XML Schema Documentation

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Schema Document Properties

Target Namespace	**http://www.fpml.org/2007/FpML-4-4**
Version	$Revision: 2587 $
Element and Attribute Namespaces	• Global element and attribute declarations belong to this schema's target namespace. • By default, local element declarations belong to this schema's target namespace. • By default, local attribute declarations have no namespace.
Schema Composition	• This schema includes components from the following schema document(s): ○ fpml-shared-4-4.xsd

Declared Namespaces

Prefix	Namespace
Default namespace	**http://www.fpml.org/2007/FpML-4-4**
ecore	http://www.eclipse.org/emf/2002/Ecore
xml	http://www.w3.org/XML/1998/namespace
xsd	http://www.w3.org/2001/XMLSchema
fpml	**http://www.fpml.org/2007/FpML-4-4**

Schema Component Representation

```
<xsd:schema nsPrefix="fpml" package="org.fpml" documentRoot="FpML" targetNamespace="http://
www.fpml.org/2007/FpML-4-4" version="$Revision: 2587 $"
attributeFormDefault="unqualified" elementFormDefault="qualified">
   <xsd:include schemaLocation="fpml-shared-4-4.xsd"/>
   ...
</xsd:schema>
```

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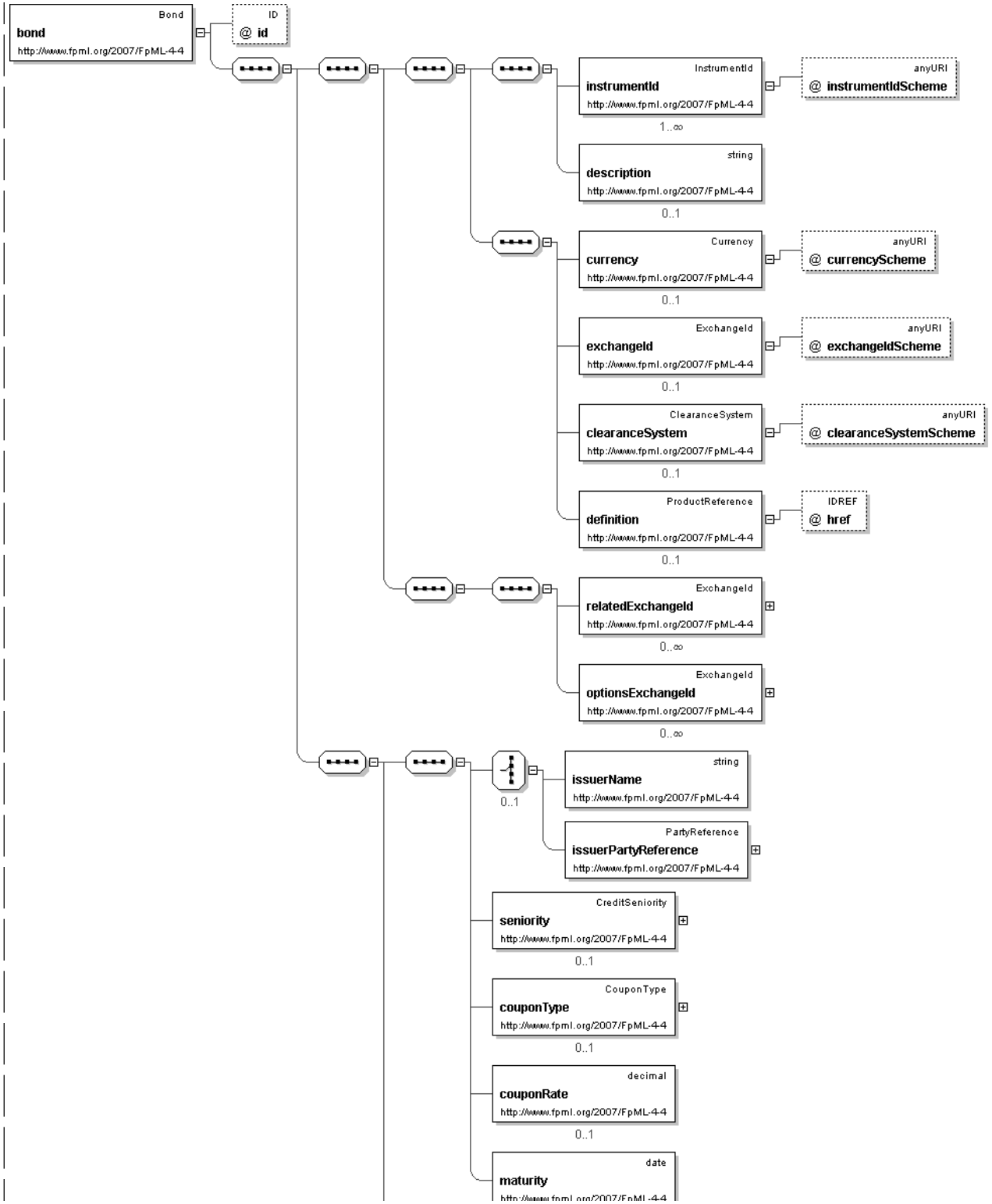
Global Declarations

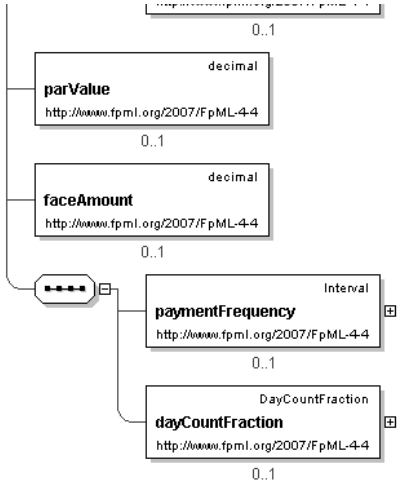
Element: bond

- *This element can be used wherever the following element is referenced:*
  - underlyingAsset

Name	bond
Used by (from the same schema document)	Model Group **BondChoice.model**
Type	Bond
Nillable	no
Abstract	no
Documentation	Defines the underlying asset when it is a bond.

Logical Diagram


Bond
bond
http://www.fpml.org/2007/FpML-4-4
ID
@ id
InstrumentId
instrumentId
http://www.fpml.org/2007/FpML-4-4
1..∞
anyURI
@ instrumentIdScheme
string
description
http://www.fpml.org/2007/FpML-4-4
0..1
Currency
currency
http://www.fpml.org/2007/FpML-4-4
0..1
anyURI
@ currencyScheme
ExchangeId
exchangeId
http://www.fpml.org/2007/FpML-4-4
0..1
anyURI
@ exchangeIdScheme
ClearanceSystem
clearanceSystem
http://www.fpml.org/2007/FpML-4-4
0..1
anyURI
@ clearanceSystemScheme
ProductReference
definition
http://www.fpml.org/2007/FpML-4-4
0..1
IDREF
@ href
ExchangeId
relatedExchangeId
http://www.fpml.org/2007/FpML-4-4
0..∞
ExchangeId
optionsExchangeId
http://www.fpml.org/2007/FpML-4-4
0..∞
0..1
string
issuerName
http://www.fpml.org/2007/FpML-4-4
PartyReference
issuerPartyReference
http://www.fpml.org/2007/FpML-4-4
CreditSeniority
seniority
http://www.fpml.org/2007/FpML-4-4
0..1
CouponType
couponType
http://www.fpml.org/2007/FpML-4-4
0..1
decimal
couponRate
http://www.fpml.org/2007/FpML-4-4
0..1
date
maturity



XML Instance Representation

```
<bond
 id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

   <relatedExchangeId> ExchangeId </relatedExchangeId> [0..*]
   'A short form unique identifier for a related exchange. If the element is not present then
   the exchange shall be the primary exchange on which listed futures and options on
   the underlying are listed. The term \"Exchange\" is assumed to have the meaning as defined
   in the ISDA 2002 Equity Derivatives Definitions.'

   <optionsExchangeId> ExchangeId </optionsExchangeId> [0..*]
   'A short form unique identifier for an exchange on which the reference option contract
   is listed. This is to address the case where the reference exchange for the future is
   different than the one for the option. The options Exchange is referenced on share options
   when Merger Elections are selected as Options Exchange Adjustment.'

Start Choice [0..1]
'Specifies the issuer name of a fixed income security or convertible bond. This name can
either be explicitly stated, or specified as an href into another element of the document,
such as the obligor'


      <issuerName> xsd:string </issuerName> [1]
      <issuerPartyReference> PartyReference </issuerPartyReference> [1]
End Choice
   <seniority> CreditSeniority </seniority> [0..1]
   'The repayment precedence of a debt instrument.'

   <couponType> CouponType </couponType> [0..1]
   'Specifies if the bond has a variable coupon, step-up/down coupon or a zero-coupon.'

   <couponRate> xsd:decimal </couponRate> [0..1]
```

'Specifies the coupon rate (expressed in percentage) of a fixed income security or convertible bond.'

<maturity> xsd:date </maturity> [0..1]

'The date when the principal amount of a security becomes due and payable.'

<parValue> xsd:decimal </parValue> [0..1]

'Specifies the nominal amount of a fixed income security or convertible bond.'

<faceAmount> xsd:decimal </faceAmount> [0..1]

'Specifies the total amount of the issue. Corresponds to the par value multiplied by the number of issued security.'

<paymentFrequency> Interval </paymentFrequency> [0..1]

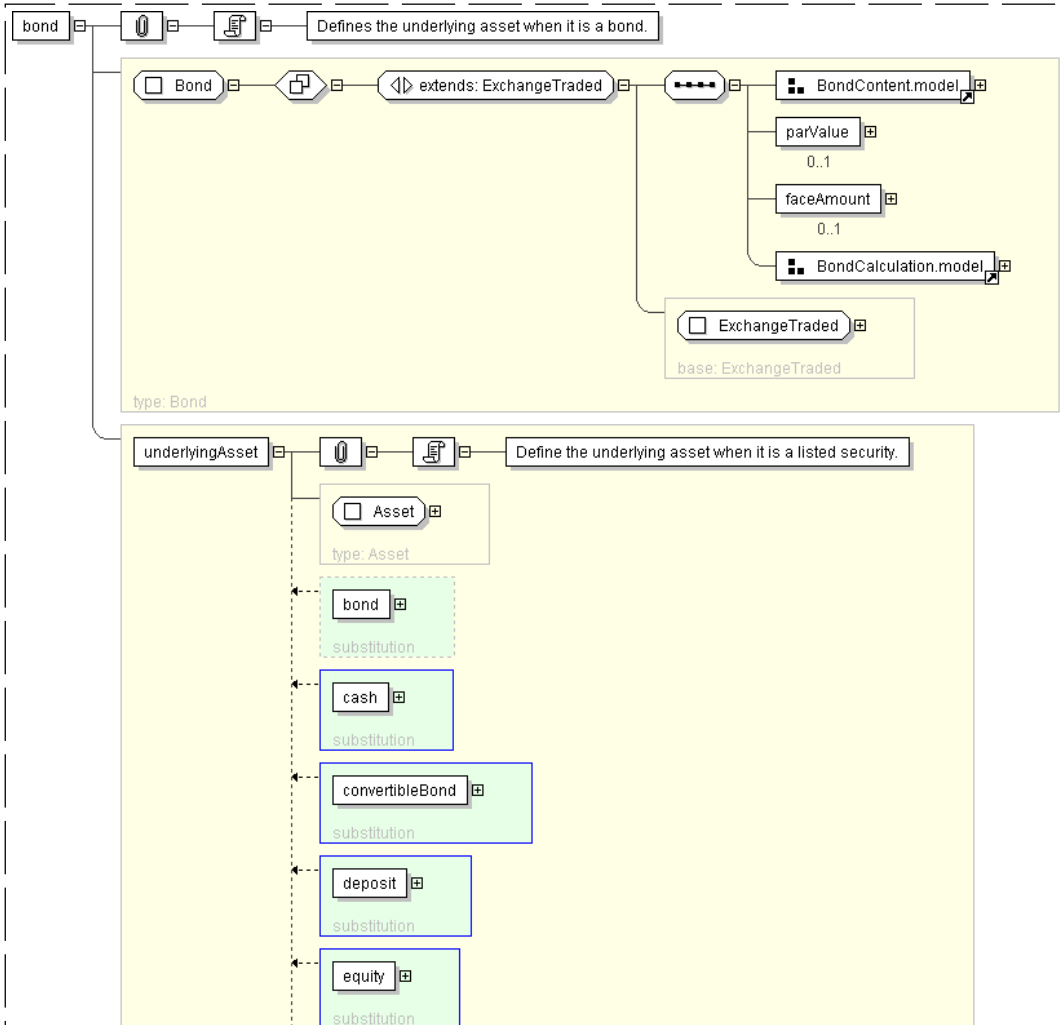
'Specifies the frequency at which the bond pays, e.g. 6M.'

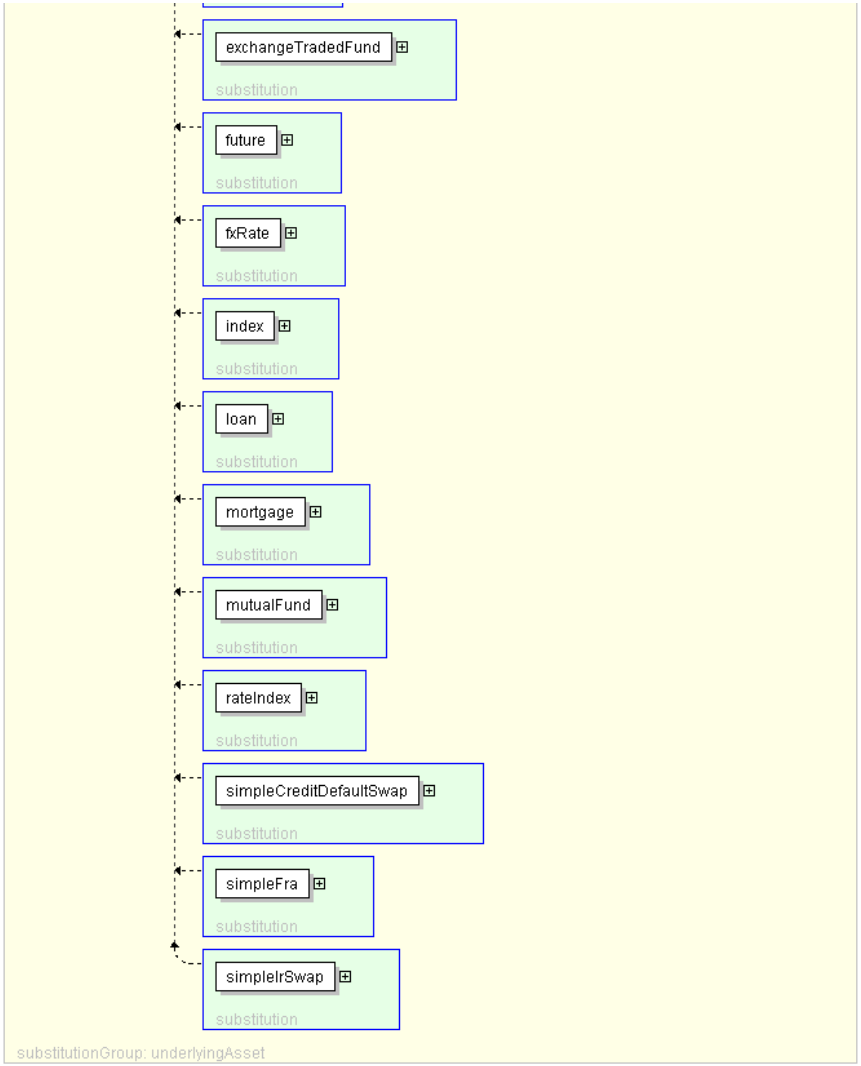
<dayCountFraction> DayCountFraction </dayCountFraction> [0..1]

'The day count basis for the bond.'

</bond>

Diagram





Schema Component Representation

```
<xsd:element name="bond" type=" Bond " substitutionGroup="underlyingAsset"/>
```

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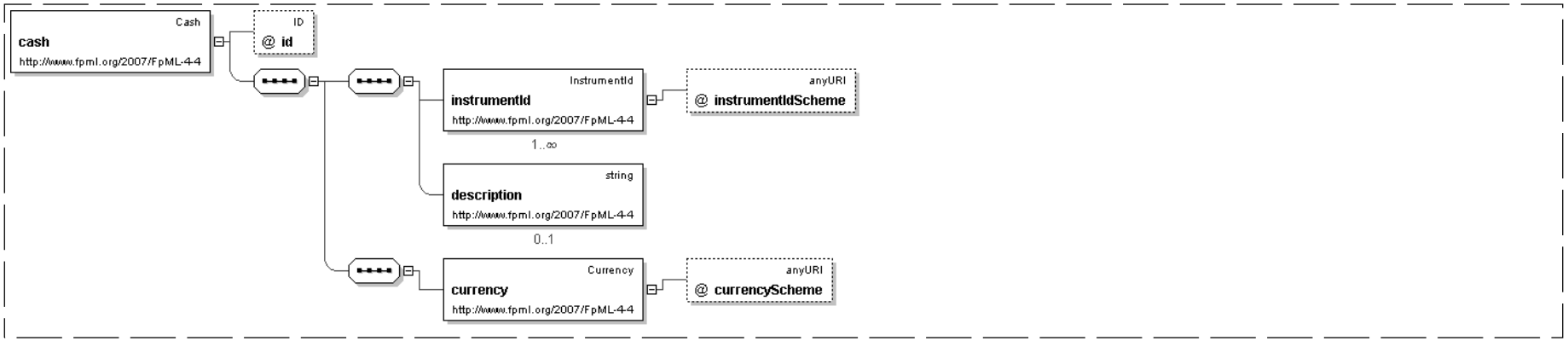
Element: cash

- *This element can be used wherever the following element is referenced:*
  - underlyingAsset

Name	cash
Type	Cash
Nillable	no
Abstract	no
Documentation	Defines a simple underlying asset type that is a cash payment. Used for specifying discounting factors for future cash flows in the pricing and risk model.

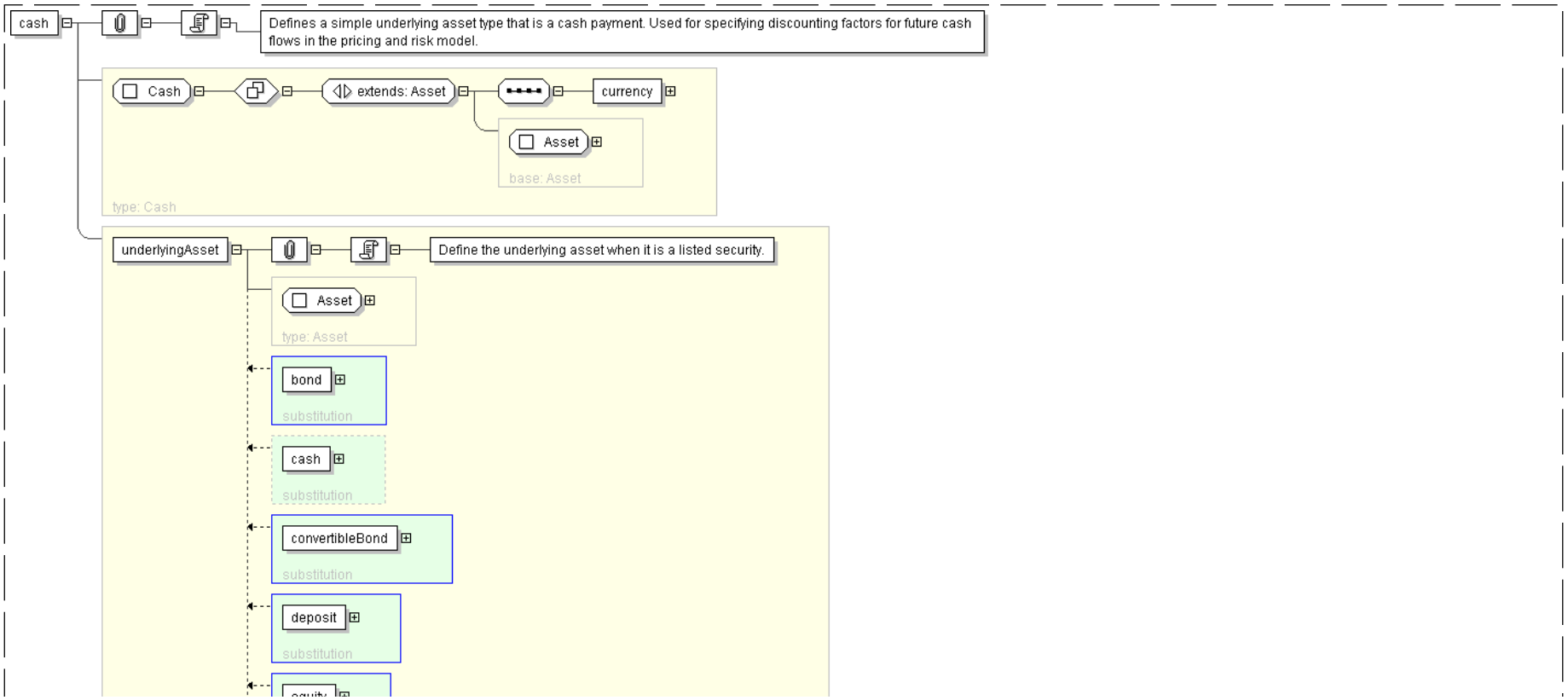
Logical Diagram

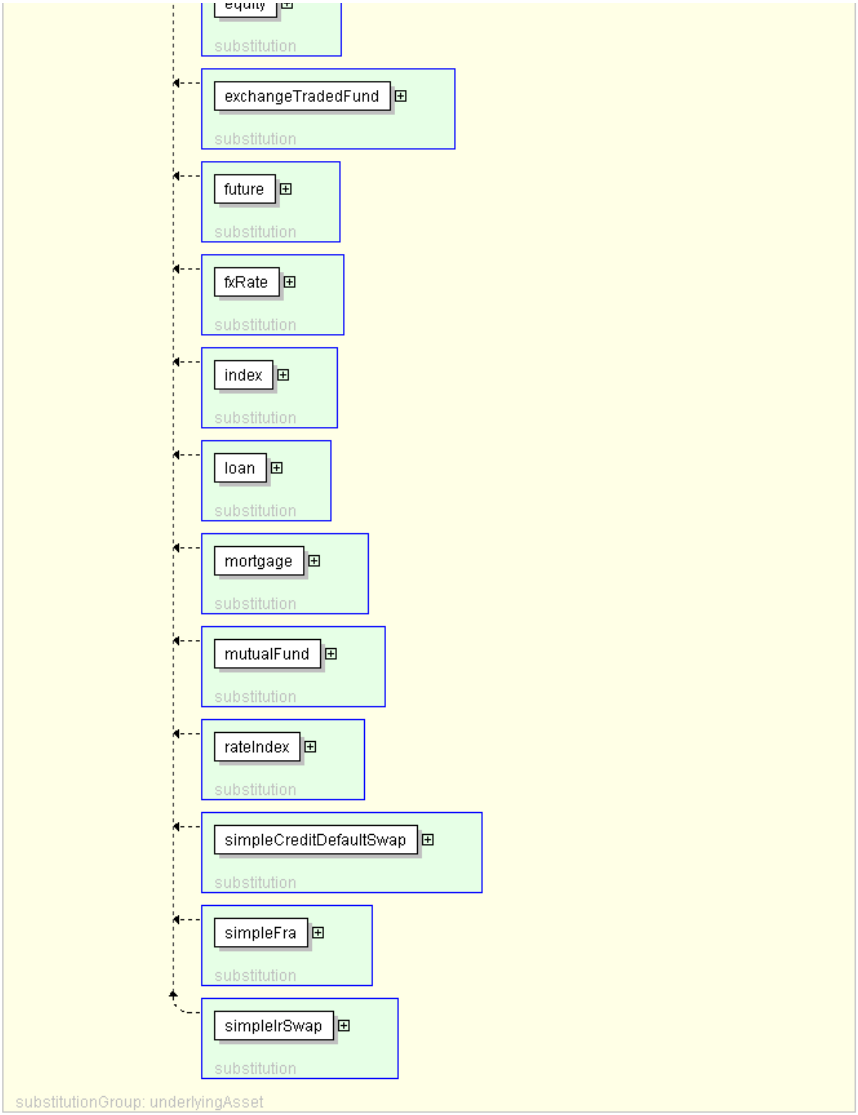


XML Instance Representation

```
<cash
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [1]
   'The currency in which an amount is denominated.'

</cash>
```

Diagram





Schema Component Representation

```
<xsd:element name="cash" type=" Cash " substitutionGroup="underlyingAsset"/>
```

top

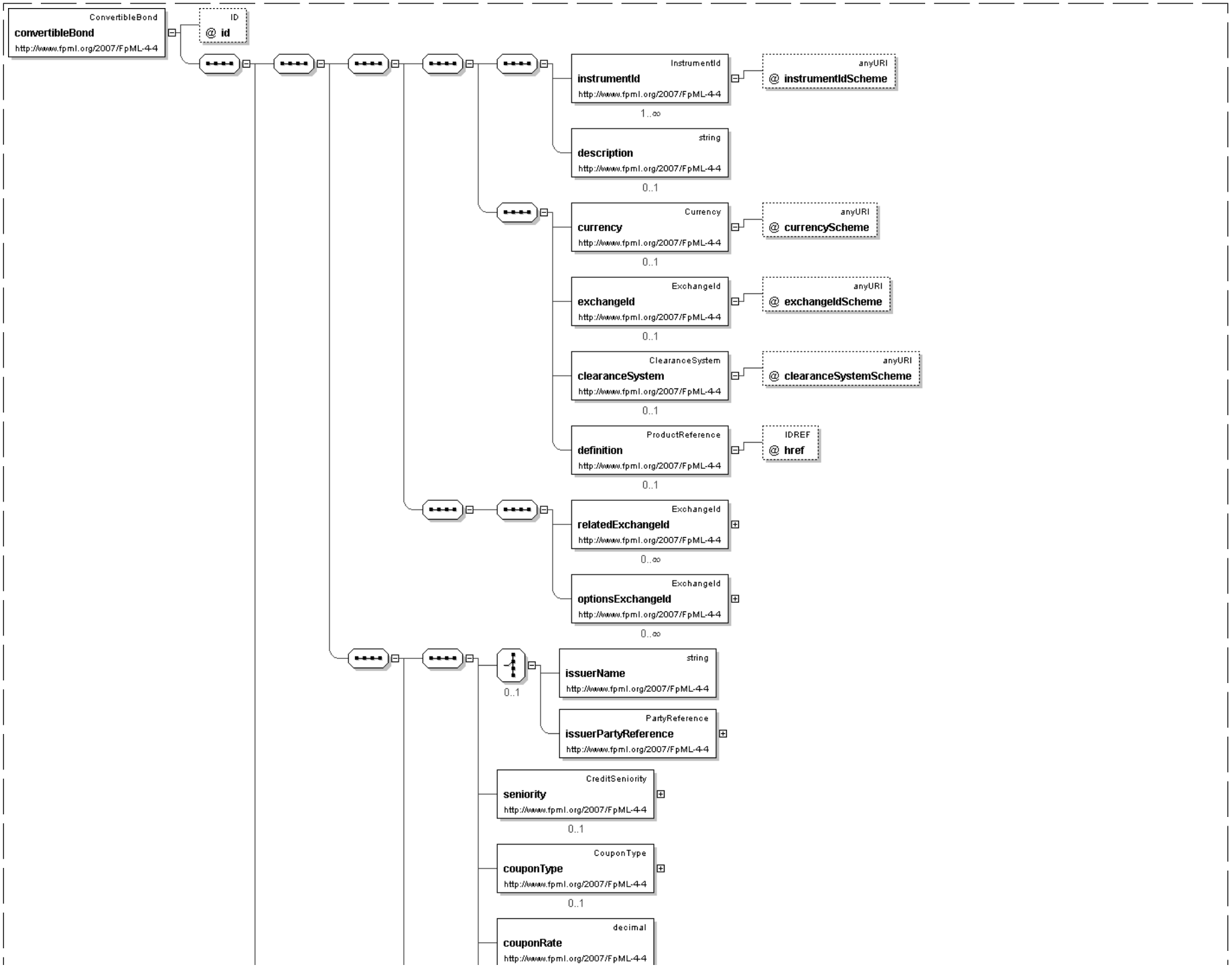
Element: convertibleBond

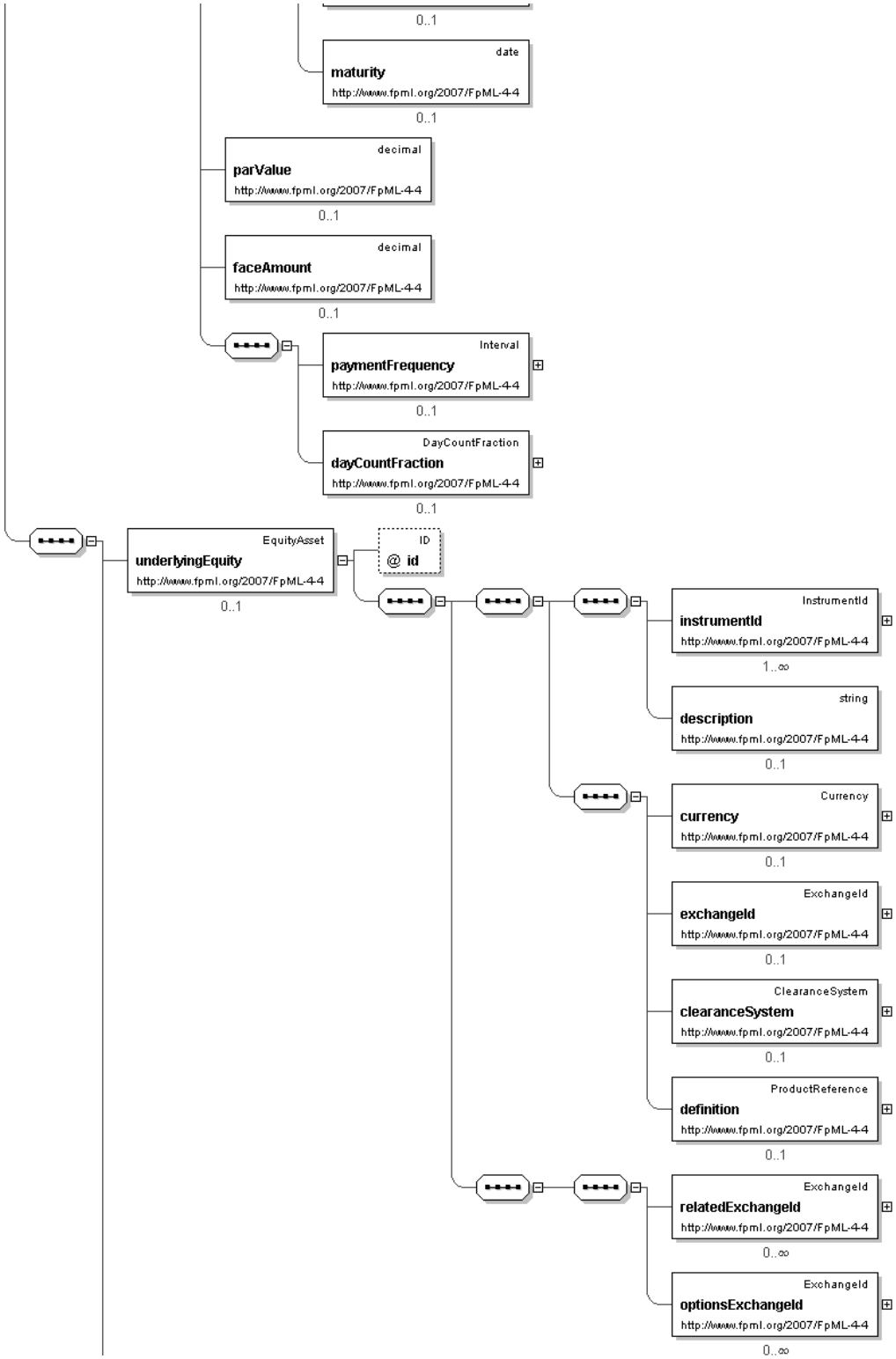
- *This element can be used wherever the following element is referenced:*
  - underlyingAsset

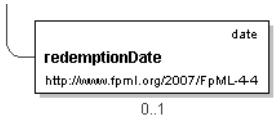
Name	convertibleBond
Used by (from the same schema document)	Model Group **BondChoice.model**
Type	ConvertibleBond
Nillable	no

Abstract	no
Documentation	Defines the underlying asset when it is a convertible bond.

Logical Diagram




0..1
date
maturity
http://www.fpml.org/2007/FpML-4-4
0..1
decimal
parValue
http://www.fpml.org/2007/FpML-4-4
0..1
decimal
faceAmount
http://www.fpml.org/2007/FpML-4-4
0..1
Interval
paymentFrequency
http://www.fpml.org/2007/FpML-4-4
0..1
DayCountFraction
dayCountFraction
http://www.fpml.org/2007/FpML-4-4
0..1
EquityAsset
underlyingEquity
http://www.fpml.org/2007/FpML-4-4
0..1
ID
@ id
InstrumentId
instrumentId
http://www.fpml.org/2007/FpML-4-4
1..∞
string
description
http://www.fpml.org/2007/FpML-4-4
0..1
Currency
currency
http://www.fpml.org/2007/FpML-4-4
0..1
ExchangeId
exchangeId
http://www.fpml.org/2007/FpML-4-4
0..1
ClearanceSystem
clearanceSystem
http://www.fpml.org/2007/FpML-4-4
0..1
ProductReference
definition
http://www.fpml.org/2007/FpML-4-4
0..1
ExchangeId
relatedExchangeId
http://www.fpml.org/2007/FpML-4-4
0..∞
ExchangeId
optionsExchangeId
http://www.fpml.org/2007/FpML-4-4
0..∞

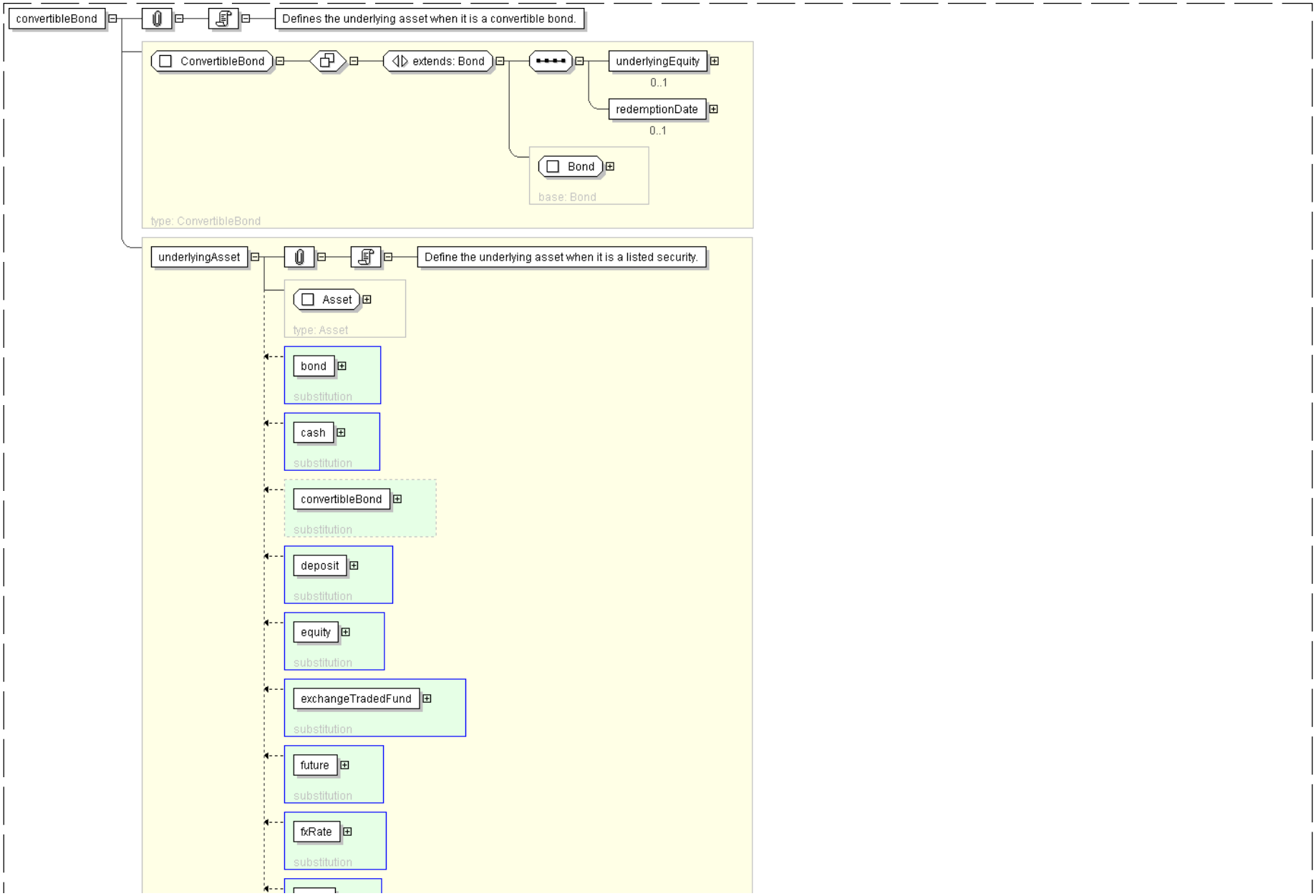


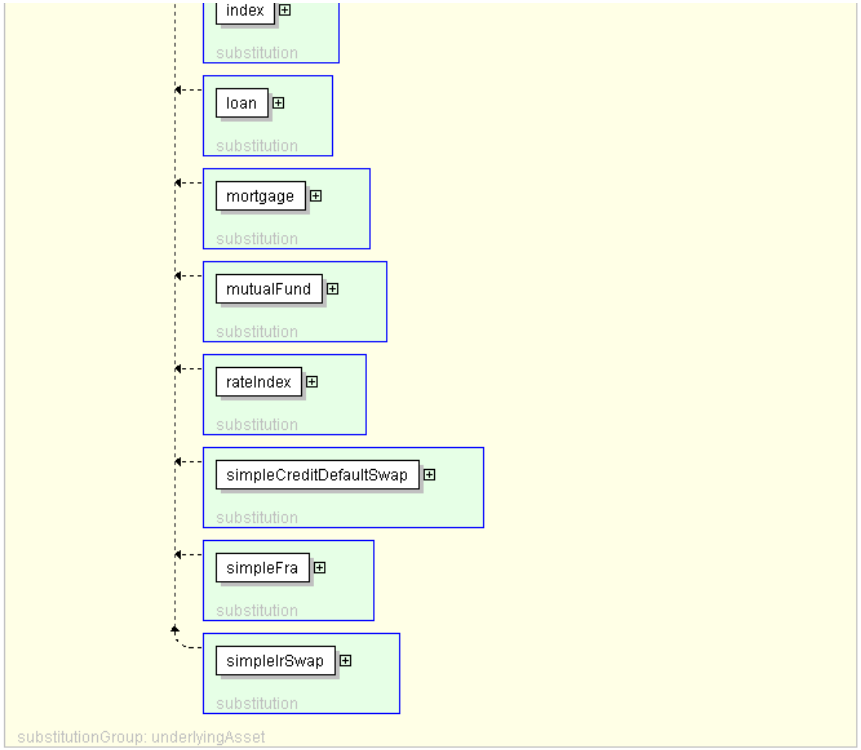
XML Instance Representation

```
<convertibleBond
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

   <relatedExchangeId> ExchangeId </relatedExchangeId> [0..*]
   'A short form unique identifier for a related exchange. If the element is not present then
   the exchange shall be the primary exchange on which listed futures and options on
   the underlying are listed. The term \"Exchange\" is assumed to have the meaning as defined
   in the ISDA 2002 Equity Derivatives Definitions.'

   <optionsExchangeId> ExchangeId </optionsExchangeId> [0..*]
   'A short form unique identifier for an exchange on which the reference option contract
   is listed. This is to address the case where the reference exchange for the future is
   different than the one for the option. The options Exchange is referenced on share options
   when Merger Elections are selected as Options Exchange Adjustment.'

Start Choice [0..1]
'Specifies the issuer name of a fixed income security or convertible bond. This name can
either be explicitly stated, or specified as an href into another element of the document,
such as the obligor'

      <issuerName> xsd:string </issuerName> [1]
      <issuerPartyReference> PartyReference </issuerPartyReference> [1]
End Choice
   <seniority> CreditSeniority </seniority> [0..1]
   'The repayment precedence of a debt instrument.'

   <couponType> CouponType </couponType> [0..1]
   'Specifies if the bond has a variable coupon, step-up/down coupon or a zero-coupon.'

   <couponRate> xsd:decimal </couponRate> [0..1]
   'Specifies the coupon rate (expressed in percentage) of a fixed income security or
   convertible bond.'

   <maturity> xsd:date </maturity> [0..1]
   'The date when the principal amount of a security becomes due and payable.'

   <parValue> xsd:decimal </parValue> [0..1]
   'Specifies the nominal amount of a fixed income security or convertible bond.'

   <faceAmount> xsd:decimal </faceAmount> [0..1]
   'Specifies the total amount of the issue. Corresponds to the par value multiplied by the
   number of issued security.'

   <paymentFrequency> Interval </paymentFrequency> [0..1]
   'Specifies the frequency at which the bond pays, e.g. 6M.'
```

```
    <dayCountFraction> DayCountFraction </dayCountFraction> [0..1]
    'The day count basis for the bond.'

    <underlyingEquity> EquityAsset </underlyingEquity> [0..1]
    'Specifies the equity in which the convertible bond can be converted.'

    <redemptionDate> xsd:date </redemptionDate> [0..1]
    'Earlier date between the convertible bond put dates and its maturity date.'

</convertibleBond>
```

Diagram





Schema Component Representation

```
<xsd:element name="convertibleBond" type=" ConvertibleBond
" substitutionGroup="underlyingAsset"/>
```

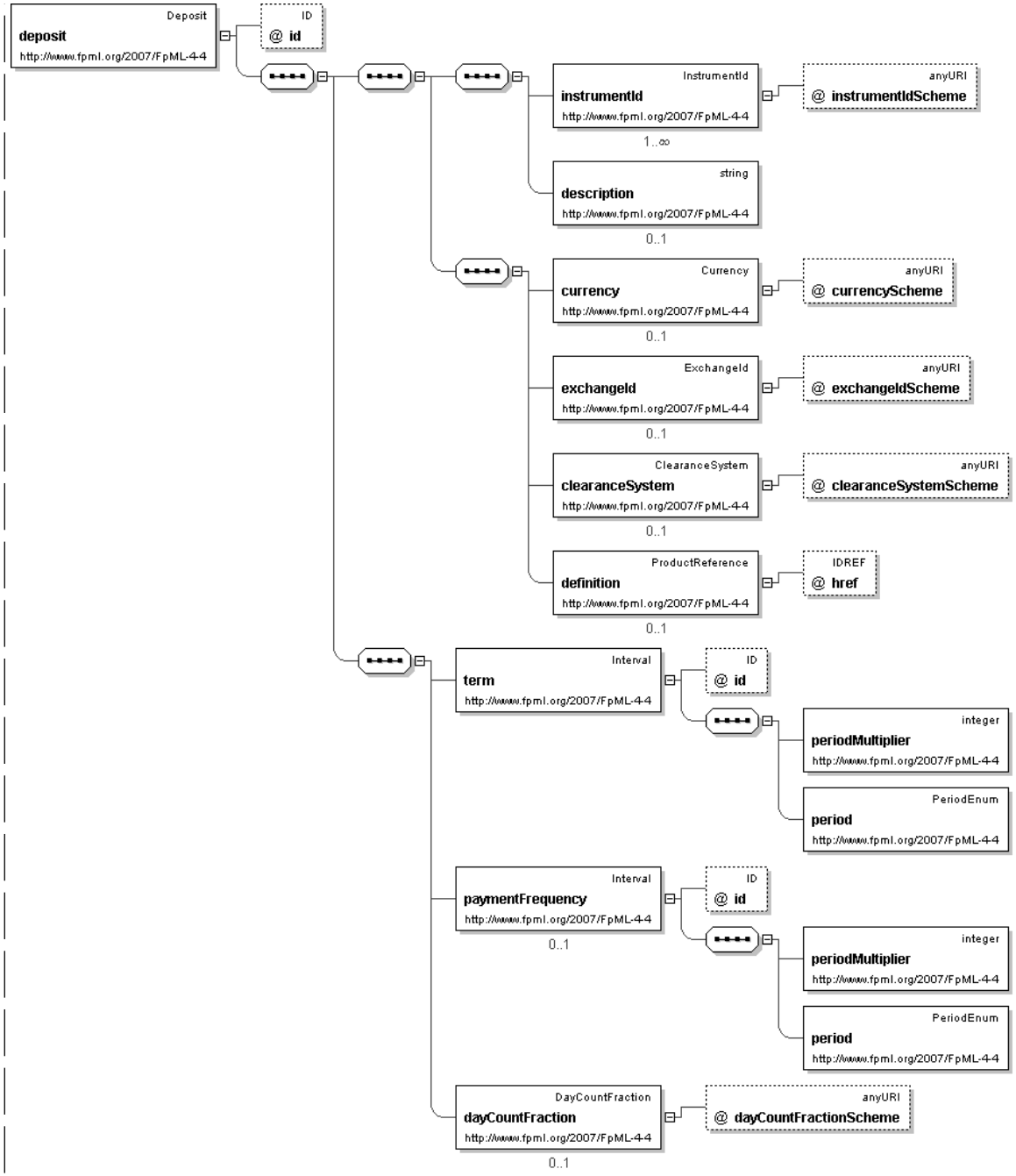
top

Element: deposit

- *This element can be used wherever the following element is referenced:*
  - underlyingAsset

Name	deposit
Type	Deposit
Nillable	no
Abstract	no
Documentation	Defines a simple underlying asset that is a term deposit.

