

## Introduction

FundsXML France and French Club AMPERE<sup>1</sup> have been working since 2012 on several scenarios of implementation of Solvency 2 reporting that management companies must provide to their insurance customers.

The diagram "Solvency2 Scenarios" (see next page) is a summary of the five scenarios considered by AMPERE and FundsXML.

This document describes the content of the XML message *TripartiteTemplateSolvencyIIMessage* to be used with the scenario "Enriched inventory".

This message has been developed from the results of the Club AMPERE "Standardization of exchanges between management companies and investors in the context of Solvency 2". This version has been the subject of further work with AFG (France), IMA (Great Britain) and BVI (Germany). This work has led to a "Tripartite Template" approved by all entities above and referenced as "TPT" in the present document.

The current version of the TPT is version 3 dated 13/10/2015. It can be downloaded from the club AMPERE website at <http://www.clubampere.org/travaux/gt-solvabilite-ii/> (only French version available for the time being).

In case of modification of the "Tripartite Format", FundsXML will adapt the format of the XML version of the template.

The message has been implemented as a "Satellite" message of the FundsXML.org European model.

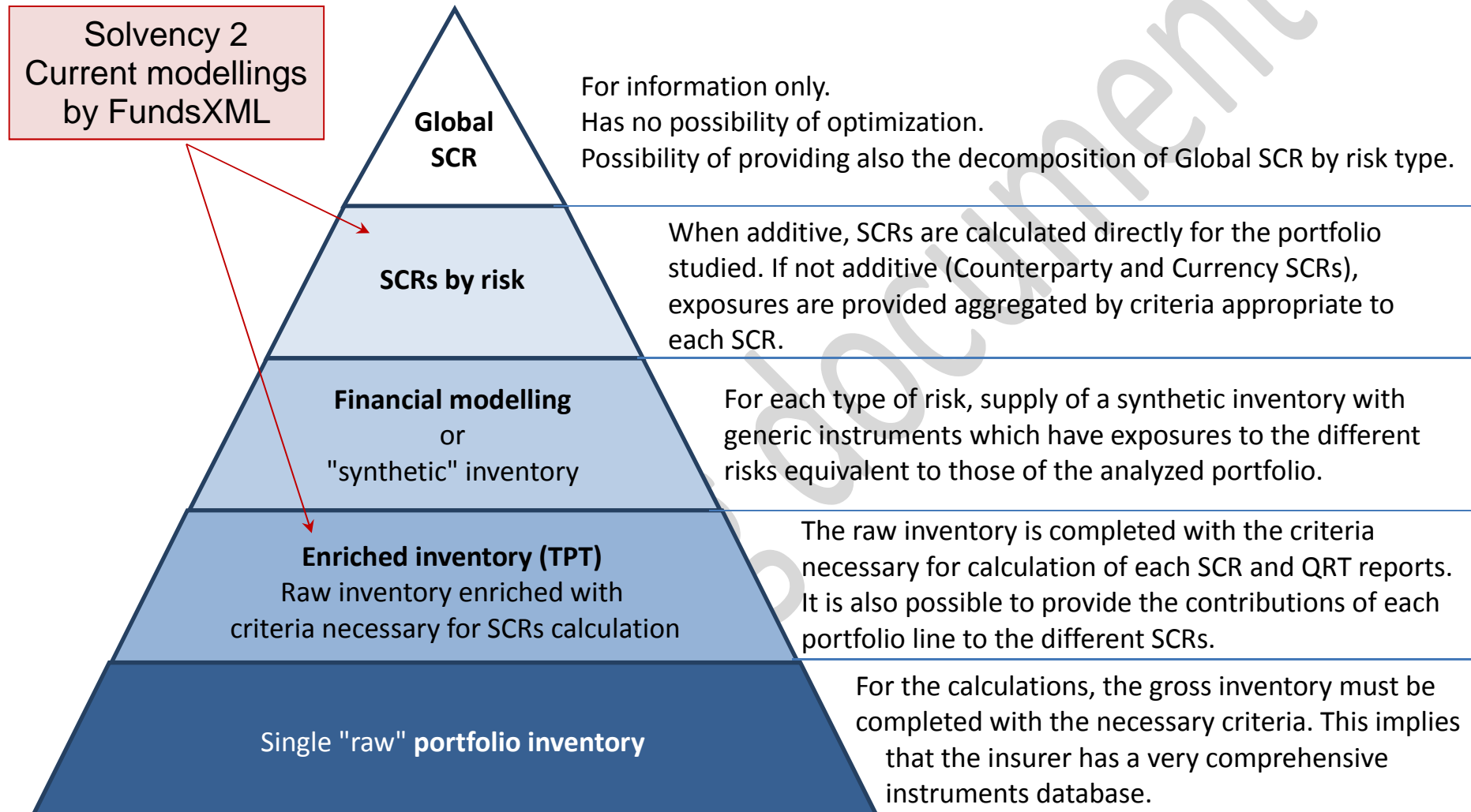
It can be downloaded at <http://www.fundxml.org/public/funds-xml/downloads/schemas.html>

The version of the XML schema used is **FundsXML3.2.xsd**

---

<sup>1</sup>Asset Management Performance and Reporting, composed of Asset Managers. It works to clarification and standardization of reportings.

