., spot or forward).

Used by:

- fxSwap

DTD Fragment:

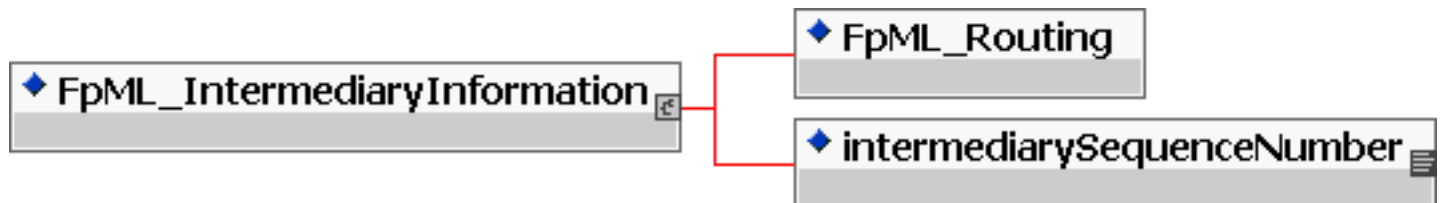
```
<!ENTITY % FpML_FXSwap "%FpML_Product; , fxSingleLeg+ ">
```

FpML_IntermediaryInformation

Description:

An entity that describes the information to identify an intermediary through which payment will be made by the correspondent bank to the ultimate beneficiary of the funds.

Figure:



Contents:

inherited element(s) (this entity inherits the element(s) defined by exactly one occurrence of the entity FpML_Routing)

- An entity that provides three alternative ways of identifying a party involved in the routing of a payment. The identification may use payment system identifiers only; actual name, address and other reference information; or a combination of both.

intermediarySequenceNumber (exactly one occurrence; of type *integer*)

- A sequence number that gives the position of the current intermediary in the chain of payment intermediaries. The assumed domain value set is an ascending sequence of integers starting from 1.

Used by:

- intermediaryInformation

DTD Fragment:

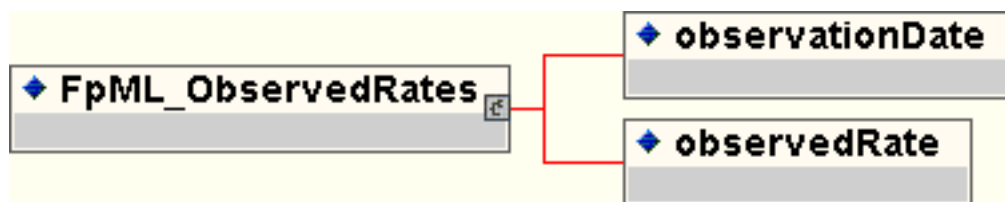
```
<!ENTITY % FpML_IntermediaryInformation "%FpML_Routing; , intermediarySequenceNumber">
```

FpML_ObservedRates

Description:

An entity that describes prior rate observations within average rate options. Periodically, an average rate option agreement will be struck whereby some rates have already been observed in the past but will become part of computation of the average rate of the option. This structure provides for these previously observed rates to be included in the description of the trade.

Figure:



Contents:

observationDate (exactly one occurrence; of type *date*)

- A specific date for which an observation against a particular rate will be made and will be used for subsequent computations.

observedRate (exactly one occurrence; of type *decimal*)

- The actual observed rate before any required rate treatment is applied, e.g. before converting a rate quoted on a discount basis to an equivalent yield. An observed rate of 5% would be represented as 0.05.