Logical Diagram

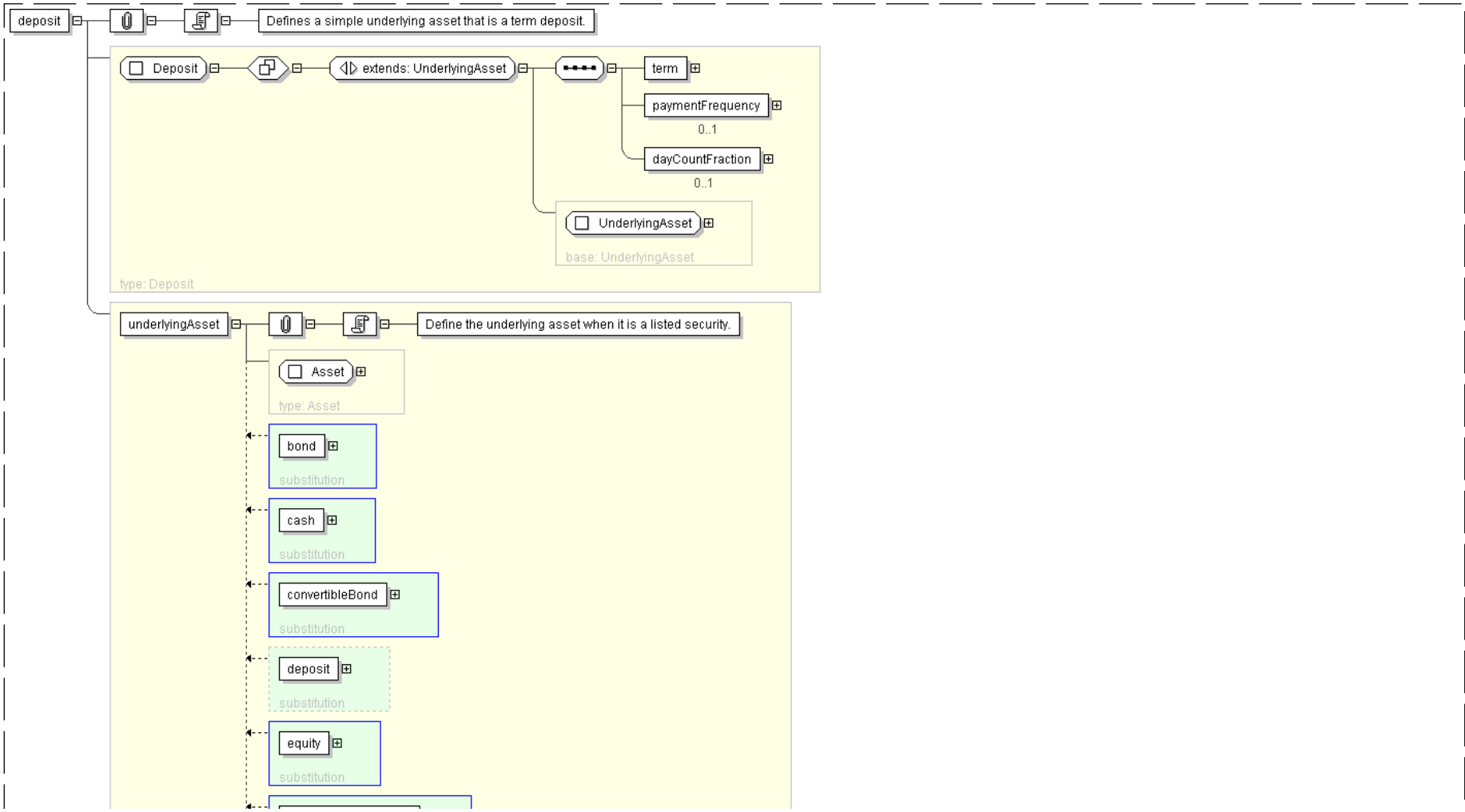


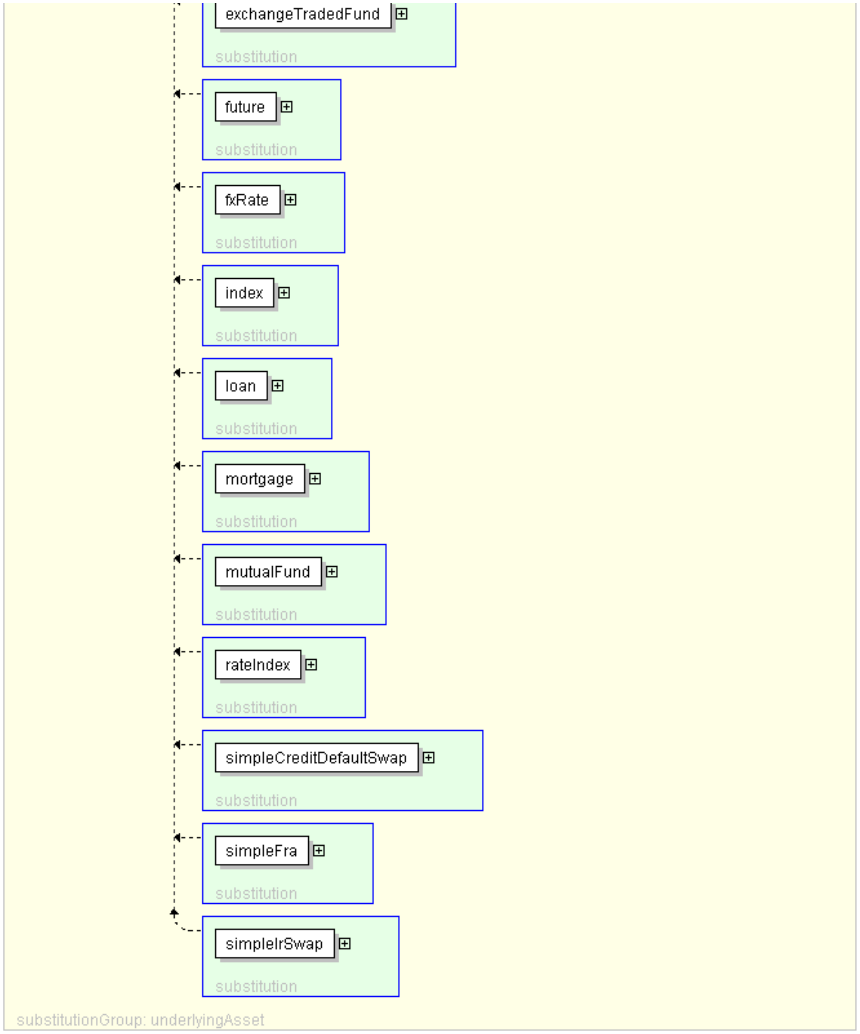
XML Instance Representation

```
<deposit
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'
```

```
    <currency> Currency </currency> [0..1]
    'The currency in which an amount is denominated.'

    <exchangeId> ExchangeId </exchangeId> [0..1]
    <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
    <definition> ProductReference </definition> [0..1]
    'An optional reference to a full FpML product that defines the simple product in
    greater detail. In case of inconsistency between the terms of the simple product and those
    of the detailed definition, the values in the simple product override those in the
    detailed definition.'

    <term> Interval </term> [1]
    'Specifies the term of the deposit, e.g. 5Y.'

    <paymentFrequency> Interval </paymentFrequency> [0..1]
    'Specifies the frequency at which the deposit pays, e.g. 6M.'

    <dayCountFraction> DayCountFraction </dayCountFraction> [0..1]
    'The day count basis for the deposit.'

</deposit>
```

Diagram





Schema Component Representation

```
<xsd:element name="deposit" type=" Deposit " substitutionGroup="underlyingAsset"/>
```

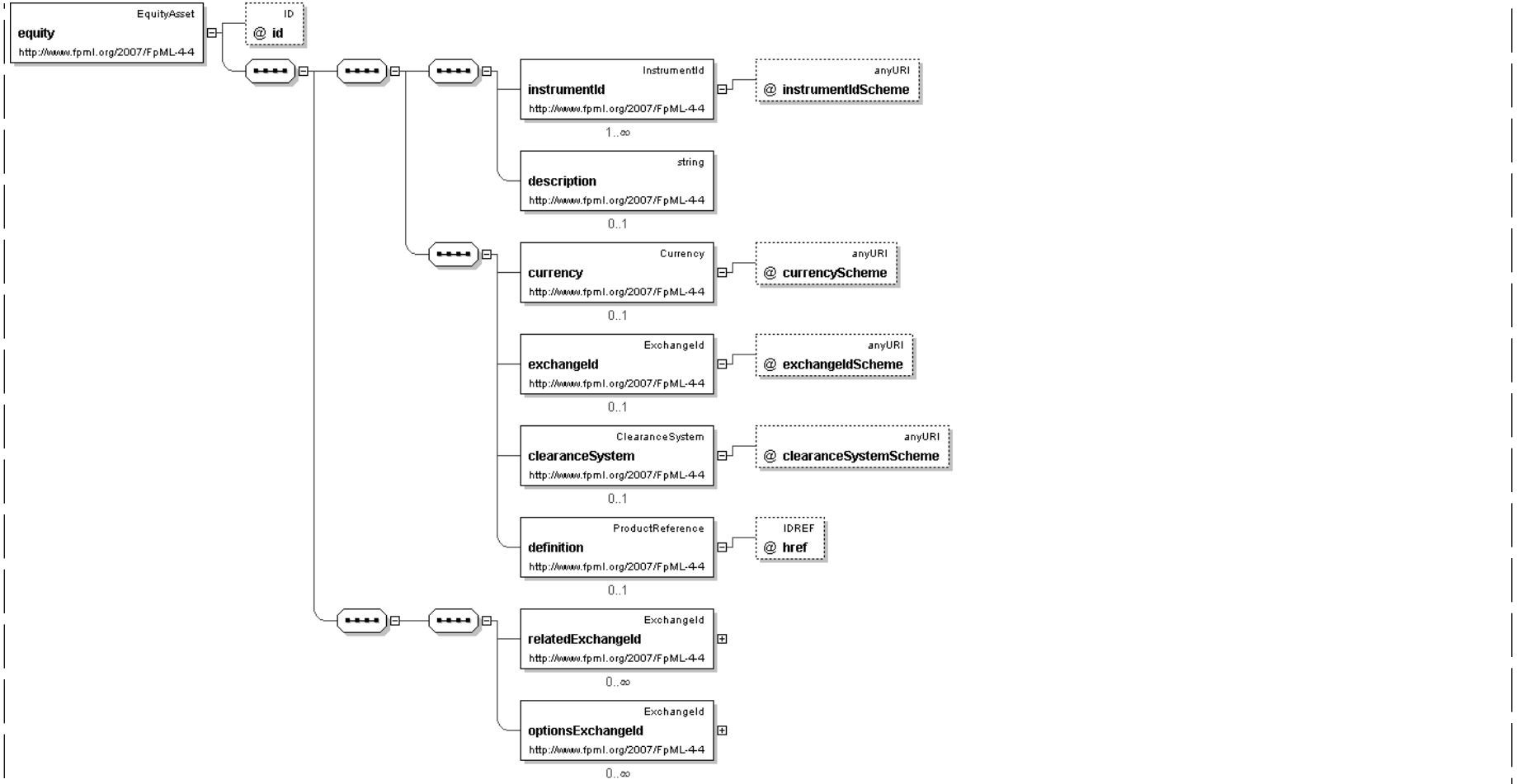
top

Element: equity

- *This element can be used wherever the following element is referenced:*
  - underlyingAsset

Name	equity
Type	EquityAsset
Nillable	no
Abstract	no
Documentation	Defines the underlying asset when it is a listed equity.

Logical Diagram

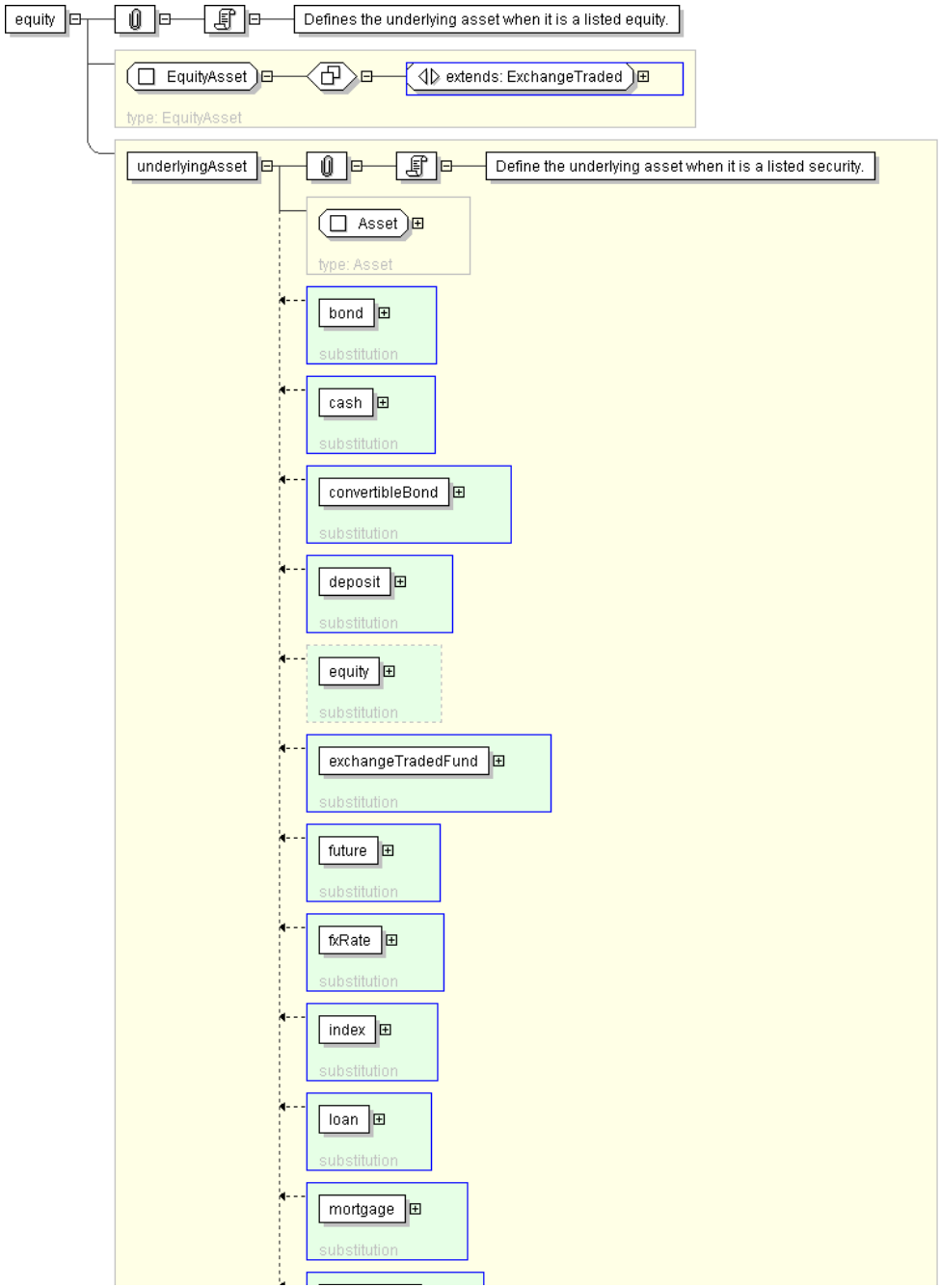


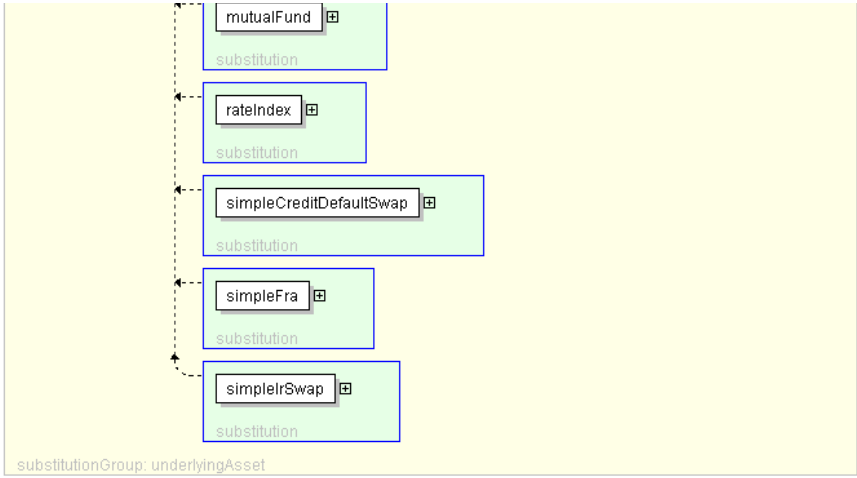
XML Instance Representation

```
<equity
 id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

   <relatedExchangeId> ExchangeId </relatedExchangeId> [0..*]
   'A short form unique identifier for a related exchange. If the element is not present then
   the exchange shall be the primary exchange on which listed futures and options on
   the underlying are listed. The term \"Exchange\" is assumed to have the meaning as defined
   in the ISDA 2002 Equity Derivatives Definitions.'
```

```
    <optionsExchangeId> ExchangeId </optionsExchangeId> [0..*]
    'A short form unique identifier for an exchange on which the reference option contract
    is listed. This is to address the case where the reference exchange for the future is
    different than the one for the option. The options Exchange is referenced on share options
    when Merger Elections are selected as Options Exchange Adjustment.'

</equity>
```

Diagram





Schema Component Representation

```
<xsd:element name="equity" type=" EquityAsset " substitutionGroup="underlyingAsset"/>
```

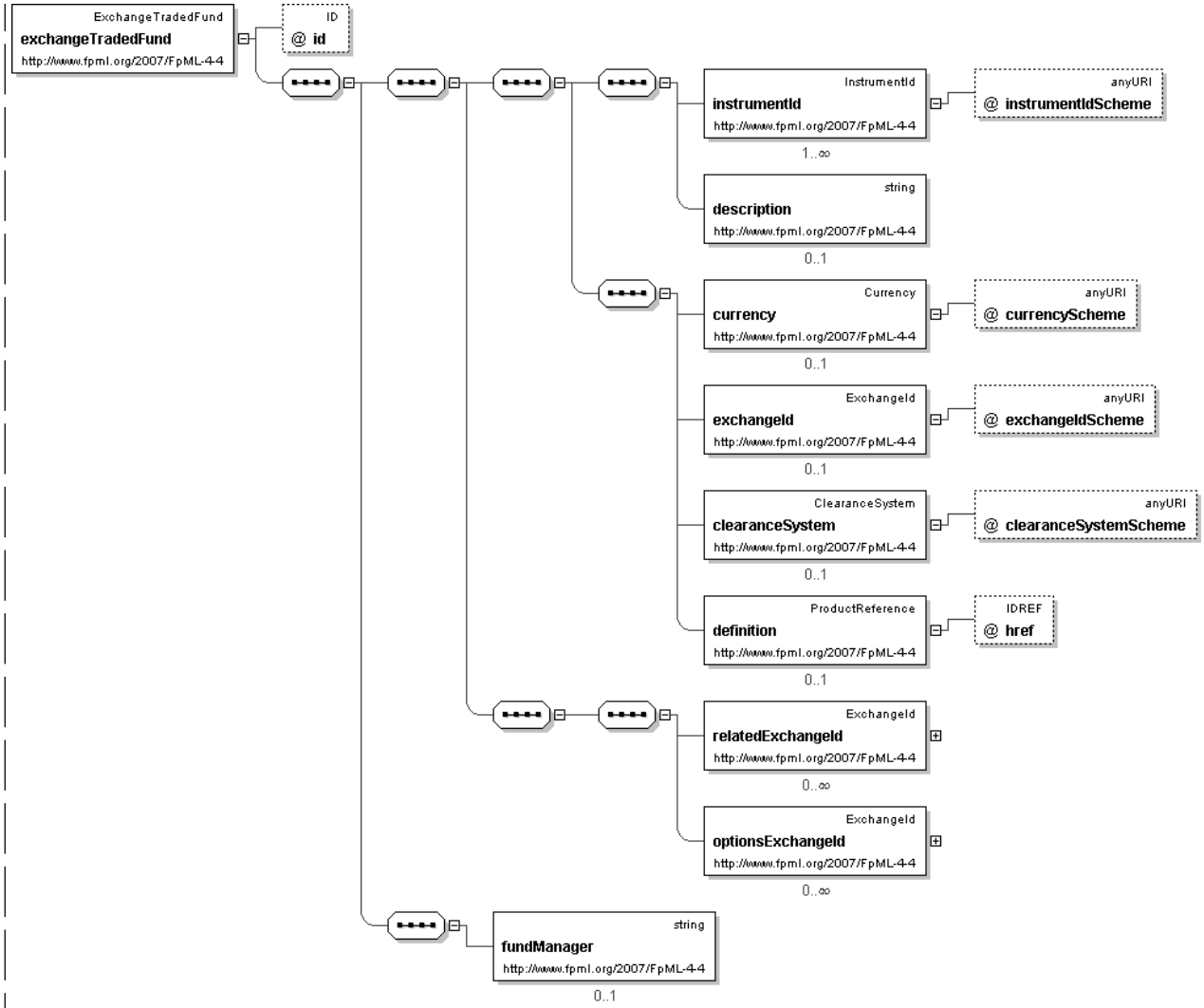
top

Element: exchangeTradedFund

- *This element can be used wherever the following element is referenced:*
  - underlyingAsset

Name	exchangeTradedFund
Type	ExchangeTradedFund
Nillable	no
Abstract	no
Documentation	Defines the underlying asset when it is an exchange-traded fund.

Logical Diagram

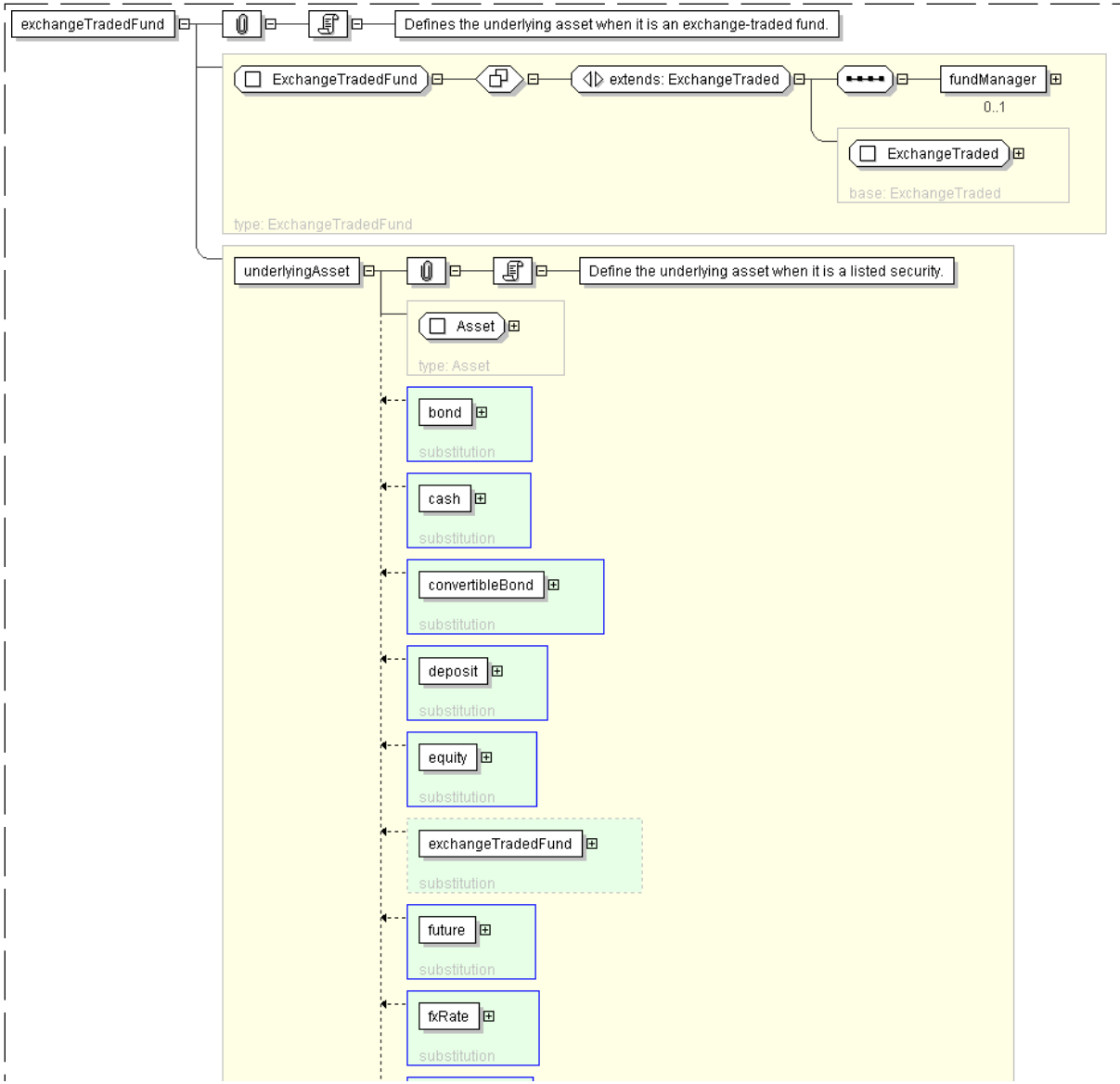


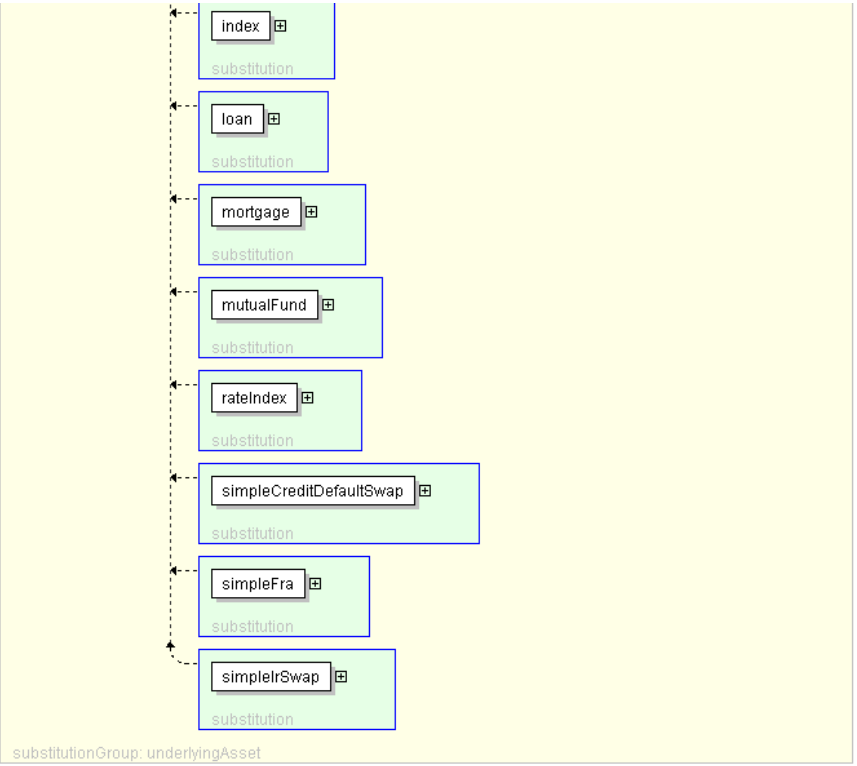
XML Instance Representation

```
<exchangeTradedFund
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

   <relatedExchangeId> ExchangeId </relatedExchangeId> [0..*]
```

```
    'A short form unique identifier for a related exchange. If the element is not present then
    the exchange shall be the primary exchange on which listed futures and options on
    the underlying are listed. The term \"Exchange\" is assumed to have the meaning as defined
    in the ISDA 2002 Equity Derivatives Definitions.'

    <optionsExchangeId> ExchangeId </optionsExchangeId> [0..*]
    'A short form unique identifier for an exchange on which the reference option contract
    is listed. This is to address the case where the reference exchange for the future is
    different than the one for the option. The options Exchange is referenced on share options
    when Merger Elections are selected as Options Exchange Adjustment.'

    <fundManager> xsd:string </fundManager> [0..1]
    'Specifies the fund manager that is in charge of the fund.'

</exchangeTradedFund>
```

Diagram





Schema Component Representation

```
<xsd:element name="exchangeTradedFund" type=" ExchangeTradedFund
" substitutionGroup="underlyingAsset"/>
```

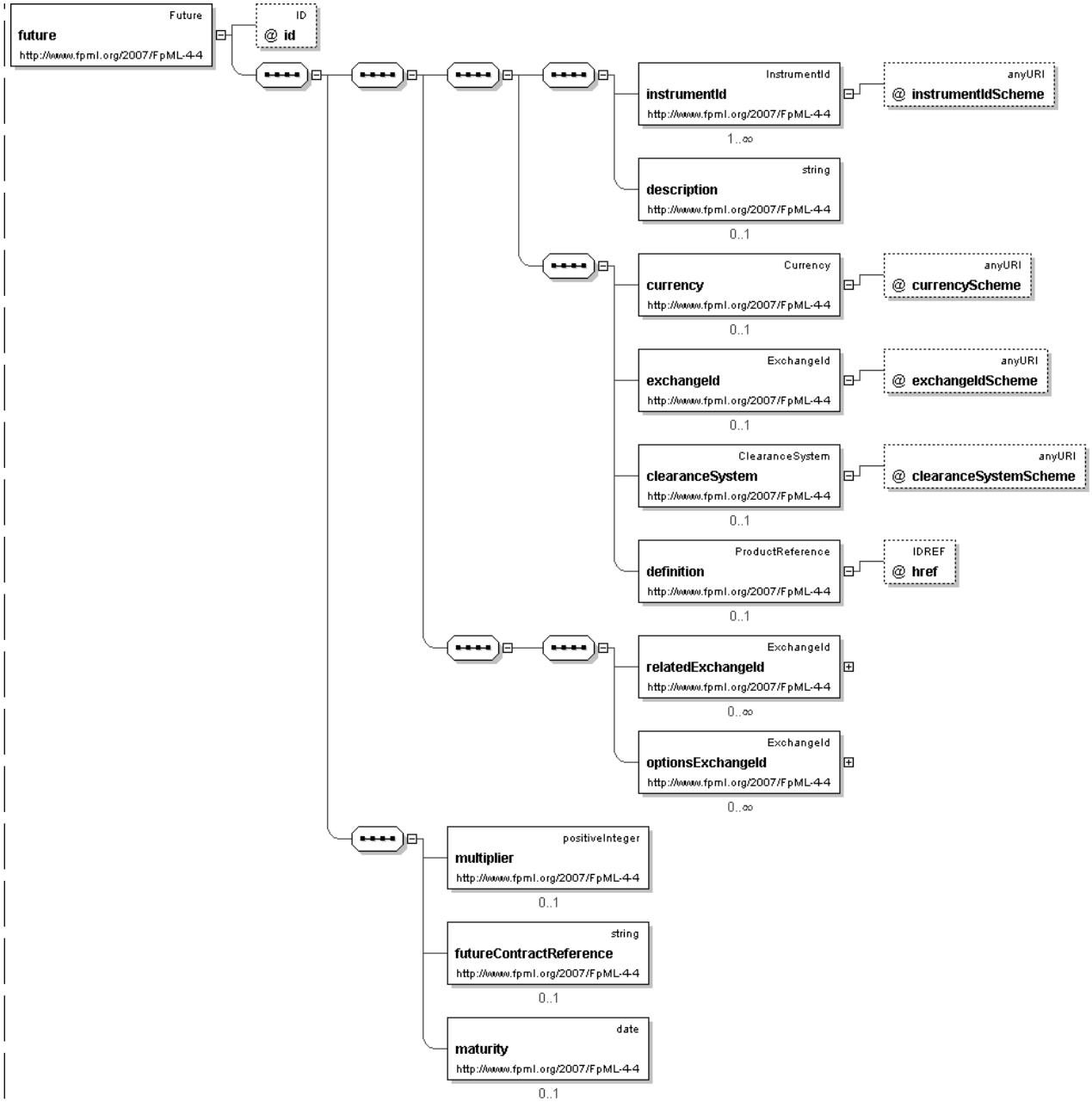
top

Element: future

- *This element can be used wherever the following element is referenced:*
  - underlyingAsset

Name	future
Type	Future
Nillable	no
Abstract	no
Documentation	Defines the underlying asset when it is a listed future contract.

Logical Diagram

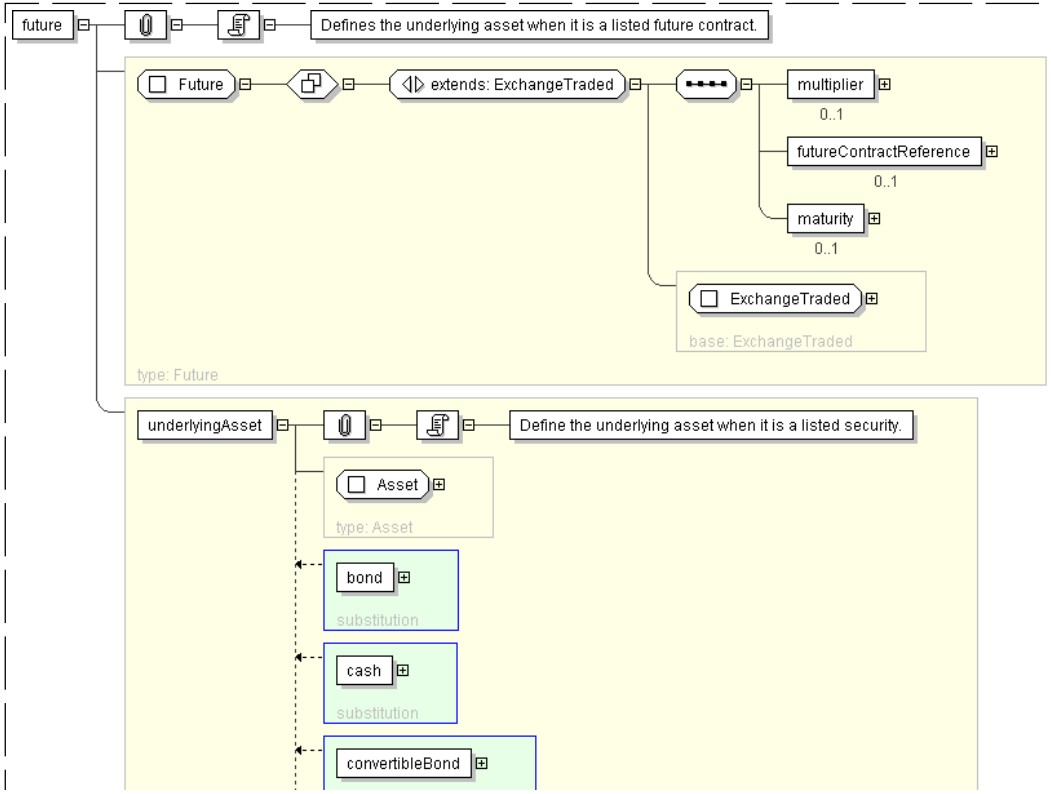


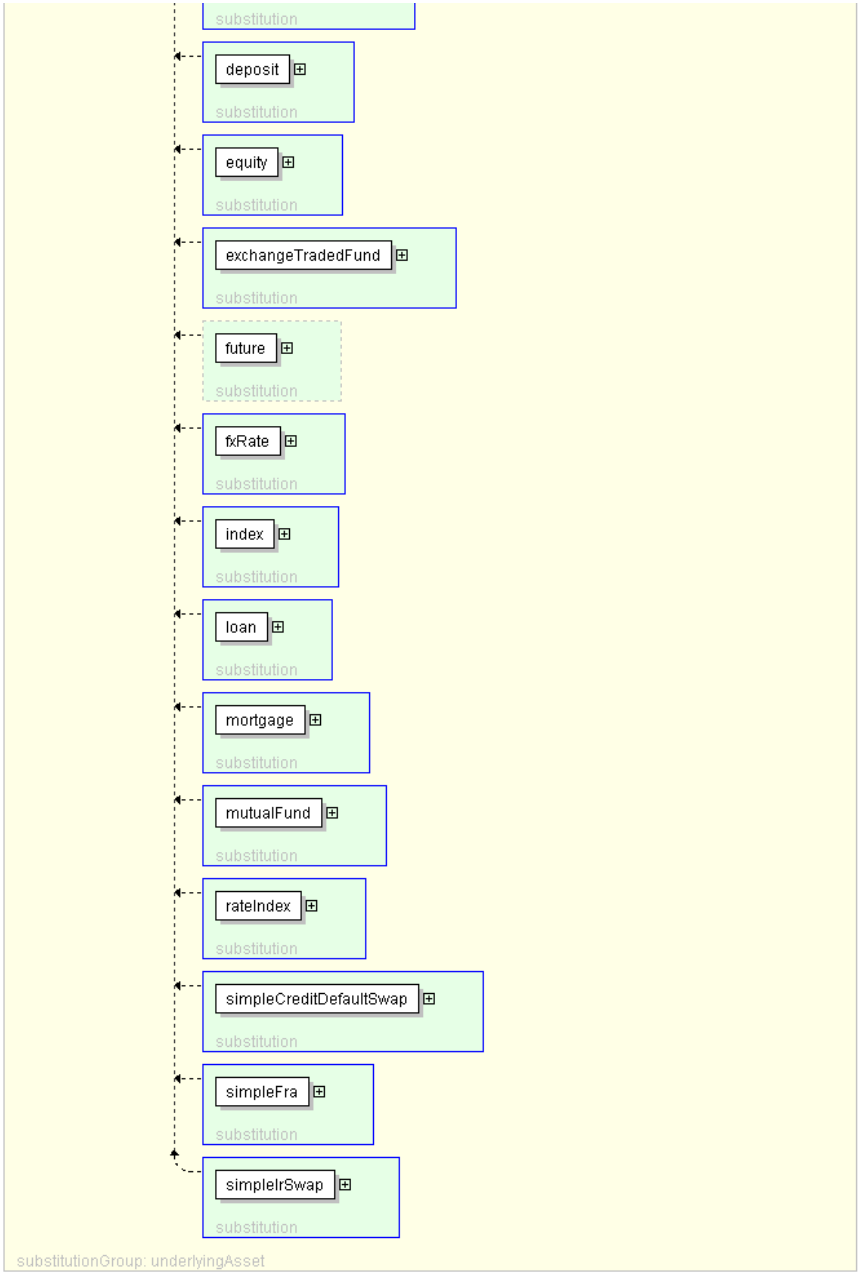
XML Instance Representation

```
<future
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'
```

```
    <exchangeId> ExchangeId </exchangeId> [0..1]
    <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
    <definition> ProductReference </definition> [0..1]
    'An optional reference to a full FpML product that defines the simple product in
    greater detail. In case of inconsistency between the terms of the simple product and those
    of the detailed definition, the values in the simple product override those in the
    detailed definition.'

    <relatedExchangeId> ExchangeId </relatedExchangeId> [0..*]
    'A short form unique identifier for a related exchange. If the element is not present then
    the exchange shall be the primary exchange on which listed futures and options on
    the underlying are listed. The term \"Exchange\" is assumed to have the meaning as defined
    in the ISDA 2002 Equity Derivatives Definitions.'

    <optionsExchangeId> ExchangeId </optionsExchangeId> [0..*]
    'A short form unique identifier for an exchange on which the reference option contract
    is listed. This is to address the case where the reference exchange for the future is
    different than the one for the option. The options Exchange is referenced on share options
    when Merger Elections are selected as Options Exchange Adjustment.'

    <multiplier> xsd:positiveInteger </multiplier> [0..1]
    'Specifies the contract multiplier that can be associated with the number of units.'

    <futureContractReference> xsd:string </futureContractReference> [0..1]
    'Specifies the future contract that can be referenced, besides the equity or index
    reference defined as part of the UnderlyerAsset type.'

    <maturity> xsd:date </maturity> [0..1]
    'The date when the future contract expires.'

</future>
```

Diagram





Schema Component Representation

```
<xsd:element name="future" type=" Future " substitutionGroup="underlyingAsset"/>
```

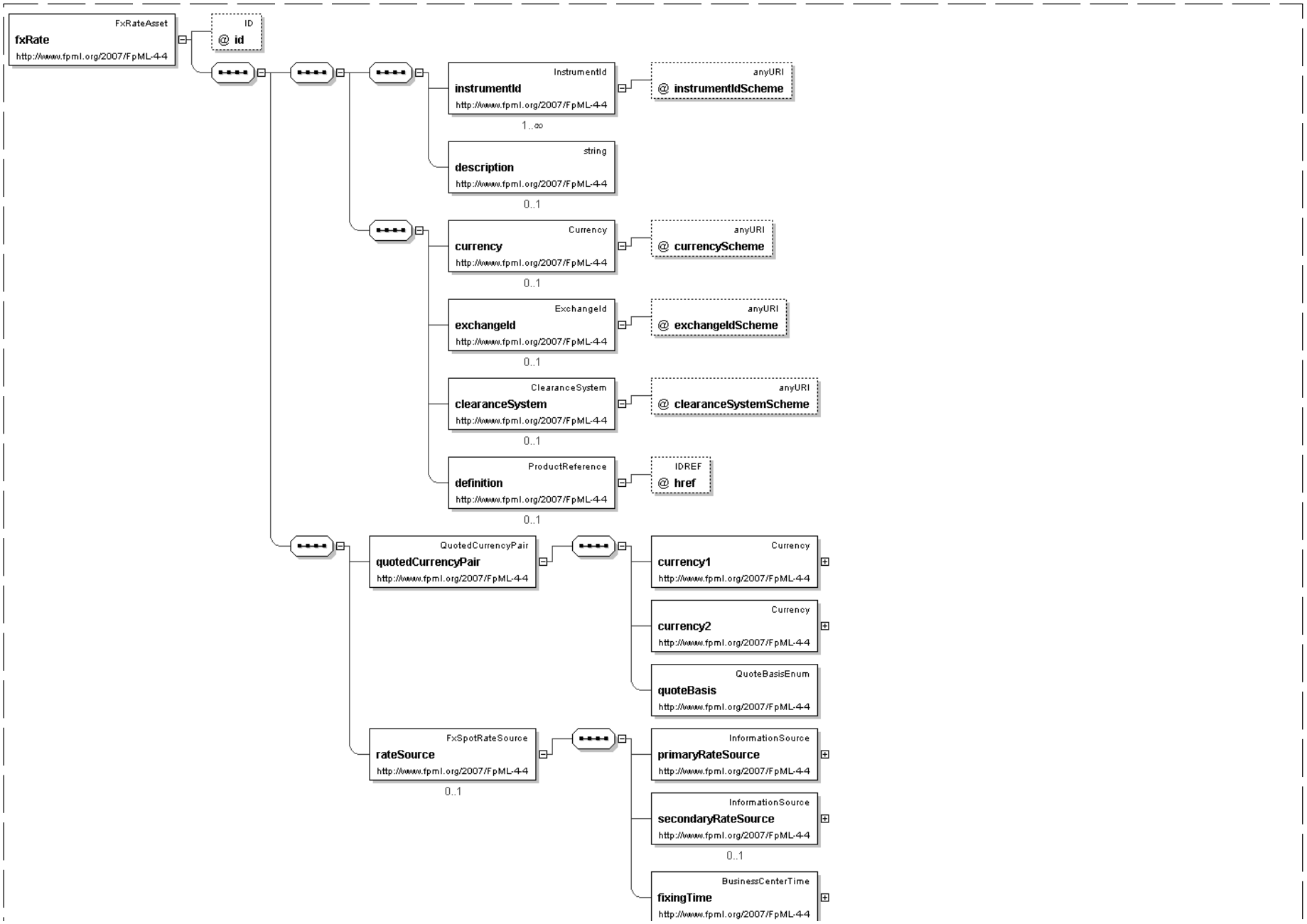
top

Element: fxRate

- *This element can be used wherever the following element is referenced:*
  - underlyingAsset

Name	fxRate
Type	FxRateAsset
Nillable	no
Abstract	no
Documentation	Defines a simple underlying asset type that is an FX rate. Used for specifying FX rates in the pricing and risk model.