## Presentation of Solvency 2 scenarios considered by the Club AMPERE



**TripartiteTemplateSolvencyIIMessage** message has been designed to provide portfolio inventories self-sufficient for SCR calculations by the insurer. To do this, the classic inventory has been completed with data specific to SCR calculations (criteria involved in the algorithms). To make the calculations even simpler, the message structure also allows providing for each portfolio line its contributions to the different types of SCRs. These Contributions can be aggregated and combined (added together) for several portfolios.

The message is likely to be used by AM companies to provide their clients with the data they need for their SCR calculation (Solvency Capital Requirement).

Insurers generally have to consolidate data from several sources, in particular for their asset management delegated (via mandates, dedicated funds or open funds subscriptions).

The message is based on a scenario which targets several objectives:

- Provide the insurer with all the data needed for SCR calculations.
- Make calculations as simple as possible, by complementing traditional data of each portfolio line with data specific to SCR calculations (e.g. "synthetic" rating - also called "Credit quality step"-, Issuer group, CIC code for classification of instruments, etc.) and QRT reporting.
- Provide assistance in the traceability of calculations.
- Minimize the additional costs of either new data from data providers (e.g. ratings and codification of Issuer groups) or management of a sophisticated instruments database indispensable in a scenario based on classic portfolio inventories.

Data can be provided for all or part of a single portfolio, or a group of portfolios, according to the agreement between the management company and the insurer. These data can be merged from several different files.

The message **TripartiteTemplateSolvencyIIMessage** can also be used to help look-through approach of portfolios containing fund shares, as well as for consolidation of the assets of a client by a service provider.

Such messages can be easily merged to ease the consolidation work at Insurers.

The message presented in this document is based on the Version 3 of the Tripartite Template (dated 13/10/2015).

## Technical issues:

- The message uses XML technology.
- XML is a language created by the W3C (World Wide Web Consortium) which imposes certain data formats:
  - \* Dates must be in YYYY-MM-DD format, which eases sorting by dates.
  - \* Decimal numbers use the Anglo-Saxon decimal point, instead of the French comma, to separate units and decimals.
  - \* See more details in Annex 1.

## CSV compatibility

For users who don't have an IT environment allowing them to use directly XML files, a conversion program is proposed: it will transform the XML message into a classic CSV file, compatible with the same version of the TPT as the XML one.

Another program is also proposed to convert CSV files<sup>1</sup> into a XML **TripartiteTemplateSolvencyIIMessage** file.

These conversion programs just require a runtime Java environment.

For more details, refer to [www.fundxml.fr](http://www.fundxml.fr).

---

<sup>1</sup> Under the condition that the CSV file is strictly compatible with the Tripartite Template.

## General architecture of the message *TripartiteTemplateSolvencyIIMessage*

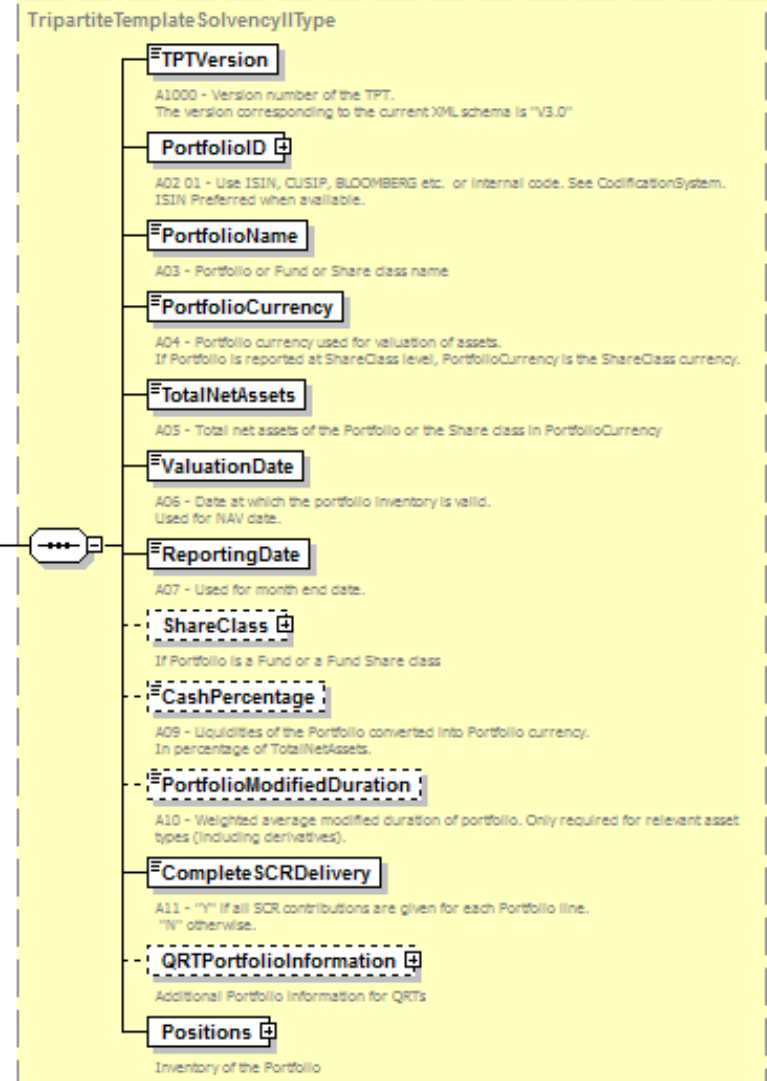
### TripartiteTemplateSolvencyIIMessage

Special enriched inventory for Solvency 2.  
This XML implementation is compatible with the "Tripartite Template". It refers to version 3 dated 12/08/2015 of this "Tripartite Template".  
It is built as a "satellite" of FundsXML3.2.xsd