Used by:

- observedRates

DTD Fragment:

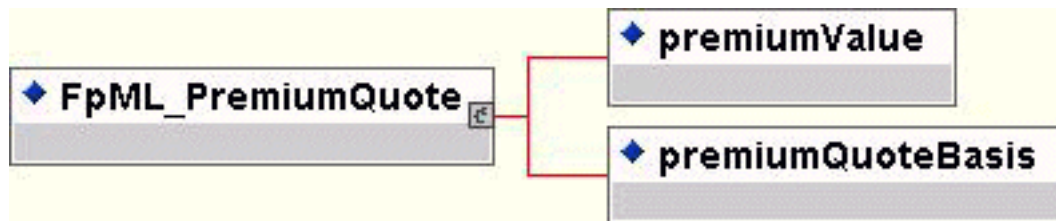
```
<!ENTITY % FpML_ObservedRates "observationDate , observedRate">
```

FpML_PremiumQuote

Description:

An entity that describes the option premium as quoted.

Figure:



Contents:

premiumValue (exactly one occurrence; of type *decimal*)

- The value of the premium quote. In general this will be either a percentage or an explicit amount.

premiumQuoteBasis (exactly one occurrence; of type *string*, an enumerated domain value defined by *premiumQuoteBasisScheme*)

- The method by which the option premium was quoted.

Used by:

- premiumQuote

DTD Fragment:

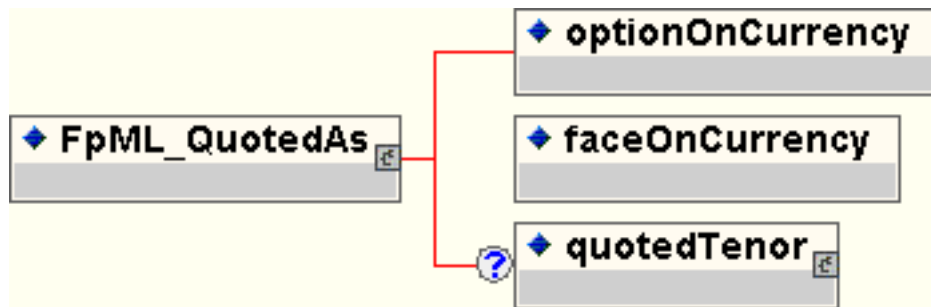
```
<!ENTITY % FpML_PremiumQuote "premiumValue , premiumQuoteBasis">
```


FpML_QuotedAs

Description:

An entity that describes how the option was quoted.

Figure:



Contents:

optionOnCurrency (exactly one occurrence; of type *string*, an enumerated domain value defined by *currencyScheme*)

- The currency denotes the option currency as the option was quoted (as opposed to the face currency).

faceOnCurrency (exactly one occurrence; of type *string*, an enumerated domain value defined by *currencyScheme*)

- The currency denotes the face currency as the option was quoted (as opposed to the option currency).

quotedTenor (zero or one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_Interval)

- Code denoting the tenor of the option leg.

Used by:

- quotedAs

DTD Fragment:

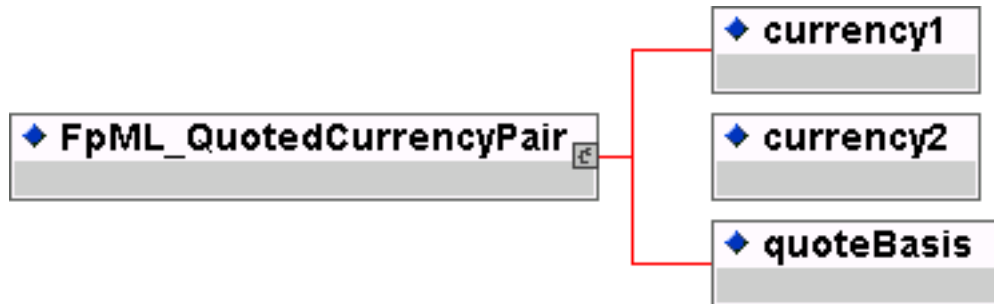
```
<!ENTITY % FpML_QuotedAs "optionOnCurrency , faceOnCurrency , quotedTenor?">
```

FpML_QuotedCurrencyPair

Description:

An entity that describes the composition of a rate that has been quoted or is to be quoted. This includes the two currencies and the quotation relationship between the two currencies and is used as a building block throughout the FX specification.