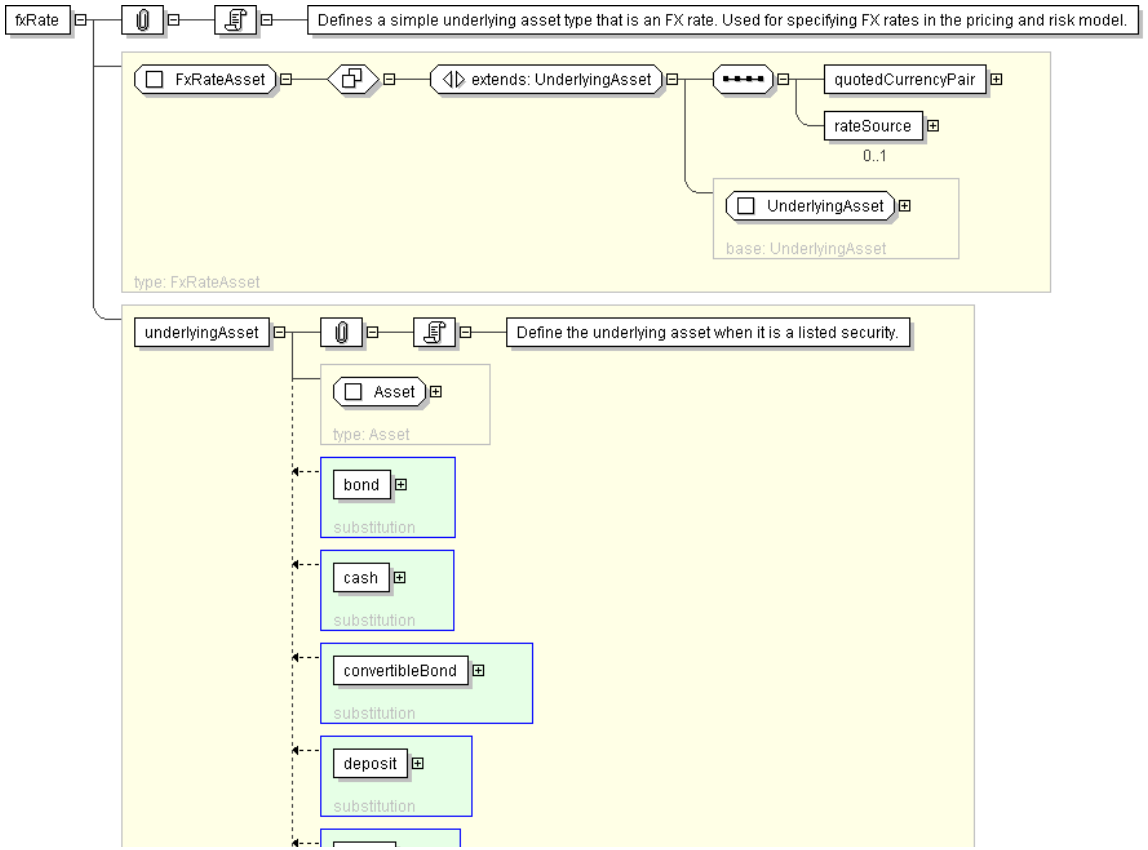
Logical Diagram

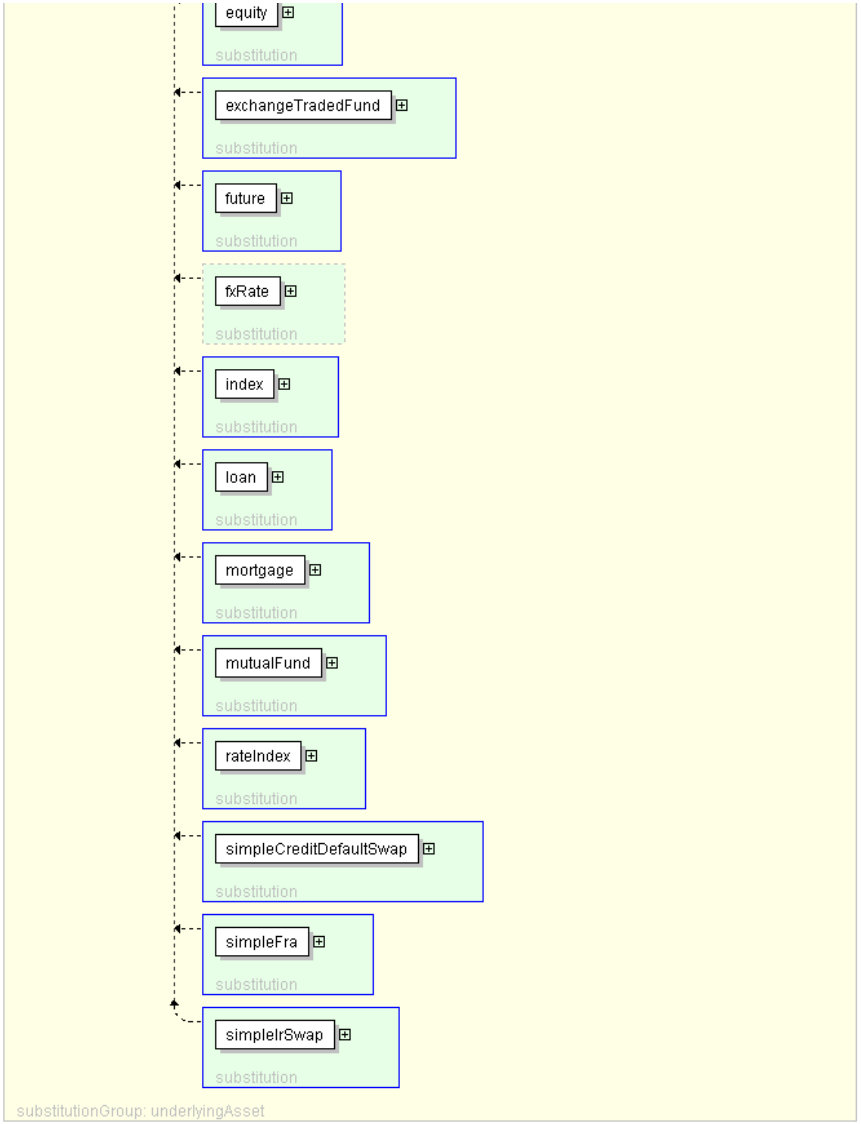


XML Instance Representation

```
<fxRate
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

   <quotedCurrencyPair> QuotedCurrencyPair </quotedCurrencyPair> [1]
   'Defines the two currencies for an FX trade and the quotation relationship between the
   two currencies.'

   <rateSource> FxSpotRateSource </rateSource> [0..1]
   'Defines the source of the FX rate.'

</fxRate>
```

Diagram





Schema Component Representation

```
<xsd:element name="fxRate" type=" FxRateAsset " substitutionGroup="underlyingAsset"/>
```

top

Element: index

- *This element can be used wherever the following element is referenced:*
  - underlyingAsset

Name	index
Type	Index
Nillable	no
Abstract	no

Documentation Defines the underlying asset when it is a financial index.

Logical Diagram

XML Instance Representation

```
<index
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
```

detailed definition.'

<relatedExchangeId> ExchangeId </relatedExchangeId> [0..*]

'A short form unique identifier for a related exchange. If the element is not present then the exchange shall be the primary exchange on which listed futures and options on the underlying are listed. The term \"Exchange\" is assumed to have the meaning as defined in the ISDA 2002 Equity Derivatives Definitions.'

<optionsExchangeId> ExchangeId </optionsExchangeId> [0..*]

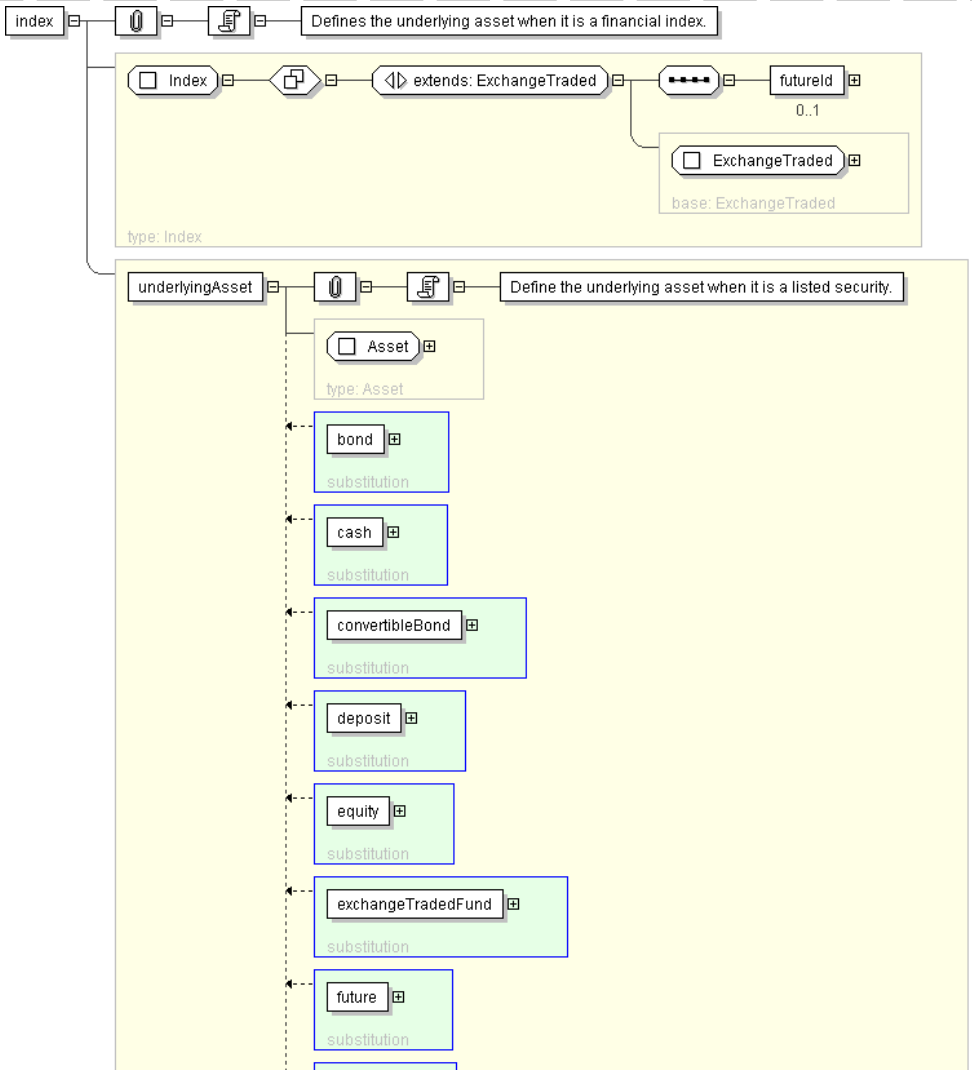
'A short form unique identifier for an exchange on which the reference option contract is listed. This is to address the case where the reference exchange for the future is different than the one for the option. The options Exchange is referenced on share options when Merger Elections are selected as Options Exchange Adjustment.'

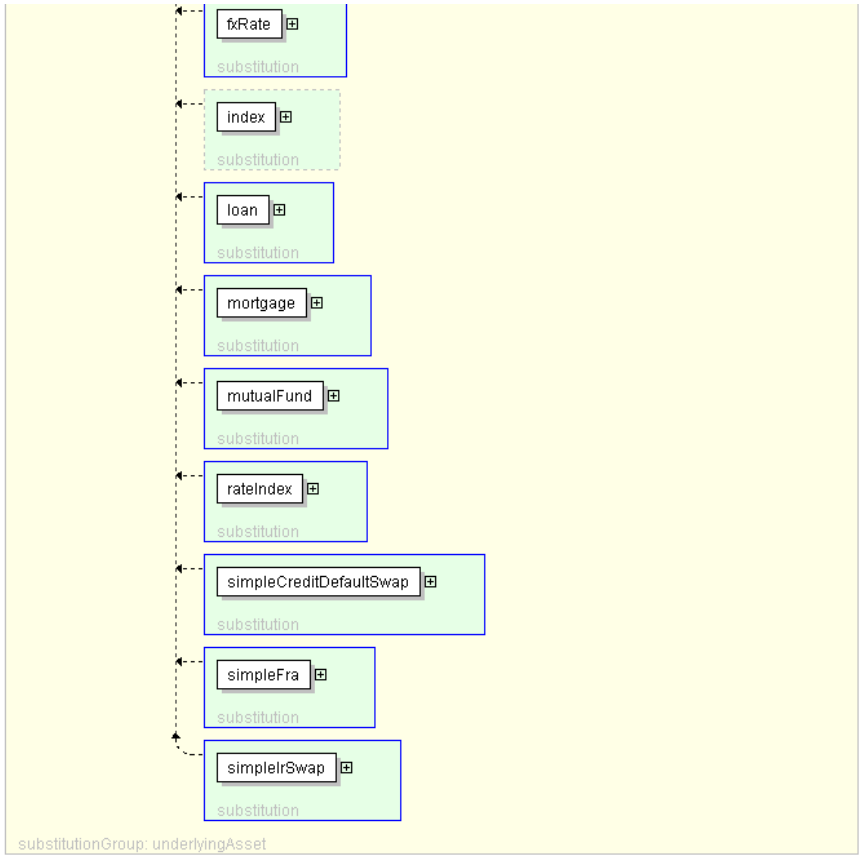
<futureId> FutureId </futureId> [0..1]

'A short form unique identifier for the reference future contract in the case of an index underlyer.'

</index>

Diagram





Schema Component Representation

```
<xsd:element name="index" type=" Index " substitutionGroup="underlyingAsset"/>
```

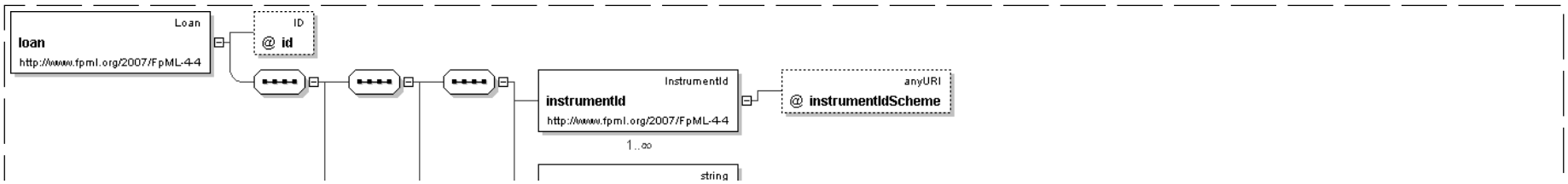
top

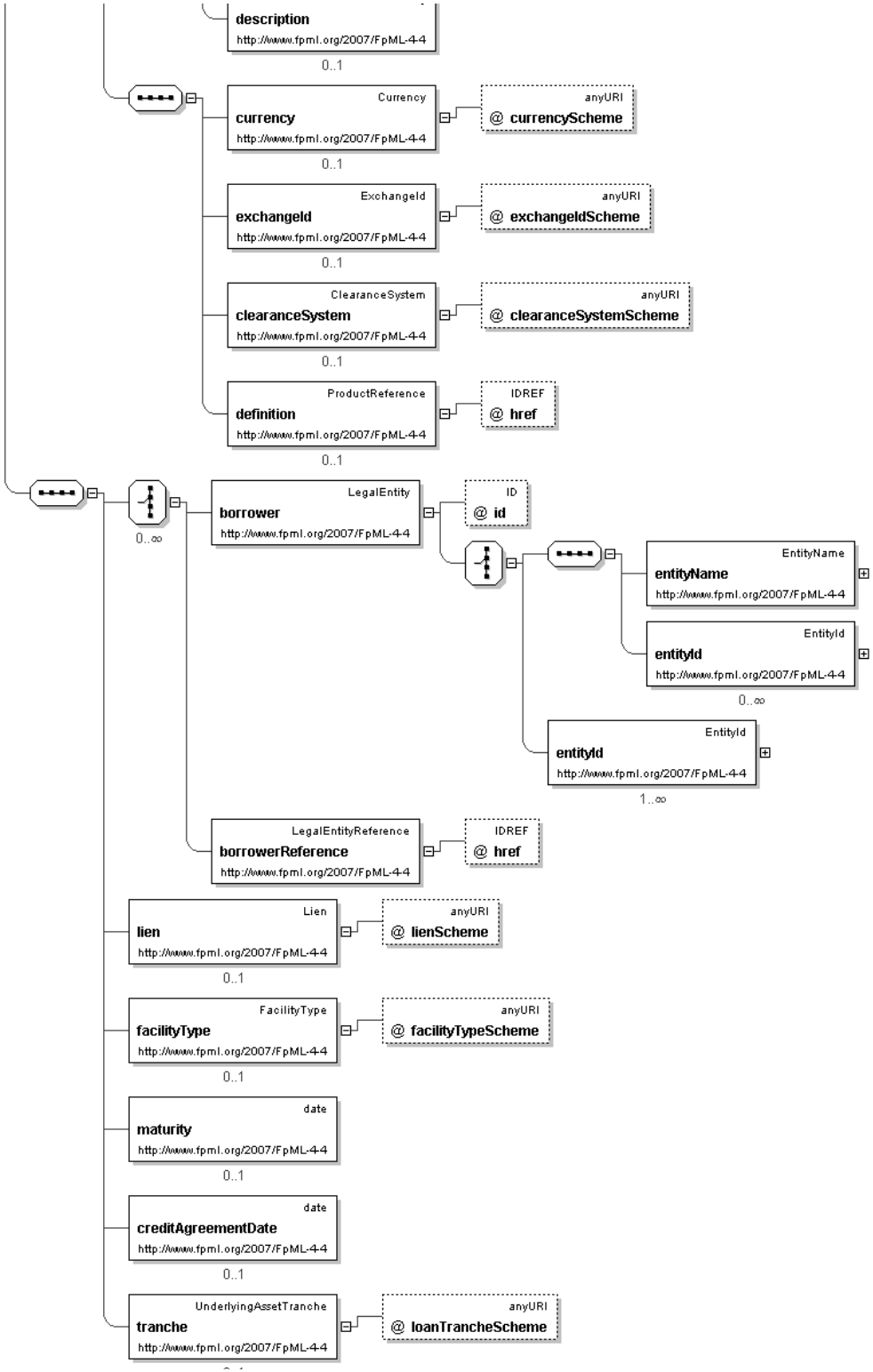
Element: loan

- *This element can be used wherever the following element is referenced:*
  - underlyingAsset

Name	loan
Type	Loan
Nillable	no
Abstract	no
Documentation	Defines a simple underlying asset that is a loan.

Logical Diagram



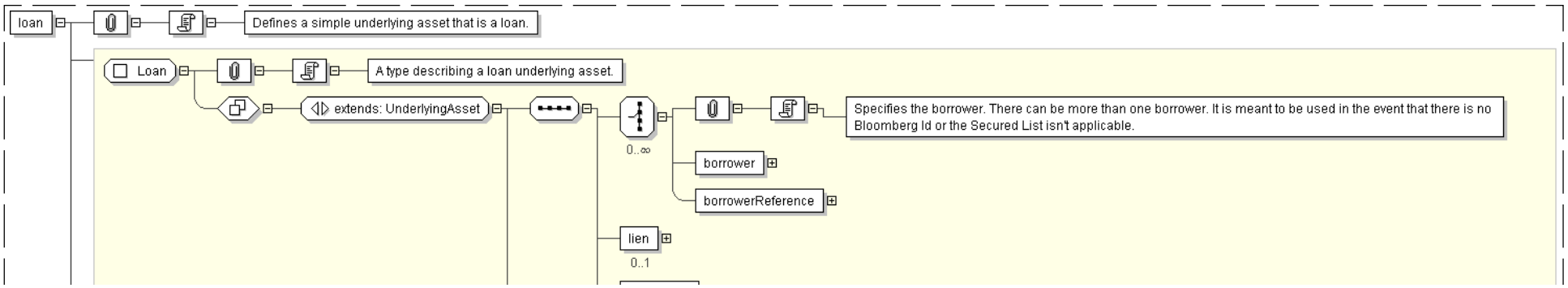

description
http://www.fpml.org/2007/FpML-4-4
0..1
Currency
currency
http://www.fpml.org/2007/FpML-4-4
0..1
anyURI
@ currencyScheme
ExchangeId
exchangeId
http://www.fpml.org/2007/FpML-4-4
0..1
anyURI
@ exchangeIdScheme
ClearanceSystem
clearanceSystem
http://www.fpml.org/2007/FpML-4-4
0..1
anyURI
@ clearanceSystemScheme
ProductReference
definition
http://www.fpml.org/2007/FpML-4-4
0..1
IDREF
@ href
0..∞
LegalEntity
borrower
http://www.fpml.org/2007/FpML-4-4
ID
@ id
EntityName
entityName
http://www.fpml.org/2007/FpML-4-4
EntityId
entityId
http://www.fpml.org/2007/FpML-4-4
0..∞
EntityId
entityId
http://www.fpml.org/2007/FpML-4-4
1..∞
LegalEntityReference
borrowerReference
http://www.fpml.org/2007/FpML-4-4
IDREF
@ href
Lien
lien
http://www.fpml.org/2007/FpML-4-4
0..1
anyURI
@ lienScheme
FacilityType
facilityType
http://www.fpml.org/2007/FpML-4-4
0..1
anyURI
@ facilityTypeScheme
date
maturity
http://www.fpml.org/2007/FpML-4-4
0..1
date
creditAgreementDate
http://www.fpml.org/2007/FpML-4-4
0..1
UnderlyingAssetTranche
tranche
http://www.fpml.org/2007/FpML-4-4
anyURI
@ loanTrancheScheme

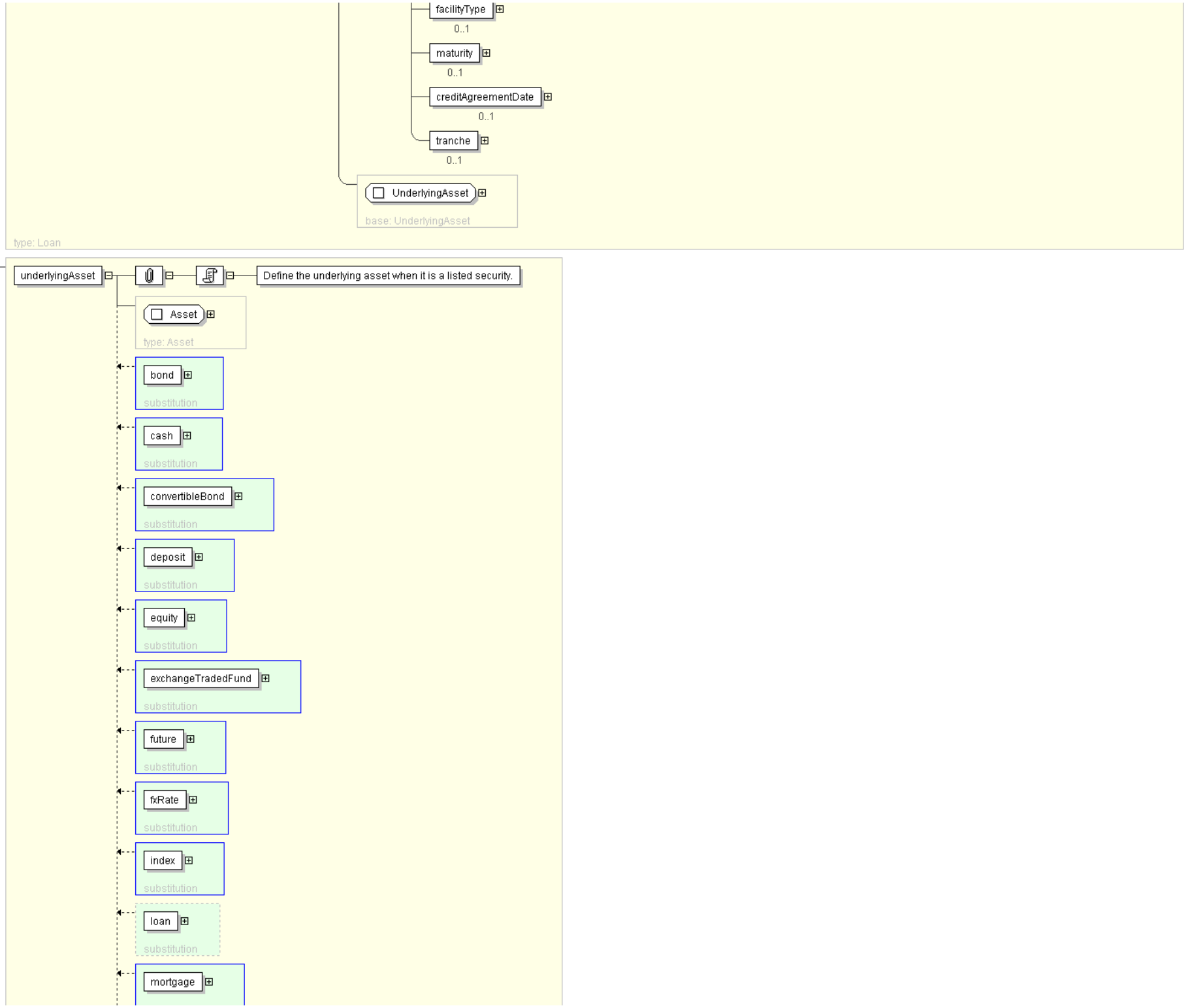
0..1

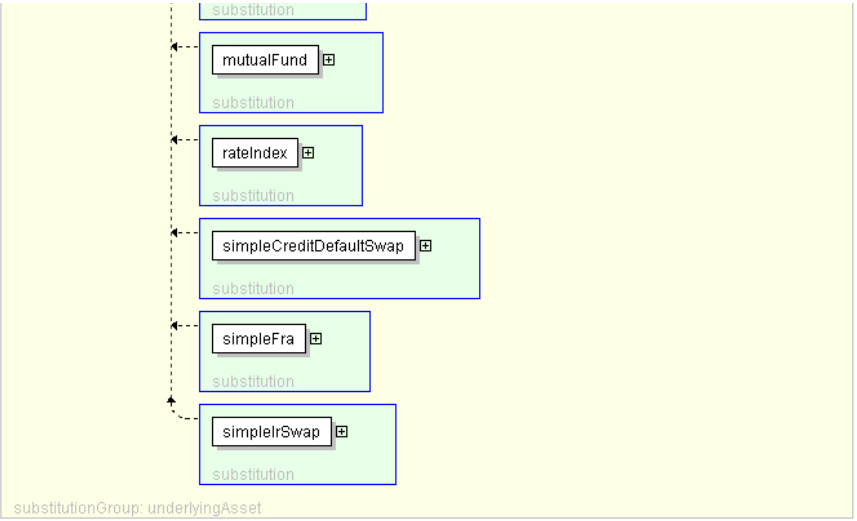
XML Instance Representation

```
<loan
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

Start Choice [0..*]
'Specifies the borrower. There can be more than one borrower. It is meant to be used in
the event that there is no Bloomberg Id or the Secured List isn\'t applicable.'


      <borrower> LegalEntity </borrower> [1]
      <borrowerReference> LegalEntityReference </borrowerReference> [1]
End Choice
   <lien> Lien </lien> [0..1]
   'Specifies the seniority level of the lien.'

   <facilityType> FacilityType </facilityType> [0..1]
   'The type of loan facility (letter of credit, revolving, ...).'

   <maturity> xsd:date </maturity> [0..1]
   'The date when the principal amount of the loan becomes due and payable.'

   <creditAgreementDate> xsd:date </creditAgreementDate> [0..1]
   'The credit agreement date is the closing date (the date where the agreement has been
   signed) for the loans in the credit agreement. Funding of the facilities occurs on
   (or sometimes a little after) the Credit Agreement date. This underlyer attribute is used
   to help identify which of the company\'s outstanding loans are being referenced by knowing
   to which credit agreement it belongs. ISDA Standards Terms Supplement term: Date of
   Original Credit Agreement.'

   <tranche> UnderlyingAssetTranche </tranche> [0..1]
   'The loan tranche that is subject to the derivative transaction. It will typically
   be referenced as the Bloomberg tranche number. ISDA Standards Terms Supplement term:
   Bloomberg Tranche Number.'

</loan>
```

Diagram




facilityType
0..1
maturity
0..1
creditAgreementDate
0..1
tranche
0..1
UnderlyingAsset
base: UnderlyingAsset
type: Loan
underlyingAsset
Define the underlying asset when it is a listed security.
Asset
type: Asset
bond
substitution
cash
substitution
convertibleBond
substitution
deposit
substitution
equity
substitution
exchangeTradedFund
substitution
future
substitution
fxRate
substitution
index
substitution
loan
substitution
mortgage



Schema Component Representation

```
<xsd:element name="loan" type=" Loan " substitutionGroup="underlyingAsset"/>
```

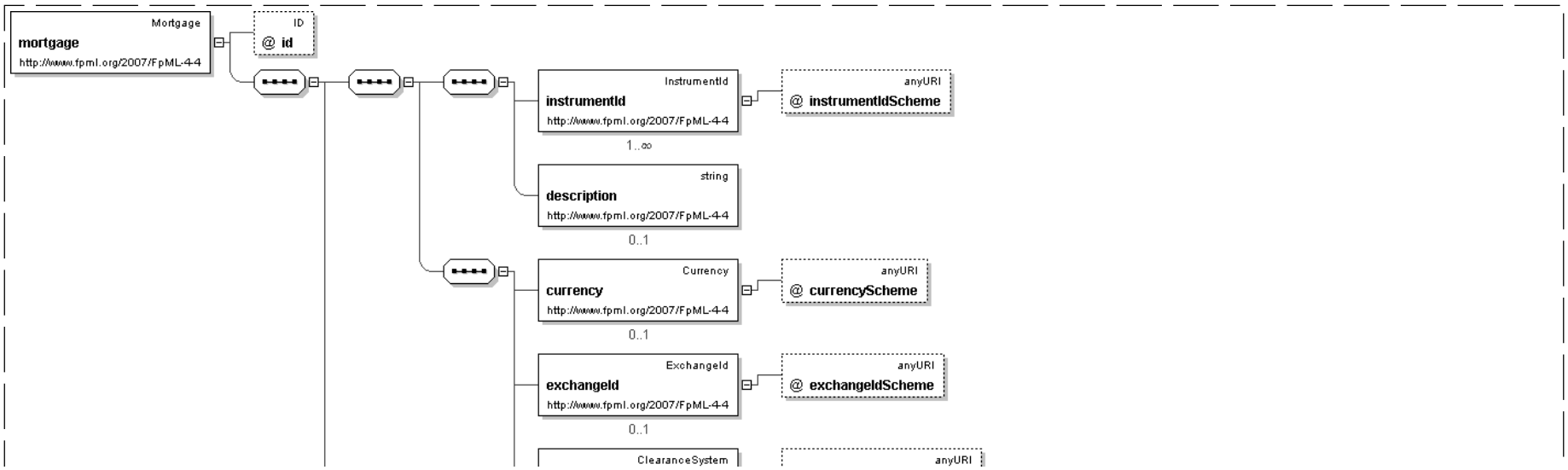
top

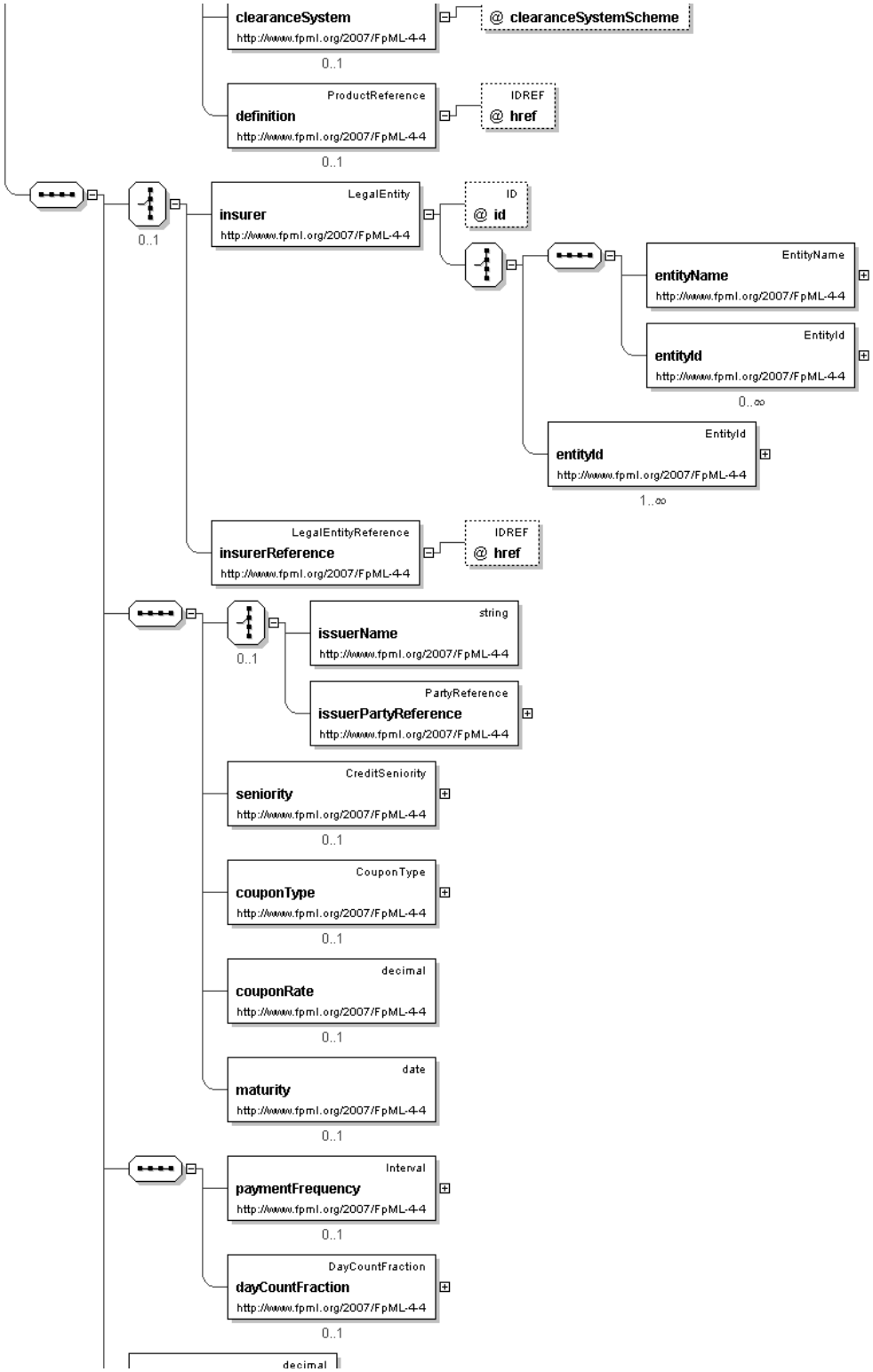
Element: mortgage

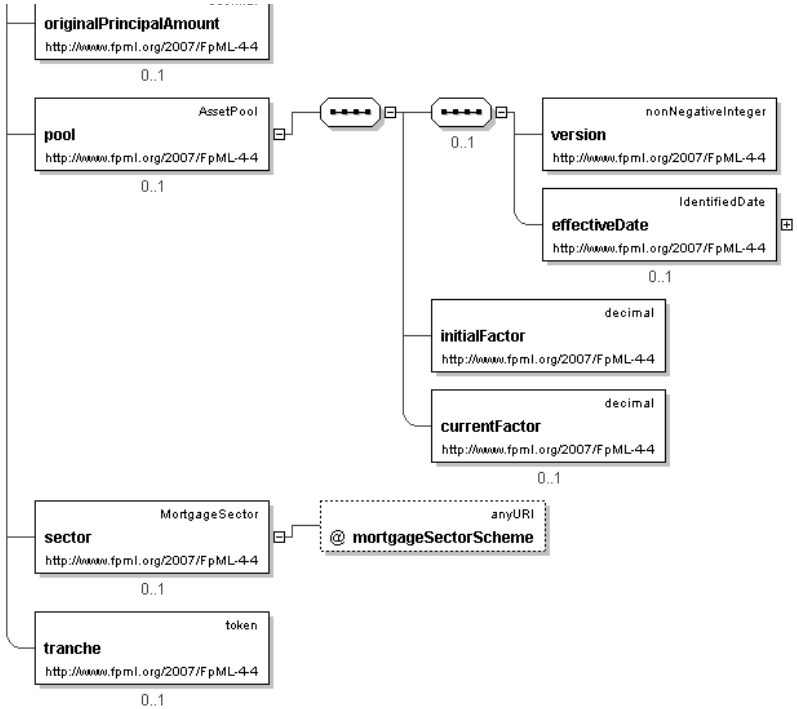
- *This element can be used wherever the following element is referenced:*
  - underlyingAsset

Name	mortgage
Type	Mortgage
Nillable	no
Abstract	no
Documentation	Defines an underlying asset that is a mortgage.

Logical Diagram




clearanceSystem
http://www.fpml.org/2007/FpML-4-4
@ clearanceSystemScheme
0..1
ProductReference
definition
http://www.fpml.org/2007/FpML-4-4
IDREF
@ href
0..1
0..1
LegalEntity
insurer
http://www.fpml.org/2007/FpML-4-4
ID
@ id
EntityName
entityName
http://www.fpml.org/2007/FpML-4-4
EntityId
entityId
http://www.fpml.org/2007/FpML-4-4
0..∞
EntityId
entityId
http://www.fpml.org/2007/FpML-4-4
1..∞
LegalEntityReference
insurerReference
http://www.fpml.org/2007/FpML-4-4
IDREF
@ href
0..1
string
issuerName
http://www.fpml.org/2007/FpML-4-4
PartyReference
issuerPartyReference
http://www.fpml.org/2007/FpML-4-4
CreditSeniority
seniority
http://www.fpml.org/2007/FpML-4-4
0..1
CouponType
couponType
http://www.fpml.org/2007/FpML-4-4
0..1
decimal
couponRate
http://www.fpml.org/2007/FpML-4-4
0..1
date
maturity
http://www.fpml.org/2007/FpML-4-4
0..1
Interval
paymentFrequency
http://www.fpml.org/2007/FpML-4-4
0..1
DayCountFraction
dayCountFraction
http://www.fpml.org/2007/FpML-4-4
0..1
decimal

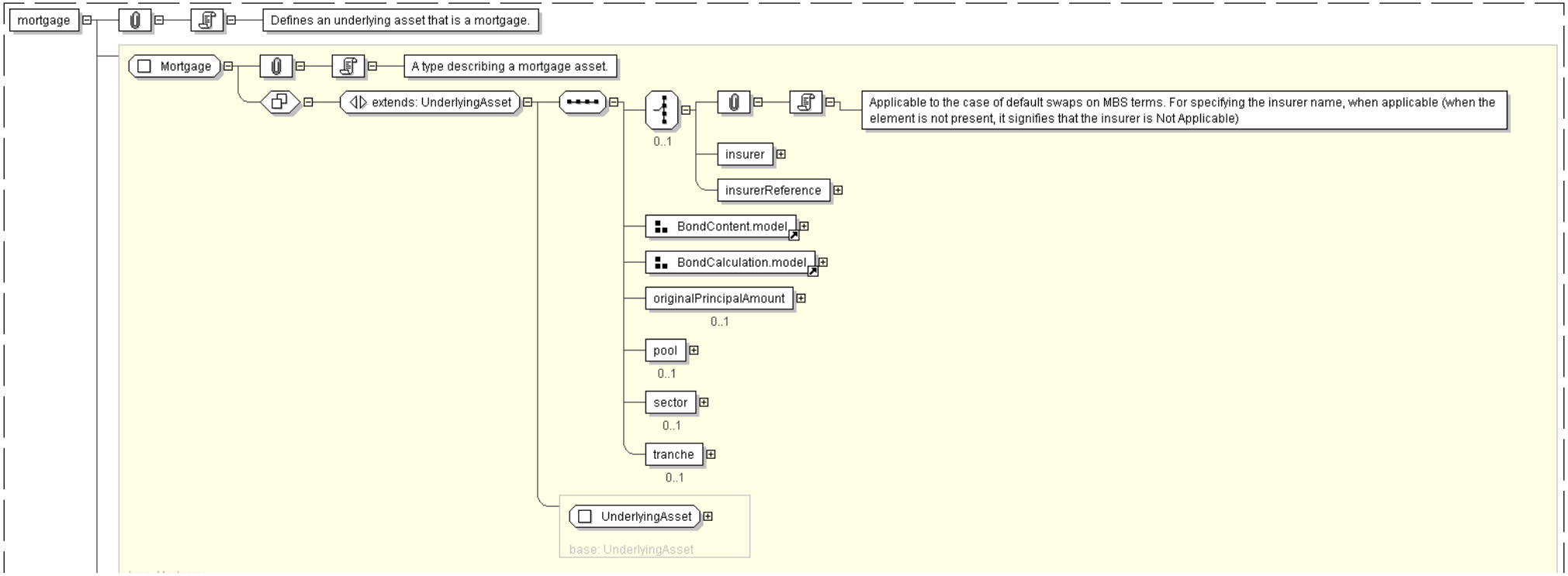


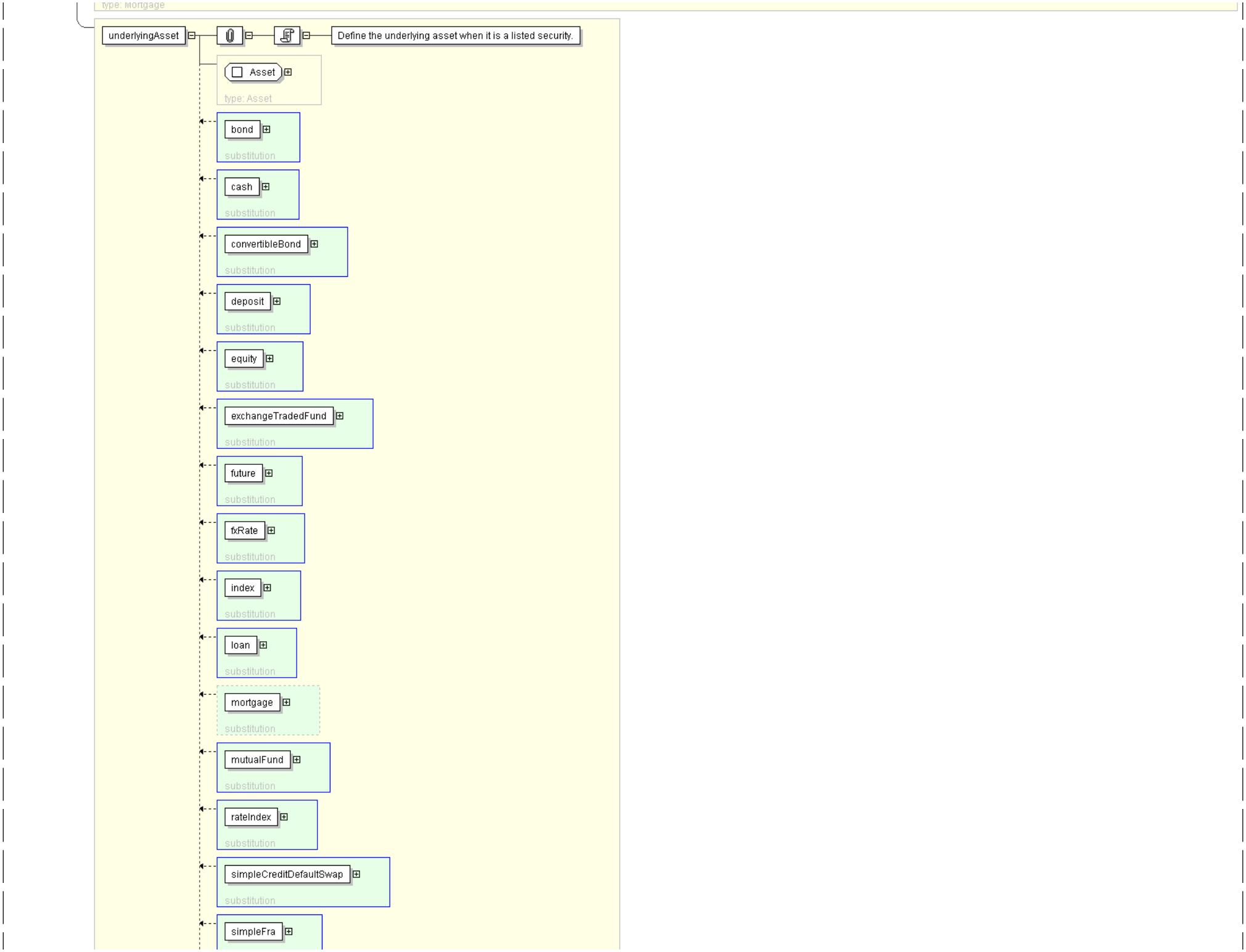
XML Instance Representation

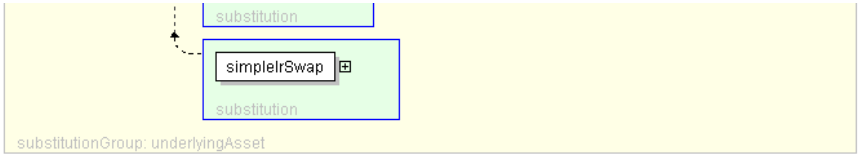
```
<mortgage
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

Start Choice [0..1]
'Applicable to the case of default swaps on MBS terms. For specifying the insurer name,
when applicable (when the element is not present, it signifies that the insurer is
Not Applicable)'

      <insurer> LegalEntity </insurer> [1]
      <insurerReference> LegalEntityReference </insurerReference> [1]
End Choice
Start Choice [0..1]
'Specifies the issuer name of a fixed income security or convertible bond. This name can
either be explicitly stated, or specified as an href into another element of the document,
such as the obligor'

      <issuerName> xsd:string </issuerName> [1]
      <issuerPartyReference> PartyReference </issuerPartyReference> [1]
End Choice
```

```
    <seniority> CreditSeniority </seniority> [0..1]
    'The repayment precedence of a debt instrument.'

    <couponType> CouponType </couponType> [0..1]
    'Specifies if the bond has a variable coupon, step-up/down coupon or a zero-coupon.'

    <couponRate> xsd:decimal </couponRate> [0..1]
    'Specifies the coupon rate (expressed in percentage) of a fixed income security or
    convertible bond.'

    <maturity> xsd:date </maturity> [0..1]
    'The date when the principal amount of a security becomes due and payable.'

    <paymentFrequency> Interval </paymentFrequency> [0..1]
    'Specifies the frequency at which the bond pays, e.g. 6M.'

    <dayCountFraction> DayCountFraction </dayCountFraction> [0..1]
    'The day count basis for the bond.'

    <originalPrincipalAmount> xsd:decimal </originalPrincipalAmount> [0..1]
    'The initial issued amount of the mortgage obligation.'

    <pool> AssetPool </pool> [0..1]
    'The morgage pool that is underneath the mortgage obligation.'

    <sector> MortgageSector </sector> [0..1]
    'The sector classification of the mortgage obligation.'

    <tranche> xsd:token </tranche> [0..1]
    'The mortgage obligation tranche that is subject to the derivative transaction.'

</mortgage>
```

Diagram




type: mortgage
underlyingAsset
Define the underlying asset when it is a listed security.
Asset
type: Asset
bond
substitution
cash
substitution
convertibleBond
substitution
deposit
substitution
equity
substitution
exchangeTradedFund
substitution
future
substitution
fxRate
substitution
index
substitution
loan
substitution
mortgage
substitution
mutualFund
substitution
rateIndex
substitution
simpleCreditDefaultSwap
substitution
simpleFra



Schema Component Representation

```
<xsd:element name="mortgage" type=" Mortgage " substitutionGroup="underlyingAsset"/>
```

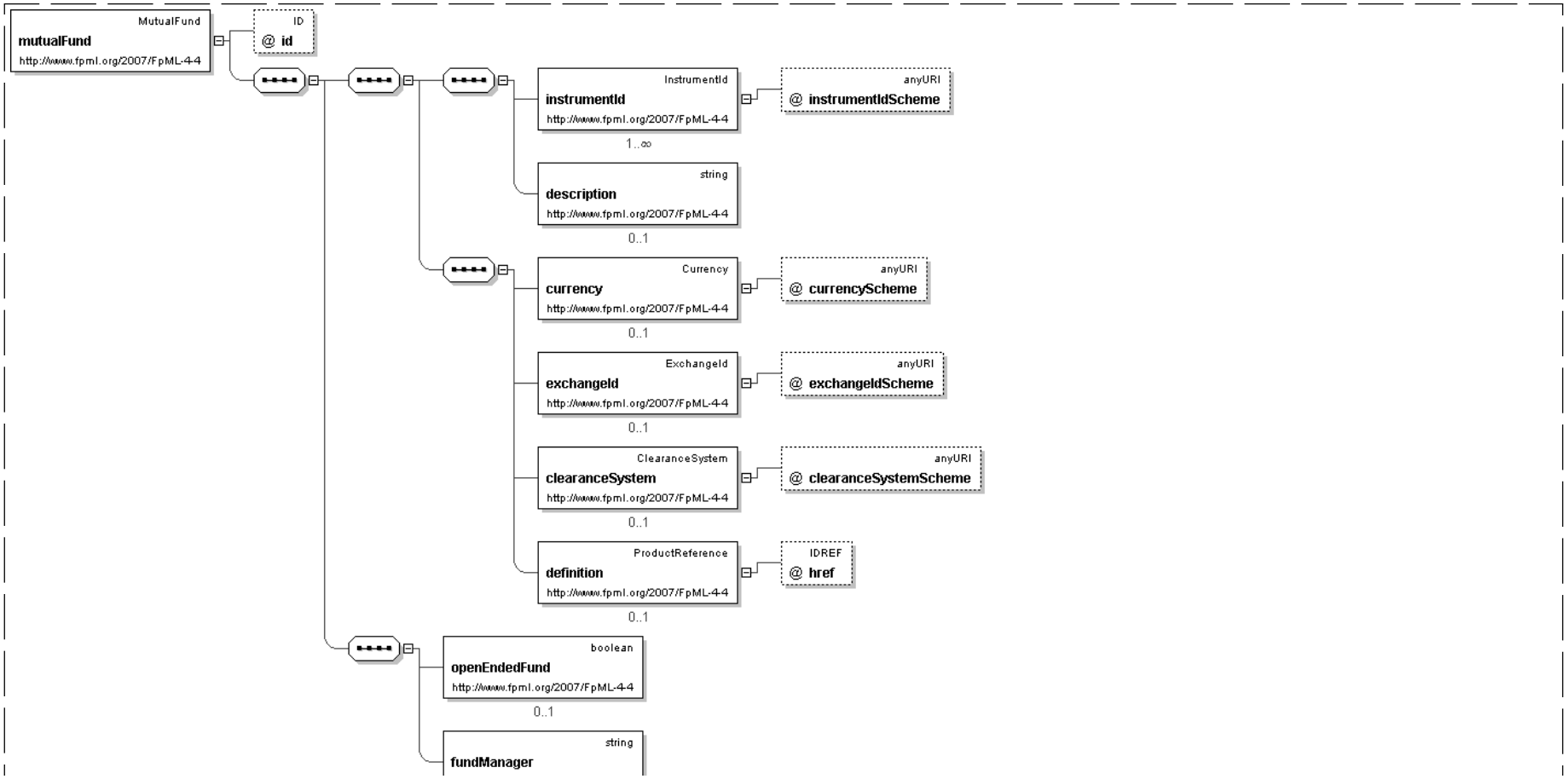
top

Element: mutualFund

- *This element can be used wherever the following element is referenced:*
  - underlyingAsset

Name	mutualFund
Type	MutualFund
Nillable	no
Abstract	no
Documentation	Defines the underlying asset when it is a mutual fund.