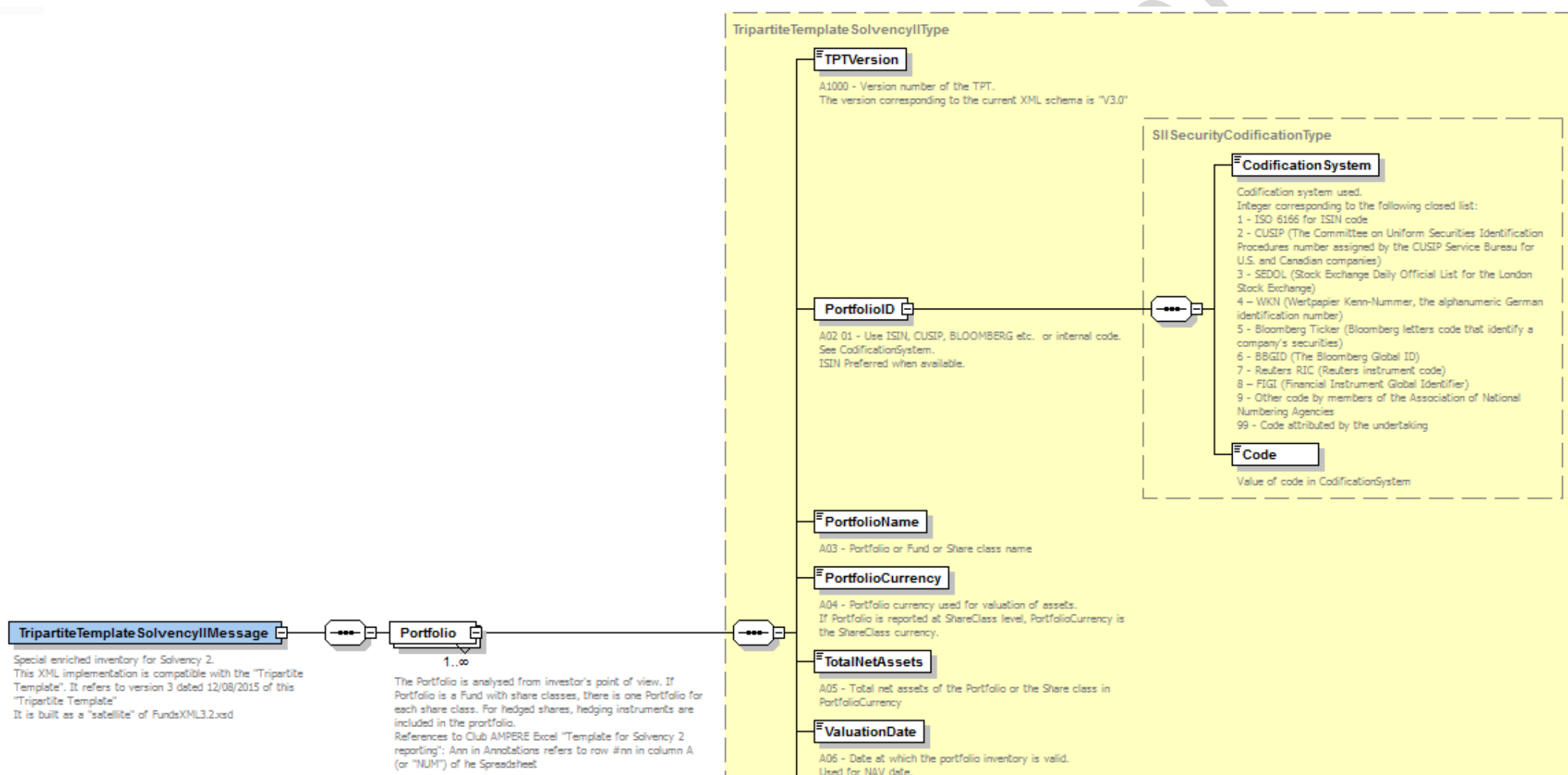
### Portfolio

1..∞

The Portfolio is analysed from investor's point of view. If Portfolio is a Fund with share classes, there is one Portfolio for each share class. For hedged shares, hedging instruments are included in the portfolio.  
References to Club AMPERE Excel "Template for Solvency 2 reporting": Ann in Annotations refers to row #nn in column A (or "NUM") of the Spreadsheet