Figure:



Contents:

currency1 (exactly one occurrence; of type *string*, an enumerated domain value defined by *currencyScheme*)

- The first currency specified when a pair of currencies is to be evaluated.

currency2 (exactly one occurrence; of type *string*, an enumerated domain value defined by *currencyScheme*)

- The second currency specified when a pair of currencies is to be evaluated.

quoteBasis (exactly one occurrence; of type *string*, an enumerated domain value defined by *quoteBasisScheme*)

- The method by which the exchange rate is quoted.

Used by:

- quotedCurrencyPair

DTD Fragment:

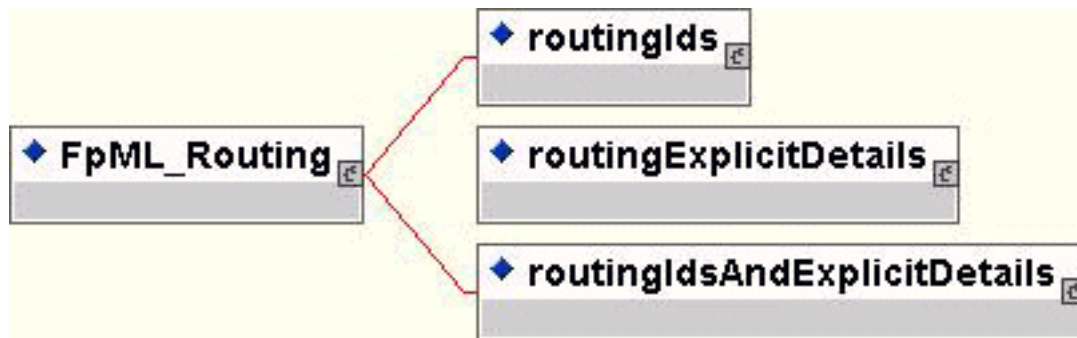
```
<!ENTITY % FpML_QuotedCurrencyPair "currency1 , currency2 , quoteBasis">
```

FpML_Routing

Description:

An entity that provides three alternative ways of identifying a party involved in the routing of a payment. The identification may use payment system identifiers only; actual name, address and other reference information; or a combination of both.

Figure:



Contents:

Either

routingIds (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_RoutingIds)

- A set of unique identifiers for a party, each one identifying the party within a payment system. The assumption is that each party will not have more than one identifier within the same payment system.

Or

routingExplicitDetails (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_RoutingExplicitDetails)

- A set of details that is used to identify a party involved in the routing of a payment when the party does not have a code that identifies it within one of the recognized payment systems.

Or

routingIdsAndExplicitDetails (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_RoutingIdsAndExplicitDetails)

- A combination of coded payment system identifiers and details for physical addressing for a party involved in the routing of a payment.

Used by:

- FpML_IntermediaryInformation
- beneficiary
- beneficiaryBank
- correspondentInformation

DTD Fragment:

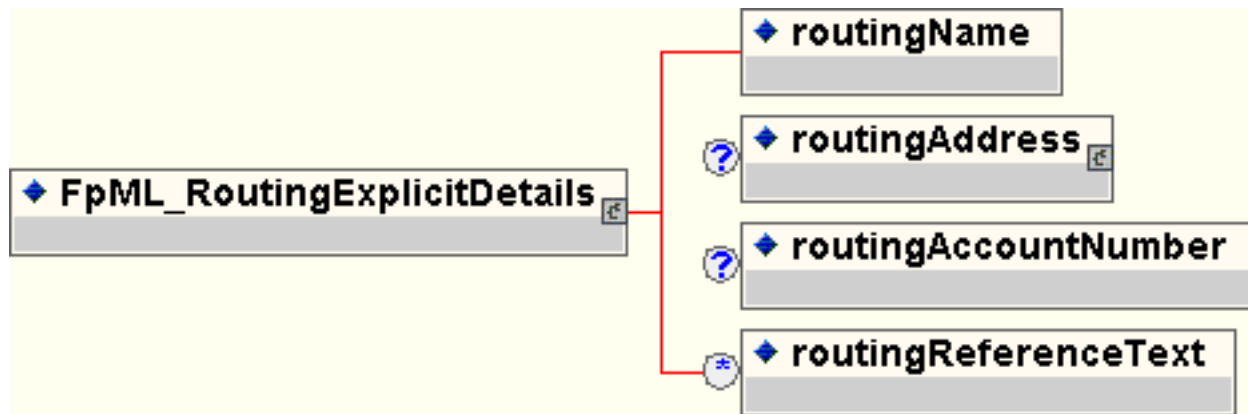
<!ENTITY % FpML_Routing "(routingIds | routingExplicitDetails | routingIdsAndExplicitDetails)">

FpML_RoutingExplicitDetails

Description:

An entity that models name, address and supplementary textual information for the purposes of identifying a party involved in the routing of a payment.

Figure:



Contents:

routingName (exactly one occurrence; of type *string*)

- A real name that is used to identify a party involved in the routing of a payment.

routingAddress (zero or one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_Address)

- A physical postal address via which a payment can be routed.

routingAccountNumber (zero or one occurrence; of type *string*)

- An account number via which a payment can be routed.

routingReferenceText (zero or more occurrences; of type *string*)

- A piece of free-format text used to assist the identification of a party involved in the routing of a payment.

Used by:

- FpML_RoutingIdsAndExplicitDetails
- routingExplicitDetails

DTD Fragment:

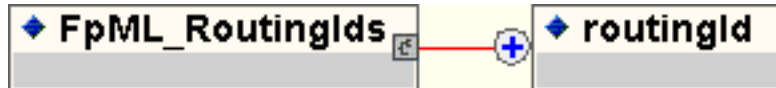
```
<!ENTITY % FpML_RoutingExplicitDetails "routingName , routingAddress? , routingAccountNumber? , routingReferenceText*">
```

FpML_RoutingIds

Description:

An entity that provides for identifying a party involved in the routing of a payment by means of one or more standard identification codes. For example, both a SWIFT BIC code and a national bank identifier may be required.

Figure:



Contents:

routingId (one or more occurrences; of type *string*, an enumerated domain value defined by *routingIdScheme*)

- A unique identifier for party that is a participant in a recognized payment system.

Used by:

- routingIds

DTD Fragment:

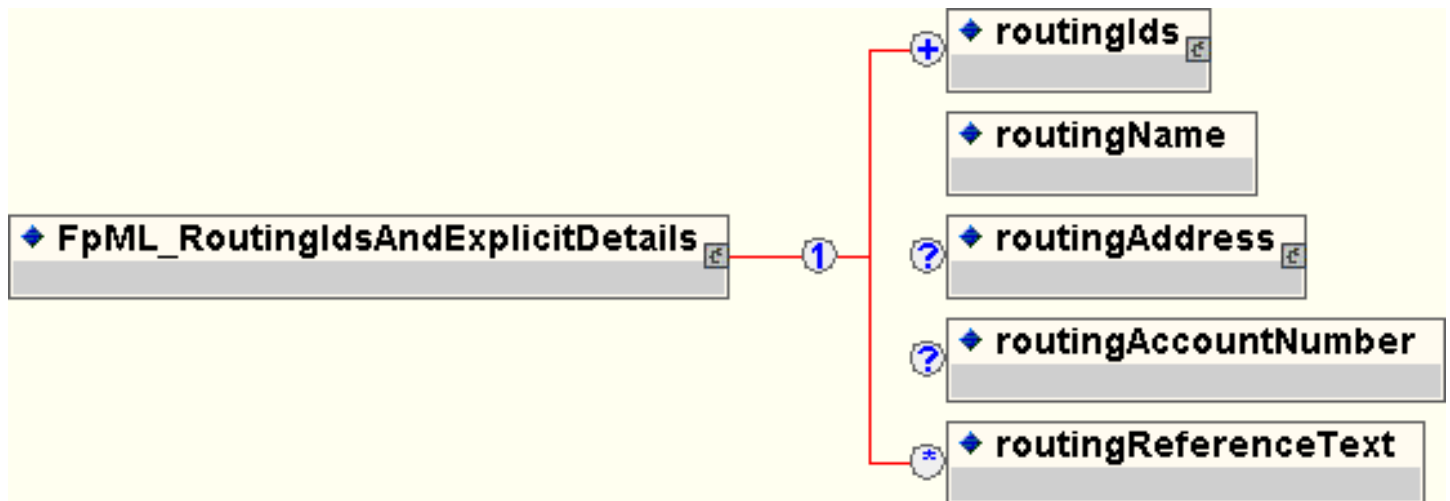
```
<!ENTITY % FpML_RoutingIds "routingId+">
```