Logical Diagram



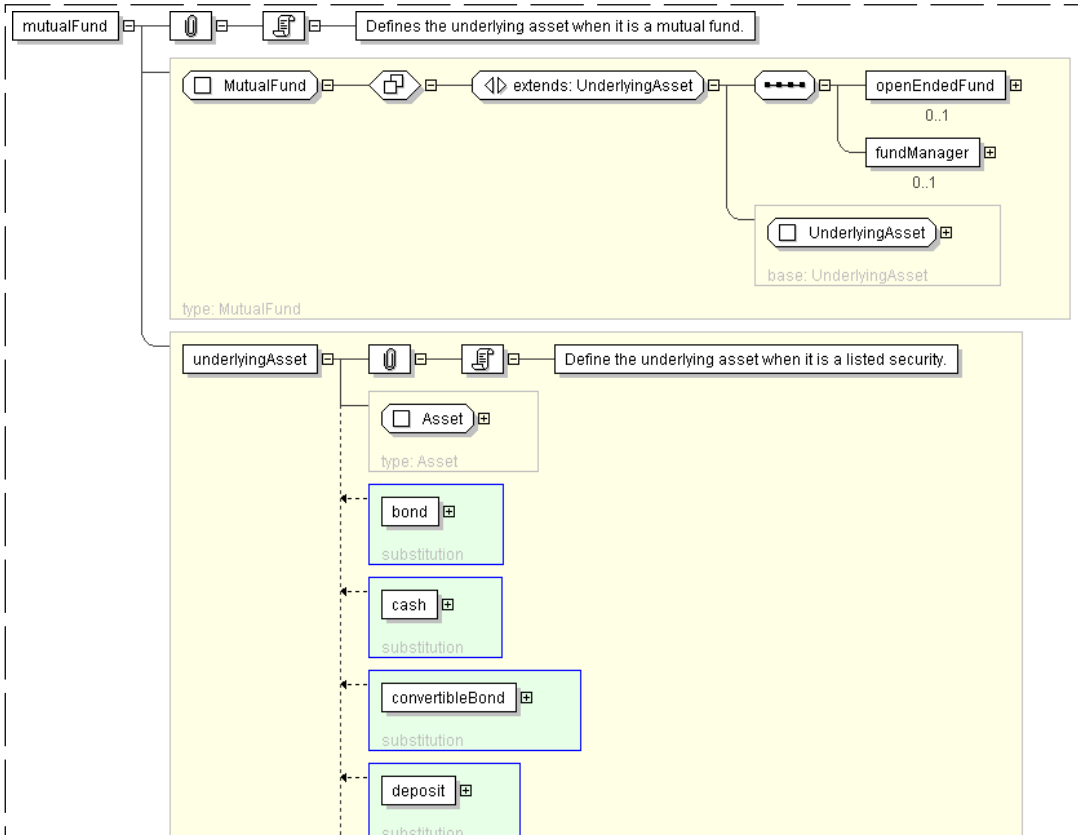
http://www.fpml.org/2007/FpML-4-4

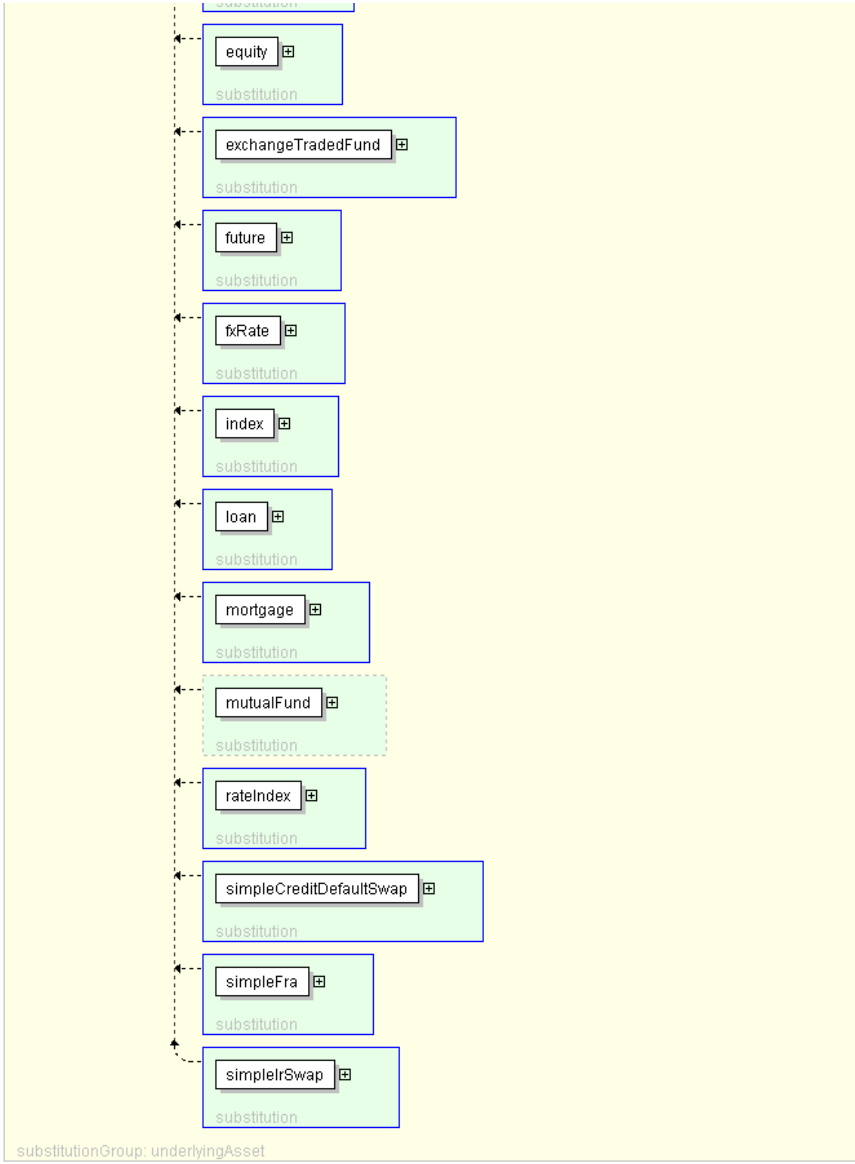
0..1

XML Instance Representation

```
<mutualFund
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

   <openEndedFund> xsd:boolean </openEndedFund> [0..1]
   'Boolean indicator to specify whether the mutual fund is an open-ended mutual fund.'

   <fundManager> xsd:string </fundManager> [0..1]
   'Specifies the fund manager that is in charge of the fund.'

</mutualFund>
```

Diagram





Schema Component Representation

```
<xsd:element name="mutualFund" type=" MutualFund " substitutionGroup="underlyingAsset"/>
```

top

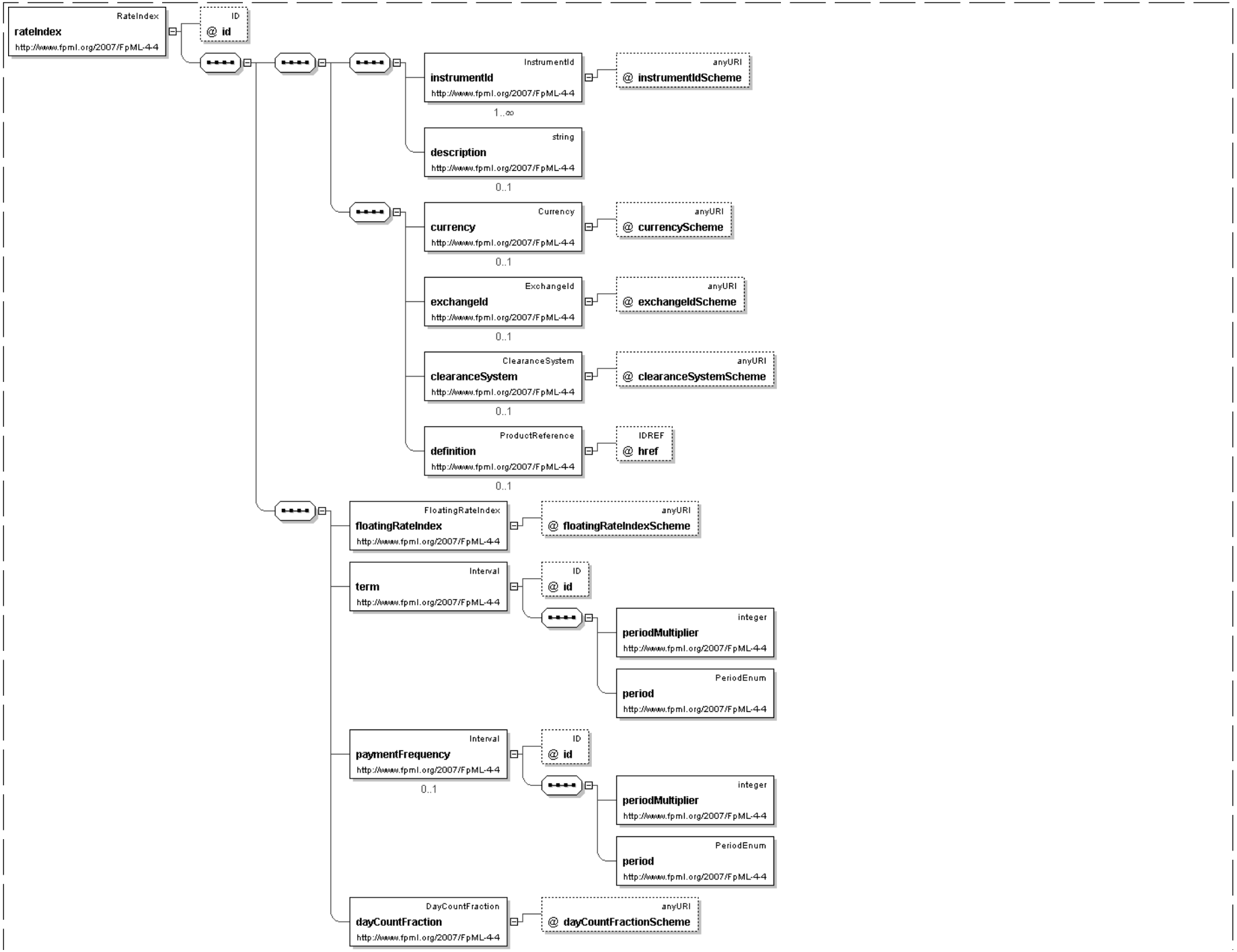
Element: rateIndex

- *This element can be used wherever the following element is referenced:*
  - underlyingAsset

Name	rateIndex
Type	RateIndex

Nillable	no
Abstract	no
Documentation	Defines a simple underlying asset that is an interest rate index. Used for specifying benchmark assets in the market environment in the pricing and risk model.

Logical Diagram

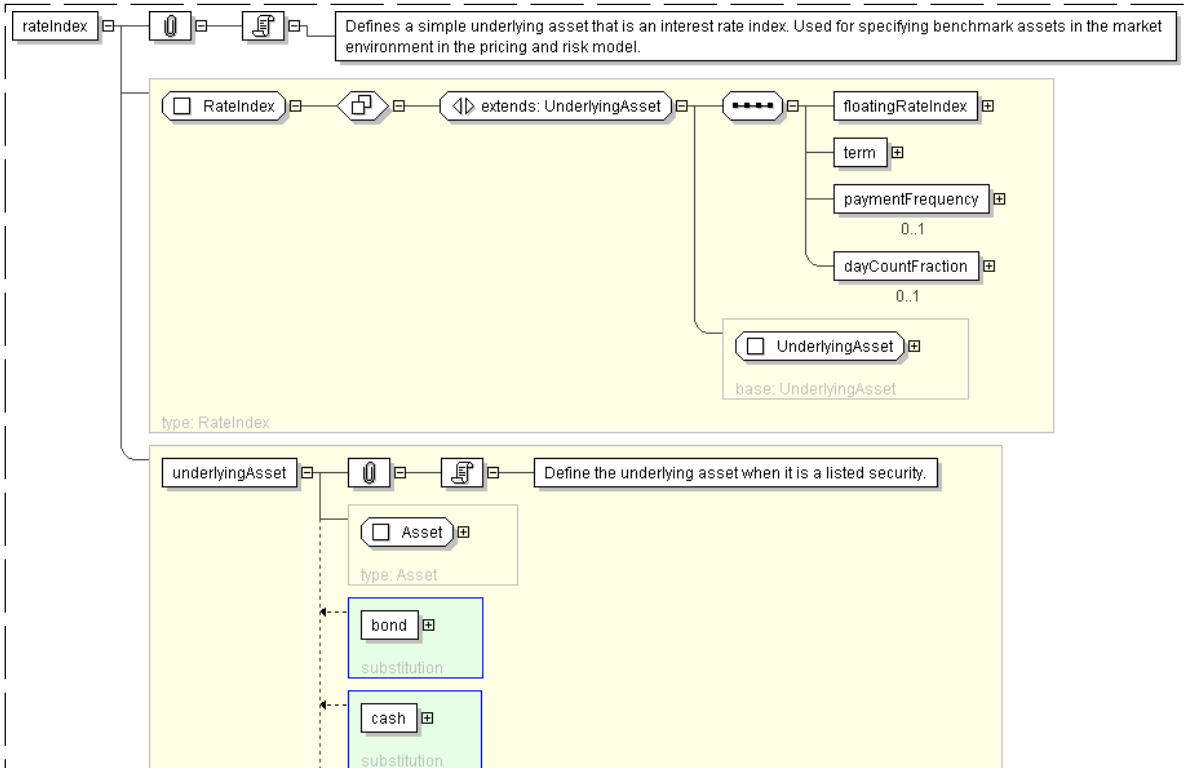


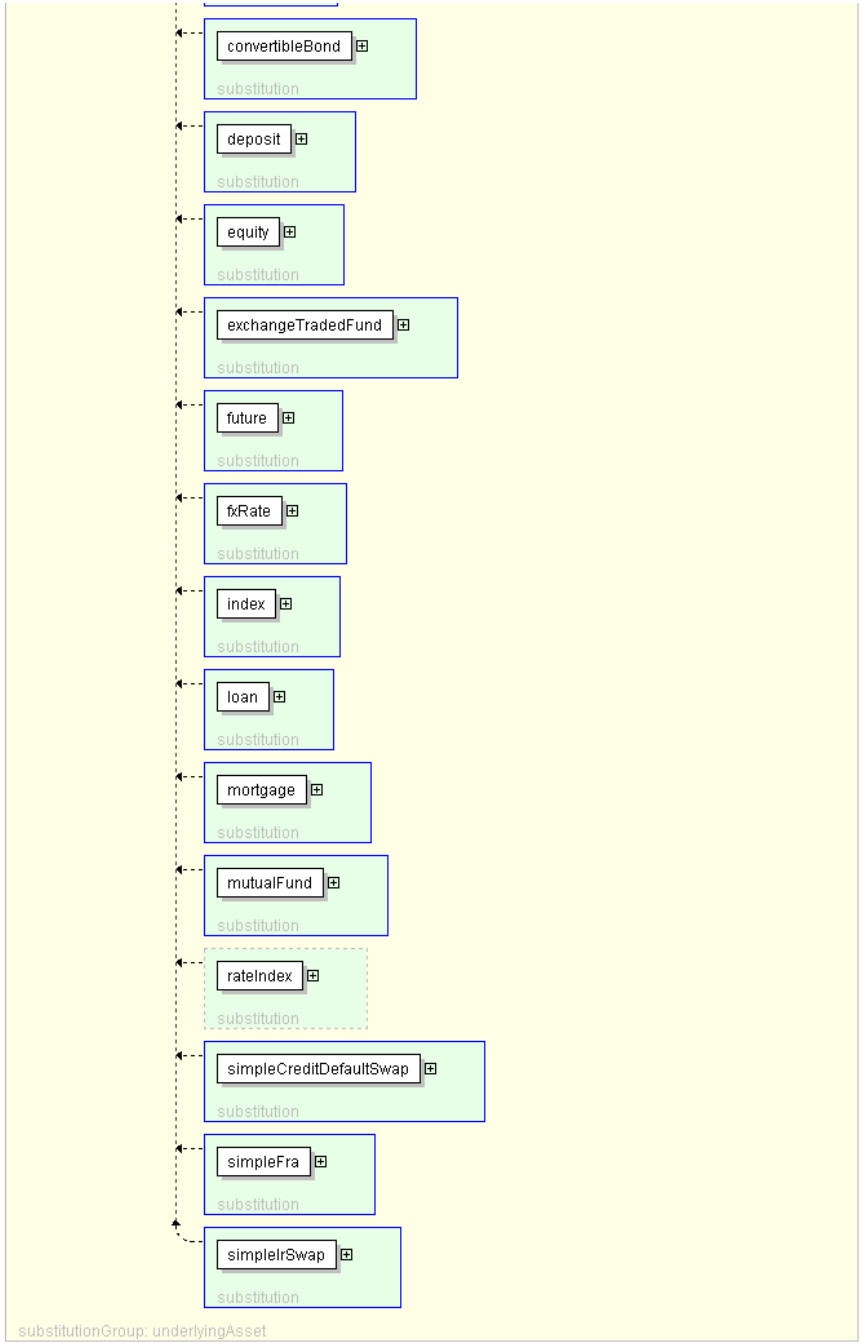
0..1

XML Instance Representation

```
<rateIndex
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

   <floatingRateIndex> FloatingRateIndex </floatingRateIndex> [1]
   <term> Interval </term> [1]
   'Specifies the term of the simple swap, e.g. 5Y.'

   <paymentFrequency> Interval </paymentFrequency> [0..1]
   'Specifies the frequency at which the index pays, e.g. 6M.'

   <dayCountFraction> DayCountFraction </dayCountFraction> [0..1]
   'The day count basis for the index.'

</rateIndex>
```

Diagram





Schema Component Representation

```
<xsd:element name="rateIndex" type=" RateIndex " substitutionGroup="underlyingAsset"/>
```

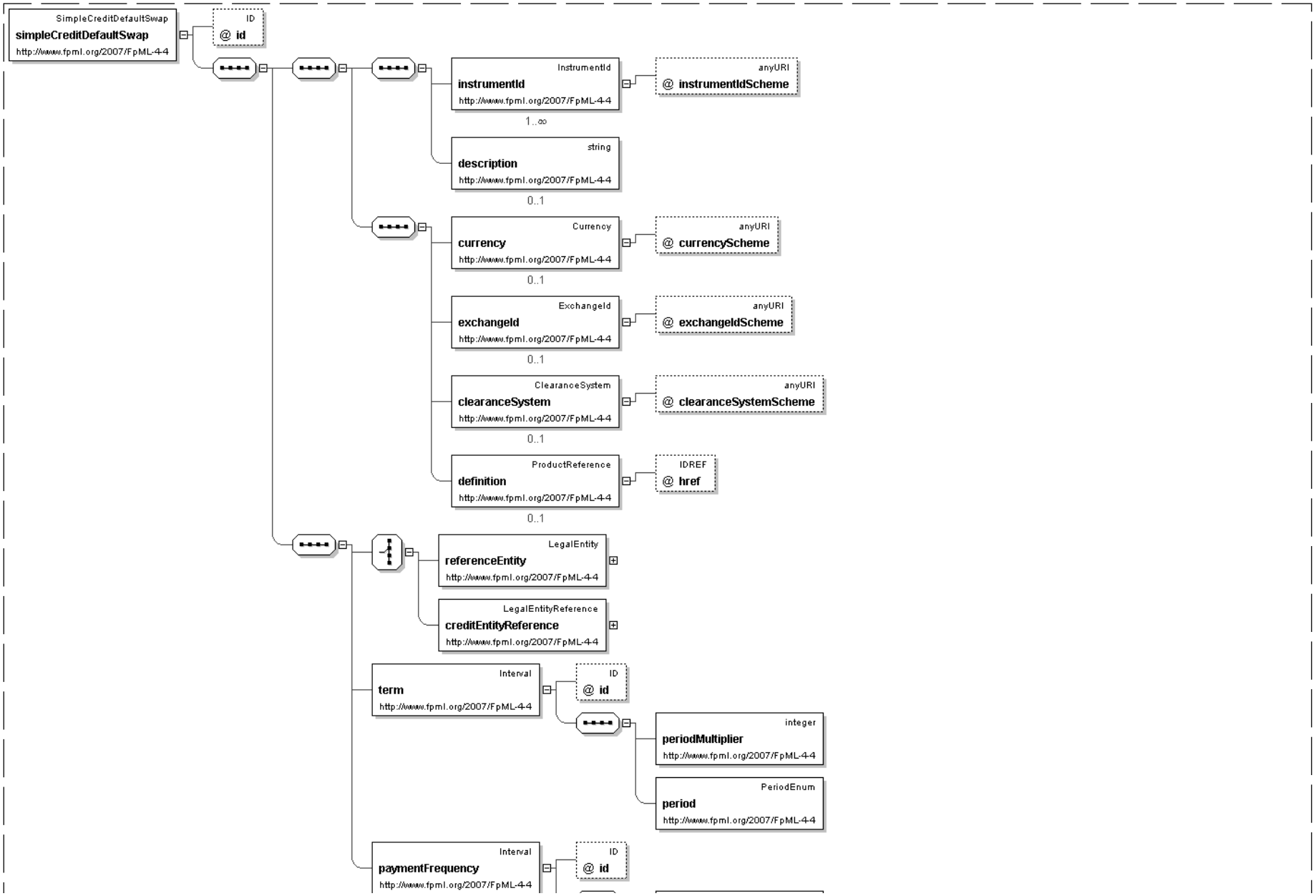
top

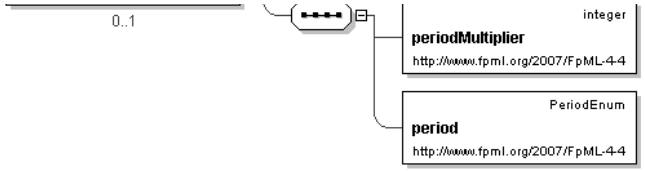
Element: simpleCreditDefaultSwap

- *This element can be used wherever the following element is referenced:*
  - underlyingAsset

Name	simpleCreditDefaultSwap
Type	SimpleCreditDefaultSwap
Nillable	no
Abstract	no
Documentation	Defines a simple underlying asset that is a credit default swap.

Logical Diagram

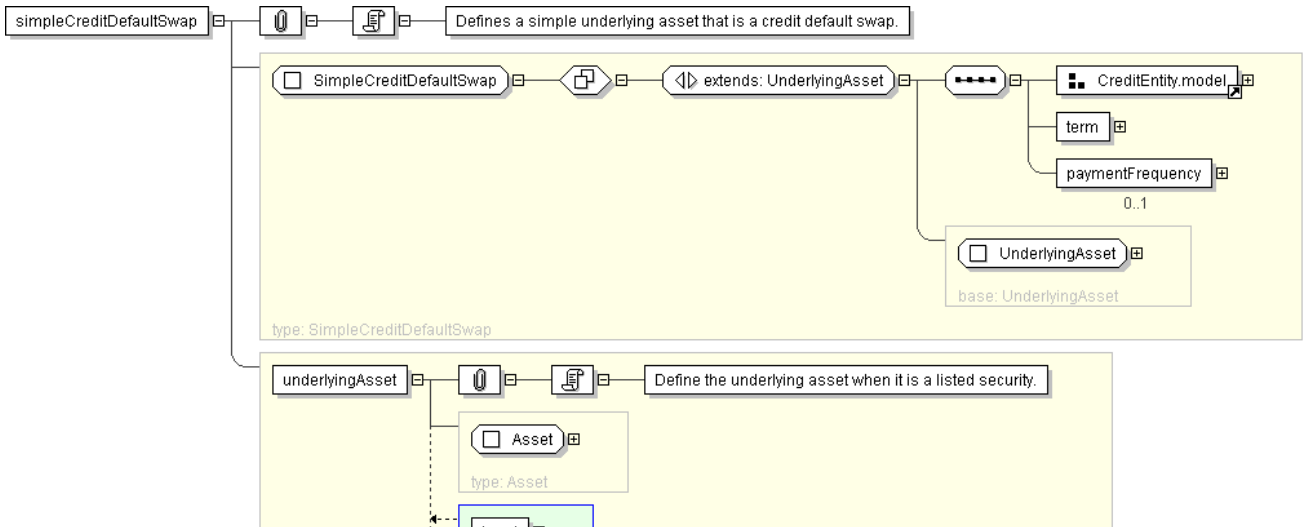


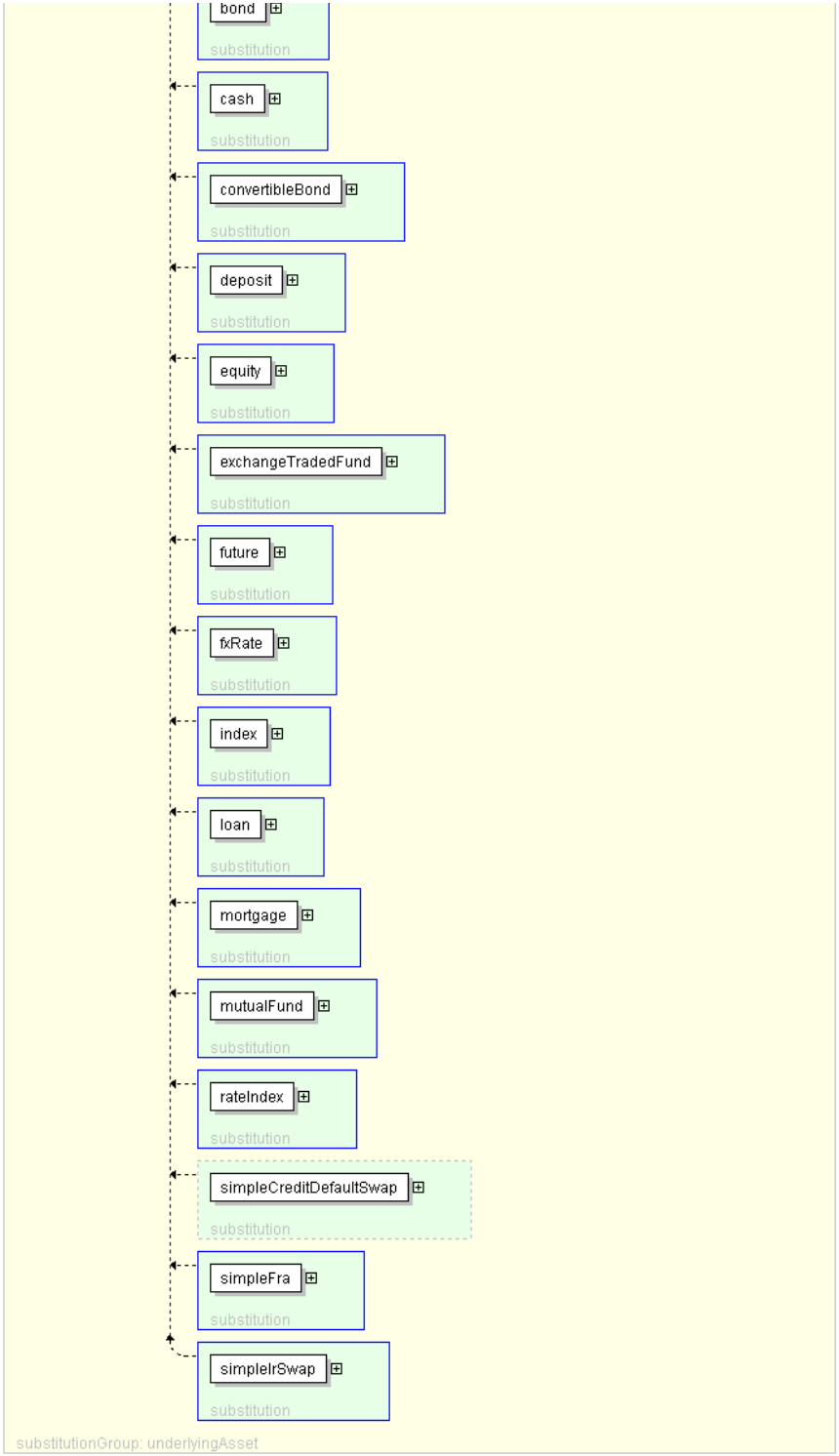


XML Instance Representation

```
<simpleCreditDefaultSwap
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

Start Choice [1]
      <referenceEntity> LegalEntity </referenceEntity> [1]
      'The entity for which this is defined.'

      <creditEntityReference> LegalEntityReference </creditEntityReference> [1]
      'An XML reference a credit entity defined elsewhere in the document.'

End Choice
   <term> Interval </term> [1]
   'Specifies the term of the simple CD swap, e.g. 5Y.'

   <paymentFrequency> Interval </paymentFrequency> [0..1]
   'Specifies the frequency at which the swap pays, e.g. 6M.'

</simpleCreditDefaultSwap>
```

Diagram




bond
substitution
cash
substitution
convertibleBond
substitution
deposit
substitution
equity
substitution
exchangeTradedFund
substitution
future
substitution
fxRate
substitution
index
substitution
loan
substitution
mortgage
substitution
mutualFund
substitution
rateIndex
substitution
simpleCreditDefaultSwap
substitution
simpleFra
substitution
simpleIrSwap
substitution
substitutionGroup: underlyingAsset

Schema Component Representation

```
<xsd:element name="simpleCreditDefaultSwap" type=" SimpleCreditDefaultSwap
" substitutionGroup="underlyingAsset"/>
```

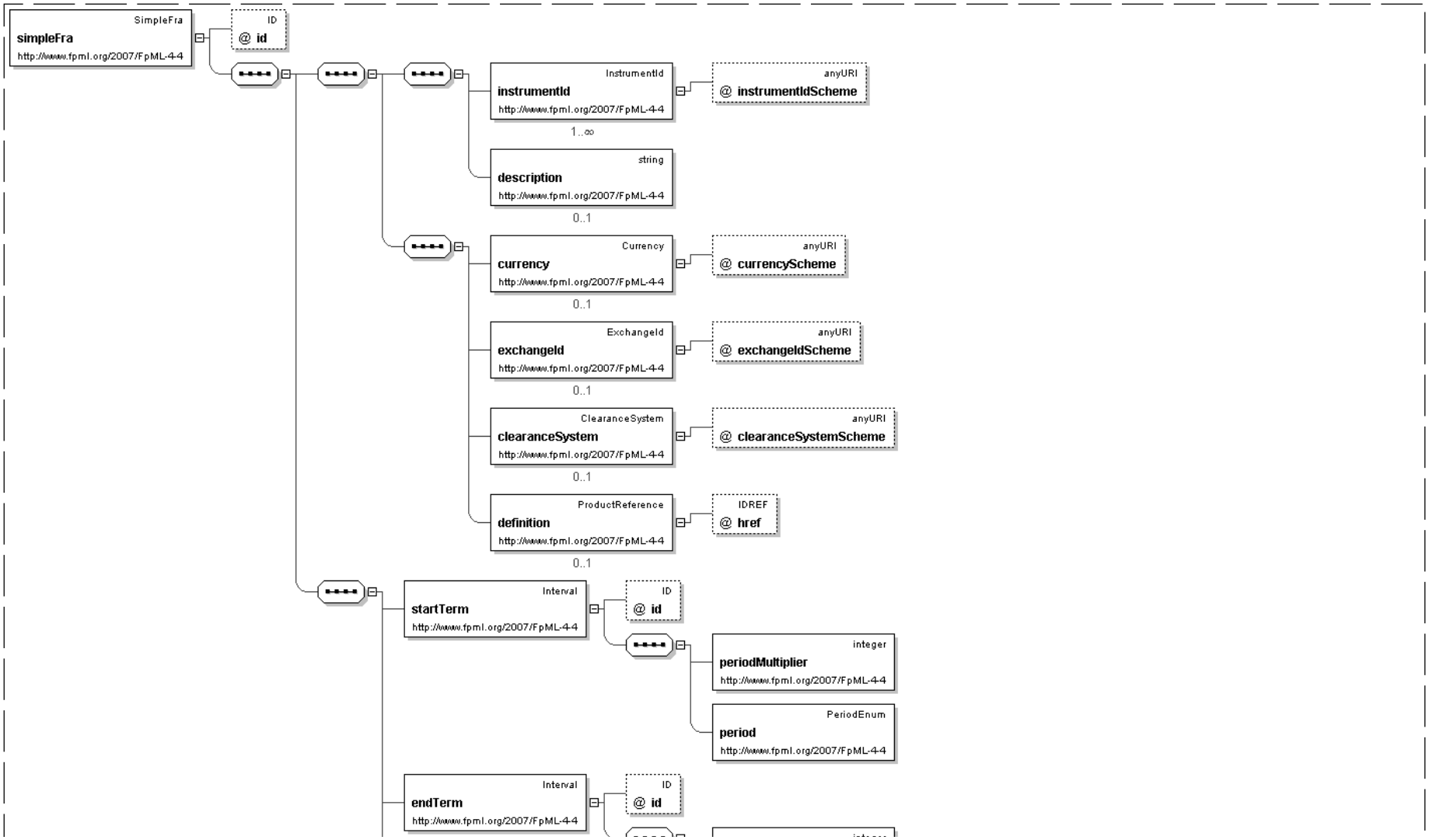
top

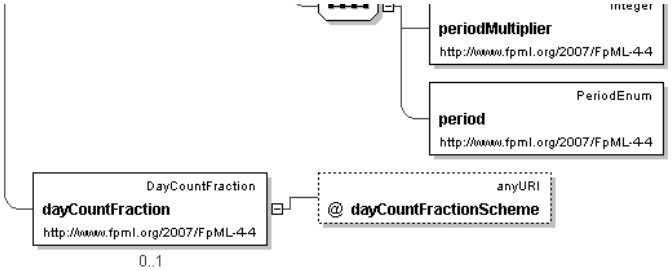
Element: simpleFra

- *This element can be used wherever the following element is referenced:*
  - underlyingAsset

Name	simpleFra
Type	SimpleFra
Nillable	no
Abstract	no
Documentation	Defines a simple underlying asset that is a forward rate agreement.

Logical Diagram

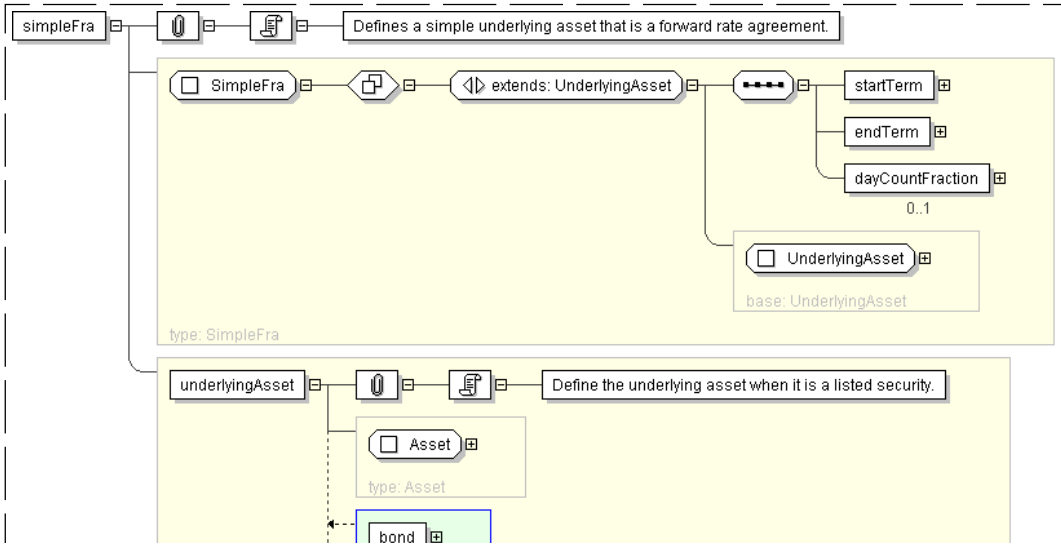


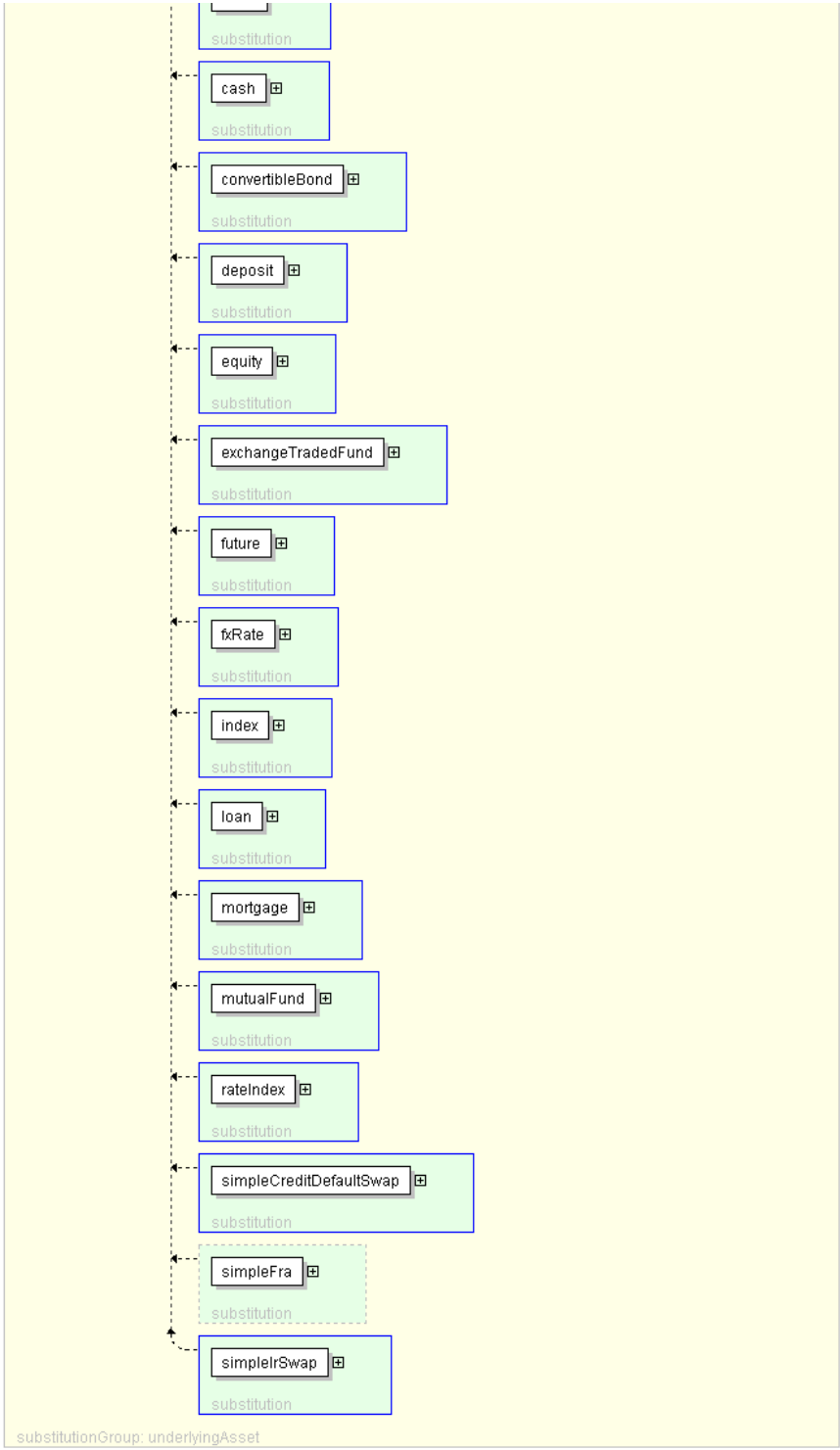


XML Instance Representation

```
<simpleFra
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

   <startTerm> Interval </startTerm> [1]
   'Specifies the start term of the simple fra, e.g. 3M.'

   <endTerm> Interval </endTerm> [1]
   'Specifies the end term of the simple fra, e.g. 9M.'

   <dayCountFraction> DayCountFraction </dayCountFraction> [0..1]
   'The day count basis for the FRA.'

</simpleFra>
```

Diagram





Schema Component Representation

```
<xsd:element name="simpleFra" type=" SimpleFra " substitutionGroup="underlyingAsset"/>
```

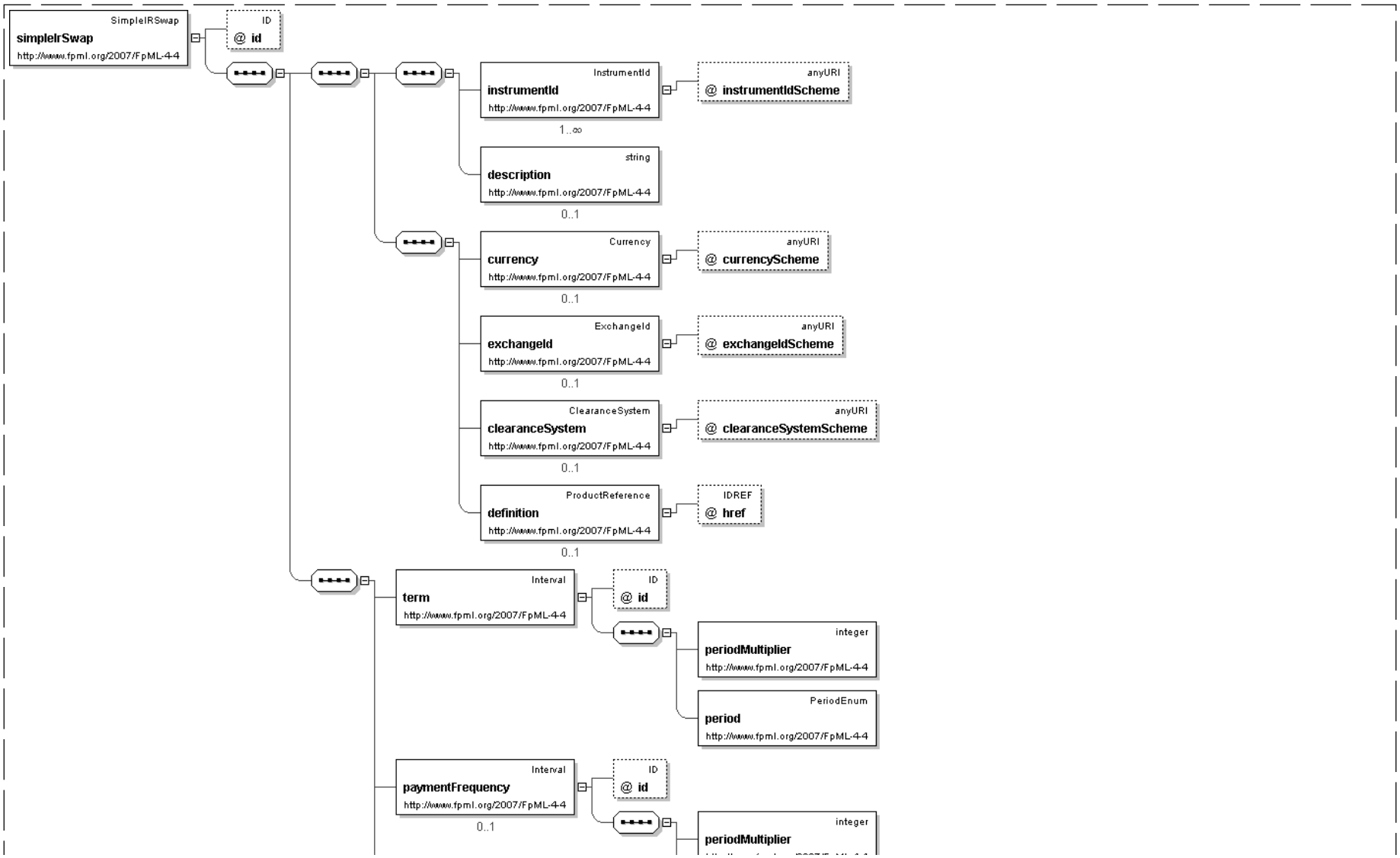
top

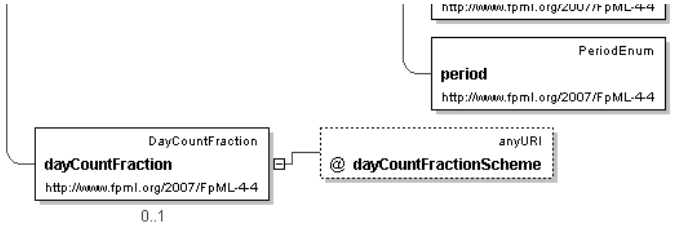
Element: simpleIrSwap

- *This element can be used wherever the following element is referenced:*
  - underlyingAsset

Name	simpleIrSwap
Type	SimpleIRSwap
Nillable	no
Abstract	no
Documentation	Defines a simple underlying asset that is a swap.