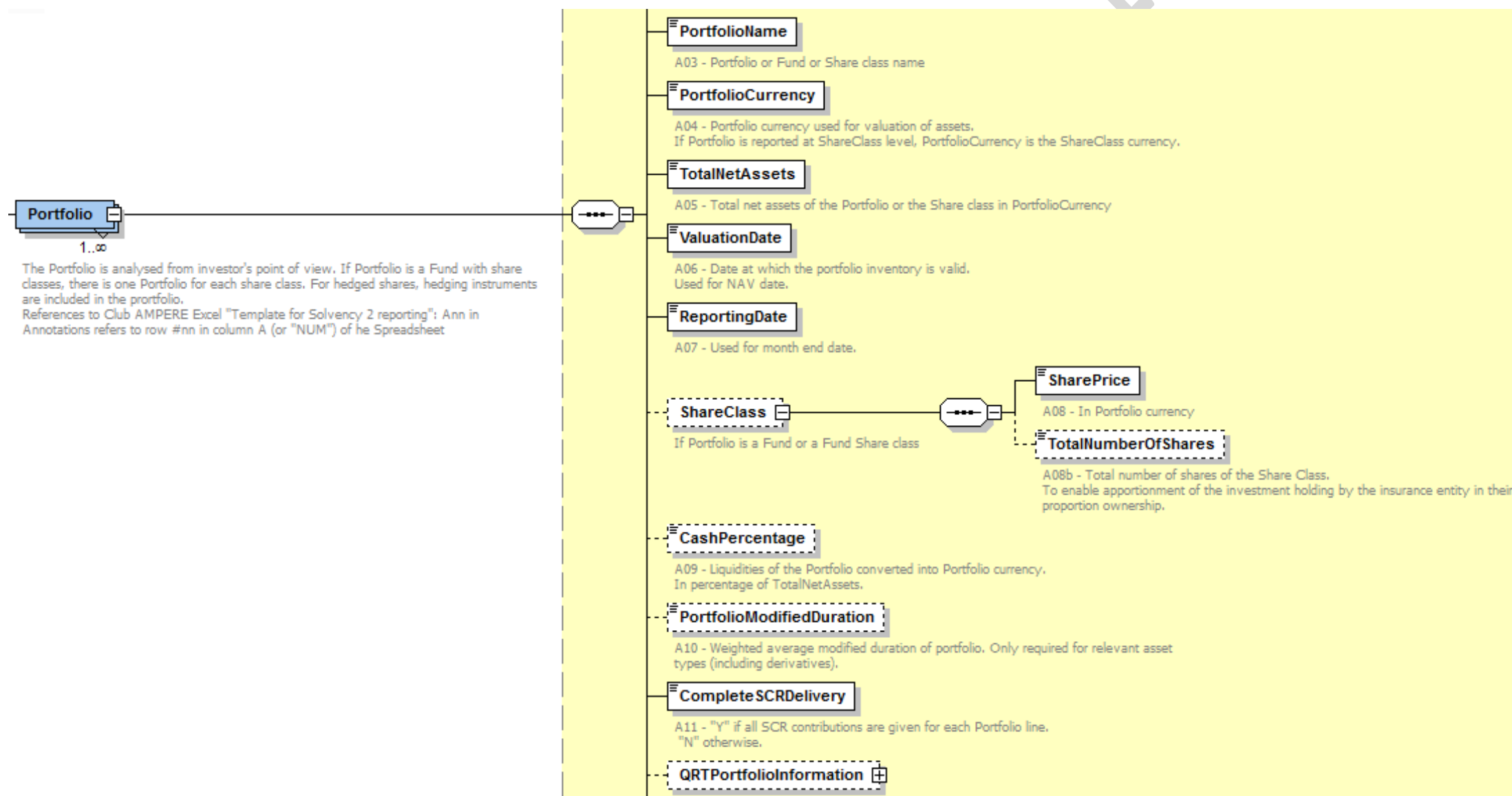
## General architecture of the message *TripartiteTemplateSolvencyIIMessage*



The general architecture of message **TripartiteTemplateSolvencyIIMessage** is presented below:

<b><u>TripartiteTemplateSolvencyIIMessage</u></b>	<p>Message root</p> <p>The correspondence of XML elements with the Excel spreadsheet of the "Tripartite Template V3" is given using "(Ann)" in the XML annotations, where "nn" is the row number in Column A of the spreadsheet ("<b>Detailed inventory</b>" tab, column A).</p> <p>The names of optional elements or elements groups are shown in grey as <b><u>OptionalElement</u></b></p>
<b><u>Portfolio(TripartiteTemplateSolvencyIIType)</u></b>	<p>Complex element containing data for a portfolio. When portfolio refers to a fund with several Share classes, there can be a <b><u>Portfolio</u></b> for each Share class of the fund. Each <b><u>Position</u></b> contains the quantity of instrument corresponding to the weight of the Share class in the Fund.</p> <p>If the Share class currency is different from the Fund currency, the Share class currency will be used as reference currency for the <b><u>Portfolio</u></b>.</p> <p>If it is a hedged Share class, hedging instruments are included in the inventory.</p> <p>From 1 to n occurrences of <b><u>Portfolio</u></b>.</p>
<b><u>.../TPTVersion</u></b>	<p>- (A1000) - Version of the TPT this XML schema refers to (here, V3.0)</p>
<p>List of <b><u>Portfolio</u></b> data:</p> <p><b><u>.../PortfolioID(SecurityCodificationType)...</u></b></p> <p><b><u>.../CodificationSystem</u></b></p> <p><b><u>.../Code</u></b></p>	<p>- Identification of the Portfolio analyzed (complex type <b><u>SecurityCodificationType</u></b>).</p> <p>- (A02) Type of code used for <b><u>PortfolioID</u></b>. ISIN code can be used here if <b><u>Portfolio</u></b> is a Fund Share class.</p> <p>Otherwise, different identifiers can be used:</p> <ul style="list-style-type: none"> <li>1 - ISO 6166 for ISIN code</li> <li>2 - CUSIP (assigned by the CUSIP Service Bureau for U.S. and Canadian companies)</li> <li>3 - SEDOL (Stock Exchange Daily Official List for the London Stock Exchange)</li> <li>4 - WKN (Wertpapier Kenn-Nummer, the alphanumeric German identification number)</li> <li>5 - Bloomberg Ticker (Bloomberg letters code that identify a company's securities)</li> <li>6 - BBGID (The Bloomberg Global ID)</li> <li>7 - Reuters RIC (Reuters instrument code)</li> <li>8 - FIGI (Financial Instrument Global Identifier)</li> <li>9 - Other code by members of the Association of National Numbering Agencies</li> <li>99 - Code attributed by the undertaking</li> </ul> <p>- (A01) Value of <b><u>PortfolioID/Code</u></b> in <b><u>CodificationSystem</u></b>.</p>

## General architecture of message TripartiteTemplateSolvencyIIMessage/Portfolio (cont.)





List of **Portfolio** data (cont.):