FpML_RoutingIdsAndExplicitDetails

Description:

An entity that provides a combination of payment system identification codes with physical postal address details, for the purposes of identifying a party involved in the routing of a payment.

Figure:



Contents:

routingIds (one or more occurrences; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_RoutingIds)

- A set of unique identifiers for a party, each one identifying the party within a payment system. The assumption is that each party will not have more than one identifier within the same payment system.

inherited element(s) (this entity inherits the element(s) defined by exactly one occurrence of the entity FpML_RoutingExplicitDetails)

- An entity that models name, address and supplementary textual information for the purposes of identifying a party involved in the routing of a payment.

Used by:

- routingIdsAndExplicitDetails

DTD Fragment:

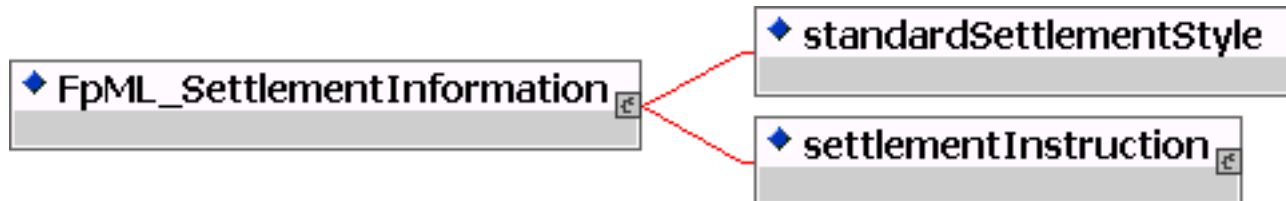
```
<!ENTITY % FpML_RoutingIdsAndExplicitDetails "routingIds+ , %FpML_RoutingExplicitDetails;">
```

FpML_SettlementInformation

Description:

An entity that represents the choice of methods for settling a potential currency payment resulting from a trade: by means of a standard settlement instruction, by netting it out with other payments, or with an explicit settlement instruction.

Figure:



Contents:

Either

standardSettlementStyle (exactly one occurrence; of type *string*, an enumerated domain value defined by *standardSettlementStyleScheme*)

- An optional element used to describe how a trade will settle. This defines a scheme and is used for identifying trades that are identified as settling standard and/or flagged for settlement netting.

Or

settlementInstruction (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_SettlementInstruction)

- An explicit specification of how a currency payment is to be made, when the payment is not netted and the route is other than the recipient's standard settlement instruction.