Logical Diagram

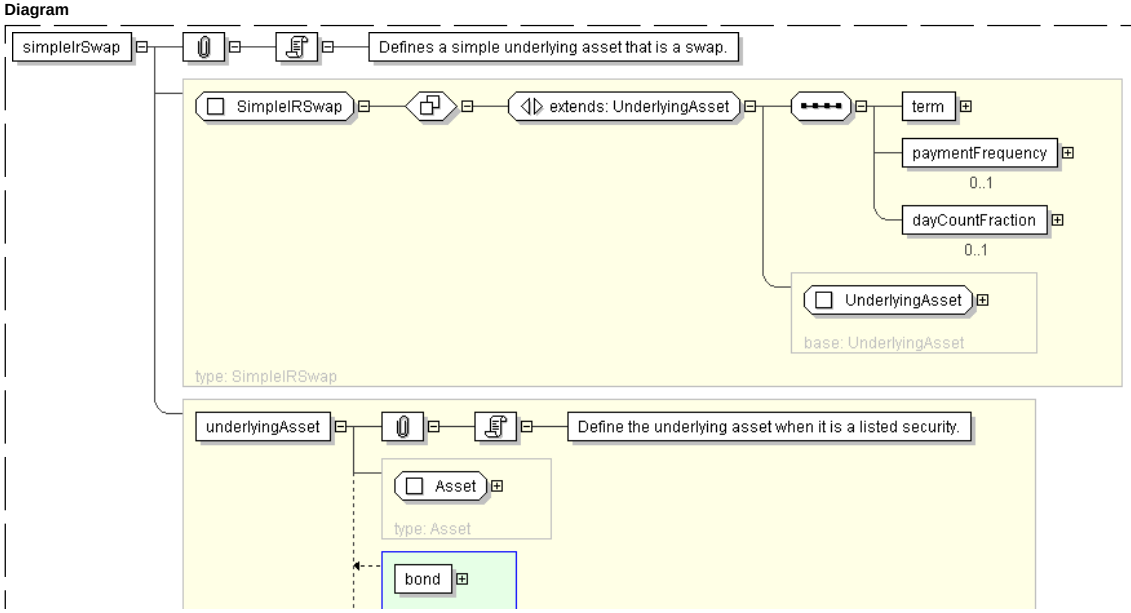


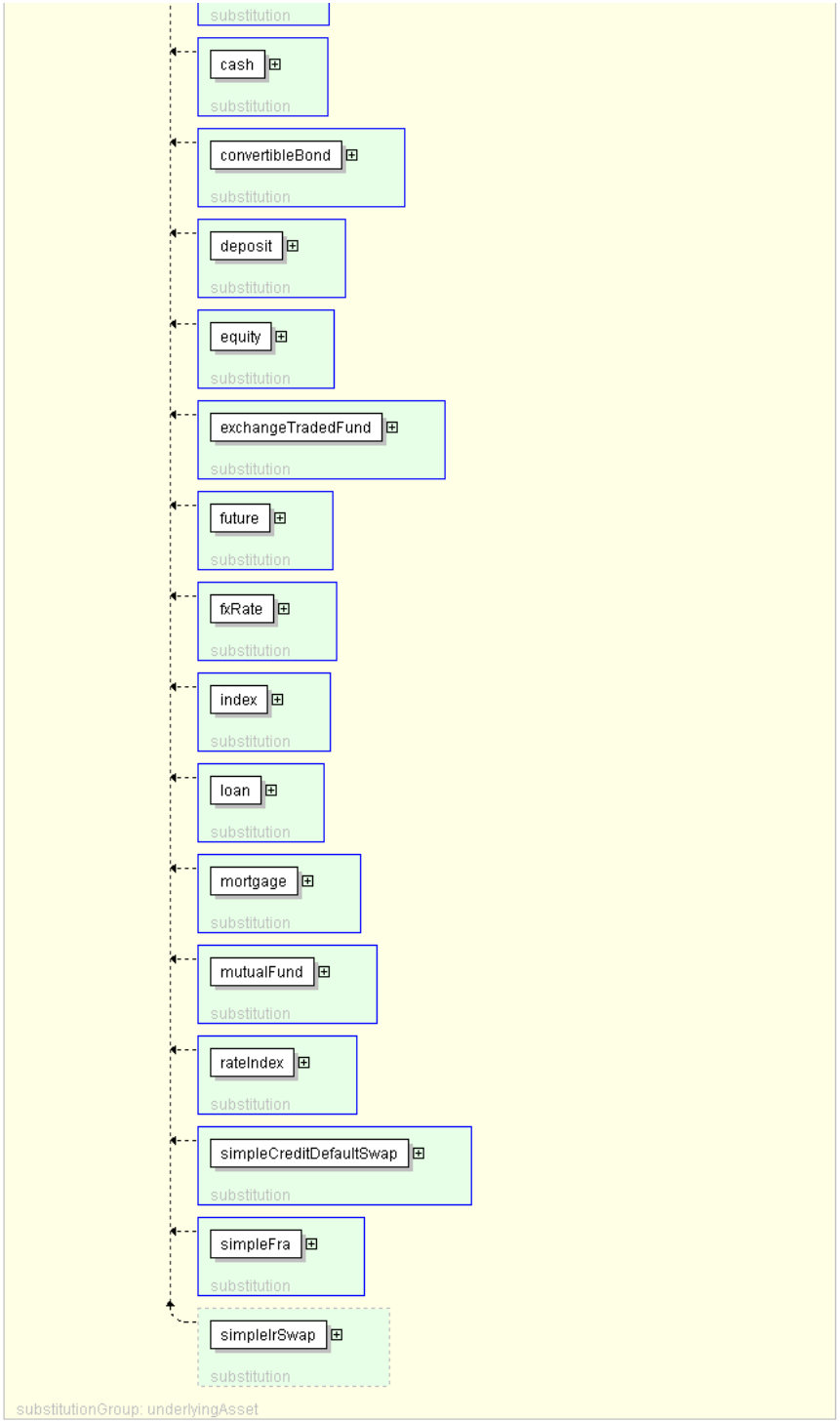


XML Instance Representation

```
<simpleIrSwap
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

   <term> Interval </term> [1]
   'Specifies the term of the simple swap, e.g. 5Y.'

   <paymentFrequency> Interval </paymentFrequency> [0..1]
   'Specifies the frequency at which the swap pays, e.g. 6M.'

   <dayCountFraction> DayCountFraction </dayCountFraction> [0..1]
   'The day count basis for the swap.'

</simpleIrSwap>
```

Diagram





Schema Component Representation

```
<xsd:element name="simpleIrSwap" type=" SimpleIRSwap " substitutionGroup="underlyingAsset"/>
```

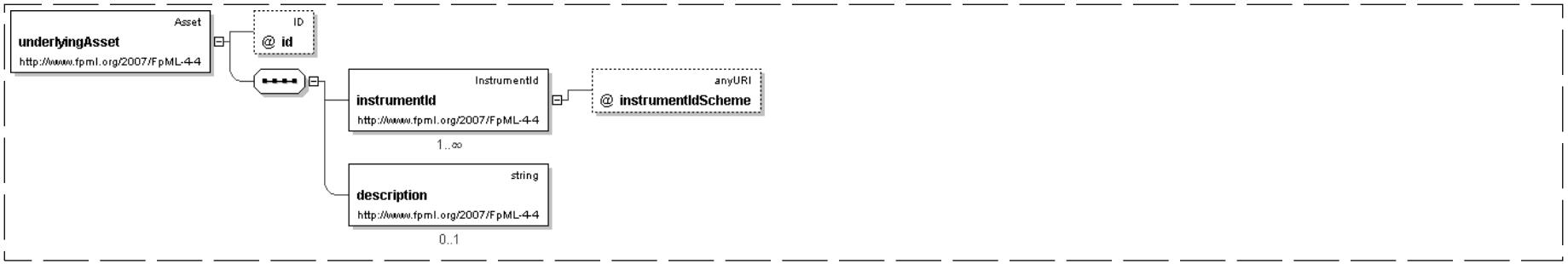
top

Element: underlyingAsset

- *The following elements can be used wherever this element is referenced:*
  - bond
  - cash
  - convertibleBond
  - deposit
  - equity
  - exchangeTradedFund
  - future
  - fxRate
  - index
  - loan
  - mortgage
  - mutualFund
  - rateIndex
  - simpleCreditDefaultSwap
  - simpleFra
  - simpleIrSwap

Name	underlyingAsset
Used by (from the same schema document)	Complex Type **BasketConstituent** , Complex Type **SingleUnderlyer**
Type	Asset
Nillable	no
Abstract	yes
Documentation	Define the underlying asset when it is a listed security.

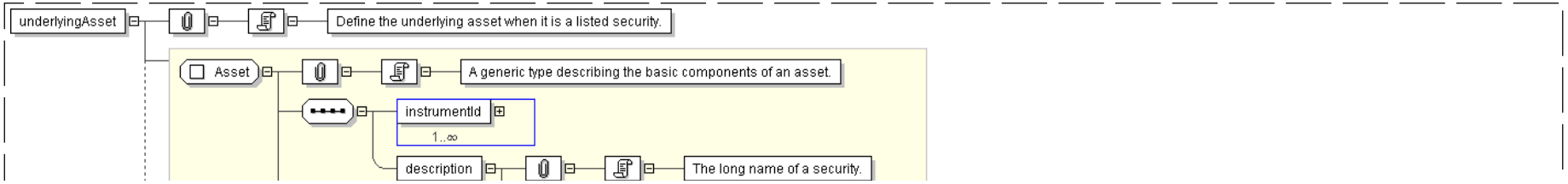
Logical Diagram

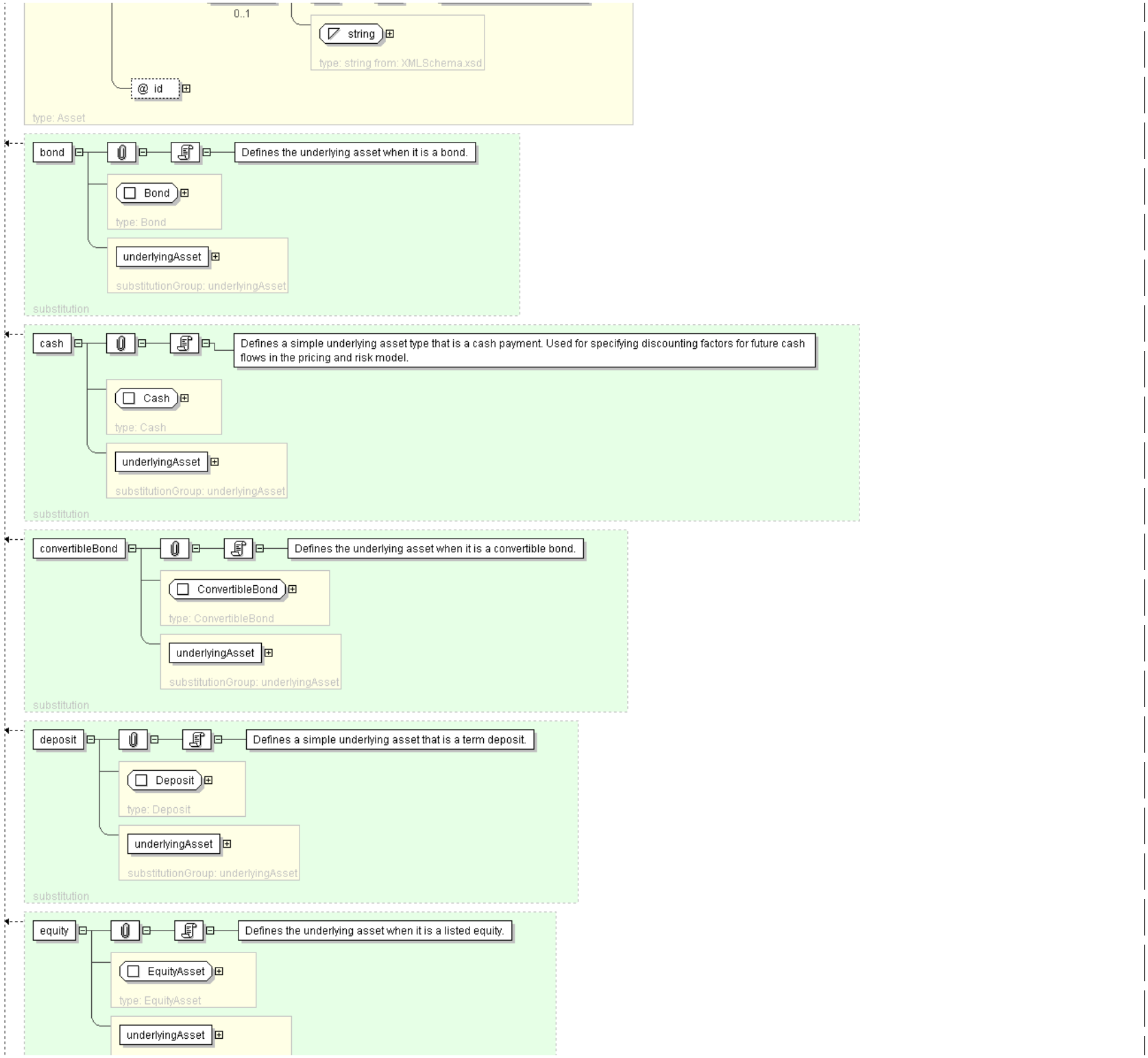


XML Instance Representation

```
<underlyingAsset
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

</underlyingAsset>
```

Diagram




0..1
string
type: string from: XMLSchema.xsd
@ id
type: Asset
bond
Defines the underlying asset when it is a bond.
Bond
type: Bond
underlyingAsset
substitutionGroup: underlyingAsset
substitution
cash
Defines a simple underlying asset type that is a cash payment. Used for specifying discounting factors for future cash flows in the pricing and risk model.
Cash
type: Cash
underlyingAsset
substitutionGroup: underlyingAsset
substitution
convertibleBond
Defines the underlying asset when it is a convertible bond.
ConvertibleBond
type: ConvertibleBond
underlyingAsset
substitutionGroup: underlyingAsset
substitution
deposit
Defines a simple underlying asset that is a term deposit.
Deposit
type: Deposit
underlyingAsset
substitutionGroup: underlyingAsset
substitution
equity
Defines the underlying asset when it is a listed equity.
EquityAsset
type: EquityAsset
underlyingAsset

substitutionGroup: underlyingAsset

substitution

exchangeTradedFund — Defines the underlying asset when it is an exchange-traded fund.

ExchangeTradedFund

type: ExchangeTradedFund

underlyingAsset

substitutionGroup: underlyingAsset

substitution

future — Defines the underlying asset when it is a listed future contract.

Future

type: Future

underlyingAsset

substitutionGroup: underlyingAsset

substitution

fxRate — Defines a simple underlying asset type that is an FX rate. Used for specifying FX rates in the pricing and risk model.

FxRateAsset

type: FxRateAsset

underlyingAsset

substitutionGroup: underlyingAsset

substitution

index — Defines the underlying asset when it is a financial index.

Index

type: Index

underlyingAsset

substitutionGroup: underlyingAsset

substitution

loan — Defines a simple underlying asset that is a loan.

Loan

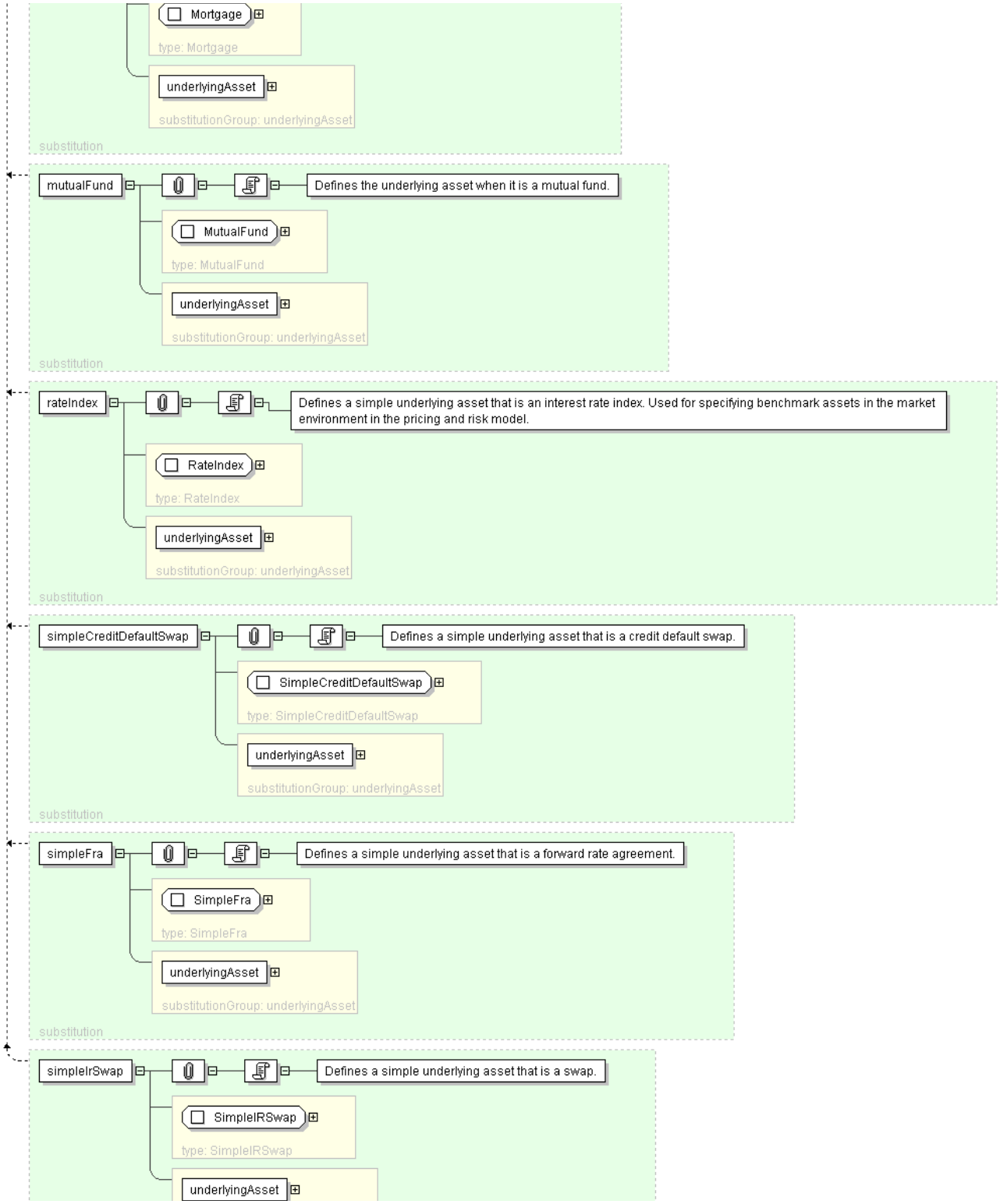
type: Loan

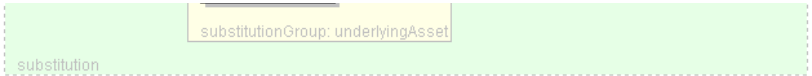
underlyingAsset

substitutionGroup: underlyingAsset

substitution

mortgage — Defines an underlying asset that is a mortgage.


Mortgage
type: Mortgage
underlyingAsset
substitutionGroup: underlyingAsset
substitution
mutualFund
Defines the underlying asset when it is a mutual fund.
MutualFund
type: MutualFund
underlyingAsset
substitutionGroup: underlyingAsset
substitution
rateIndex
Defines a simple underlying asset that is an interest rate index. Used for specifying benchmark assets in the market environment in the pricing and risk model.
RateIndex
type: RateIndex
underlyingAsset
substitutionGroup: underlyingAsset
substitution
simpleCreditDefaultSwap
Defines a simple underlying asset that is a credit default swap.
SimpleCreditDefaultSwap
type: SimpleCreditDefaultSwap
underlyingAsset
substitutionGroup: underlyingAsset
substitution
simpleFra
Defines a simple underlying asset that is a forward rate agreement.
SimpleFra
type: SimpleFra
underlyingAsset
substitutionGroup: underlyingAsset
substitution
simpleIrSwap
Defines a simple underlying asset that is a swap.
SimpleIRSwap
type: SimpleIRSwap
underlyingAsset



Schema Component Representation

```
<xsd:element name="underlyingAsset" type=" Asset " abstract="true"/>
```

top

Global Definitions

Complex Type: ActualPrice

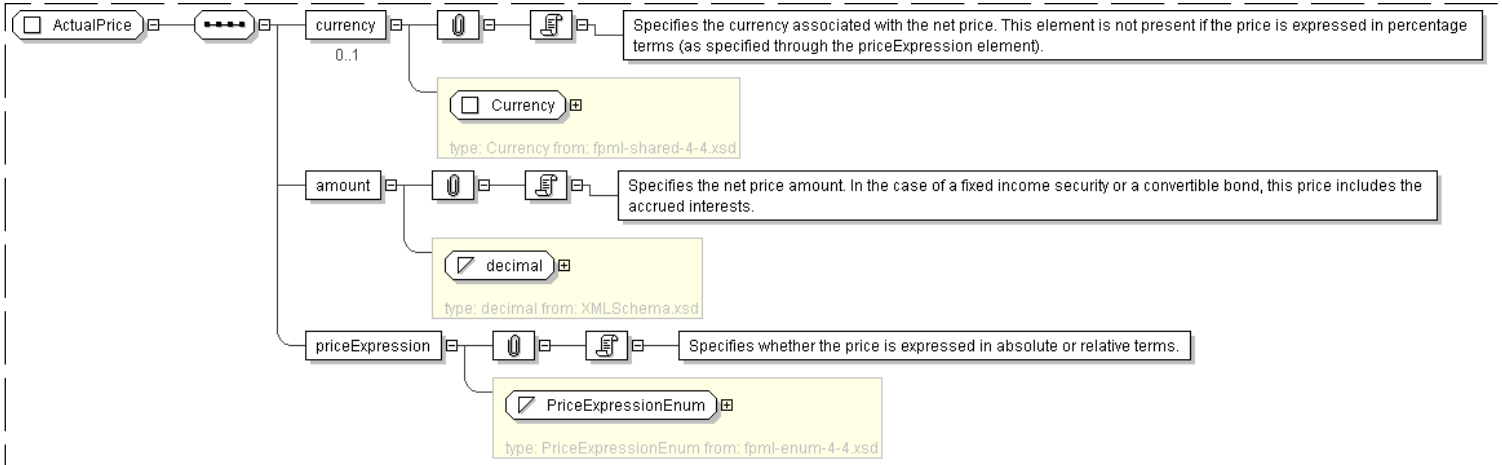
Super-types:	None
Sub-types:	None

Name	ActualPrice
Used by (from the same schema document)	Complex Type **Price** , Complex Type **Price**
Abstract	no

XML Instance Representation

```
<...>
   <currency> Currency </currency> [0..1]
   'Specifies the currency associated with the net price. This element is not present if the
   price is expressed in percentage terms (as specified through the priceExpression element).'

   <amount> xsd:decimal </amount> [1]
   'Specifies the net price amount. In the case of a fixed income security or a convertible
   bond, this price includes the accrued interests.'

   <priceExpression> PriceExpressionEnum </priceExpression> [1]
   'Specifies whether the price is expressed in absolute or relative terms.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="ActualPrice">
   <xsd:sequence>
      <xsd:element name="currency" type=" Currency " minOccurs="0"/>
      <xsd:element name="amount" type=" xsd:decimal "/>
      <xsd:element name="priceExpression" type=" PriceExpressionEnum "/>
```

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

top

Complex Type: AnyAssetReference

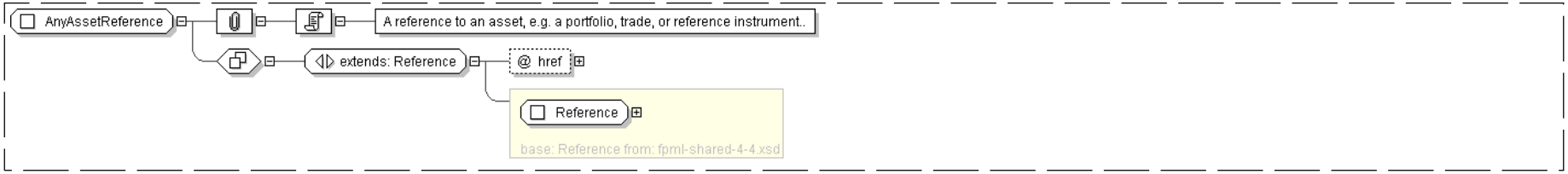
Super-types:	Reference < **AnyAssetReference** (by extension)
Sub-types:	None

Name	AnyAssetReference
Abstract	no
Documentation	A reference to an asset, e.g. a portfolio, trade, or reference instrument..

XML Instance Representation

```
<...
href=" xsd:IDREF [1]"/>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="AnyAssetReference">
   <xsd:complexContent>
      <xsd:extension base=" Reference ">
         <xsd:attribute name="href" type=" xsd:IDREF " use="required"/>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: Asset

Super-types: None

Sub-types:

- Cash (by extension)
- UnderlyingAsset (by extension)
  - Deposit (by extension)
  - ExchangeTraded (by extension)
    - Bond (by extension)
      - ConvertibleBond (by extension)
    - EquityAsset (by extension)
    - ExchangeTradedContract (by extension)
    - ExchangeTradedFund (by extension)
    - Future (by extension)
    - Index (by extension)
  - FxRateAsset (by extension)
  - Loan (by extension)
  - Mortgage (by extension)
  - MutualFund (by extension)
  - RateIndex (by extension)
  - SimpleCreditDefaultSwap (by extension)
  - SimpleFra (by extension)
  - SimpleIRSwap (by extension)

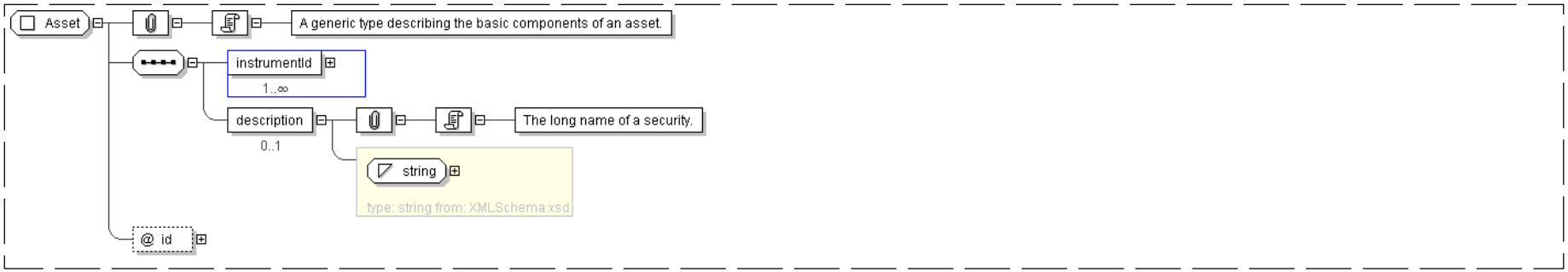
Name	Asset
Used by (from the same schema document)	Element **underlyingAsset**

Abstract	yes
Documentation	A generic type describing the basic components of an asset.

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="Asset" abstract="true">
   <xsd:sequence>
      <xsd:element name="instrumentId" type=" InstrumentId " maxOccurs="unbounded"/>
      <xsd:element name="description" type=" xsd:string " minOccurs="0"/>
   </xsd:sequence>
   <xsd:attribute name="id" type=" xsd:ID "/>
</xsd:complexType>
```

top

Complex Type: AssetMeasureType

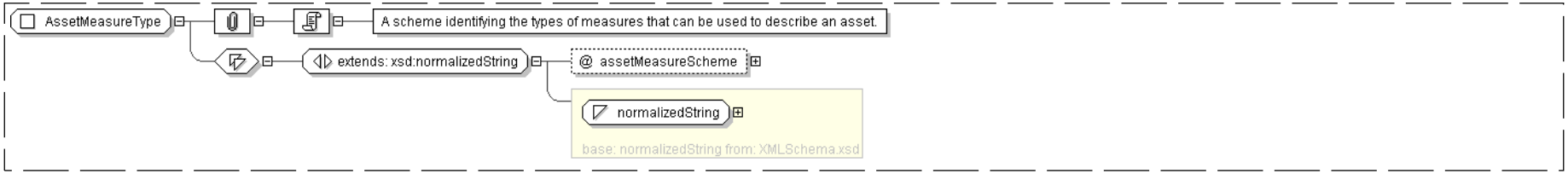
Super-types:	xsd:normalizedString < **AssetMeasureType** (by extension)
Sub-types:	None

Name	AssetMeasureType
Used by (from the same schema document)	Model Group **QuotationCharacteristics.model**
Abstract	no
Documentation	A scheme identifying the types of measures that can be used to describe an asset.

XML Instance Representation

```
<...
assetMeasureScheme=" xsd:anyURI [0..1]">
xsd:normalizedString
</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="AssetMeasureType">
   <xsd:simpleContent>
      <xsd:extension base=" xsd:normalizedString ">
         <xsd:attribute name="assetMeasureScheme" type=" xsd:anyURI " default="http://www.fpml.
         org/coding-scheme/asset-measure-5-0"/>
      </xsd:extension>
   </xsd:simpleContent>
</xsd:complexType>
```

top

Complex Type: AssetPool

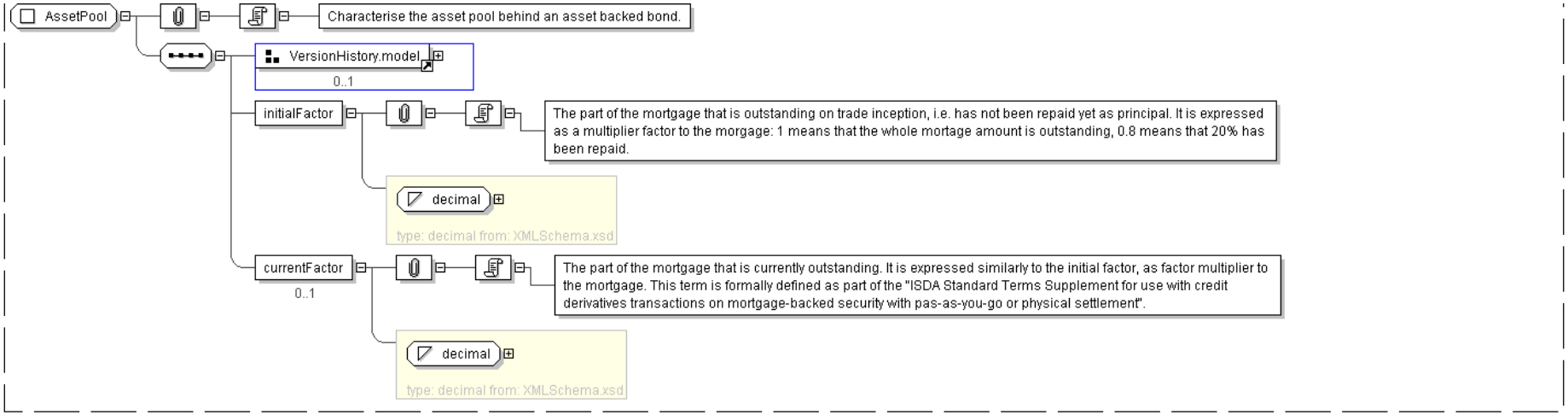
Super-types:	None
Sub-types:	None

Name	AssetPool
Used by (from the same schema document)	Complex Type **Mortgage**
Abstract	no
Documentation	Characterise the asset pool behind an asset backed bond.

XML Instance Representation

```
<...>
Start Group: VersionHistory.model [0..1]
      <version> xsd:nonNegativeInteger </version> [1]
       'The version number'

      <effectiveDate> IdentifiedDate </effectiveDate> [0..1]
       'Optionally it is possible to specify a version effective date when a versionId is supplied.'

End Group: VersionHistory.model
   <initialFactor> xsd:decimal </initialFactor> [1]
    'The part of the mortgage that is outstanding on trade inception, i.e. has not been repaid
    yet as principal. It is expressed as a multiplier factor to the morgage: 1 means that the
    whole mortage amount is outstanding, 0.8 means that 20% has been repaid.'

   <currentFactor> xsd:decimal </currentFactor> [0..1]
    'The part of the mortgage that is currently outstanding. It is expressed similarly to
    the initial factor, as factor multiplier to the mortgage. This term is formally defined as
    part of the \"ISDA Standard Terms Supplement for use with credit derivatives transactions
    on mortgage-backed security with pas-as-you-go or physical settlement\".'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="AssetPool">
   <xsd:sequence>
      <xsd:group ref=" VersionHistory.model " minOccurs="0"/>
      <xsd:element name="initialFactor" type=" xsd:decimal "/>
      <xsd:element name="currentFactor" type=" xsd:decimal " minOccurs="0"/>
   </xsd:sequence>
</xsd:complexType>
```

top

Complex Type: AssetReference

Super-types:	Reference < **AssetReference** (by extension)
Sub-types:	None

Name	AssetReference
Abstract	no
Documentation	Reference to an underlying asset.

XML Instance Representation

```
<...
href=" xsd:IDREF [1]"/>
```

Diagram

Schema Component Representation

```
<xsd:complexType name="AssetReference">
   <xsd:complexContent>
      <xsd:extension base=" Reference ">
         <xsd:attribute name="href" type=" xsd:IDREF " use="required" reference="Asset"/>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: BasicQuotation

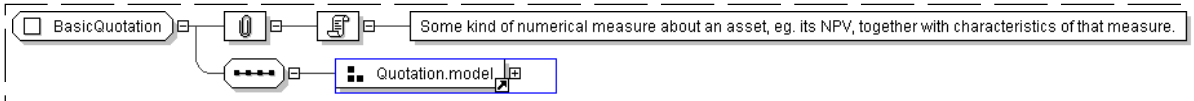
Super-types:	None
Sub-types:	None

Name	BasicQuotation
Abstract	no
Documentation	Some kind of numerical measure about an asset, eg. its NPV, together with characteristics of that measure.

XML Instance Representation

```
<...>
   <value> xsd:decimal </value> [0..1]
   'The value of the the quotation.'

   <measureType> AssetMeasureType </measureType> [0..1]
   'The type of the value that is measured. This could be an NPV, a cash flow, a clean price, etc.'

   <quoteUnits> PriceQuoteUnits </quoteUnits> [0..1]
   'The optional units that the measure is expressed in. If not supplied, this is assumed to be
   a price/value in currency units.'

   <side> QuotationSideEnum </side> [0..1]
   'The side (bid/mid/ask) of the measure.'

   <currency> Currency </currency> [0..1]
   'The optional currency that the measure is expressed in. If not supplied, this is
   defaulted from the reportingCurrency in the valuationScenarioDefinition.'

   <timing> QuoteTiming </timing> [0..1]
   'When during a day the quote is for. Typically, if this element is supplied, the
   QuoteLocation needs also to be supplied.'

Start Group: QuoteLocation.model [0..1]
'Where the quote is from.'


Start Choice [1]
         <businessCenter> BusinessCenter </businessCenter> [1]
         'A city or other business center.'

         <exchangeId> ExchangeId </exchangeId> [1]
         'The exchange (e.g. stock or futures exchange) from which the quote is obtained.'

End Choice
End Group: QuoteLocation.model
   <informationSource> InformationSource </informationSource> [0..*]
   'The information source where a published or displayed market rate will be obtained, e.
   g. Telerate Page 3750.'

   <time> xsd:dateTime </time> [0..1]
   'When the quote was observed or derived.'

   <valuationDate> xsd:date </valuationDate> [0..1]
   'When the quote was computed.'

   <expiryTime> xsd:dateTime </expiryTime> [0..1]
   'When does the quote cease to be valid.'

   <cashFlowType> CashflowType </cashFlowType> [0..1]
   'For cash flows, the type of the cash flows. Examples include: Coupon payment, Premium
   Fee, Settlement Fee, Brokerage Fee, etc.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="BasicQuotation">
   <xsd:sequence>
      <xsd:group ref=" Quotation.model "/>
   </xsd:sequence>
</xsd:complexType>
```

top

Complex Type: Basket

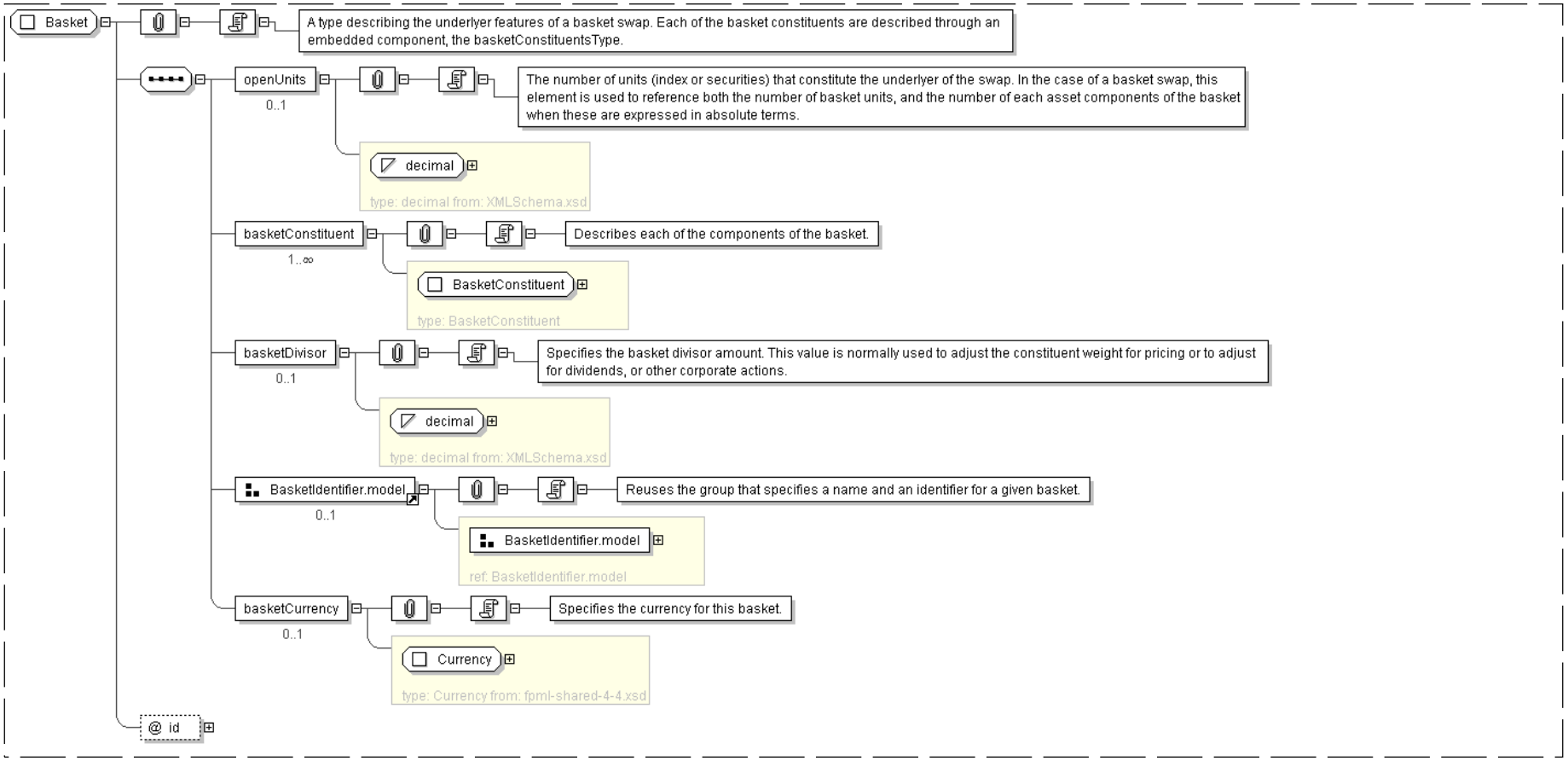
Super-types:	None
Sub-types:	None

Name	Basket
Used by (from the same schema document)	Complex Type **Underlyer**
Abstract	no
Documentation	A type describing the underlyer features of a basket swap. Each of the basket constituents are described through an embedded component, the basketConstituentsType.

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <openUnits> xsd:decimal </openUnits> [0..1]
   'The number of units (index or securities) that constitute the underlyer of the swap. In
   the case of a basket swap, this element is used to reference both the number of basket
   units, and the number of each asset components of the basket when these are expressed
   in absolute terms.'

   <basketConstituent> BasketConstituent </basketConstituent> [1..*]
   'Describes each of the components of the basket.'

   <basketDivisor> xsd:decimal </basketDivisor> [0..1]
   'Specifies the basket divisor amount. This value is normally used to adjust the
   constituent weight for pricing or to adjust for dividends, or other corporate actions.'

Start Group: BasketIdentifier.model [0..1]
'Reuses the group that specifies a name and an identifier for a given basket.'

Start Choice [1]
         <basketName> BasketName </basketName> [1]
         'The name of the basket expressed as a free format string. FpML does not define usage rules
         for this element.'

         <basketId> BasketId </basketId> [0..*]
         'A CDS basket identifier'

         <basketId> BasketId </basketId> [1..*]
         'A CDS basket identifier'

End Choice
End Group: BasketIdentifier.model
   <basketCurrency> Currency </basketCurrency> [0..1]
   'Specifies the currency for this basket.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="Basket">
   <xsd:sequence>
      <xsd:element name="openUnits" type=" xsd:decimal " minOccurs="0"/>
      <xsd:element name="basketConstituent" type=" BasketConstituent " maxOccurs="unbounded"/>
      <xsd:element name="basketDivisor" type=" xsd:decimal " minOccurs="0"/>
      <xsd:group ref=" BasketIdentifier.model " minOccurs="0"/>
      <xsd:element name="basketCurrency" type=" Currency " minOccurs="0"/>
   </xsd:sequence>
   <xsd:attribute name="id" type=" xsd:ID " use="optional"/>
</xsd:complexType>
```

top

Complex Type: BasketConstituent

Super-types:	None
Sub-types:	None

Name	BasketConstituent
Used by (from the same schema document)	Complex Type **Basket**
Abstract	no
Documentation	A type describing each of the constituents of a basket.

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <underlyingAsset> ... </underlyingAsset> [1]
   <constituentWeight> ConstituentWeight </constituentWeight> [0..1]
```

'Specifies the weight of each of the underlyer constituent within the basket, either in absolute or relative terms. This is an optional component, as certain swaps do not specify a specific weight for each of their basket constituents.'

```
   <dividendPayout> DividendPayout </dividendPayout> [0..1]
```

'Specifies the dividend payout ratio associated with an equity underlyer. A basket swap can have different payout ratios across the various underlying constituents. In certain cases the actual ratio is not known on trade inception, and only general conditions are then specified. Users should note that FpML makes a distinction between the derivative contract and the underlyer of the contract. It would be better if the agreed dividend payout on a derivative contract was modelled at the level of the derivative contract, an approach which may be adopted in the next major version of FpML.'

```
   <underlyerPrice> Price </underlyerPrice> [0..1]
```

'Specifies the price that is associated with each of the basket constituents. This component is optional, as it is not absolutely required to accurately describe the economics of the trade, considering the price that characterizes the equity swap is associated to the leg of the trade.'

```
   <underlyerNotional> Money </underlyerNotional> [0..1]
```

*'Specifies the notional (i.e. price * quantity) that is associated with each of the basket constituents. This component is optional, as it is not absolutely required to accurately describe the economics of the trade, considering the notional that characterizes the equity swap is associated to the leg of the trade.'*

```
   <underlyerSpread> SpreadScheduleReference </underlyerSpread> [0..1]
```

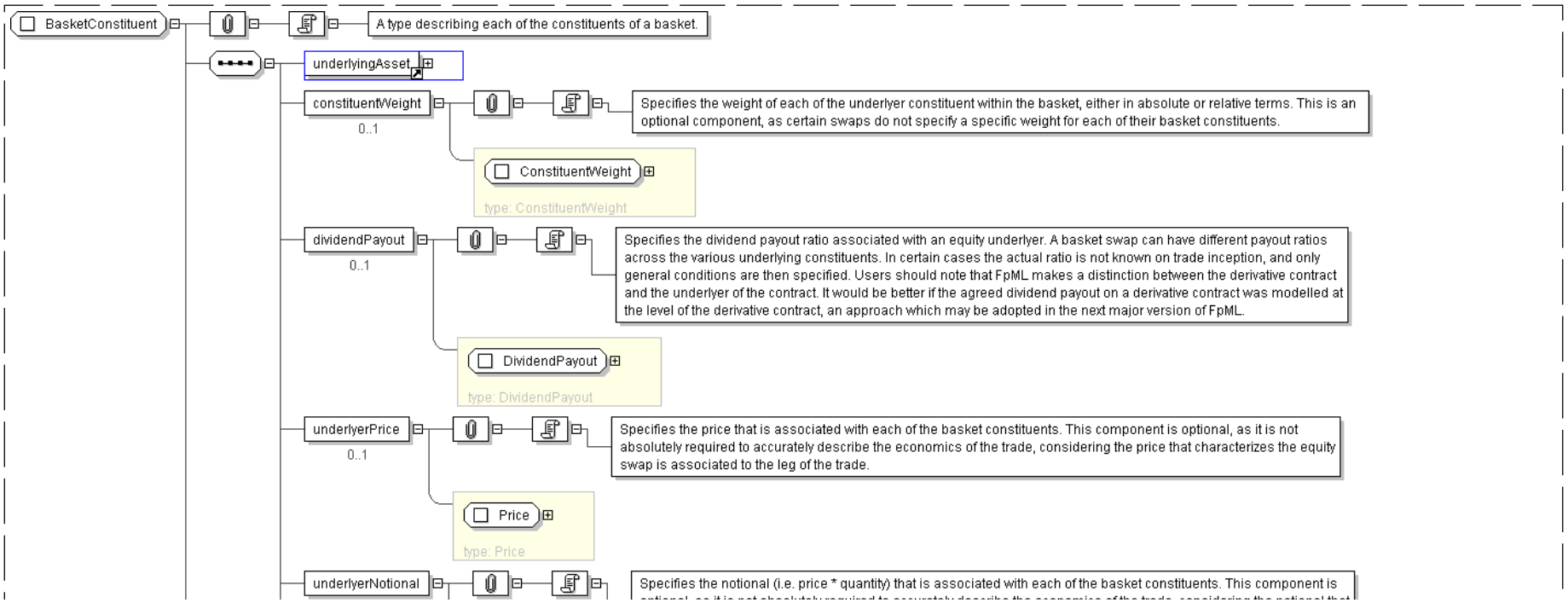
'Provides a link to the spread schedule used for this underlyer.'

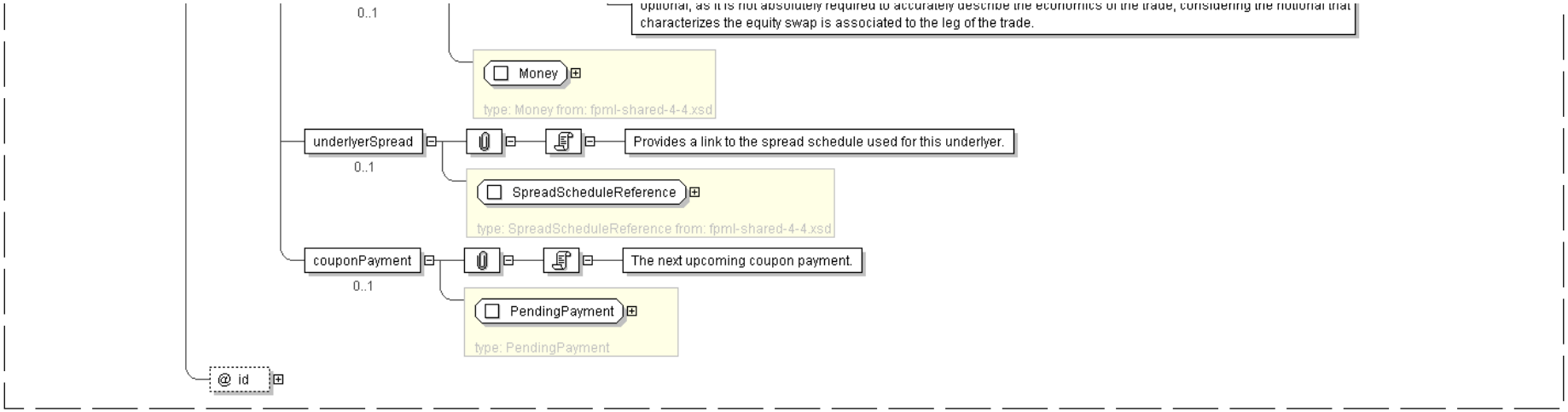
```
   <couponPayment> PendingPayment </couponPayment> [0..1]
```

'The next upcoming coupon payment.'