**.../PortfolioName**

**.../PortfolioCurrency/ISOCurrencyCodeType/**

**.../TotalNetAssets**

**.../ValuationDate**

**.../ReportingDate**

**.../ShareClass/...**

**/SharePrice**

**/TotalNumberOfShares**

**.../CashPercentage**

**.../PortfolioModifiedDuration**

**.../CompleteSCRDelivery/YesNoL1Type/**

**.../QRTPortfolioInformation...**

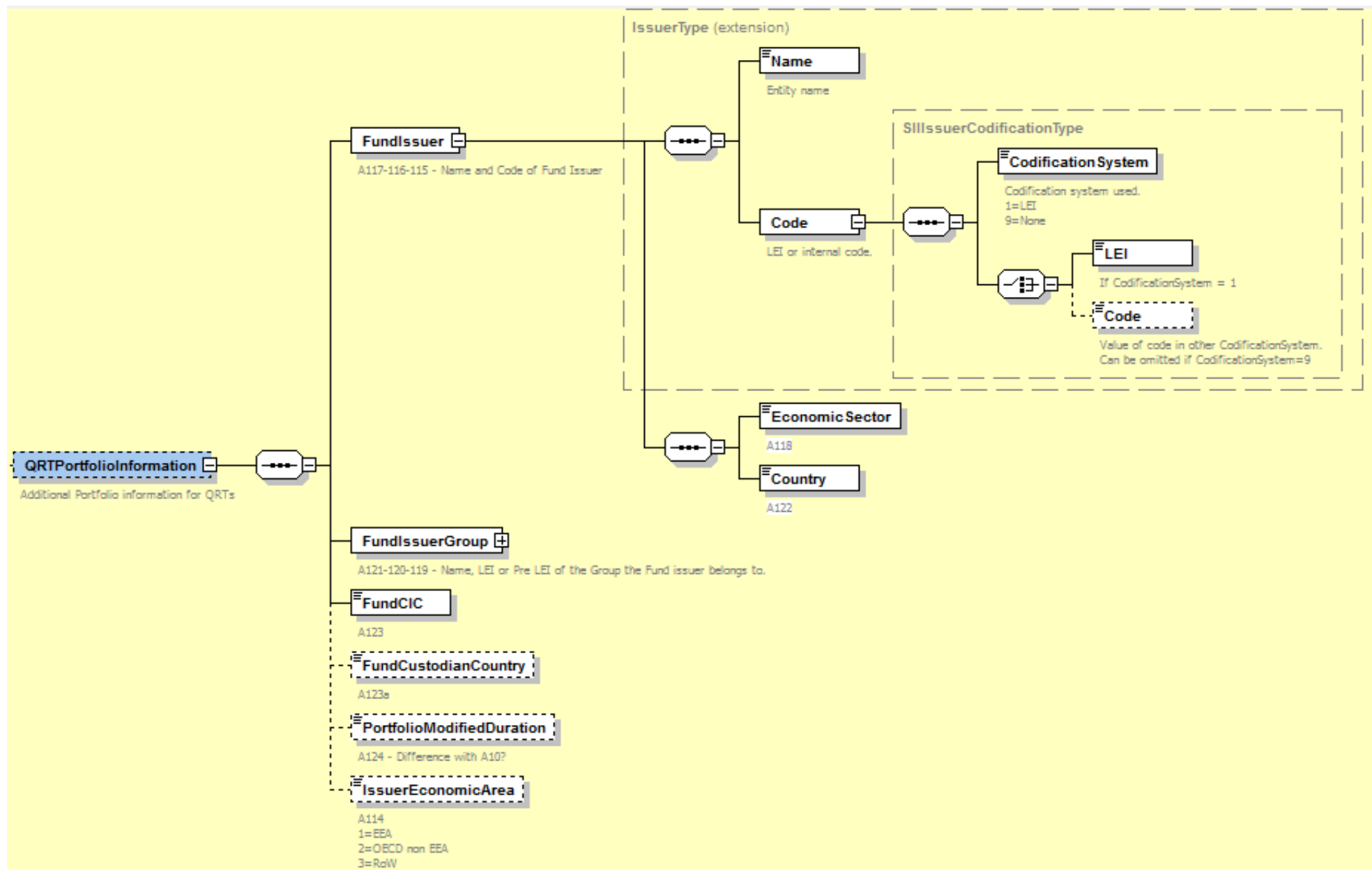
**.../Positions...**

**.../Position(S/IIPositionType)...**

- (A03) Name of the **Portfolio**
- (A04) Reference currency of the **Portfolio** (ISO code).
- (A05) Total net assets of **Portfolio** analyzed, in reference currency. For a Share class, you should have **TotalNetAssets** = **TotalNumberOfShares** x **SharePrice**
- (A06) Date of **Portfolio** valuation.
- (A07) Date of reporting.
- Share class data if **Portfolio** is a Share class. Otherwise missing.
  - (A08) Unit Share class price.
  - (A08b) Total number of shares of current Share Class.
- (A09) The liquidity of the Portfolio converted into Portfolio currency, as a percentage of **TotalNetAssets**.  
e.g. 3.2% = 0.032
- (A10) Portfolio modified duration, calculated for the portion of the **Portfolio** composed of interest rate instruments.
- (A11) Flag set to "Y" if contributions to SCR are provided for each line. Otherwise "N".
- Portfolio level data for the QRT reporting (optional)\*.
- Portfolio detailed inventory: set of positions, each position is described in a complex element **Position**\*.
- Multiple occurrences element. Each occurrence describes a line of the portfolio inventory\*.