Used by:

- settlementInformation

DTD Fragment:

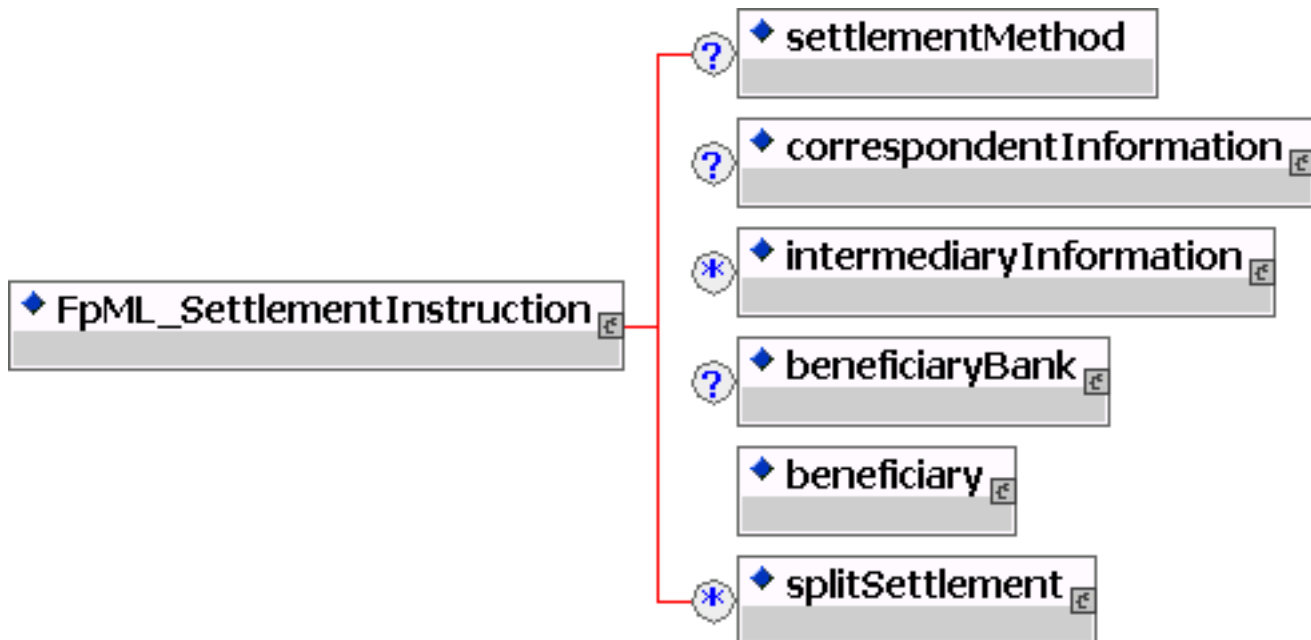
```
<!ENTITY % FpML_SettlementInformation "standardSettlementStyle | settlementInstruction">
```


FpML_SettlementInstruction

Description:

An entity that models a complete instruction for settling a currency payment, including the settlement method to be used, the correspondent bank, any intermediary banks and the ultimate beneficiary.

Figure:



Contents:

settlementMethod (zero or one occurrence; of type *string*, an enumerated domain value defined by *settlementMethodScheme*)

- The mechanism by which settlement is to be made. The scheme of domain values will include standard mechanisms such as CLS, Fedwire, Chips ABA, Chips UID, SWIFT, CHAPS and DDA.

correspondentInformation (zero or one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_Routing)

- The information required to identify the correspondent bank that will make delivery of the funds on the paying bank's behalf in the country where the payment is to be made

intermediaryInformation (zero or more occurrences; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_IntermediaryInformation)

- Information to identify an intermediary through which payment will be made by the correspondent bank to the ultimate beneficiary of the funds.

beneficiaryBank (zero or one occurrence; of type *string*)

- The bank that acts for the ultimate beneficiary of the funds in receiving payments.

beneficiary (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_Routing)

- The ultimate beneficiary of the funds. The beneficiary can be identified either by an account

at the beneficiaryBank (qv) or by explicit routingInformation. This element provides for the latter.

splitSettlement (zero or more occurrences; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_SplitSettlement)

- The set of individual payments that are to be made when a currency payment settling a trade needs to be split between a number of ultimate beneficiaries. Each split payment may need to have its own routing information.