```
</...>
```

Diagram





Schema Component Representation

```
<xsd:complexType name="BasketConstituent">
   <xsd:sequence>
      <xsd:element ref=" underlyingAsset "/>
      <xsd:element name="constituentWeight" type=" ConstituentWeight " minOccurs="0"/>
      <xsd:element name="dividendPayout" type=" DividendPayout " minOccurs="0"/>
      <xsd:element name="underlyerPrice" type=" Price " minOccurs="0"/>
      <xsd:element name="underlyerNotional" type=" Money " minOccurs="0"/>
      <xsd:element name="underlyerSpread" type=" SpreadScheduleReference " minOccurs="0"/>
      <xsd:element name="couponPayment" type=" PendingPayment " minOccurs="0"/>
   </xsd:sequence>
   <xsd:attribute name="id" type=" xsd:ID " use="optional"/>
</xsd:complexType>
```

top

Complex Type: BasketId

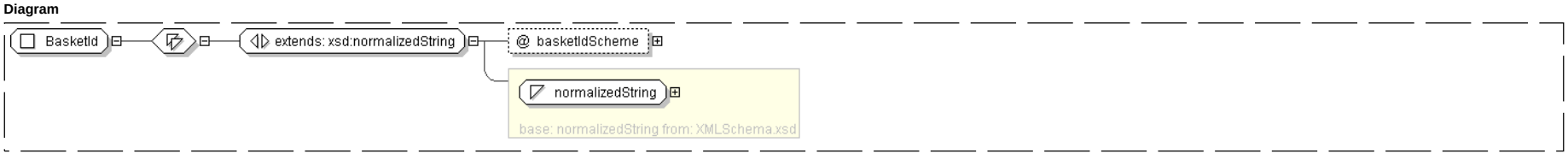
Super-types:	xsd:normalizedString < **BasketId** (by extension)
Sub-types:	None

Name	BasketId
Used by (from the same schema document)	Model Group **BasketIdentifier.model** , Model Group **BasketIdentifier.model**
Abstract	no

XML Instance Representation

```
<...
basketIdScheme=" xsd:anyURI [0..1]">
xsd:normalizedString
</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="BasketId">
   <xsd:simpleContent>
      <xsd:extension base=" xsd:normalizedString ">
```

```
        <xsd:attribute name="basketIdScheme" type=" xsd:anyURI "/>
      </xsd:extension>
    </xsd:simpleContent>
</xsd:complexType>
```

top

Complex Type: BasketName

Super-types:	xsd:normalizedString < **BasketName** (by extension)
Sub-types:	None

Name	BasketName
Used by (from the same schema document)	Model Group **BasketIdentifier.model**
Abstract	no

XML Instance Representation

```
<...
basketNameScheme=" xsd:anyURI [0..1]">
xsd:normalizedString
</...>
```

Diagram

Schema Component Representation

```
<xsd:complexType name="BasketName">
   <xsd:simpleContent>
      <xsd:extension base=" xsd:normalizedString ">
         <xsd:attribute name="basketNameScheme" type=" xsd:anyURI "/>
      </xsd:extension>
   </xsd:simpleContent>
</xsd:complexType>
```

top

Complex Type: Bond

Super-types:	Asset < UnderlyingAsset (by extension) < ExchangeTraded (by extension) < **Bond** (by extension)
Sub-types:	• ConvertibleBond (by extension)

Name	Bond
Used by (from the same schema document)	Element **bond**
Abstract	no

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
```

'An optional reference to a full FpML product that defines the simple product in greater detail. In case of inconsistency between the terms of the simple product and those of the detailed definition, the values in the simple product override those in the detailed definition.'

<relatedExchangeId> ExchangeId </relatedExchangeId> [0..*]

'A short form unique identifier for a related exchange. If the element is not present then the exchange shall be the primary exchange on which listed futures and options on the underlying are listed. The term \"Exchange\" is assumed to have the meaning as defined in the ISDA 2002 Equity Derivatives Definitions.'

<optionsExchangeId> ExchangeId </optionsExchangeId> [0..*]

'A short form unique identifier for an exchange on which the reference option contract is listed. This is to address the case where the reference exchange for the future is different than the one for the option. The options Exchange is referenced on share options when Merger Elections are selected as Options Exchange Adjustment.'

Start Choice [0..1]

'Specifies the issuer name of a fixed income security or convertible bond. This name can either be explicitly stated, or specified as an href into another element of the document, such as the obligor'

<issuerName> xsd:string </issuerName> [1]

<issuerPartyReference> PartyReference </issuerPartyReference> [1]

End Choice

<seniority> CreditSeniority </seniority> [0..1]

'The repayment precedence of a debt instrument.'

<couponType> CouponType </couponType> [0..1]

'Specifies if the bond has a variable coupon, step-up/down coupon or a zero-coupon.'

<couponRate> xsd:decimal </couponRate> [0..1]

'Specifies the coupon rate (expressed in percentage) of a fixed income security or convertible bond.'

<maturity> xsd:date </maturity> [0..1]

'The date when the principal amount of a security becomes due and payable.'

<parValue> xsd:decimal </parValue> [0..1]

'Specifies the nominal amount of a fixed income security or convertible bond.'

<faceAmount> xsd:decimal </faceAmount> [0..1]

'Specifies the total amount of the issue. Corresponds to the par value multiplied by the number of issued security.'

<paymentFrequency> Interval </paymentFrequency> [0..1]

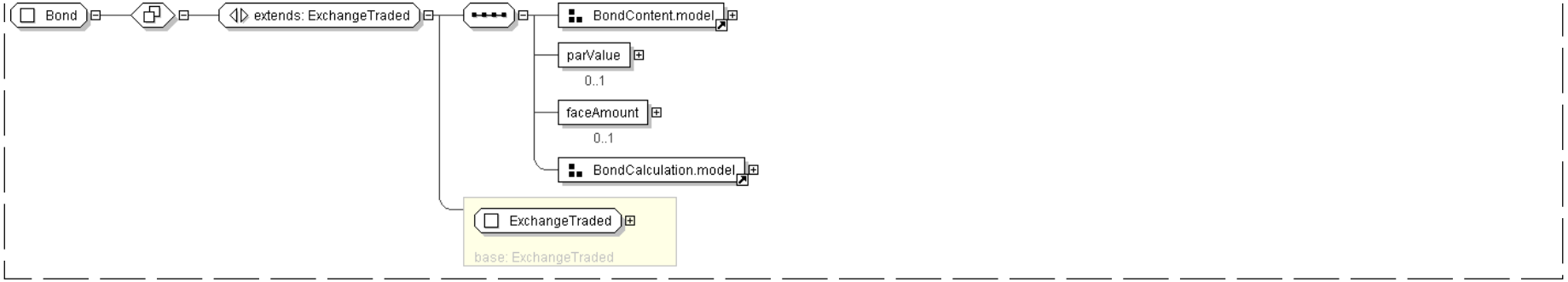
'Specifies the frequency at which the bond pays, e.g. 6M.'

<dayCountFraction> DayCountFraction </dayCountFraction> [0..1]

'The day count basis for the bond.'

</...>

Diagram



Schema Component Representation

```
<xsd:complexType name="Bond">
   <xsd:complexContent>
      <xsd:extension base=" ExchangeTraded ">
         <xsd:sequence>
            <xsd:group ref=" BondContent.model "/>
            <xsd:element name="parValue" type=" xsd:decimal " minOccurs="0"/>
            <xsd:element name="faceAmount" type=" xsd:decimal " minOccurs="0"/>
            <xsd:group ref=" BondCalculation.model "/>
         </xsd:sequence>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: Cash

Super-types:	Asset < **Cash** (by extension)
Sub-types:	None

Name	Cash
Used by (from the same schema document)	Element **cash**
Abstract	no

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [1]
   'The currency in which an amount is denominated.'

</...>
```

Diagram

Schema Component Representation

```
<xsd:complexType name="Cash">
   <xsd:complexContent>
      <xsd:extension base=" Asset ">
         <xsd:sequence>
```

```
            <xsd:element name="currency" type=" Currency "/>
        </xsd:sequence>
      </xsd:extension>
    </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: Commission

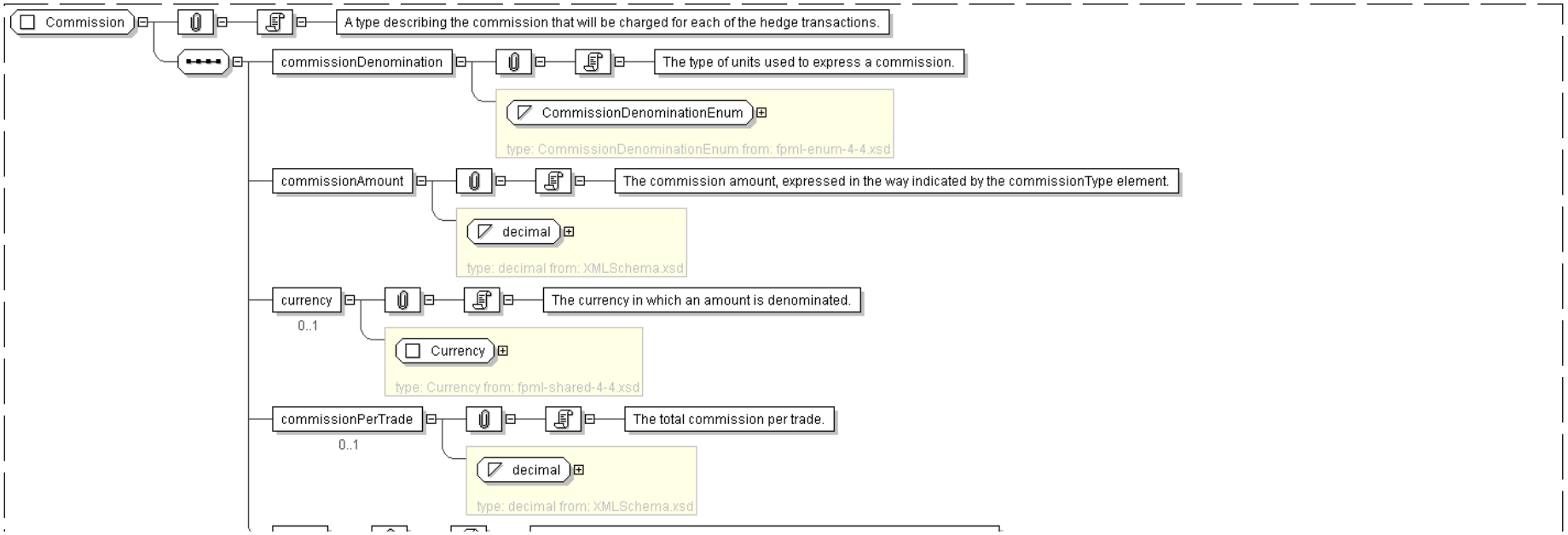
Super-types:	None
Sub-types:	None

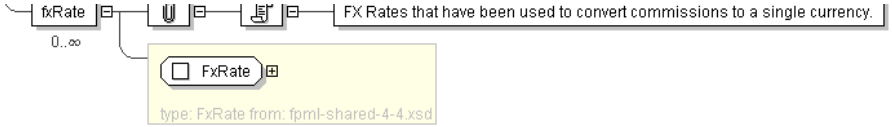
Name	Commission
Used by (from the same schema document)	Complex Type **Price**
Abstract	no
Documentation	A type describing the commission that will be charged for each of the hedge transactions.

XML Instance Representation

```
<...>
   <commissionDenomination> CommissionDenominationEnum </commissionDenomination> [1]
   'The type of units used to express a commission.'

   <commissionAmount> xsd:decimal </commissionAmount> [1]
   'The commission amount, expressed in the way indicated by the commissionType element.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <commissionPerTrade> xsd:decimal </commissionPerTrade> [0..1]
   'The total commission per trade.'

   <fxRate> FxRate </fxRate> [0..*]
   'FX Rates that have been used to convert commissions to a single currency.'

</...>
```

Diagram





Schema Component Representation

```
<xsd:complexType name="Commission">
   <xsd:sequence>
      <xsd:element name="commissionDenomination" type=" CommissionDenominationEnum "/>
      <xsd:element name="commissionAmount" type=" xsd:decimal "/>
      <xsd:element name="currency" type=" Currency " minOccurs="0"/>
      <xsd:element name="commissionPerTrade" type=" xsd:decimal " minOccurs="0"/>
      <xsd:element name="fxRate" type=" FxRate " minOccurs="0" maxOccurs="unbounded"/>
   </xsd:sequence>
</xsd:complexType>
```

top

Complex Type: ConstituentWeight

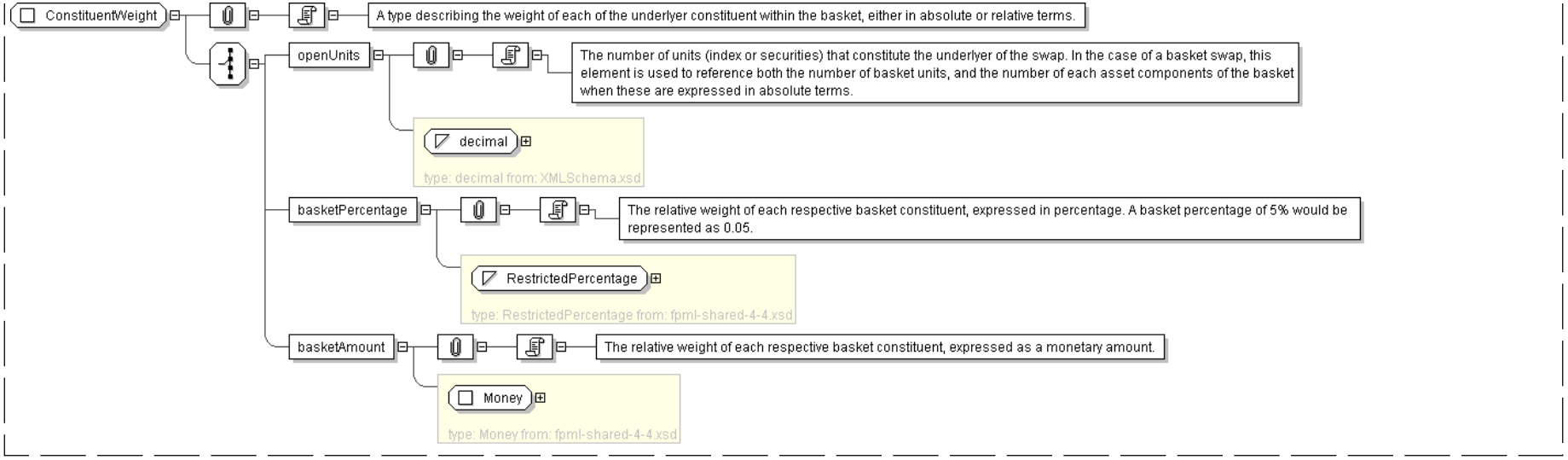
Super-types:	None
Sub-types:	None

Name	ConstituentWeight
Used by (from the same schema document)	Complex Type **BasketConstituent**
Abstract	no
Documentation	A type describing the weight of each of the underlyer constituent within the basket, either in absolute or relative terms.

XML Instance Representation

```
<...>
Start Choice [1]
      <openUnits> xsd:decimal </openUnits> [1]
      'The number of units (index or securities) that constitute the underlyer of the swap. In
      the case of a basket swap, this element is used to reference both the number of basket
      units, and the number of each asset components of the basket when these are expressed
      in absolute terms.'

      <basketPercentage> RestrictedPercentage </basketPercentage> [1]
      'The relative weight of each respective basket constituent, expressed in percentage. A
      basket percentage of 5% would be represented as 0.05.'

      <basketAmount> Money </basketAmount> [1]
      'The relative weight of each respective basket constituent, expressed as a monetary amount.'

End Choice
</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="ConstituentWeight">
   <xsd:choice>
      <xsd:element name="openUnits" type=" xsd:decimal "/>
      <xsd:element name="basketPercentage" type=" RestrictedPercentage "/>
      <xsd:element name="basketAmount" type=" Money "/>
   </xsd:choice>
</xsd:complexType>
```

top

Complex Type: ConvertibleBond

Super-types:	Asset < UnderlyingAsset (by extension) < ExchangeTraded (by extension) < Bond (by extension) < **ConvertibleBond** (by extension)
Sub-types:	None

Name	ConvertibleBond
Used by (from the same schema document)	Element **convertibleBond**
Abstract	no

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

   <relatedExchangeId> ExchangeId </relatedExchangeId> [0..*]
   'A short form unique identifier for a related exchange. If the element is not present then
   the exchange shall be the primary exchange on which listed futures and options on
```

the underlying are listed. The term \"Exchange\" is assumed to have the meaning as defined in the ISDA 2002 Equity Derivatives Definitions.'

<optionsExchangeId> ExchangeId </optionsExchangeId> [0..*]

'A short form unique identifier for an exchange on which the reference option contract is listed. This is to address the case where the reference exchange for the future is different than the one for the option. The options Exchange is referenced on share options when Merger Elections are selected as Options Exchange Adjustment.'

Start Choice [0..1]

'Specifies the issuer name of a fixed income security or convertible bond. This name can either be explicitly stated, or specified as an href into another element of the document, such as the obligor'

<issuerName> xsd:string </issuerName> [1]

<issuerPartyReference> PartyReference </issuerPartyReference> [1]

End Choice

<seniority> CreditSeniority </seniority> [0..1]

'The repayment precedence of a debt instrument.'

<couponType> CouponType </couponType> [0..1]

'Specifies if the bond has a variable coupon, step-up/down coupon or a zero-coupon.'

<couponRate> xsd:decimal </couponRate> [0..1]

'Specifies the coupon rate (expressed in percentage) of a fixed income security or convertible bond.'

<maturity> xsd:date </maturity> [0..1]

'The date when the principal amount of a security becomes due and payable.'

<parValue> xsd:decimal </parValue> [0..1]

'Specifies the nominal amount of a fixed income security or convertible bond.'

<faceAmount> xsd:decimal </faceAmount> [0..1]

'Specifies the total amount of the issue. Corresponds to the par value multiplied by the number of issued security.'

<paymentFrequency> Interval </paymentFrequency> [0..1]

'Specifies the frequency at which the bond pays, e.g. 6M.'

<dayCountFraction> DayCountFraction </dayCountFraction> [0..1]

'The day count basis for the bond.'

<underlyingEquity> EquityAsset </underlyingEquity> [0..1]

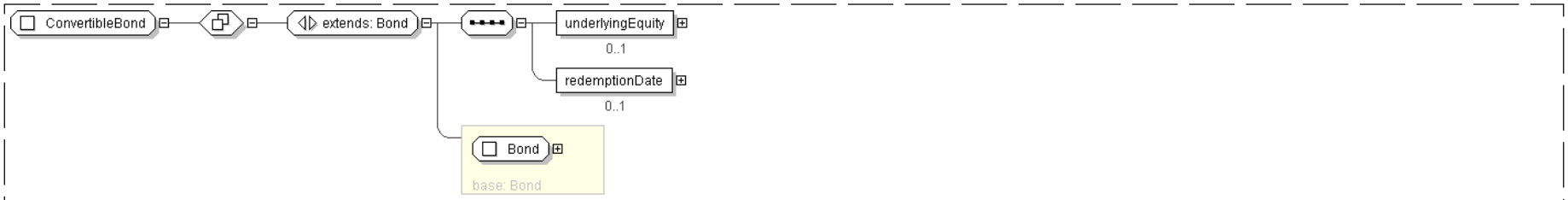
'Specifies the equity in which the convertible bond can be converted.'

<redemptionDate> xsd:date </redemptionDate> [0..1]

'Earlier date between the convertible bond put dates and its maturity date.'

</...>

Diagram



Schema Component Representation

```
<xsd:complexType name="ConvertibleBond">
   <xsd:complexContent>
```

```
      <xsd:extension base=" Bond ">
         <xsd:sequence>
            <xsd:element name="underlyingEquity" type=" EquityAsset " minOccurs="0"/>
            <xsd:element name="redemptionDate" type=" xsd:date " minOccurs="0"/>
         </xsd:sequence>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: CouponType

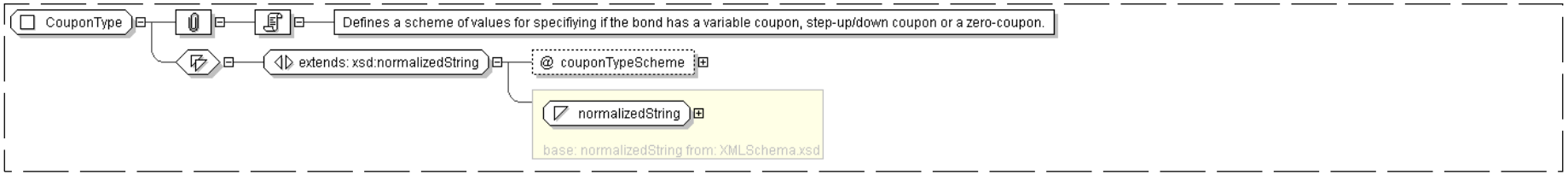
Super-types:	xsd:normalizedString < **CouponType** (by extension)
Sub-types:	None

Name	CouponType
Used by (from the same schema document)	Model Group **BondContent.model**
Abstract	no
Documentation	Defines a scheme of values for specifiying if the bond has a variable coupon, step-up/down coupon or a zero-coupon.

XML Instance Representation

```
<...
couponTypeScheme=" xsd:anyURI [0..1]">
xsd:normalizedString
</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="CouponType">
   <xsd:simpleContent>
      <xsd:extension base=" xsd:normalizedString ">
         <xsd:attribute name="couponTypeScheme" type=" xsd:anyURI " default="http://www.fpml.org/
         coding-scheme/coupon-type-1-0"/>
      </xsd:extension>
   </xsd:simpleContent>
</xsd:complexType>
```

top

Complex Type: Deposit

Super-types:	Asset < UnderlyingAsset (by extension) < **Deposit** (by extension)
Sub-types:	None

Name	Deposit
Used by (from the same schema document)	Element **deposit**
Abstract	no

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
```

'The long name of a security.'

<currency> Currency </currency> [0..1]

'The currency in which an amount is denominated.'

<exchangeId> ExchangeId </exchangeId> [0..1]
<clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
<definition> ProductReference </definition> [0..1]

'An optional reference to a full FpML product that defines the simple product in greater detail. In case of inconsistency between the terms of the simple product and those of the detailed definition, the values in the simple product override those in the detailed definition.'

<term> Interval </term> [1]

'Specifies the term of the deposit, e.g. 5Y.'

<paymentFrequency> Interval </paymentFrequency> [0..1]

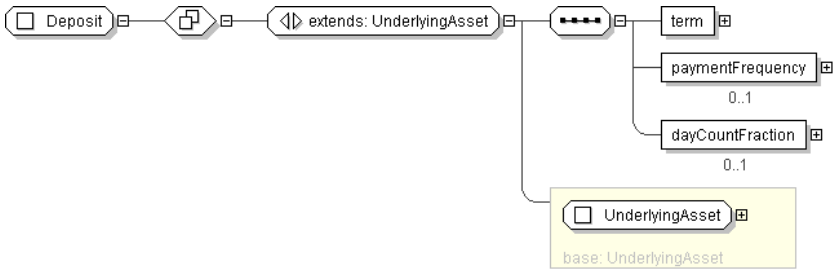
'Specifies the frequency at which the deposit pays, e.g. 6M.'

<dayCountFraction> DayCountFraction </dayCountFraction> [0..1]

'The day count basis for the deposit.'

</...>

Diagram



Schema Component Representation

```
<xsd:complexType name="Deposit">
   <xsd:complexContent>
      <xsd:extension base=" UnderlyingAsset ">
         <xsd:sequence>
            <xsd:element name="term" type=" Interval "/>
            <xsd:element name="paymentFrequency" type=" Interval " minOccurs="0"/>
            <xsd:element name="dayCountFraction" type=" DayCountFraction " minOccurs="0"/>
         </xsd:sequence>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: DividendPayout

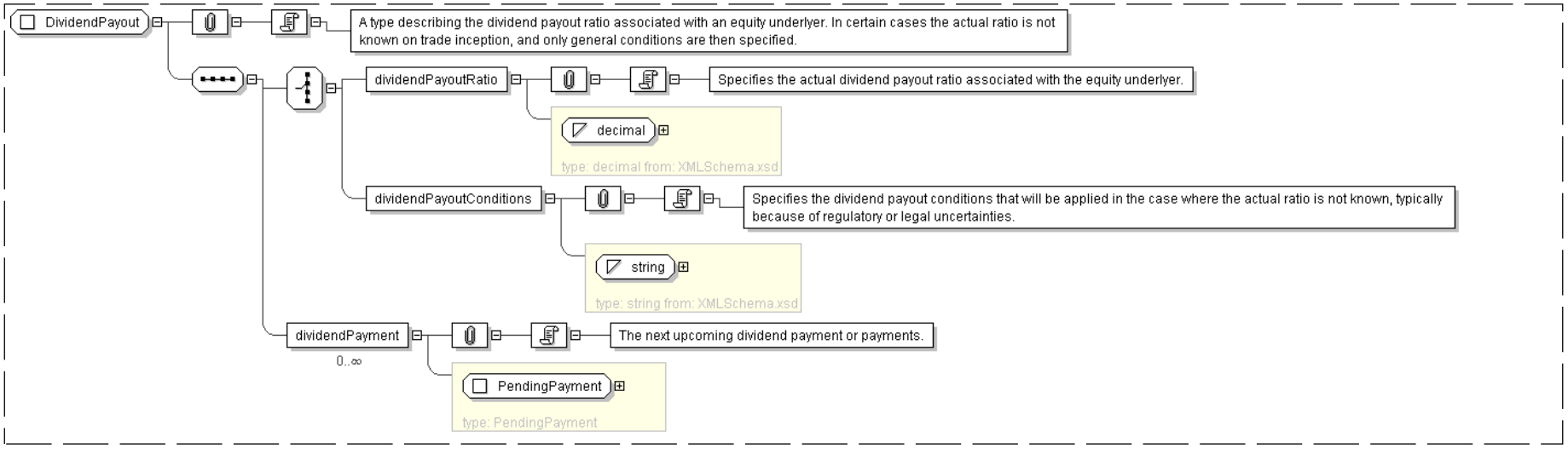
Super-types:	None
Sub-types:	None

Name	DividendPayout
Used by (from the same schema document)	Complex Type **BasketConstituent** , Complex Type **SingleUnderlyer**
Abstract	no
Documentation	A type describing the dividend payout ratio associated with an equity underlyer. In certain cases the actual ratio is not known on trade inception, and only general conditions are then specified.

XML Instance Representation

```
<...>
Start Choice [1]
      <dividendPayoutRatio> xsd:decimal </dividendPayoutRatio> [1]
       'Specifies the actual dividend payout ratio associated with the equity underlyer.'

      <dividendPayoutConditions> xsd:string </dividendPayoutConditions> [1]
       'Specifies the dividend payout conditions that will be applied in the case where the
       actual ratio is not known, typically because of regulatory or legal uncertainties.'

End Choice
   <dividendPayment> PendingPayment </dividendPayment> [0..*]
    'The next upcoming dividend payment or payments.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="DividendPayout">
   <xsd:sequence>
      <xsd:choice>
         <xsd:element name="dividendPayoutRatio" type=" xsd:decimal "/>
         <xsd:element name="dividendPayoutConditions" type=" xsd:string "/>
      </xsd:choice>
      <xsd:element name="dividendPayment" type=" PendingPayment " minOccurs="0"
      maxOccurs="unbounded"/>
   </xsd:sequence>
</xsd:complexType>
```

top

Complex Type: EquityAsset

Super-types:	Asset < UnderlyingAsset (by extension) < ExchangeTraded (by extension) < **EquityAsset** (by extension)
Sub-types:	None

Name	EquityAsset
Used by (from the same schema document)	Complex Type **ConvertibleBond** , Element **equity**
Abstract	no

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
```

```
<instrumentId> InstrumentId </instrumentId> [1..*]
<description> xsd:string </description> [0..1]
```

'The long name of a security.'

```
<currency> Currency </currency> [0..1]
```

'The currency in which an amount is denominated.'

```
<exchangeId> ExchangeId </exchangeId> [0..1]
<clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
<definition> ProductReference </definition> [0..1]
```

'An optional reference to a full FpML product that defines the simple product in greater detail. In case of inconsistency between the terms of the simple product and those of the detailed definition, the values in the simple product override those in the detailed definition.'

```
<relatedExchangeId> ExchangeId </relatedExchangeId> [0..*]
```

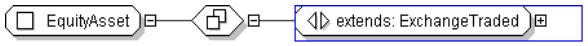
'A short form unique identifier for a related exchange. If the element is not present then the exchange shall be the primary exchange on which listed futures and options on the underlying are listed. The term \"Exchange\" is assumed to have the meaning as defined in the ISDA 2002 Equity Derivatives Definitions.'

```
<optionsExchangeId> ExchangeId </optionsExchangeId> [0..*]
```

'A short form unique identifier for an exchange on which the reference option contract is listed. This is to address the case where the reference exchange for the future is different than the one for the option. The options Exchange is referenced on share options when Merger Elections are selected as Options Exchange Adjustment.'

```
</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="EquityAsset">
   <xsd:complexContent>
      <xsd:extension base=" ExchangeTraded "/>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: ExchangeTraded

Super-types:	Asset < UnderlyingAsset (by extension) < **ExchangeTraded** (by extension)
Sub-types:	• Bond (by extension) ○ ConvertibleBond (by extension) • EquityAsset (by extension) • ExchangeTradedContract (by extension) • ExchangeTradedFund (by extension) • Future (by extension) • Index (by extension)

Name	ExchangeTraded
Abstract	yes

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
```

'The long name of a security.'

```
   <currency> Currency </currency> [0..1]
```

'The currency in which an amount is denominated.'

```
<exchangeId> ExchangeId </exchangeId> [0..1]
<clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
<definition> ProductReference </definition> [0..1]
```

'An optional reference to a full FpML product that defines the simple product in greater detail. In case of inconsistency between the terms of the simple product and those of the detailed definition, the values in the simple product override those in the detailed definition.'

<relatedExchangeId> ExchangeId </relatedExchangeId> [0..*]

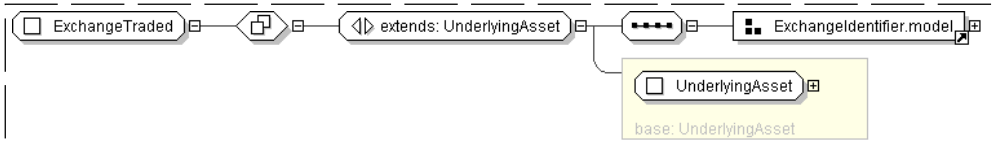
'A short form unique identifier for a related exchange. If the element is not present then the exchange shall be the primary exchange on which listed futures and options on the underlying are listed. The term \"Exchange\" is assumed to have the meaning as defined in the ISDA 2002 Equity Derivatives Definitions.'

<optionsExchangeId> ExchangeId </optionsExchangeId> [0..*]

'A short form unique identifier for an exchange on which the reference option contract is listed. This is to address the case where the reference exchange for the future is different than the one for the option. The options Exchange is referenced on share options when Merger Elections are selected as Options Exchange Adjustment.'

```
</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="ExchangeTraded" abstract="true">
   <xsd:complexContent>
      <xsd:extension base=" UnderlyingAsset ">
         <xsd:sequence>
            <xsd:group ref=" ExchangeIdentifier.model "/>
         </xsd:sequence>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: ExchangeTradedContract

Super-types:	Asset < UnderlyingAsset (by extension) < ExchangeTraded (by extension) < **ExchangeTradedContract** (by extension)
Sub-types:	None

Name	ExchangeTradedContract
Abstract	no
Documentation	A type an Exchange Traded Contract

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
```

'The long name of a security.'

```
   <currency> Currency </currency> [0..1]
```

'The currency in which an amount is denominated.'

```
   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
```

'An optional reference to a full FpML product that defines the simple product in

greater detail. In case of inconsistency between the terms of the simple product and those of the detailed definition, the values in the simple product override those in the detailed definition.'

<relatedExchangeId> ExchangeId </relatedExchangeId> [0..*]

'A short form unique identifier for a related exchange. If the element is not present then the exchange shall be the primary exchange on which listed futures and options on the underlying are listed. The term \"Exchange\" is assumed to have the meaning as defined in the ISDA 2002 Equity Derivatives Definitions.'

<optionsExchangeId> ExchangeId </optionsExchangeId> [0..*]

'A short form unique identifier for an exchange on which the reference option contract is listed. This is to address the case where the reference exchange for the future is different than the one for the option. The options Exchange is referenced on share options when Merger Elections are selected as Options Exchange Adjustment.'

<multiplier> xsd:positiveInteger </multiplier> [0..1]

'Specifies the contract multiplier that can be associated with the number of units.'

<contractReference> xsd:string </contractReference> [0..1]

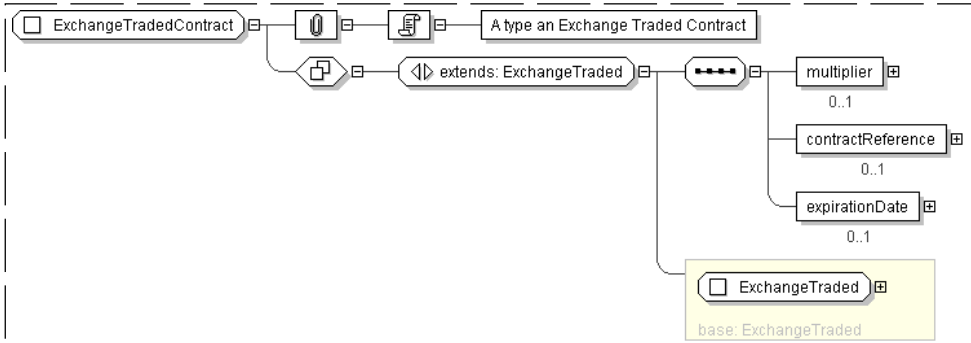
'Specifies the contract that can be referenced, besides the undelyer type.'

<expirationDate> AdjustableOrRelativeDate </expirationDate> [0..1]

'The date when the contract expires.'

</...>

Diagram



Schema Component Representation

```
<xsd:complexType name="ExchangeTradedContract">
   <xsd:complexContent>
      <xsd:extension base=" ExchangeTraded ">
         <xsd:sequence>
            <xsd:element name="multiplier" type=" xsd:positiveInteger " minOccurs="0"/>
            <xsd:element name="contractReference" type=" xsd:string " minOccurs="0"/>
            <xsd:element name="expirationDate" type=" AdjustableOrRelativeDate " minOccurs="0"/>
         </xsd:sequence>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: ExchangeTradedFund

Super-types:	Asset < UnderlyingAsset (by extension) < ExchangeTraded (by extension) < **ExchangeTradedFund** (by extension)
Sub-types:	None

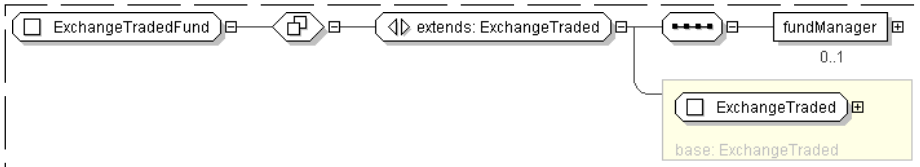
Name	ExchangeTradedFund
Used by (from the same schema document)	Element **exchangeTradedFund**

Abstract	no

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

   <relatedExchangeId> ExchangeId </relatedExchangeId> [0..*]
   'A short form unique identifier for a related exchange. If the element is not present then
   the exchange shall be the primary exchange on which listed futures and options on
   the underlying are listed. The term \"Exchange\" is assumed to have the meaning as defined
   in the ISDA 2002 Equity Derivatives Definitions.'

   <optionsExchangeId> ExchangeId </optionsExchangeId> [0..*]
   'A short form unique identifier for an exchange on which the reference option contract
   is listed. This is to address the case where the reference exchange for the future is
   different than the one for the option. The options Exchange is referenced on share options
   when Merger Elections are selected as Options Exchange Adjustment.'

   <fundManager> xsd:string </fundManager> [0..1]
   'Specifies the fund manager that is in charge of the fund.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="ExchangeTradedFund">
   <xsd:complexContent>
      <xsd:extension base=" ExchangeTraded ">
         <xsd:sequence>
            <xsd:element name="fundManager" type=" xsd:string " minOccurs="0"/>
         </xsd:sequence>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: FacilityType

Super-types:	xsd:token < **FacilityType** (by extension)
Sub-types:	None

Name	FacilityType
Used by (from the same schema document)	Complex Type **Loan**

Abstract	no
Documentation	A type describing the type of loan facility.

XML Instance Representation

```
<...
facilityTypeScheme=" xsd:anyURI [0..1]">
xsd:token
</...>
```

Diagram

Schema Component Representation

```
<xsd:complexType name="FacilityType">
   <xsd:simpleContent>
      <xsd:extension base=" xsd:token ">
         <xsd:attribute name="facilityTypeScheme" type=" xsd:anyURI " default="http://www.fpml.
         org/coding-scheme/facility-type-1-0"/>
      </xsd:extension>
   </xsd:simpleContent>
</xsd:complexType>
```

top

Complex Type: Future

Super-types:	Asset < UnderlyingAsset (by extension) < ExchangeTraded (by extension) < **Future** (by extension)
Sub-types:	None

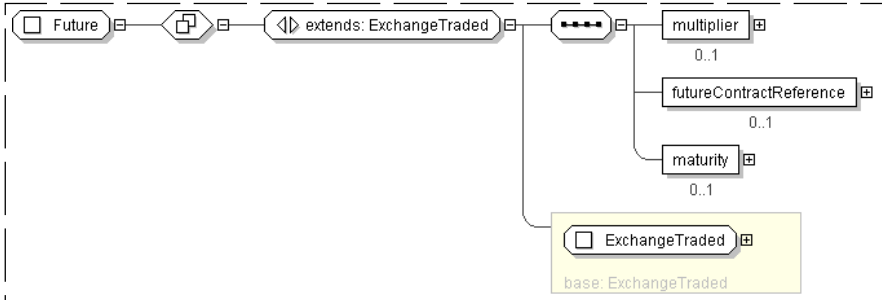
Name	Future
Used by (from the same schema document)	Element **future**
Abstract	no

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

   <relatedExchangeId> ExchangeId </relatedExchangeId> [0..*]
   'A short form unique identifier for a related exchange. If the element is not present then
   the exchange shall be the primary exchange on which listed futures and options on
   the underlying are listed. The term \"Exchange\" is assumed to have the meaning as defined
   in the ISDA 2002 Equity Derivatives Definitions.'

   <optionsExchangeId> ExchangeId </optionsExchangeId> [0..*]
```

```
'A short form unique identifier for an exchange on which the reference option contract
is listed. This is to address the case where the reference exchange for the future is
different than the one for the option. The options Exchange is referenced on share options
when Merger Elections are selected as Options Exchange Adjustment.'

<multiplier> xsd:positiveInteger </multiplier> [0..1]
'Specifies the contract multiplier that can be associated with the number of units.'

<futureContractReference> xsd:string </futureContractReference> [0..1]
'Specifies the future contract that can be referenced, besides the equity or index
reference defined as part of the UnderlyerAsset type.'

<maturity> xsd:date </maturity> [0..1]
'The date when the future contract expires.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="Future">
   <xsd:complexContent>
      <xsd:extension base=" ExchangeTraded ">
         <xsd:sequence>
            <xsd:element name="multiplier" type=" xsd:positiveInteger " minOccurs="0"/>
            <xsd:element name="futureContractReference" type=" xsd:string " minOccurs="0"/>
            <xsd:element name="maturity" type=" xsd:date " minOccurs="0"/>
         </xsd:sequence>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: FutureId

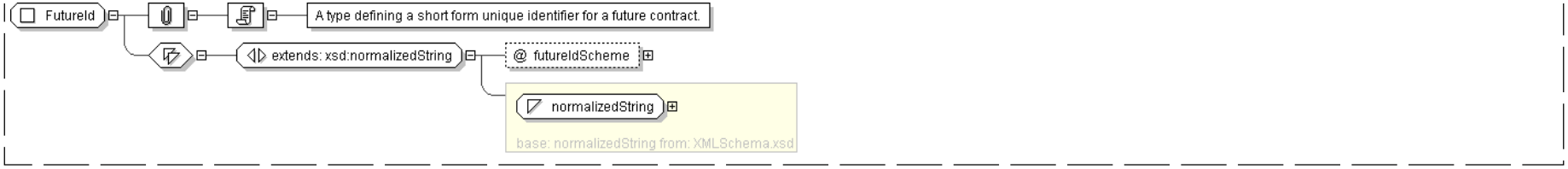
Super-types:	xsd:normalizedString < **FutureId** (by extension)
Sub-types:	None

Name	FutureId
Used by (from the same schema document)	Complex Type **Index**
Abstract	no
Documentation	A type defining a short form unique identifier for a future contract.

XML Instance Representation

```
<...
futureIdScheme=" xsd:anyURI [0..1]">
xsd:normalizedString
</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="FutureId">
   <xsd:simpleContent>
      <xsd:extension base=" xsd:normalizedString ">
         <xsd:attribute name="futureIdScheme" type=" xsd:anyURI "/>
      </xsd:extension>
   </xsd:simpleContent>
</xsd:complexType>
```

top

Complex Type: FxConversion

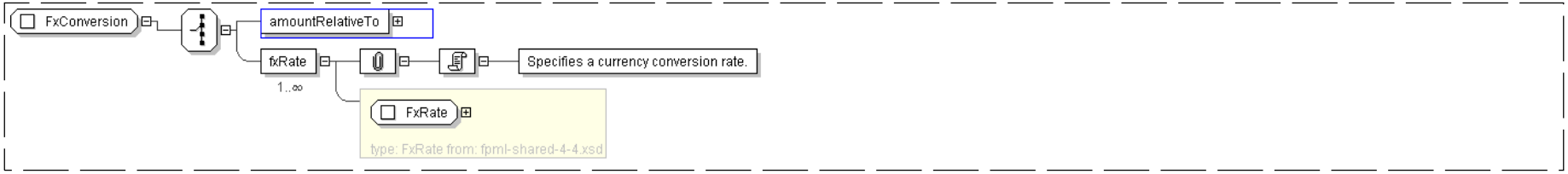
Super-types:	None
Sub-types:	None

Name	FxConversion
Used by (from the same schema document)	Complex Type **Price**
Abstract	no

XML Instance Representation

```
<...>
Start Choice [1]
      <amountRelativeTo> AmountReference </amountRelativeTo> [1]
      <fxRate> FxRate </fxRate> [1..*]
      'Specifies a currency conversion rate.'