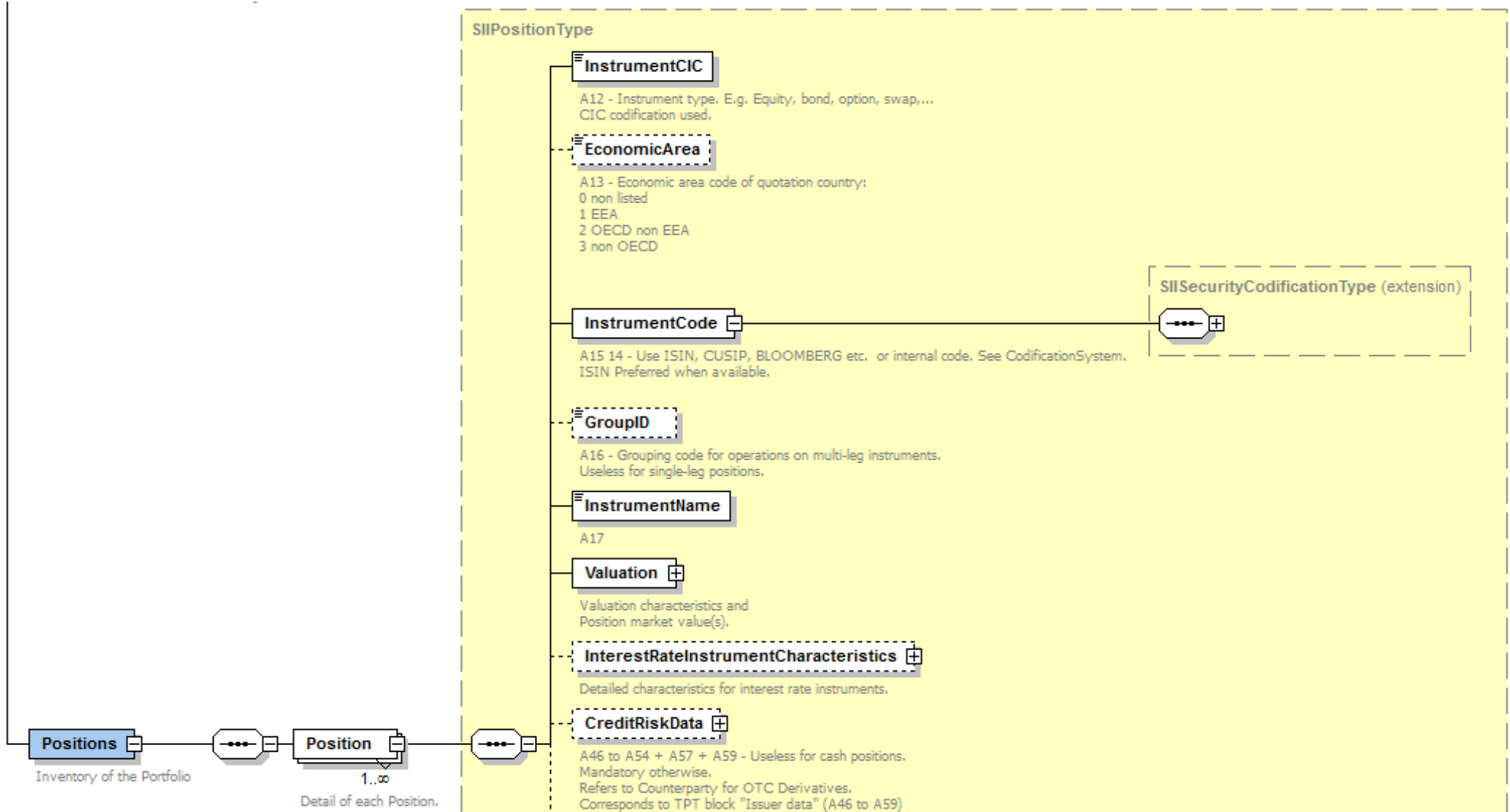
\* Components described further

## Description of complex element .../Portfolio/QRTPortfolioInformation/...



<p><u>Portfolio/QRTPortfolioInformation/...</u></p> <p><u>.../FundIssuer(IssuerType-extended)/...</u></p> <p><u>.../Name</u></p> <p><u>.../Code(SIIIssuerCodeType)/...</u></p> <p><u>.../CodificationSystem</u></p> <p>+ Choice between</p> <p><u>.../LEI</u></p> <p><u>.../Code</u></p> <p><u>.../EconomicSector[NACECodeType]</u></p> <p><u>.../Country[ISOCountryCodeType]</u></p> <p><u>.../FundIssuerGroup(IssuerType)/...</u></p> <p><u>.../Name</u></p> <p><u>.../Code(SIIIssuerCodeType)</u></p> <p><u>.../CodificationSystem</u></p> <p>+ Choice between</p> <p><u>.../LEI</u></p> <p><u>.../Code</u></p> <p><u>.../FundCIC[CICCodeType]</u></p> <p><u>.../FundCustodianCountry[ISOCountryCodeType]</u></p> <p><u>.../PortfolioModifiedDuration</u></p> <p><u>.../IssuerEconomicArea[SIIIssuerEconomicArea2Type]</u></p>	<p>Portfolio level data for the QRT reporting (optional)</p> <ul style="list-style-type: none"> <li>- Information on Fund issuer (derived from complexType <u>IssuerType</u>). <ul style="list-style-type: none"> <li>- (A117) Name of <u>Portfolio</u> issuer.</li> <li>- Issuer codification for S II: <ul style="list-style-type: none"> <li>- (A116) Type of code (1=LEI or 9=None) used for Issuer code</li> <li>- (A115) Code of the issuer in <u>CodificationSystem</u> uses a "choice" between: <ul style="list-style-type: none"> <li>- LEI code of the issuer if <u>CodificationSystem</u> = 1</li> <li>- Non LEI code of the issuer or missing if <u>CodificationSystem</u> = 9</li> </ul> </li> </ul> </li> </ul> </li> <li>Extension of complexType "<u>IssuerType</u>": <ul style="list-style-type: none"> <li>- (A118) NACE code of economic sector of issuer.</li> <li>- (A122) ISO2 code of issuer country.</li> </ul> </li> <li>- Information on financial Group the Portfolio issuer belongs to (complexType <u>IssuerType</u>): <ul style="list-style-type: none"> <li>- (A121) Name of issuer group.</li> <li>- Codification of issuer group for S II: <ul style="list-style-type: none"> <li>- (A120) Type of code (1=LEI or 9=None) used for Group code.</li> <li>- (A119) Code of the issuer in <u>CodificationSystem</u> uses a "choice" between: <ul style="list-style-type: none"> <li>- LEI code of the issuer if <u>CodificationSystem</u> = 1</li> <li>- Non LEI code of the issuer or missing if <u>CodificationSystem</u> = 9</li> </ul> </li> </ul> </li> </ul> </li> <li>- (A123) CIC code of the Fund or Share Class (<u>Portfolio</u>).</li> <li>- (A123a) ISO2 code of country of first level <u>Portfolio</u> custodian.</li> <li>- (A124) <u>Portfolio</u> modified duration for portfolios with more than 50% bonds or equivalent (Residual modified duration).</li> <li>- (A114) - (1=EEA, 2=OECD-non EEA, 3=Non OECD)</li> </ul>
---	--