Used by:

- settlementInstruction

DTD Fragment:

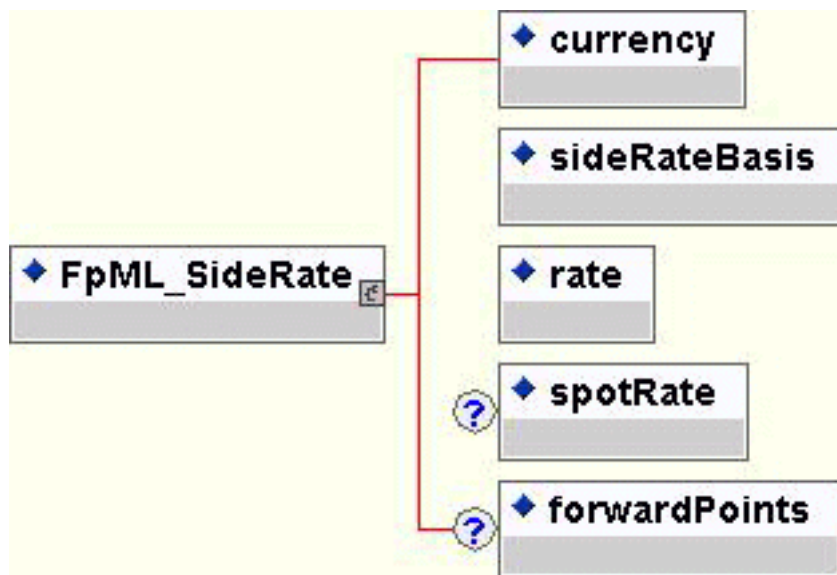
```
<!ENTITY % FpML_SettlementInstruction "settlementMethod? , correspondentInformation? ,
intermediaryInformation* , beneficiaryBank? , beneficiary , splitSettlement*">
```

FpML_SideRate

Description:

An entity that is used for describing a particular rate against base currency. Exists within FpML_SideRates.

Figure:



Contents:

currency (exactly one occurrence; of type *string*, an enumerated domain value defined by *currencyScheme*)

- The currency in which an amount is denominated.

sideRateBasis (exactly one occurrence; of type *string*, an enumerated domain value defined by *sideRateBasisScheme*)

- The method by which the exchange rate against base currency is quoted.

rate (exactly one occurrence; of type *decimal*)

- The rate of exchange between the two currencies of the leg of a deal. Must be specified with a quote basis.

spotRate (zero or one occurrence; of type *decimal*)

- An optional element used for FX forwards and certain types of FX OTC options. For deals consummated in the FX Forwards Market, this represents the current market rate for a particular currency pair. For barrier and digital/binary options, it can be useful to include the spot rate at the time the option was executed to make it easier to know whether the option needs to move "up" or "down" to be triggered.

forwardPoints (zero or one occurrence; of type *decimal*)

- An optional element used for deals consummated in the FX Forwards market. Forward points represent the interest rate differential between the two currencies traded and are quoted as a premium or a discount. Forward points are added to, or subtracted from, the spot rate to create the rate of the forward trade.

Used by:

- currency1SideRate
- currency2SideRate

DTD Fragment:

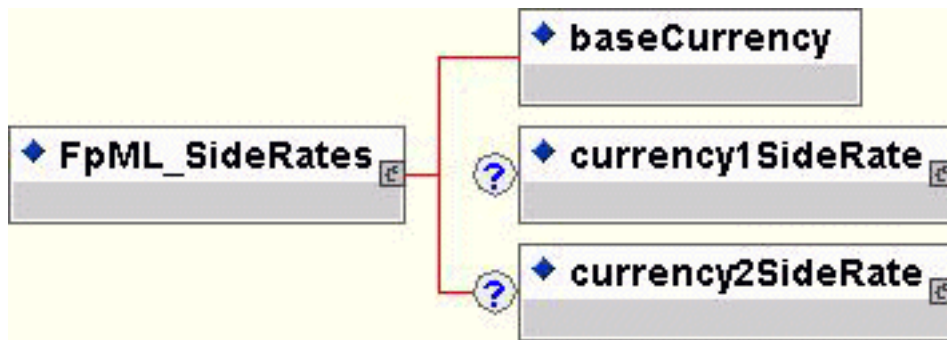
```
<!ENTITY % FpML_SideRate "currency , sideRateBasis , rate , spotRate? , forwardPoints?">
```

FpML_SideRates

Description:

An entity that is used for including rates against base currency for non-base currency FX contracts.

Figure:



Contents:

baseCurrency (exactly one occurrence; of type *string*, an enumerated domain value defined by *currencyScheme*)

- The currency that is used as the basis for the side rates when calculating a cross rate.

currency1SideRate (zero or one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_SideRate)

- The exchange rate for the first currency of the trade against base currency.

currency2SideRate (zero or one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_SideRate)

- The exchange rate for the second currency of the trade against base currency.

Used by:

- sideRates

DTD Fragment:

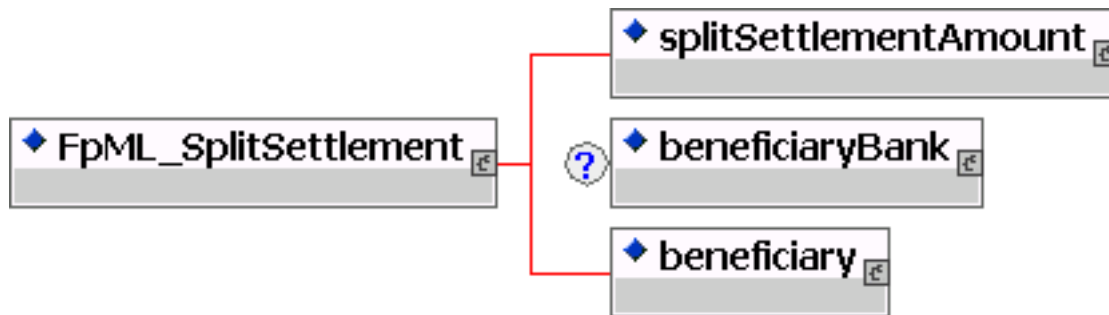
```
<!ENTITY % FpML_SideRates "baseCurrency , currency1SideRate? , currency2SideRate?">
```

FpML_SplitSettlement

Description:

An entity that supports the division of a gross settlement amount into a number of split settlements, each requiring its own settlement instruction.

Figure:



Contents:

splitSettlementAmount (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_Money)

- One of the monetary amounts in a split settlement payment.

beneficiaryBank (zero or one occurrence; of type *string*)

- The bank that acts for the ultimate beneficiary of the funds in receiving payments.

beneficiary (exactly one occurrence; contains the sub-element(s) defined by exactly one occurrence of the entity FpML_Routing)

- The ultimate beneficiary of the funds. The beneficiary can be identified either by an account at the beneficiaryBank (qv) or by explicit routingInformation. This element provides for the latter.

Used by:

- splitSettlement

DTD Fragment:

```
<!ENTITY % FpML_SplitSettlement "splitSettlementAmount , beneficiaryBank? , beneficiary">
```

FpML_StreetAddress

Description:

An entity that describes the set of street and building number information that identifies a postal address within a city.

Figure:



Contents:

streetLine (one or more occurrences; of type *string*)

- An individual line of street and building number information, forming part of a postal address.

Used by:

- streetAddress

DTD Fragment:

```
<!ENTITY % FpML_StreetAddress "streetLine+">
```