End Choice
</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="FxConversion">
   <xsd:choice>
      <xsd:element name="amountRelativeTo" type=" AmountReference "/>
      <xsd:element name="fxRate" type=" FxRate " maxOccurs="unbounded"/>
   </xsd:choice>
</xsd:complexType>
```

top

Complex Type: FxRateAsset

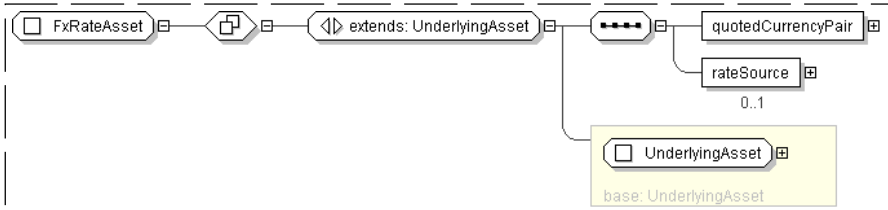
Super-types:	Asset < UnderlyingAsset (by extension) < **FxRateAsset** (by extension)
Sub-types:	None

Name	FxRateAsset
Used by (from the same schema document)	Element **fxRate**
Abstract	no

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

   <quotedCurrencyPair> QuotedCurrencyPair </quotedCurrencyPair> [1]
   'Defines the two currencies for an FX trade and the quotation relationship between the
   two currencies.'

   <rateSource> FxSpotRateSource </rateSource> [0..1]
   'Defines the source of the FX rate.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="FxRateAsset">
   <xsd:complexContent>
      <xsd:extension base=" UnderlyingAsset ">
         <xsd:sequence>
            <xsd:element name="quotedCurrencyPair" type=" QuotedCurrencyPair "/>
            <xsd:element name="rateSource" type=" FxSpotRateSource " minOccurs="0"/>
         </xsd:sequence>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: Index

Super-types:	Asset < UnderlyingAsset (by extension) < ExchangeTraded (by extension) < **Index** (by extension)
Sub-types:	None

Name	Index
Used by (from the same schema document)	Element **index**
Abstract	no

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

   <relatedExchangeId> ExchangeId </relatedExchangeId> [0..*]
   'A short form unique identifier for a related exchange. If the element is not present then
   the exchange shall be the primary exchange on which listed futures and options on
   the underlying are listed. The term \"Exchange\" is assumed to have the meaning as defined
   in the ISDA 2002 Equity Derivatives Definitions.'

   <optionsExchangeId> ExchangeId </optionsExchangeId> [0..*]
   'A short form unique identifier for an exchange on which the reference option contract
   is listed. This is to address the case where the reference exchange for the future is
   different than the one for the option. The options Exchange is referenced on share options
   when Merger Elections are selected as Options Exchange Adjustment.'

   <futureId> FutureId </futureId> [0..1]
   'A short form unique identifier for the reference future contract in the case of an
   index underlyer.'

</...>
```

Diagram

Schema Component Representation

```
<xsd:complexType name="Index">
   <xsd:complexContent>
      <xsd:extension base=" ExchangeTraded ">
         <xsd:sequence>
            <xsd:element name="futureId" type=" FutureId " minOccurs="0"/>
         </xsd:sequence>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: Lien

Super-types:	xsd:normalizedString < **Lien** (by extension)
Sub-types:	None

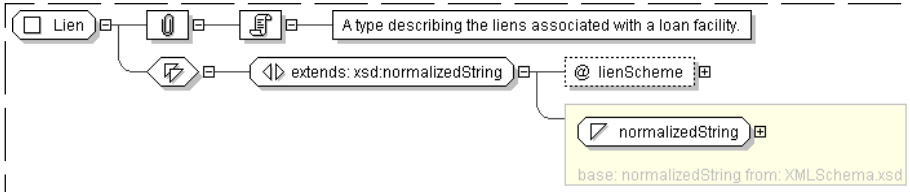
Name	Lien
Used by (from the same schema document)	Complex Type **Loan**

Abstract	no
Documentation	A type describing the liens associated with a loan facility.

XML Instance Representation

```
<...
lienScheme=" xsd:anyURI [0..1]">
xsd:normalizedString
</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="Lien">
   <xsd:simpleContent>
      <xsd:extension base=" xsd:normalizedString ">
         <xsd:attribute name="lienScheme" type=" xsd:anyURI " default="http://www.fpml.org/coding-
         scheme/designated-priority-1-0"/>
      </xsd:extension>
   </xsd:simpleContent>
</xsd:complexType>
```

top

Complex Type: Loan

Super-types:	Asset < UnderlyingAsset (by extension) < **Loan** (by extension)
Sub-types:	None

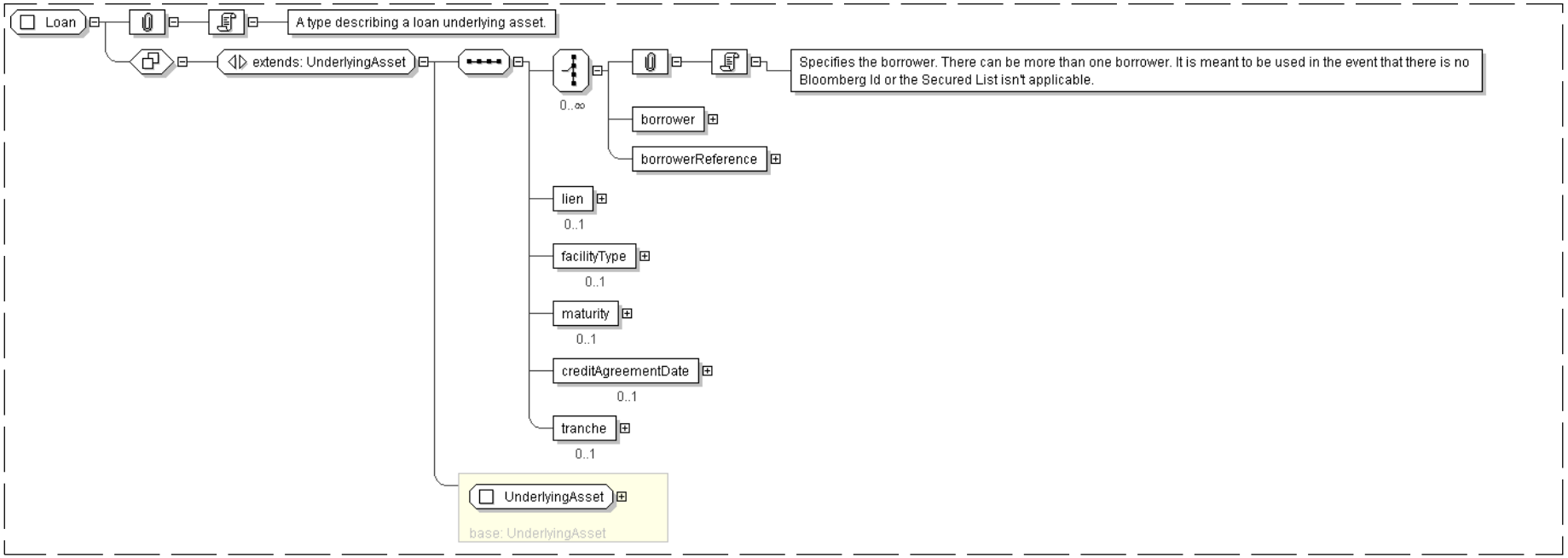
Name	Loan
Used by (from the same schema document)	Element **loan**
Abstract	no
Documentation	A type describing a loan underlying asset.

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

Start Choice [0..*]
'Specifies the borrower. There can be more than one borrower. It is meant to be used in
the event that there is no Bloomberg Id or the Secured List isn\'t applicable.'


      <borrower> LegalEntity </borrower> [1]
```

```
      <borrowerReference> LegalEntityReference </borrowerReference> [1]
End Choice
   <lien> Lien </lien> [0..1]
   'Specifies the seniority level of the lien.'

   <facilityType> FacilityType </facilityType> [0..1]
   'The type of loan facility (letter of credit, revolving, ...).'

   <maturity> xsd:date </maturity> [0..1]
   'The date when the principal amount of the loan becomes due and payable.'

   <creditAgreementDate> xsd:date </creditAgreementDate> [0..1]
   'The credit agreement date is the closing date (the date where the agreement has been
   signed) for the loans in the credit agreement. Funding of the facilities occurs on
   (or sometimes a little after) the Credit Agreement date. This underlyer attribute is used
   to help identify which of the company\'s outstanding loans are being referenced by knowing
   to which credit agreement it belongs. ISDA Standards Terms Supplement term: Date of
   Original Credit Agreement.'

   <tranche> UnderlyingAssetTranche </tranche> [0..1]
   'The loan tranche that is subject to the derivative transaction. It will typically
   be referenced as the Bloomberg tranche number. ISDA Standards Terms Supplement term:
   Bloomberg Tranche Number.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="Loan">
   <xsd:complexContent>
      <xsd:extension base=" UnderlyingAsset ">
         <xsd:sequence>
            <xsd:choice minOccurs="0" maxOccurs="unbounded">
               <xsd:element name="borrower" type=" LegalEntity "/>
               <xsd:element name="borrowerReference" type=" LegalEntityReference "/>
            </xsd:choice>
            <xsd:element name="lien" type=" Lien " minOccurs="0"/>
            <xsd:element name="facilityType" type=" FacilityType " minOccurs="0"/>
            <xsd:element name="maturity" type=" xsd:date " minOccurs="0"/>
```

```
            <xsd:element name="creditAgreementDate" type=" xsd:date " minOccurs="0"/>
            <xsd:element name="tranche" type=" UnderlyingAssetTranche " minOccurs="0"/>
        </xsd:sequence>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: Mortgage

Super-types:	Asset < UnderlyingAsset (by extension) < **Mortgage** (by extension)
Sub-types:	None

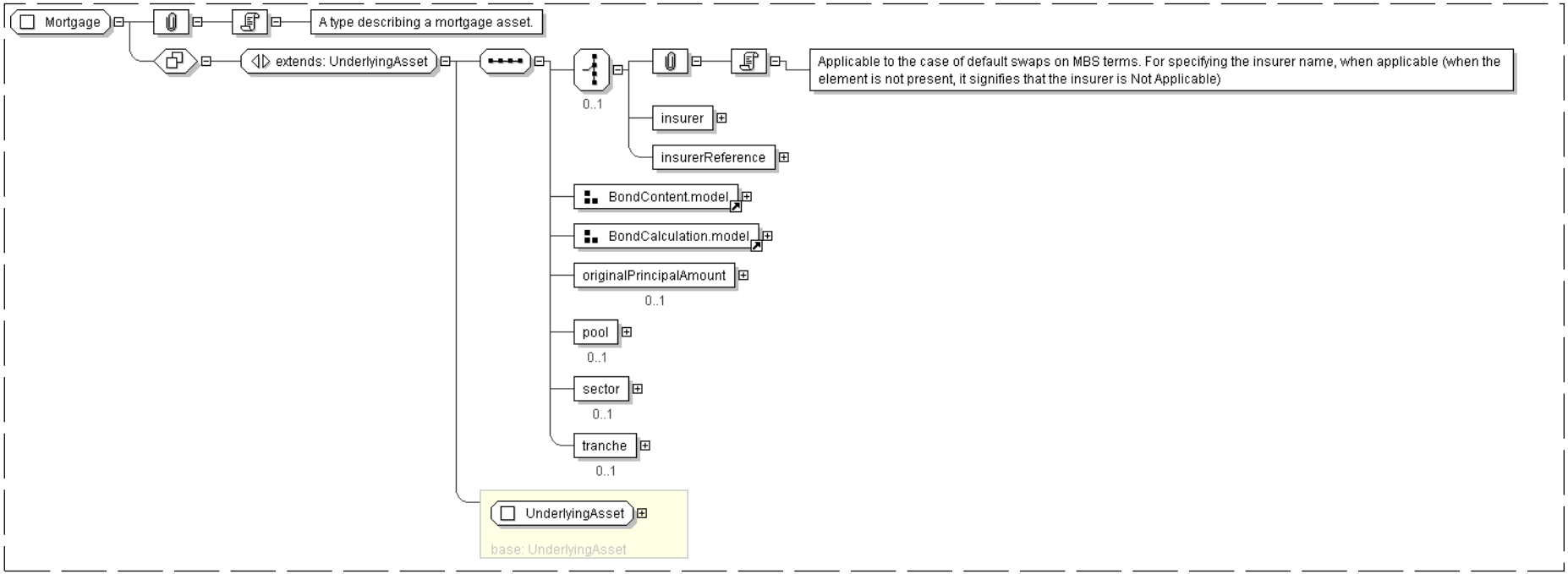
Name	Mortgage
Used by (from the same schema document)	Element **mortgage**
Abstract	no
Documentation	A type describing a mortgage asset.

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

Start Choice [0..1]
'Applicable to the case of default swaps on MBS terms. For specifying the insurer name,
when applicable (when the element is not present, it signifies that the insurer is
Not Applicable)'

      <insurer> LegalEntity </insurer> [1]
      <insurerReference> LegalEntityReference </insurerReference> [1]
End Choice
Start Choice [0..1]
'Specifies the issuer name of a fixed income security or convertible bond. This name can
either be explicitly stated, or specified as an href into another element of the document,
such as the obligor'

      <issuerName> xsd:string </issuerName> [1]
      <issuerPartyReference> PartyReference </issuerPartyReference> [1]
End Choice
   <seniority> CreditSeniority </seniority> [0..1]
   'The repayment precedence of a debt instrument.'

   <couponType> CouponType </couponType> [0..1]
   'Specifies if the bond has a variable coupon, step-up/down coupon or a zero-coupon.'

   <couponRate> xsd:decimal </couponRate> [0..1]
   'Specifies the coupon rate (expressed in percentage) of a fixed income security or
   convertible bond.'

   <maturity> xsd:date </maturity> [0..1]
   'The date when the principal amount of a security becomes due and payable.'
```

```
<paymentFrequency> Interval </paymentFrequency> [0..1]
'Specifies the frequency at which the bond pays, e.g. 6M.'

<dayCountFraction> DayCountFraction </dayCountFraction> [0..1]
'The day count basis for the bond.'

<originalPrincipalAmount> xsd:decimal </originalPrincipalAmount> [0..1]
'The initial issued amount of the mortgage obligation.'

<pool> AssetPool </pool> [0..1]
'The morgage pool that is underneath the mortgage obligation.'

<sector> MortgageSector </sector> [0..1]
'The sector classification of the mortgage obligation.'

<tranche> xsd:token </tranche> [0..1]
'The mortgage obligation tranche that is subject to the derivative transaction.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="Mortgage">
   <xsd:complexContent>
      <xsd:extension base=" UnderlyingAsset ">
         <xsd:sequence>
            <xsd:choice minOccurs="0">
               <xsd:element name="insurer" type=" LegalEntity "/>
               <xsd:element name="insurerReference" type=" LegalEntityReference "/>
            </xsd:choice>
            <xsd:group ref=" BondContent.model "/>
            <xsd:group ref=" BondCalculation.model "/>
            <xsd:element name="originalPrincipalAmount" type=" xsd:decimal " minOccurs="0"/>
            <xsd:element name="pool" type=" AssetPool " minOccurs="0"/>
            <xsd:element name="sector" type=" MortgageSector " minOccurs="0"/>
            <xsd:element name="tranche" type=" xsd:token " minOccurs="0"/>
```

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

top

Complex Type: MortgageSector

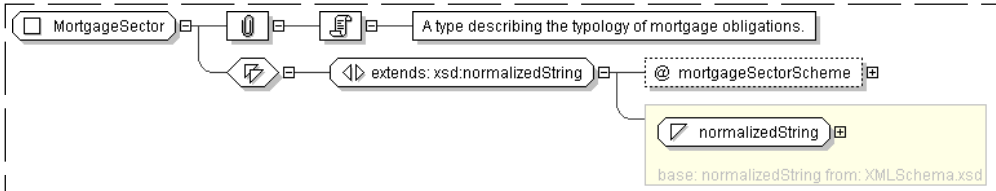
Super-types:	xsd:normalizedString < **MortgageSector** (by extension)
Sub-types:	None

Name	MortgageSector
Used by (from the same schema document)	Complex Type **Mortgage**
Abstract	no
Documentation	A type describing the typology of mortgage obligations.

XML Instance Representation

```
<...
mortgageSectorScheme=" xsd:anyURI [0..1]">
xsd:normalizedString
</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="MortgageSector">
   <xsd:simpleContent>
      <xsd:extension base=" xsd:normalizedString ">
         <xsd:attribute name="mortgageSectorScheme" type=" xsd:anyURI " default="http://www.fpml.
         org/coding-scheme/mortgage-sector-1-0"/>
      </xsd:extension>
   </xsd:simpleContent>
</xsd:complexType>
```

top

Complex Type: MutualFund

Super-types:	Asset < UnderlyingAsset (by extension) < **MutualFund** (by extension)
Sub-types:	None

Name	MutualFund
Used by (from the same schema document)	Element **mutualFund**
Abstract	no

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'
```

```
<exchangeId> ExchangeId </exchangeId> [0..1]
<clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
<definition> ProductReference </definition> [0..1]
```

'An optional reference to a full FpML product that defines the simple product in greater detail. In case of inconsistency between the terms of the simple product and those of the detailed definition, the values in the simple product override those in the detailed definition.'

```
<openEndedFund> xsd:boolean </openEndedFund> [0..1]
```

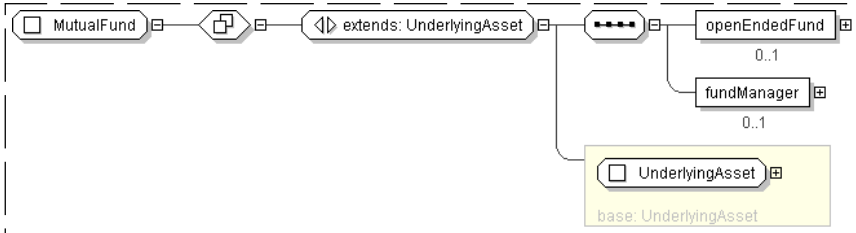
'Boolean indicator to specify whether the mutual fund is an open-ended mutual fund.'

```
<fundManager> xsd:string </fundManager> [0..1]
```

'Specifies the fund manager that is in charge of the fund.'

```
</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="MutualFund">
   <xsd:complexContent>
      <xsd:extension base=" UnderlyingAsset ">
         <xsd:sequence>
            <xsd:element name="openEndedFund" type=" xsd:boolean " minOccurs="0"/>
            <xsd:element name="fundManager" type=" xsd:string " minOccurs="0"/>
         </xsd:sequence>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: PendingPayment

Super-types:	None
Sub-types:	None

Name	PendingPayment
Used by (from the same schema document)	Complex Type **BasketConstituent** , Complex Type **DividendPayout** , Complex Type **SingleUnderlyer**
Abstract	no
Documentation	A structure representing a pending dividend or coupon payment.

XML Instance Representation

```
<...>
   <paymentDate> xsd:date </paymentDate> [1]
```

'The date that the dividend or coupon is due.'

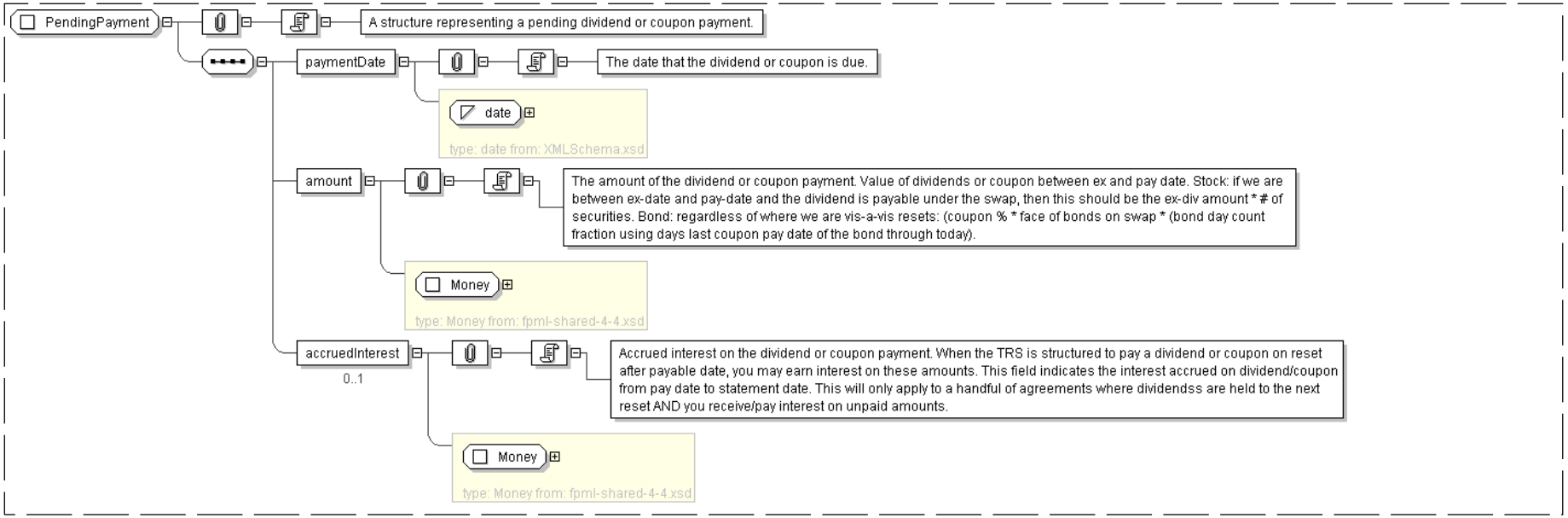
```
   <amount> Money </amount> [1]
```

*'The amount of the dividend or coupon payment. Value of dividends or coupon between ex and pay date. Stock: if we are between ex-date and pay-date and the dividend is payable under the swap, then this should be the ex-div amount * # of securities. Bond: regardless of where we are vis-a-vis resets: (coupon % * face of bonds on swap * (bond day count fraction using days last coupon pay date of the bond through today).'*

```
   <accruedInterest> Money </accruedInterest> [0..1]
```

```
    'Accrued interest on the dividend or coupon payment. When the TRS is structured to pay
    a dividend or coupon on reset after payable date, you may earn interest on these amounts.
    This field indicates the interest accrued on dividend/coupon from pay date to statement
    date. This will only apply to a handful of agreements where dividendss are held to the
    next reset AND you receive/pay interest on unpaid amounts.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="PendingPayment">
   <xsd:sequence>
      <xsd:element name="paymentDate" type=" xsd:date "/>
      <xsd:element name="amount" type=" Money "/>
      <xsd:element name="accruedInterest" type=" Money " minOccurs="0"/>
   </xsd:sequence>
</xsd:complexType>
```

top

Complex Type: Price

Super-types:	None
Sub-types:	None

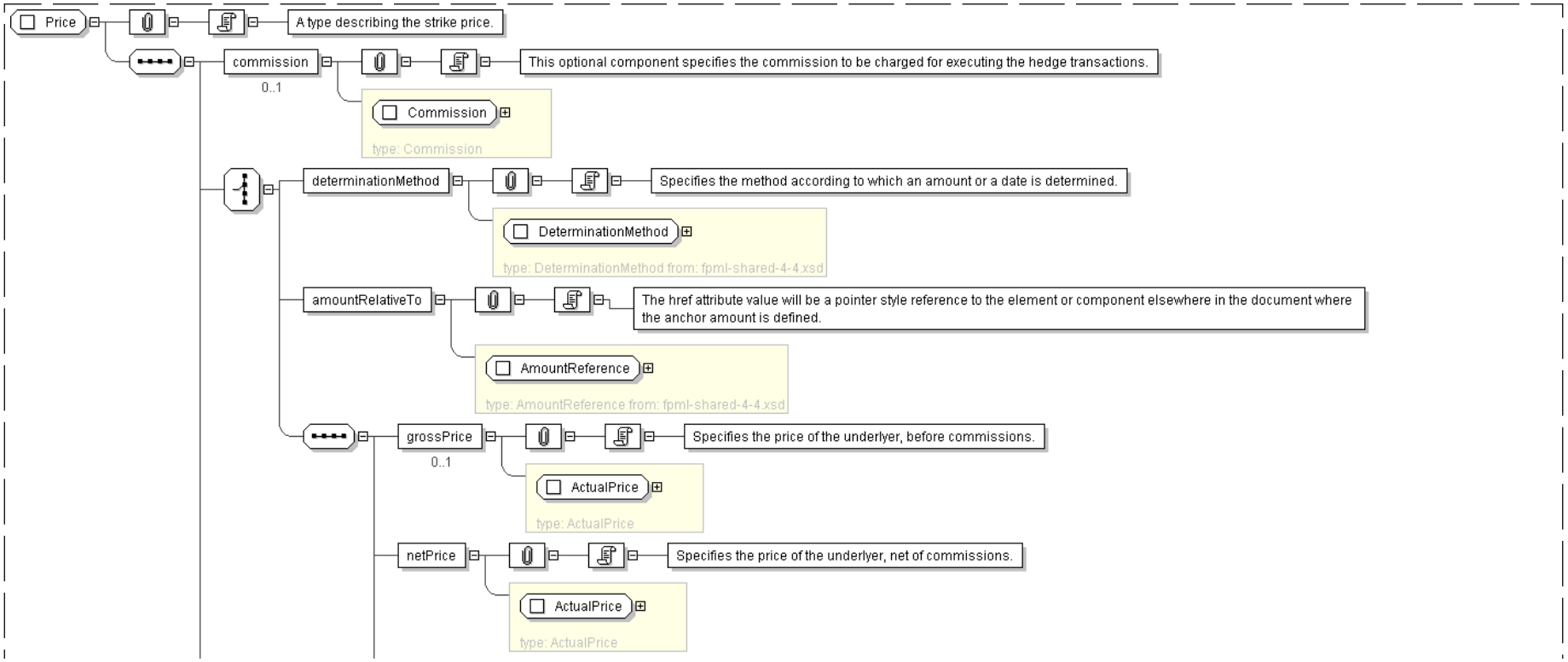
Name	Price
Used by (from the same schema document)	Complex Type **BasketConstituent**
Abstract	no
Documentation	A type describing the strike price.

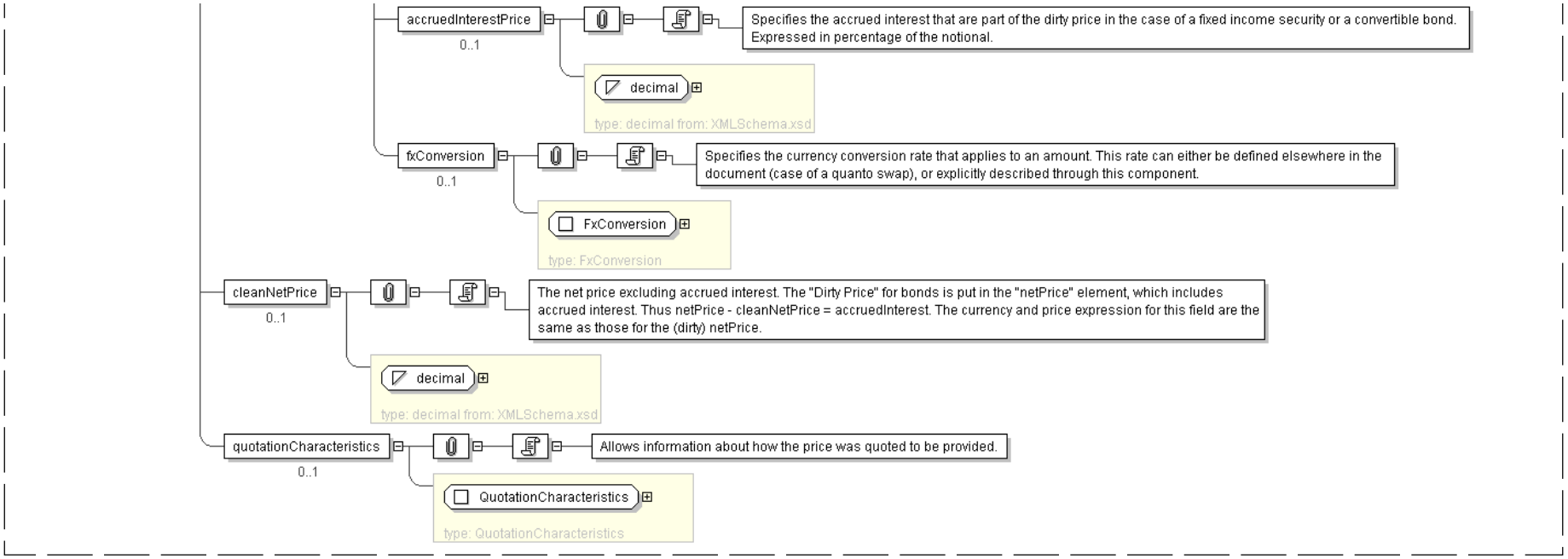
XML Instance Representation

```
<...>
   <commission> Commission </commission> [0..1]
   'This optional component specifies the commission to be charged for executing the
   hedge transactions.'

Start Choice [1]
      <determinationMethod> DeterminationMethod </determinationMethod> [1]
```

```
        'Specifies the method according to which an amount or a date is determined.'

        <amountRelativeTo> AmountReference </amountRelativeTo> [1]
        'The href attribute value will be a pointer style reference to the element or
        component elsewhere in the document where the anchor amount is defined.'

        <grossPrice> ActualPrice </grossPrice> [0..1]
        'Specifies the price of the underlyer, before commissions.'

        <netPrice> ActualPrice </netPrice> [1]
        'Specifies the price of the underlyer, net of commissions.'

        <accruedInterestPrice> xsd:decimal </accruedInterestPrice> [0..1]
        'Specifies the accrued interest that are part of the dirty price in the case of a fixed
        income security or a convertible bond. Expressed in percentage of the notional.'

        <fxConversion> FxConversion </fxConversion> [0..1]
        'Specifies the currency conversion rate that applies to an amount. This rate can either
        be defined elsewhere in the document (case of a quanto swap), or explicitly described
        through this component.'

End Choice
    <cleanNetPrice> xsd:decimal </cleanNetPrice> [0..1]
    'The net price excluding accrued interest. The \"Dirty Price\" for bonds is put in
    the \"netPrice\" element, which includes accrued interest. Thus netPrice - cleanNetPrice
    = accruedInterest. The currency and price expression for this field are the same as those
    for the (dirty) netPrice.'

    <quotationCharacteristics> QuotationCharacteristics </quotationCharacteristics> [0..1]
    'Allows information about how the price was quoted to be provided.'

</...>
```

Diagram





Schema Component Representation

```
<xsd:complexType name="Price">
   <xsd:sequence>
      <xsd:element name="commission" type=" Commission " minOccurs="0"/>
      <xsd:choice>
         <xsd:element name="determinationMethod" type=" DeterminationMethod "/>
         <xsd:element name="amountRelativeTo" type=" AmountReference "/>
         <xsd:sequence>
            <xsd:element name="grossPrice" type=" ActualPrice " minOccurs="0"/>
            <xsd:element name="netPrice" type=" ActualPrice "/>
            <xsd:element name="accruedInterestPrice" type=" xsd:decimal " minOccurs="0"/>
            <xsd:element name="fxConversion" type=" FxConversion " minOccurs="0"/>
         </xsd:sequence>
      </xsd:choice>
      <xsd:element name="cleanNetPrice" type=" xsd:decimal " minOccurs="0"/>
      <xsd:element name="quotationCharacteristics" type=" QuotationCharacteristics " minOccurs="0"/>
   </xsd:sequence>
</xsd:complexType>
```

top

Complex Type: PriceQuoteUnits

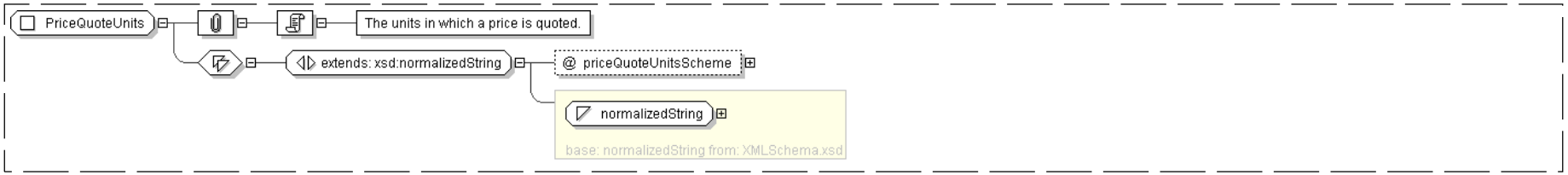
Super-types:	xsd:normalizedString < **PriceQuoteUnits** (by extension)
Sub-types:	None

Name	PriceQuoteUnits
Used by (from the same schema document)	Model Group **QuotationCharacteristics.model**
Abstract	no
Documentation	The units in which a price is quoted.

XML Instance Representation

```
<...
priceQuoteUnitsScheme=" xsd:anyURI [0..1]">
xsd:normalizedString
</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="PriceQuoteUnits">
   <xsd:simpleContent>
      <xsd:extension base=" xsd:normalizedString ">
         <xsd:attribute name="priceQuoteUnitsScheme" type=" xsd:anyURI " default="http://www.fpml.
         org/coding-scheme/price-quote-units-1-1"/>
      </xsd:extension>
   </xsd:simpleContent>
</xsd:complexType>
```

top

Complex Type: QuotationCharacteristics

Super-types:	None
Sub-types:	None

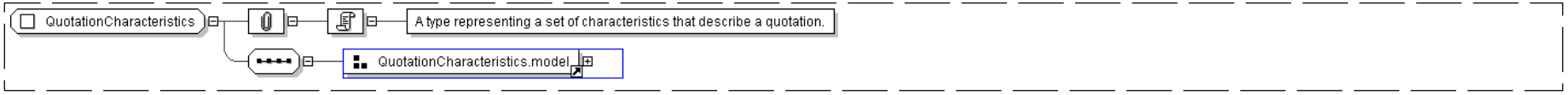
Name	QuotationCharacteristics
Used by (from the same schema document)	Complex Type **Price**
Abstract	no
Documentation	A type representing a set of characteristics that describe a quotation.

XML Instance Representation

```
<...>
   <measureType> AssetMeasureType </measureType> [0..1]
   'The type of the value that is measured. This could be an NPV, a cash flow, a clean price, etc.'

   <quoteUnits> PriceQuoteUnits </quoteUnits> [0..1]
   'The optional units that the measure is expressed in. If not supplied, this is assumed to be
   a price/value in currency units.'

   <side> QuotationSideEnum </side> [0..1]
   'The side (bid/mid/ask) of the measure.'

   <currency> Currency </currency> [0..1]
   'The optional currency that the measure is expressed in. If not supplied, this is
   defaulted from the reportingCurrency in the valuationScenarioDefinition.'

   <timing> QuoteTiming </timing> [0..1]
   'When during a day the quote is for. Typically, if this element is supplied, the
   QuoteLocation needs also to be supplied.'

Start Group: QuoteLocation.model [0..1]
'Where the quote is from.'

Start Choice [1]
         <businessCenter> BusinessCenter </businessCenter> [1]
         'A city or other business center.'

         <exchangeId> ExchangeId </exchangeId> [1]
         'The exchange (e.g. stock or futures exchange) from which the quote is obtained.'

End Choice
End Group: QuoteLocation.model
```

```
<informationSource> InformationSource </informationSource> [0..*]
'The information source where a published or displayed market rate will be obtained, e.
g. Telerate Page 3750.'

<time> xsd:dateTime </time> [0..1]
'When the quote was observed or derived.'

<valuationDate> xsd:date </valuationDate> [0..1]
'When the quote was computed.'

<expiryTime> xsd:dateTime </expiryTime> [0..1]
'When does the quote cease to be valid.'

<cashFlowType> CashflowType </cashFlowType> [0..1]
'For cash flows, the type of the cash flows. Examples include: Coupon payment, Premium
Fee, Settlement Fee, Brokerage Fee, etc.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="QuotationCharacteristics">
   <xsd:sequence>
      <xsd:group ref=" QuotationCharacteristics.model "/>
   </xsd:sequence>
</xsd:complexType>
```

top

Complex Type: QuoteTiming

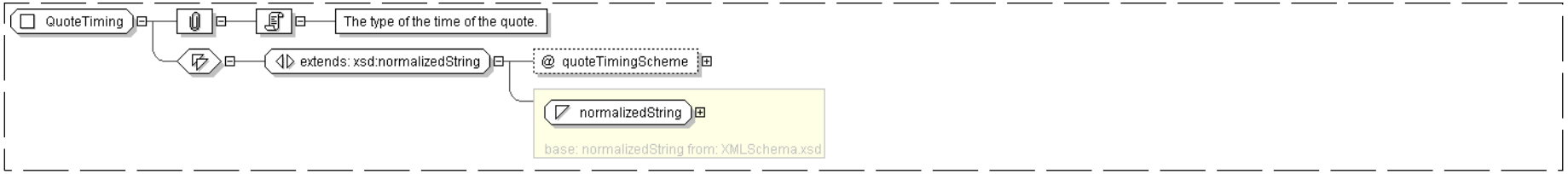
Super-types:	xsd:normalizedString < **QuoteTiming** (by extension)
Sub-types:	None

Name	QuoteTiming
Used by (from the same schema document)	Model Group **QuotationCharacteristics.model**
Abstract	no
Documentation	The type of the time of the quote.

XML Instance Representation

```
<...
quoteTimingScheme=" xsd:anyURI [0..1]">
xsd:normalizedString
</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="QuoteTiming">
   <xsd:simpleContent>
```

```
      <xsd:extension base=" xsd:normalizedString ">
         <xsd:attribute name="quoteTimingScheme" type=" xsd:anyURI " default="http://www.fpml.org/
         coding-scheme/quote-timing-1-0"/>
      </xsd:extension>
   </xsd:simpleContent>
</xsd:complexType>
```

top

Complex Type: RateIndex

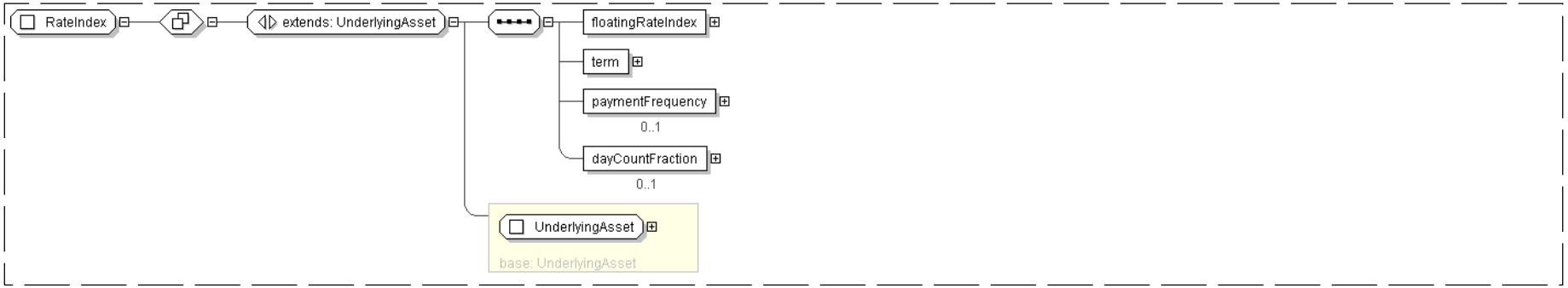
Super-types:	Asset < UnderlyingAsset (by extension) < **RateIndex** (by extension)
Sub-types:	None

Name	RateIndex
Used by (from the same schema document)	Element **rateIndex**
Abstract	no

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

   <floatingRateIndex> FloatingRateIndex </floatingRateIndex> [1]
   <term> Interval </term> [1]
   'Specifies the term of the simple swap, e.g. 5Y.'

   <paymentFrequency> Interval </paymentFrequency> [0..1]
   'Specifies the frequency at which the index pays, e.g. 6M.'

   <dayCountFraction> DayCountFraction </dayCountFraction> [0..1]
   'The day count basis for the index.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="RateIndex">
   <xsd:complexContent>
      <xsd:extension base=" UnderlyingAsset ">
         <xsd:sequence>
            <xsd:element name="floatingRateIndex" type=" FloatingRateIndex "/>
            <xsd:element name="term" type=" Interval "/>
            <xsd:element name="paymentFrequency" type=" Interval " minOccurs="0"/>
            <xsd:element name="dayCountFraction" type=" DayCountFraction " minOccurs="0"/>
         </xsd:sequence>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: SimpleCreditDefaultSwap

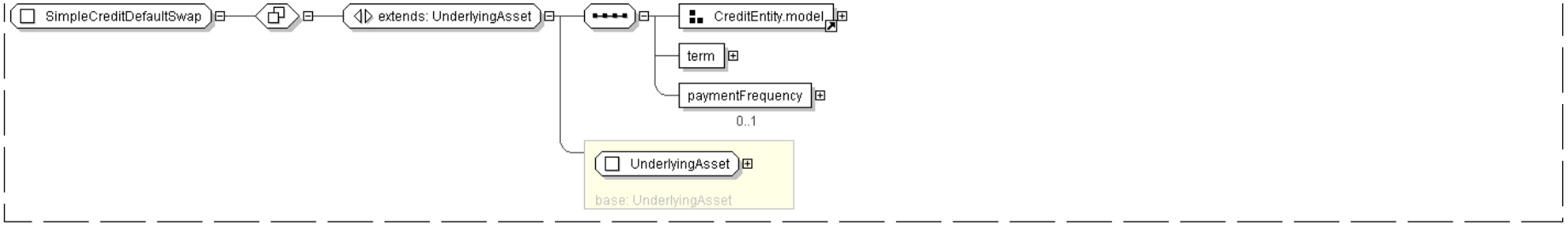
Super-types:	Asset < UnderlyingAsset (by extension) < **SimpleCreditDefaultSwap** (by extension)
Sub-types:	None

Name	SimpleCreditDefaultSwap
Used by (from the same schema document)	Element **simpleCreditDefaultSwap**
Abstract	no

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

Start Choice [1]
      <referenceEntity> LegalEntity </referenceEntity> [1]
      'The entity for which this is defined.'

      <creditEntityReference> LegalEntityReference </creditEntityReference> [1]
      'An XML reference a credit entity defined elsewhere in the document.'

End Choice
   <term> Interval </term> [1]
   'Specifies the term of the simple CD swap, e.g. 5Y.'

   <paymentFrequency> Interval </paymentFrequency> [0..1]
   'Specifies the frequency at which the swap pays, e.g. 6M.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="SimpleCreditDefaultSwap">
   <xsd:complexContent>
      <xsd:extension base=" UnderlyingAsset ">
         <xsd:sequence>
            <xsd:group ref=" CreditEntity.model "/>
            <xsd:element name="term" type=" Interval "/>
            <xsd:element name="paymentFrequency" type=" Interval " minOccurs="0"/>
         </xsd:sequence>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: SimpleFra

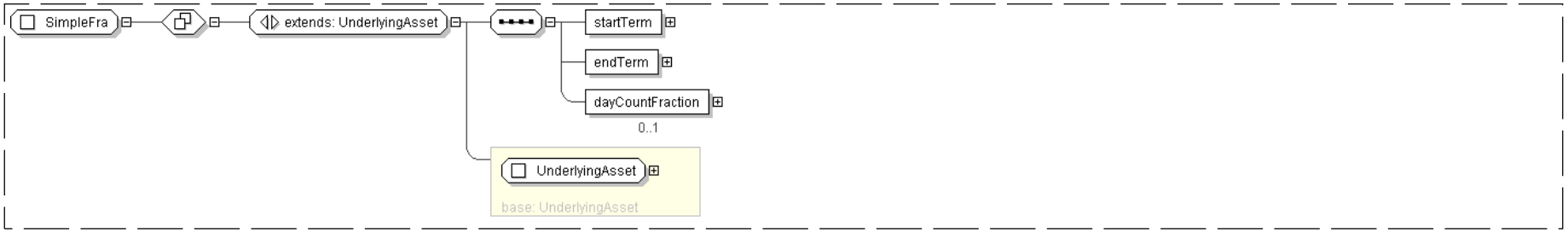
Super-types:	Asset < UnderlyingAsset (by extension) < **SimpleFra** (by extension)
Sub-types:	None

Name	SimpleFra
Used by (from the same schema document)	Element **simpleFra**
Abstract	no

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

   <startTerm> Interval </startTerm> [1]
   'Specifies the start term of the simple fra, e.g. 3M.'

   <endTerm> Interval </endTerm> [1]
   'Specifies the end term of the simple fra, e.g. 9M.'

   <dayCountFraction> DayCountFraction </dayCountFraction> [0..1]
   'The day count basis for the FRA.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="SimpleFra">
   <xsd:complexContent>
      <xsd:extension base=" UnderlyingAsset ">
         <xsd:sequence>
            <xsd:element name="startTerm" type=" Interval "/>
            <xsd:element name="endTerm" type=" Interval "/>
            <xsd:element name="dayCountFraction" type=" DayCountFraction " minOccurs="0"/>
         </xsd:sequence>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: SimpleIRSwap

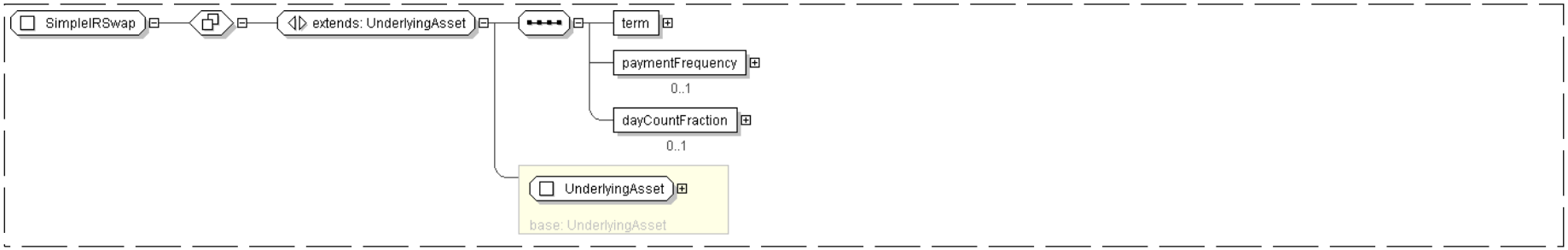
Super-types:	Asset < UnderlyingAsset (by extension) < **SimpleIRSwap** (by extension)
Sub-types:	None

Name	SimpleIRSwap
Used by (from the same schema document)	Element **simpleIrSwap**
Abstract	no

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
   of the detailed definition, the values in the simple product override those in the
   detailed definition.'

   <term> Interval </term> [1]
   'Specifies the term of the simple swap, e.g. 5Y.'

   <paymentFrequency> Interval </paymentFrequency> [0..1]
   'Specifies the frequency at which the swap pays, e.g. 6M.'

   <dayCountFraction> DayCountFraction </dayCountFraction> [0..1]
   'The day count basis for the swap.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="SimpleIRSwap">
   <xsd:complexContent>
      <xsd:extension base=" UnderlyingAsset ">
         <xsd:sequence>
            <xsd:element name="term" type=" Interval "/>
            <xsd:element name="paymentFrequency" type=" Interval " minOccurs="0"/>
            <xsd:element name="dayCountFraction" type=" DayCountFraction " minOccurs="0"/>
         </xsd:sequence>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: SingleUnderlyer

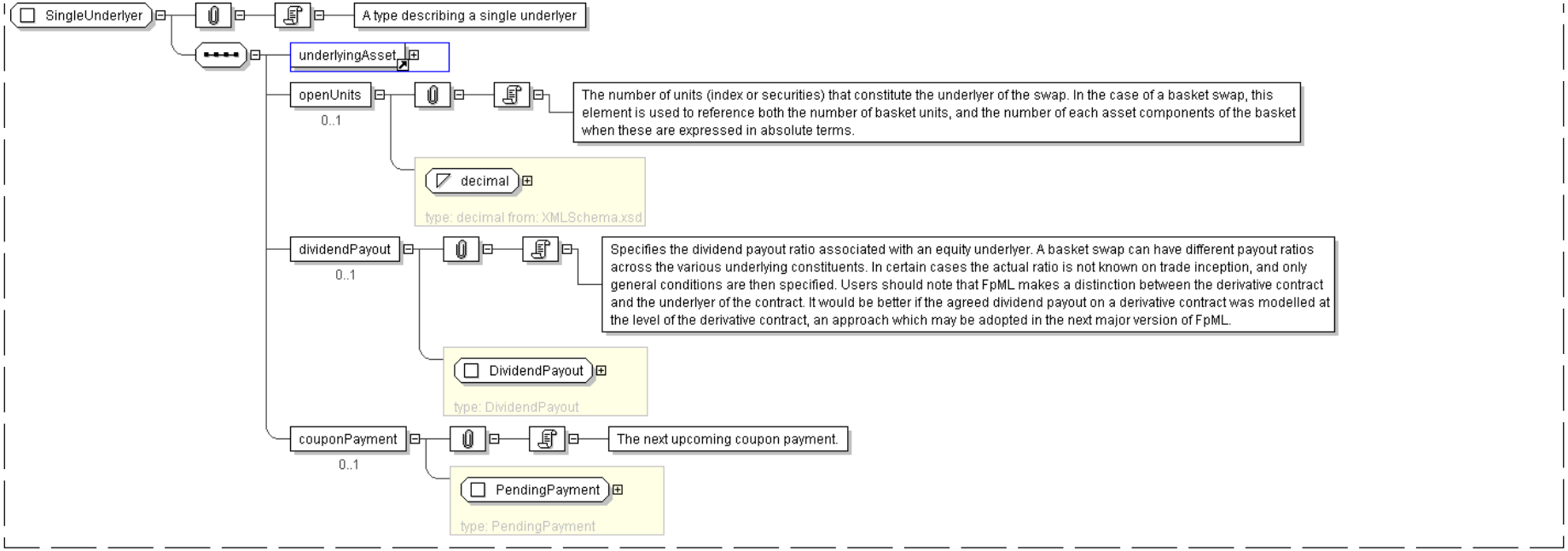
Super-types:	None
Sub-types:	None

Name	SingleUnderlyer
Used by (from the same schema document)	Complex Type **Underlyer**
Abstract	no
Documentation	A type describing a single underlyer

XML Instance Representation

```
<...>
   <underlyingAsset> ... </underlyingAsset> [1]
   <openUnits> xsd:decimal </openUnits> [0..1]
   'The number of units (index or securities) that constitute the underlyer of the swap. In
   the case of a basket swap, this element is used to reference both the number of basket
   units, and the number of each asset components of the basket when these are expressed
   in absolute terms.'

   <dividendPayout> DividendPayout </dividendPayout> [0..1]
   'Specifies the dividend payout ratio associated with an equity underlyer. A basket swap
   can have different payout ratios across the various underlying constituents. In certain
   cases the actual ratio is not known on trade inception, and only general conditions are
   then specified. Users should note that FpML makes a distinction between the derivative
   contract and the underlyer of the contract. It would be better if the agreed dividend payout
   on a derivative contract was modelled at the level of the derivative contract, an
   approach which may be adopted in the next major version of FpML.'

   <couponPayment> PendingPayment </couponPayment> [0..1]
   'The next upcoming coupon payment.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="SingleUnderlyer">
   <xsd:sequence>
      <xsd:element ref=" underlyingAsset "/>
      <xsd:element name="openUnits" type=" xsd:decimal " minOccurs="0"/>
      <xsd:element name="dividendPayout" type=" DividendPayout " minOccurs="0"/>
      <xsd:element name="couponPayment" type=" PendingPayment " minOccurs="0"/>
   </xsd:sequence>
</xsd:complexType>
```

top

Complex Type: Underlyer

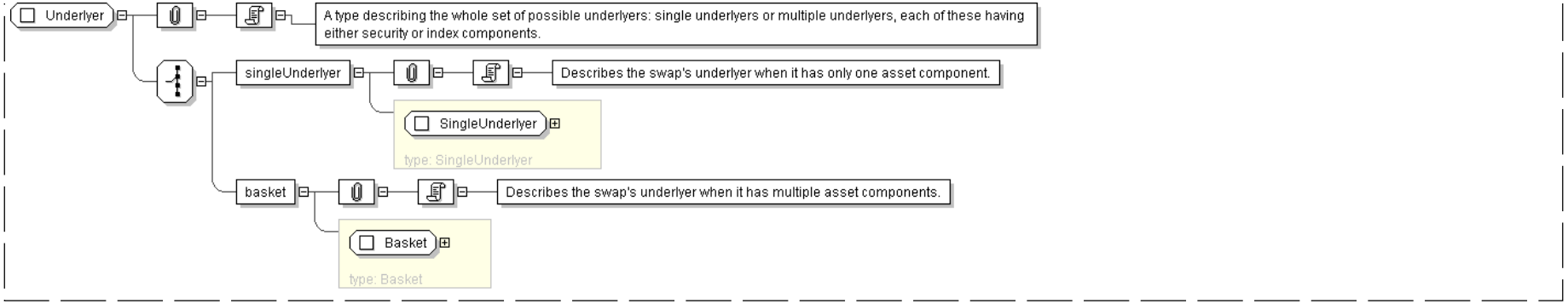
Super-types:	None
Sub-types:	None

Name	Underlyer
Abstract	no
Documentation	A type describing the whole set of possible underlyers: single underlyers or multiple underlyers, each of these having either security or index components.

XML Instance Representation

```
<...>
Start Choice [1]
      <singleUnderlyer> SingleUnderlyer </singleUnderlyer> [1]
      'Describes the swap\'s underlyer when it has only one asset component.'

      <basket> Basket </basket> [1]
      'Describes the swap\'s underlyer when it has multiple asset components.'

End Choice
</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="Underlyer">
   <xsd:choice>
      <xsd:element name="singleUnderlyer" type=" SingleUnderlyer "/>
      <xsd:element name="basket" type=" Basket "/>
   </xsd:choice>
</xsd:complexType>
```

top

Complex Type: UnderlyingAsset

Super-types:	Asset < **UnderlyingAsset** (by extension)

Sub-types:	• Deposit (by extension)
	• ExchangeTraded (by extension)
	  ○ Bond (by extension)
	  ▪ ConvertibleBond (by extension)
	  ○ EquityAsset (by extension)
	  ○ ExchangeTradedContract (by extension)
	  ○ ExchangeTradedFund (by extension)
	  ○ Future (by extension)
	  ○ Index (by extension)
	• FxRateAsset (by extension)
	• Loan (by extension)
	• Mortgage (by extension)
	• MutualFund (by extension)
	• RateIndex (by extension)
	• SimpleCreditDefaultSwap (by extension)
	• SimpleFra (by extension)
	• SimpleIRSwap (by extension)

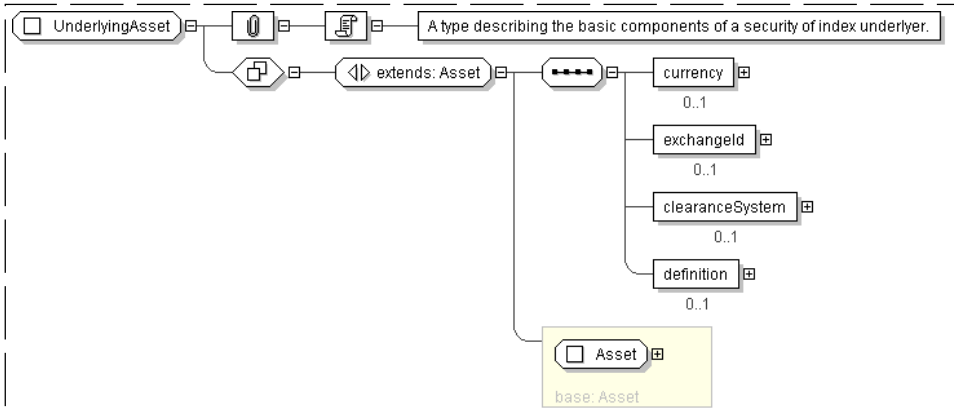
Name	UnderlyingAsset
Abstract	yes
Documentation	A type describing the basic components of a security of index underlyer.

XML Instance Representation

```
<...
id=" xsd:ID [0..1]">
   <instrumentId> InstrumentId </instrumentId> [1..*]
   <description> xsd:string </description> [0..1]
   'The long name of a security.'

   <currency> Currency </currency> [0..1]
   'The currency in which an amount is denominated.'

   <exchangeId> ExchangeId </exchangeId> [0..1]
   <clearanceSystem> ClearanceSystem </clearanceSystem> [0..1]
   <definition> ProductReference </definition> [0..1]
   'An optional reference to a full FpML product that defines the simple product in
   greater detail. In case of inconsistency between the terms of the simple product and those
```

```
    of the detailed definition, the values in the simple product override those in the
    detailed definition.'

</...>
```

Diagram



Schema Component Representation

```
<xsd:complexType name="UnderlyingAsset" abstract="true">
   <xsd:complexContent>
      <xsd:extension base=" Asset ">
         <xsd:sequence>
            <xsd:element name="currency" type=" Currency " minOccurs="0"/>
            <xsd:element name="exchangeId" type=" ExchangeId " minOccurs="0"/>
            <xsd:element name="clearanceSystem" type=" ClearanceSystem " minOccurs="0"/>
            <xsd:element name="definition" type=" ProductReference " minOccurs="0"/>
         </xsd:sequence>
      </xsd:extension>
   </xsd:complexContent>
</xsd:complexType>
```

top

Complex Type: UnderlyingAssetTranche

Super-types:	xsd:token < **UnderlyingAssetTranche** (by extension)
Sub-types:	None

Name	UnderlyingAssetTranche
Used by (from the same schema document)	Complex Type **Loan**
Abstract	no

XML Instance Representation

```
<...
loanTrancheScheme=" xsd:anyURI [0..1]">
xsd:token
</...>
```

Diagram

Schema Component Representation

```
<xsd:complexType name="UnderlyingAssetTranche">
   <xsd:simpleContent>
      <xsd:extension base=" xsd:token ">
         <xsd:attribute name="loanTrancheScheme" type=" xsd:anyURI " default="http://www.fpml.org/
         coding-scheme/underlying-asset-tranche"/>
      </xsd:extension>
   </xsd:simpleContent>
</xsd:complexType>
```

top

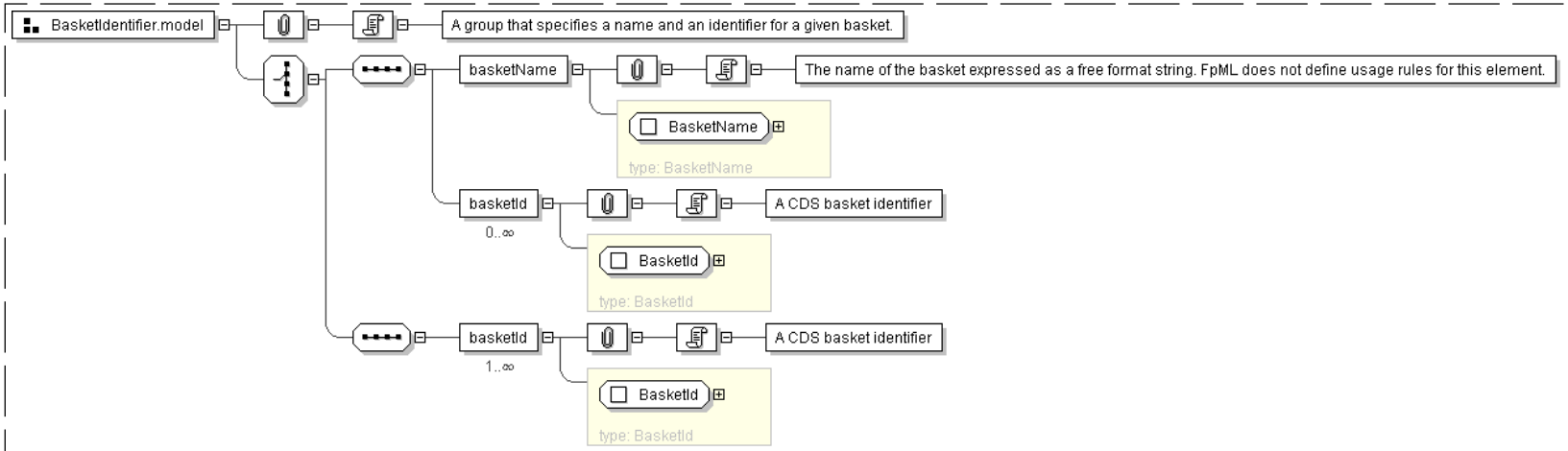
Model Group: BasketIdentifier.model

Name	BasketIdentifier.model
Used by (from the same schema document)	Complex Type **Basket**
Documentation	A group that specifies a name and an identifier for a given basket.

XML Instance Representation

```
Start Choice [1]
   <basketName> BasketName </basketName> [1]
   'The name of the basket expressed as a free format string. FpML does not define usage rules
   for this element.'

   <basketId> BasketId </basketId> [0..*]
   'A CDS basket identifier'

   <basketId> BasketId </basketId> [1..*]
   'A CDS basket identifier'

End Choice
```

Diagram



Schema Component Representation

```
<xsd:group name="BasketIdentifier.model">
   <xsd:choice>
      <xsd:sequence>
         <xsd:element name="basketName" type=" BasketName "/>
         <xsd:element name="basketId" type=" BasketId " minOccurs="0" maxOccurs="unbounded"/>
      </xsd:sequence>
      <xsd:sequence>
         <xsd:element name="basketId" type=" BasketId " maxOccurs="unbounded"/>
      </xsd:sequence>
   </xsd:choice>
</xsd:group>
```

top

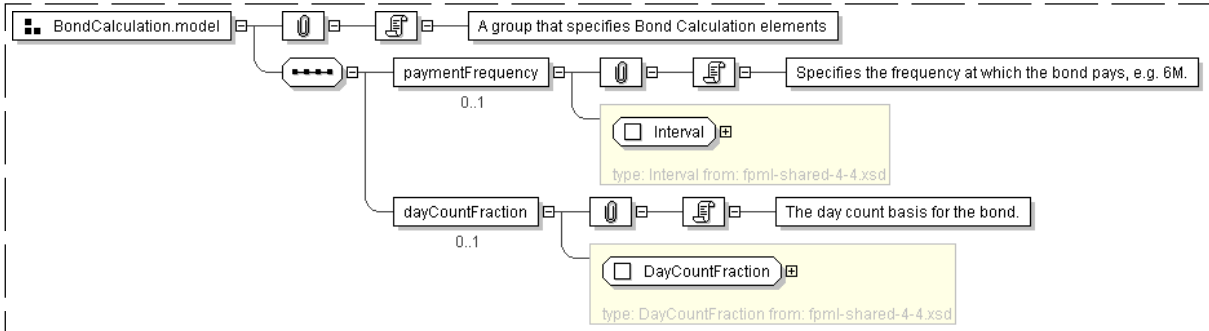
Model Group: BondCalculation.model

Name	BondCalculation.model
Used by (from the same schema document)	Complex Type **Bond** , Complex Type **Mortgage**
Documentation	A group that specifies Bond Calculation elements

XML Instance Representation

```
<paymentFrequency> Interval </paymentFrequency> [0..1]
'Specifies the frequency at which the bond pays, e.g. 6M.'

<dayCountFraction> DayCountFraction </dayCountFraction> [0..1]
'The day count basis for the bond.'
```

Diagram



Schema Component Representation

```
<xsd:group name="BondCalculation.model">
   <xsd:sequence>
      <xsd:element name="paymentFrequency" type=" Interval " minOccurs="0"/>
      <xsd:element name="dayCountFraction" type=" DayCountFraction " minOccurs="0"/>
   </xsd:sequence>
</xsd:group>
```

top

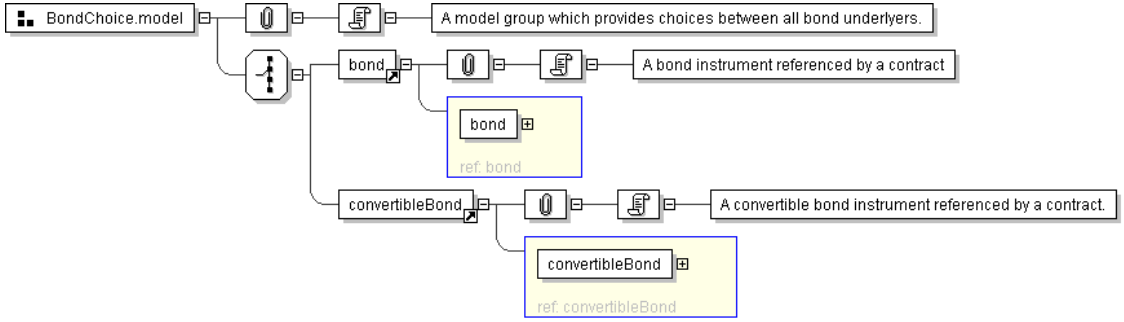
Model Group: BondChoice.model

Name	BondChoice.model
Documentation	A model group which provides choices between all bond underlyers.

XML Instance Representation

```
Start Choice [1]
   <bond> ... </bond> [1]
   'A bond instrument referenced by a contract'

   <convertibleBond> ... </convertibleBond> [1]
   'A convertible bond instrument referenced by a contract.'

End Choice
```

Diagram



Schema Component Representation

```
<xsd:group name="BondChoice.model">
   <xsd:choice>
      <xsd:element ref=" bond "/>
      <xsd:element ref=" convertibleBond "/>
   </xsd:choice>
</xsd:group>
```

top

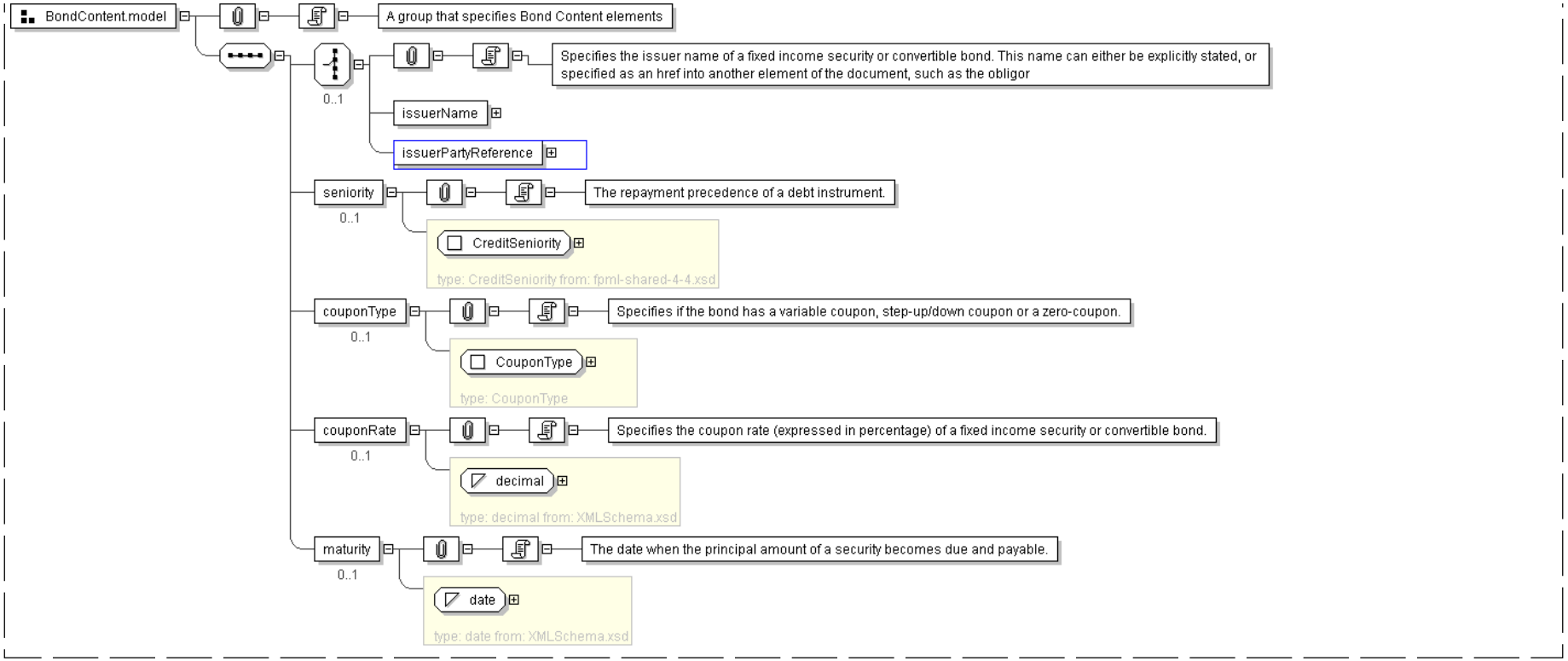
Model Group: BondContent.model

Name	BondContent.model
Used by (from the same schema document)	Complex Type **Bond** , Complex Type **Mortgage**
Documentation	A group that specifies Bond Content elements

XML Instance Representation

```
Start Choice [0..1]
'Specifies the issuer name of a fixed income security or convertible bond. This name can
either be explicitly stated, or specified as an href into another element of the document,
such as the obligor'


   <issuerName> xsd:string </issuerName> [1]
   <issuerPartyReference> PartyReference </issuerPartyReference> [1]
End Choice
<seniority> CreditSeniority </seniority> [0..1]
'The repayment precedence of a debt instrument.'

<couponType> CouponType </couponType> [0..1]
'Specifies if the bond has a variable coupon, step-up/down coupon or a zero-coupon.'

<couponRate> xsd:decimal </couponRate> [0..1]
'Specifies the coupon rate (expressed in percentage) of a fixed income security or
convertible bond.'

<maturity> xsd:date </maturity> [0..1]
'The date when the principal amount of a security becomes due and payable.'
```

Diagram



Schema Component Representation

```
<xsd:group name="BondContent.model">
   <xsd:sequence>
      <xsd:choice minOccurs="0">
         <xsd:element name="issuerName" type=" xsd:string "/>
         <xsd:element name="issuerPartyReference" type=" PartyReference "/>
      </xsd:choice>
      <xsd:element name="seniority" type=" CreditSeniority " minOccurs="0"/>
      <xsd:element name="couponType" type=" CouponType " minOccurs="0"/>
      <xsd:element name="couponRate" type=" xsd:decimal " minOccurs="0"/>
      <xsd:element name="maturity" type=" xsd:date " minOccurs="0"/>
   </xsd:sequence>
</xsd:group>
```

top

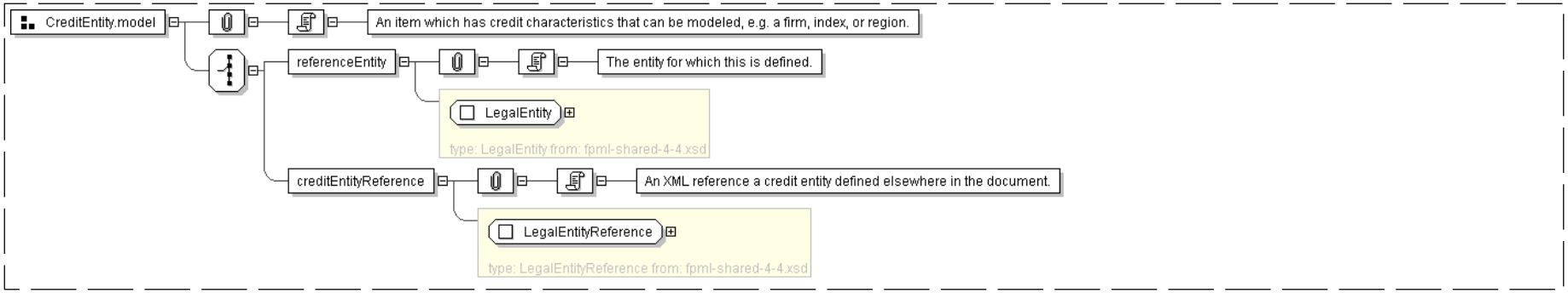
Model Group: CreditEntity.model

Name	CreditEntity.model
Used by (from the same schema document)	Complex Type **SimpleCreditDefaultSwap**
Documentation	An item which has credit characteristics that can be modeled, e.g. a firm, index, or region.

XML Instance Representation

```
Start Choice [1]
   <referenceEntity> LegalEntity </referenceEntity> [1]
   'The entity for which this is defined.'

   <creditEntityReference> LegalEntityReference </creditEntityReference> [1]
   'An XML reference a credit entity defined elsewhere in the document.'

End Choice
```

Diagram



Schema Component Representation

```
<xsd:group name="CreditEntity.model">
   <xsd:choice>
      <xsd:element name="referenceEntity" type=" LegalEntity "/>
      <xsd:element name="creditEntityReference" type=" LegalEntityReference "/>
   </xsd:choice>
</xsd:group>
```

top

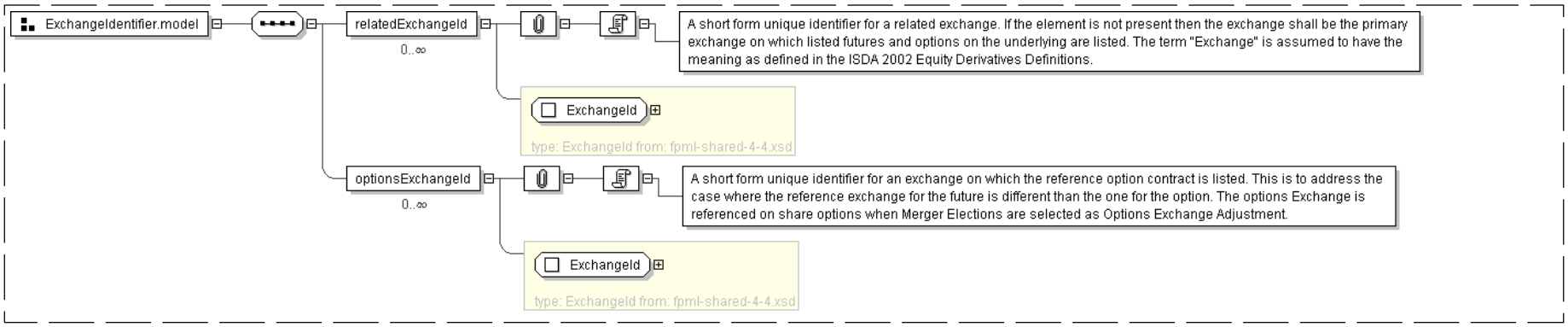
Model Group: ExchangeIdentifier.model

Name	ExchangeIdentifier.model
Used by (from the same schema document)	Complex Type **ExchangeTraded**

XML Instance Representation

```
<relatedExchangeId> ExchangeId </relatedExchangeId> [0..*]
'A short form unique identifier for a related exchange. If the element is not present then
the exchange shall be the primary exchange on which listed futures and options on
the underlying are listed. The term \"Exchange\" is assumed to have the meaning as defined
in the ISDA 2002 Equity Derivatives Definitions.'

<optionsExchangeId> ExchangeId </optionsExchangeId> [0..*]
'A short form unique identifier for an exchange on which the reference option contract
is listed. This is to address the case where the reference exchange for the future is
different than the one for the option. The options Exchange is referenced on share options
when Merger Elections are selected as Options Exchange Adjustment.'
```

Diagram



Schema Component Representation

```
<xsd:group name="ExchangeIdentifier.model">
   <xsd:sequence>
      <xsd:element name="relatedExchangeId" type=" ExchangeId " minOccurs="0" maxOccurs="unbounded"/>
      <xsd:element name="optionsExchangeId" type=" ExchangeId " minOccurs="0" maxOccurs="unbounded"/>
   </xsd:sequence>
</xsd:group>
```

top

Model Group: Quotation.model

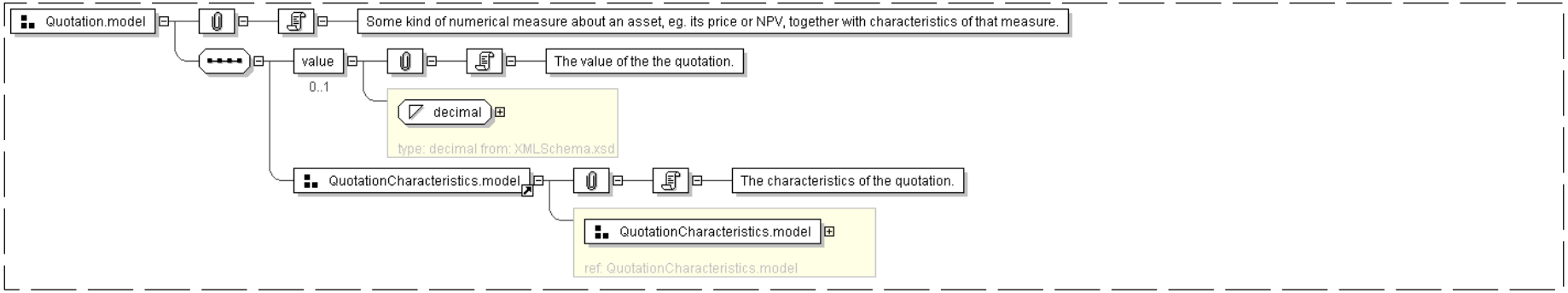
Name	Quotation.model
Used by (from the same schema document)	Complex Type **BasicQuotation**
Documentation	Some kind of numerical measure about an asset, eg. its price or NPV, together with characteristics of that measure.

XML Instance Representation

```
<value> xsd:decimal </value> [0..1]
'The value of the the quotation.'

<measureType> AssetMeasureType </measureType> [0..1]
'The type of the value that is measured. This could be an NPV, a cash flow, a clean price, etc.'

<quoteUnits> PriceQuoteUnits </quoteUnits> [0..1]
'The optional units that the measure is expressed in. If not supplied, this is assumed to be
a price/value in currency units.'

<side> QuotationSideEnum </side> [0..1]
'The side (bid/mid/ask) of the measure.'

<currency> Currency </currency> [0..1]
'The optional currency that the measure is expressed in. If not supplied, this is
defaulted from the reportingCurrency in the valuationScenarioDefinition.'

<timing> QuoteTiming </timing> [0..1]
'When during a day the quote is for. Typically, if this element is supplied, the
QuoteLocation needs also to be supplied.'

Start Group: QuoteLocation.model [0..1]
'Where the quote is from.'


Start Choice [1]
      <businessCenter> BusinessCenter </businessCenter> [1]
      'A city or other business center.'

      <exchangeId> ExchangeId </exchangeId> [1]
      'The exchange (e.g. stock or futures exchange) from which the quote is obtained.'

End Choice
End Group: QuoteLocation.model
<informationSource> InformationSource </informationSource> [0..*]
'The information source where a published or displayed market rate will be obtained, e.
g. Telerate Page 3750.'

<time> xsd:dateTime </time> [0..1]
'When the quote was observed or derived.'

<valuationDate> xsd:date </valuationDate> [0..1]
'When the quote was computed.'

<expiryTime> xsd:dateTime </expiryTime> [0..1]
'When does the quote cease to be valid.'

<cashFlowType> CashflowType </cashFlowType> [0..1]
'For cash flows, the type of the cash flows. Examples include: Coupon payment, Premium
```

Fee, Settlement Fee, Brokerage Fee, etc.'

Diagram



Schema Component Representation

```
<xsd:group name="Quotation.model">
   <xsd:sequence>
      <xsd:element name="value" type=" xsd:decimal " minOccurs="0"/>
      <xsd:group ref=" QuotationCharacteristics.model "/>
   </xsd:sequence>
</xsd:group>
```

top

Model Group: QuotationCharacteristics.model

Name	QuotationCharacteristics.model
Used by (from the same schema document)	Complex Type **QuotationCharacteristics** , Model Group **Quotation.model**
Documentation	A group collecting a set of characteristics that can be used to describe a quotation.

XML Instance Representation

<measureType> AssetMeasureType </measureType> [0..1]

'The type of the value that is measured. This could be an NPV, a cash flow, a clean price, etc.'

<quoteUnits> PriceQuoteUnits </quoteUnits> [0..1]

'The optional units that the measure is expressed in. If not supplied, this is assumed to be a price/value in currency units.'

<side> QuotationSideEnum </side> [0..1]

'The side (bid/mid/ask) of the measure.'

<currency> Currency </currency> [0..1]

'The optional currency that the measure is expressed in. If not supplied, this is defaulted from the reportingCurrency in the valuationScenarioDefinition.'

<timing> QuoteTiming </timing> [0..1]

'When during a day the quote is for. Typically, if this element is supplied, the QuoteLocation needs also to be supplied.'

Start Group: QuoteLocation.model [0..1]

'Where the quote is from.'

Start Choice [1]

<businessCenter> BusinessCenter </businessCenter> [1]

'A city or other business center.'

<exchangeId> ExchangeId </exchangeId> [1]

'The exchange (e.g. stock or futures exchange) from which the quote is obtained.'

End Choice
End Group: QuoteLocation.model
<informationSource> InformationSource </informationSource> [0..*]

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

<time> xsd:dateTime </time> [0..1]

'When the quote was observed or derived.'

<valuationDate> xsd:date </valuationDate> [0..1]

'When the quote was computed.'

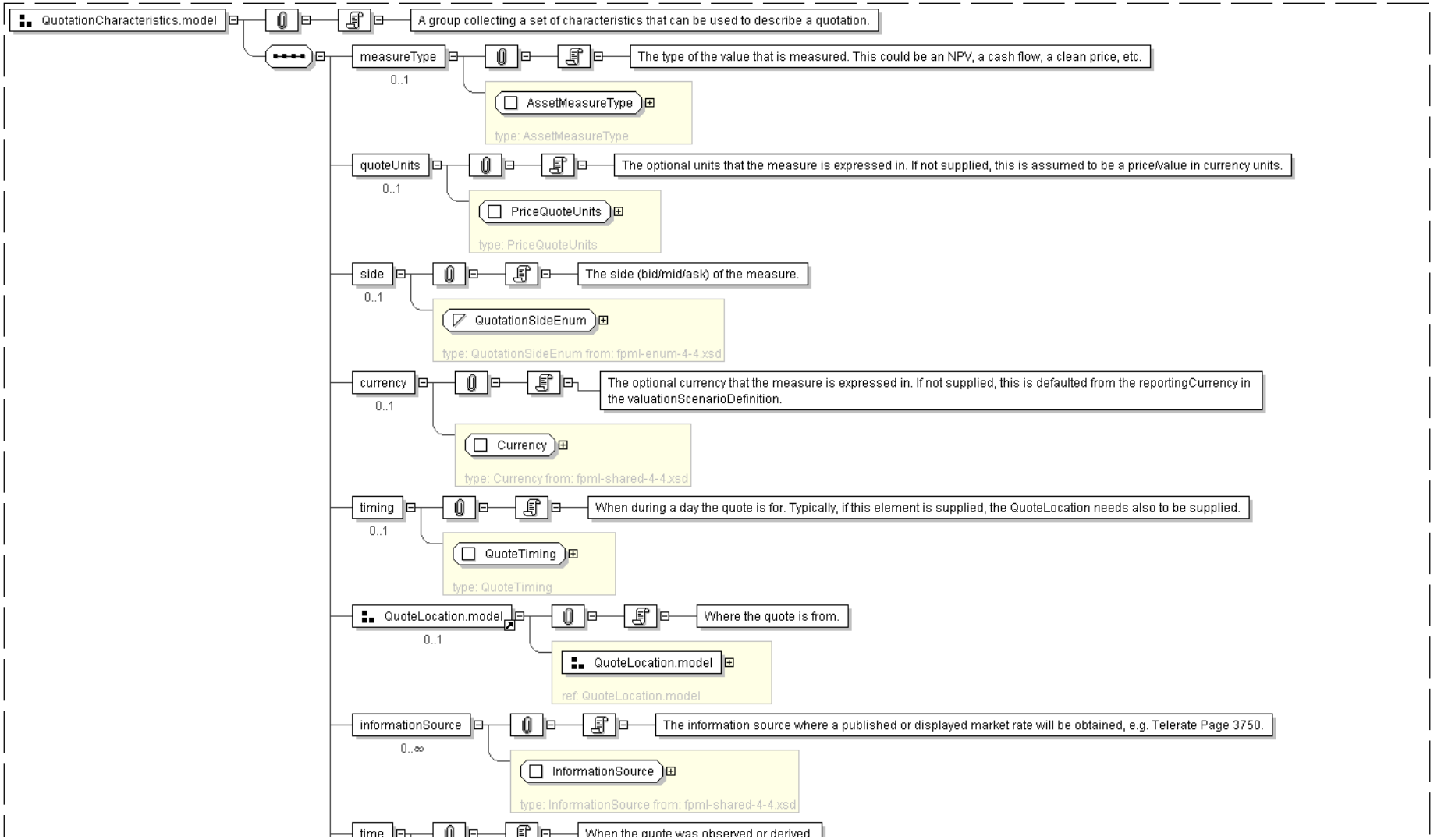
<expiryTime> xsd:dateTime </expiryTime> [0..1]

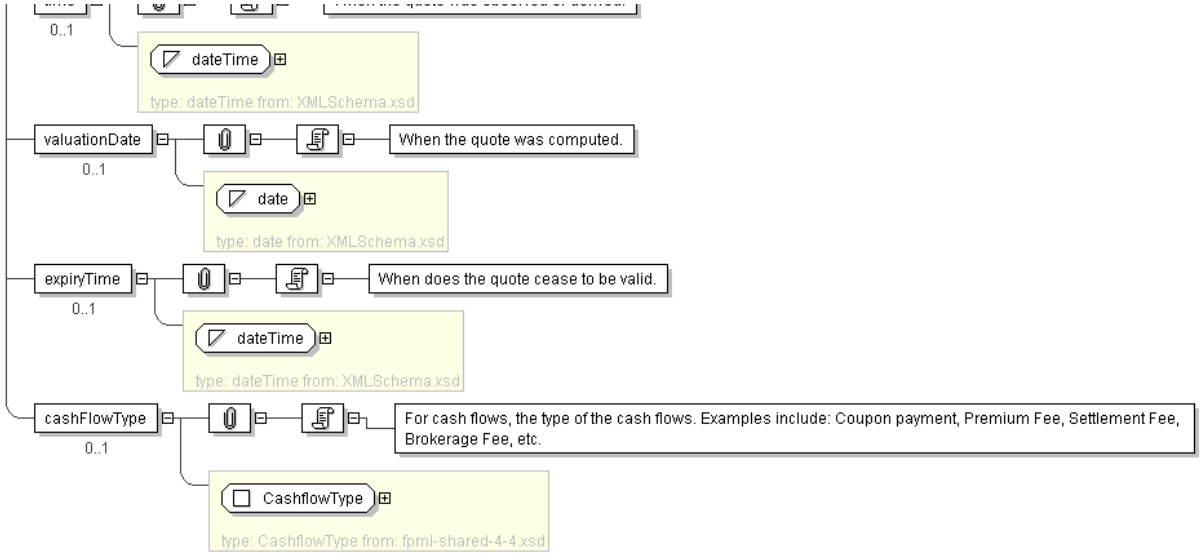
'When does the quote cease to be valid.'

<cashFlowType> CashflowType </cashFlowType> [0..1]

'For cash flows, the type of the cash flows. Examples include: Coupon payment, Premium Fee, Settlement Fee, Brokerage Fee, etc.'

Diagram





Schema Component Representation

```
<xsd:group name="QuotationCharacteristics.model">
   <xsd:sequence>
      <xsd:element name="measureType" type=" AssetMeasureType " minOccurs="0"/>
      <xsd:element name="quoteUnits" type=" PriceQuoteUnits " minOccurs="0"/>
      <xsd:element name="side" type=" QuotationSideEnum " minOccurs="0"/>
      <xsd:element name="currency" type=" Currency " minOccurs="0"/>
      <xsd:element name="timing" type=" QuoteTiming " minOccurs="0"/>
      <xsd:group ref=" QuoteLocation.model " minOccurs="0"/>
      <xsd:element name="informationSource" type=" InformationSource "
      minOccurs="0" maxOccurs="unbounded"/>
      <xsd:element name="time" type=" xsd:dateTime " minOccurs="0"/>
      <xsd:element name="valuationDate" type=" xsd:date " minOccurs="0"/>
      <xsd:element name="expiryTime" type=" xsd:dateTime " minOccurs="0"/>
      <xsd:element name="cashFlowType" type=" CashflowType " minOccurs="0"/>
   </xsd:sequence>
</xsd:group>
```

top

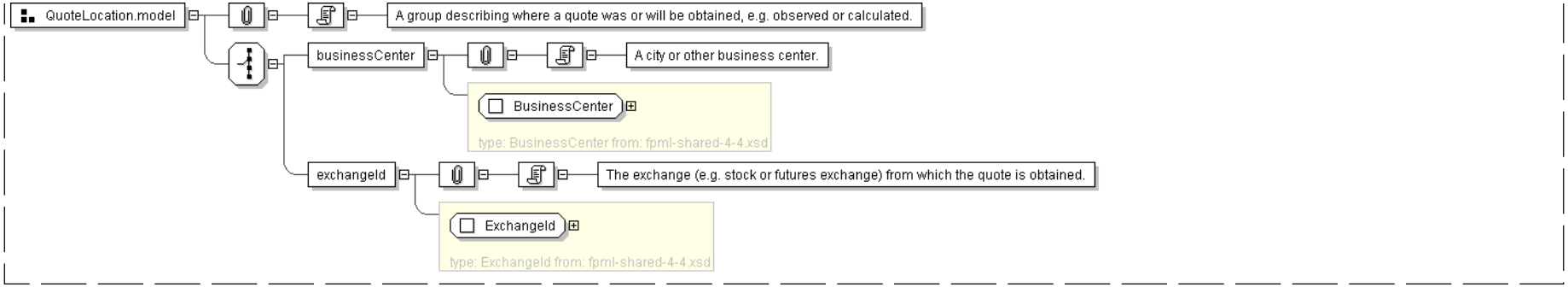
Model Group: QuoteLocation.model

Name	QuoteLocation.model
Used by (from the same schema document)	Model Group **QuotationCharacteristics.model**
Documentation	A group describing where a quote was or will be obtained, e.g. observed or calculated.

XML Instance Representation

```
Start Choice [1]
   <businessCenter> BusinessCenter </businessCenter> [1]
   'A city or other business center.'

   <exchangeId> ExchangeId </exchangeId> [1]
   'The exchange (e.g. stock or futures exchange) from which the quote is obtained.'

End Choice
```

Diagram



Schema Component Representation

```
<xsd:group name="QuoteLocation.model">
   <xsd:choice>
      <xsd:element name="businessCenter" type=" BusinessCenter "/>
      <xsd:element name="exchangeId" type=" ExchangeId "/>
   </xsd:choice>
</xsd:group>
```

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Legend

Complex Type: **AusAddress**

Schema Component Type — Schema Component Name

Super-types:	Address < AusAddress (by extension)
Sub-types:	• QLDAddress (by restriction)

If this schema component is a type definition, its type hierarchy is shown in a gray-bordered box.

Name	AusAddress
Abstract	no

The table above displays the properties of this schema component.

XML Instance Representation

```
<... country="Australia" >
<unitNo> string </unitNo> [0..1]
<houseNo> string </houseNo> [1]
<street> string </street> [1]
Start Choice [1]
<city> string </city> [1]
<town> string </town> [1]
End Choice
<state> AusStates </state> [1]
<postcode> string <<pattern = [1-9][0-9]{3}>> </postcode> [1]
</...>
```

The XML Instance Representation table above shows the schema component's content as an XML instance.

- The minimum and maximum occurrence of elements and attributes are provided in square brackets, e.g. [0..1].
- Model group information are shown in gray, e.g. Start Choice ... End Choice.
- For type derivations, the elements and attributes that have been added to or changed from the base type's content are shown in **bold**.
- If an element/attribute has a fixed value, the fixed value is shown in green, e.g. country="Australia".
- Otherwise, the type of the element/attribute is displayed.
  - If the element/attribute's type is in the schema, a link is provided to it.
  - For local simple type definitions, the constraints are displayed in angle brackets, e.g. <<*pattern* = [1-9][0-9]{3}>>.

Schema Component Representation

```
<complexType name="AusAddress">
<complexContent>
<extension base=" Address ">
<sequence>
<element name="state" type=" AusStates "/>
<element name="postcode">
<simpleType>
<restriction base=" string ">
<pattern value="[1-9][0-9]{3}"/>
</restriction>
</simpleType>
</element>
</sequence>
<attribute name="country" type=" string " fixed="Australia"/>
</extension>
</complexContent>
</complexType>
```

The Schema Component Representation table above displays the underlying XML representation of the schema component. (Annotations are not shown.)

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Glossary

Abstract (Applies to complex type definitions and element declarations). An abstract element or complex type cannot used to validate an element instance. If there is a reference to an abstract element, only element declarations that can substitute the abstract element can be used to validate the instance. For references to abstract type definitions, only derived types can be used.

All Model Group Child elements can be provided *in any order* in instances. See: http://www.w3.org/TR/xmlschema-1/#element-all.

Choice Model Group *Only one* from the list of child elements and model groups can be provided in instances. See: http://www.w3.org/TR/xmlschema-1/#element-choice.

Collapse Whitespace Policy Replace tab, line feed, and carriage return characters with space character (Unicode character 32). Then, collapse contiguous sequences of space characters into single space character, and remove leading and trailing space characters.

Disallowed Substitutions (Applies to element declarations). If *substitution* is specified, then substitution group members cannot be used in place of the given element declaration to validate element instances. If *derivation methods*, e.g. extension, restriction, are specified, then the given element declaration will not validate element instances that have types derived from the element declaration's type using the specified derivation methods. Normally, element instances can override their declaration's type by specifying an `xsi:type` attribute.

Key Constraint Like Uniqueness Constraint, but additionally requires that the specified value(s) must be provided. See: http://www.w3.org/TR/xmlschema-1/#cIdentity-constraint_Definitions.

Key Reference Constraint Ensures that the specified value(s) must match value(s) from a Key Constraint or Uniqueness Constraint. See: http://www.w3.org/TR/xmlschema-1/#cIdentity-constraint_Definitions.

Model Group Groups together element content, specifying the order in which the element content can occur and the number of times the group of element content may be repeated. See: http://www.w3.org/TR/xmlschema-1/#Model_Groups.

Nillable (Applies to element declarations). If an element declaration is nillable, instances can use the `xsi:nil` attribute. The `xsi:nil` attribute is the boolean attribute, *nil*, from the *http://www.w3.org/2001/XMLSchema-instance* namespace. If an element instance has an `xsi:nil` attribute set to true, it can be left empty, even though its element declaration may have required content.

Notation A notation is used to identify the format of a piece of data. Values of elements and attributes that are of type, NOTATION, must come from the names of declared notations. See: http://www.w3.org/TR/xmlschema-1/#cNotation_Declarations.

Preserve Whitespace Policy Preserve whitespaces exactly as they appear in instances.

Prohibited Derivations (Applies to type definitions). Derivation methods that cannot be used to create sub-types from a given type definition.

Prohibited Substitutions (Applies to complex type definitions). Prevents sub-types that have been derived using the specified derivation methods from validating element instances in place of the given type definition.

Replace Whitespace Policy Replace tab, line feed, and carriage return characters with space character (Unicode character 32).

Sequence Model Group Child elements and model groups must be provided *in the specified order* in instances. See: http://www.w3.org/TR/xmlschema-1/#element-sequence.

Substitution Group Elements that are *members* of a substitution group can be used wherever the *head* element of the substitution group is referenced.

Substitution Group Exclusions (Applies to element declarations). Prohibits element declarations from nominating themselves as being able to substitute a given element declaration, if they have types that are derived from the original element's type using the specified derivation methods.

Target Namespace The target namespace identifies the namespace that components in this schema belongs to. If no target namespace is provided, then the schema components do not belong to any namespace.

Uniqueness Constraint Ensures uniqueness of an element/attribute value, or a combination of values, within a specified scope. See: http://www.w3.org/TR/xmlschema-1/#cIdentity-constraint_Definitions.

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Generated by <oXygen/> XML Editor using a modified version of xs3p that adds schema diagrams and chunking support.