## Description of complex group .../Positions/Position

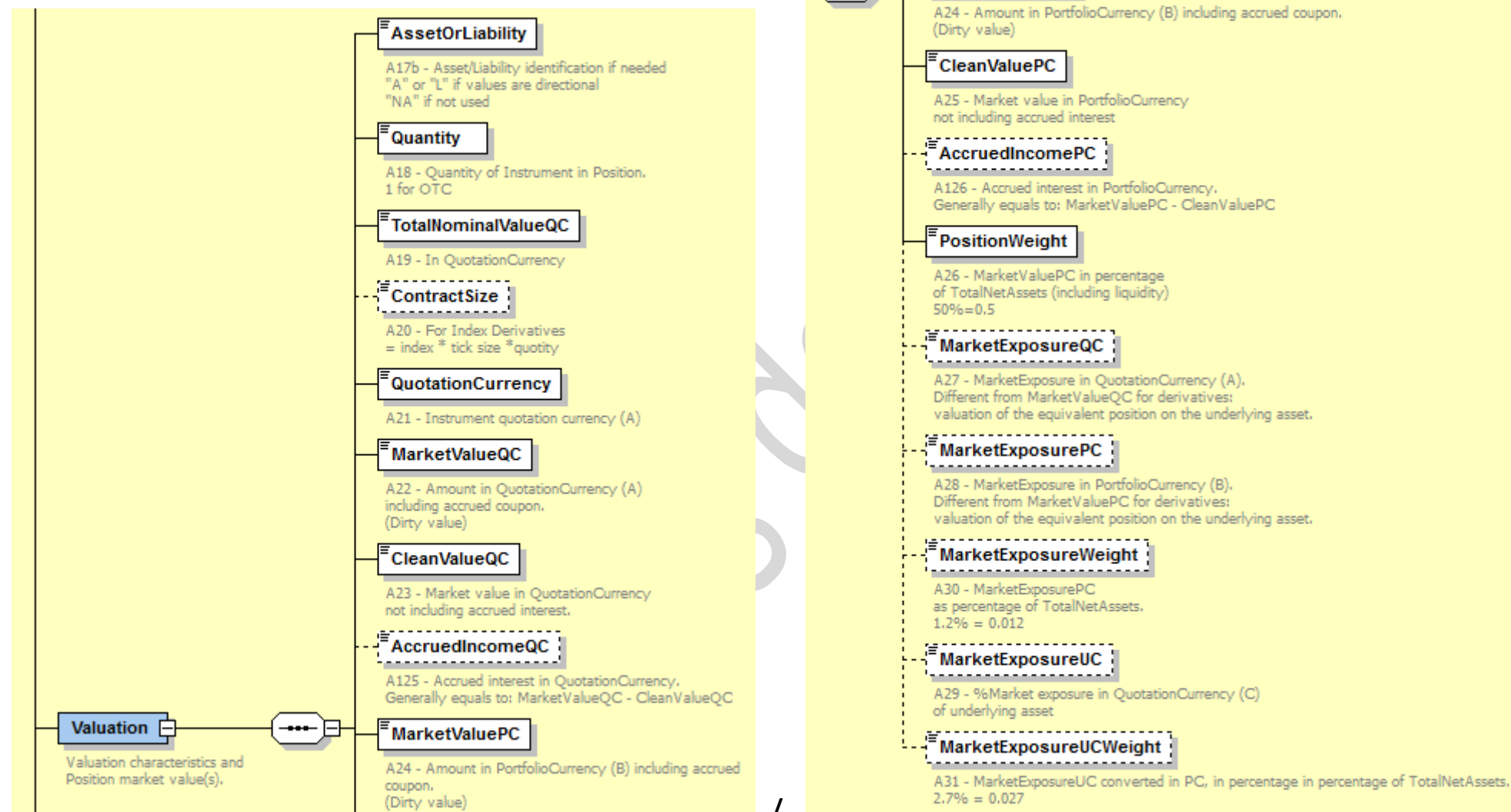


<b><u>Position(SIIPositionType)</u></b>	Detailed data for each position of <b><u>Portfolio/Positions/Position</u></b> ; repetitive group. Each <b><u>Position</u></b> corresponds to a line of <b><u>Portfolio</u></b> . In case of multiple-legs position (e.g. a swap), each leg can be described by a <b><u>Position</u></b> . The legs are then joined together by a common identifier <b><u>Position/GroupID</u></b> . <b><u>Position</u></b> refers to complexType <b><u>SIIPositionType</u></b>
<b><u>.../InstrumentCIC[CICCodeType]</u></b>	(A12) Nature of financial instrument described by its CIC code <sup>1</sup> .
<b><u>.../EconomicArea[EconomicAreaType]</u></b>	(A13) Geographic area of quotation country (0=non listed, 1=EEA, 2=OECD non EEA, 3=non OECD)
<b><u>.../InstrumentCode(SIISecurityCodificationType)...</u></b> <b><u>.../CodificationSystem</u></b> <b><u>.../Code</u></b>	Financial instrument code described by: - (A15) The codification system used <b><u>SIISecurityCodificationSystem</u></b> (specific to solvency II see details at page 7 field A02) - (A14) The value of instrument <b><u>Code</u></b> using that <b><u>CodificationSystem</u></b> .
<b><u>.../GroupID</u></b>	(A16) Grouping code for multi-leg operations. Otherwise missing. Free codification.
<b><u>.../InstrumentName</u></b>	(A17) Instrument name
<b><u>.../Valuation...</u></b>	Valuation characteristics and market value of the line (complex element)*.
<b><u>.../InterestRateInstrumentCharacteristics...</u></b>	Complex element containing the characteristics of the bond (optional, applicable only to bonds or equivalent)*.
<b><u>.../CreditRiskData/...</u></b>	Complex group containing data about credit and issuer risks linked to the instrument*.

\* See next pages.

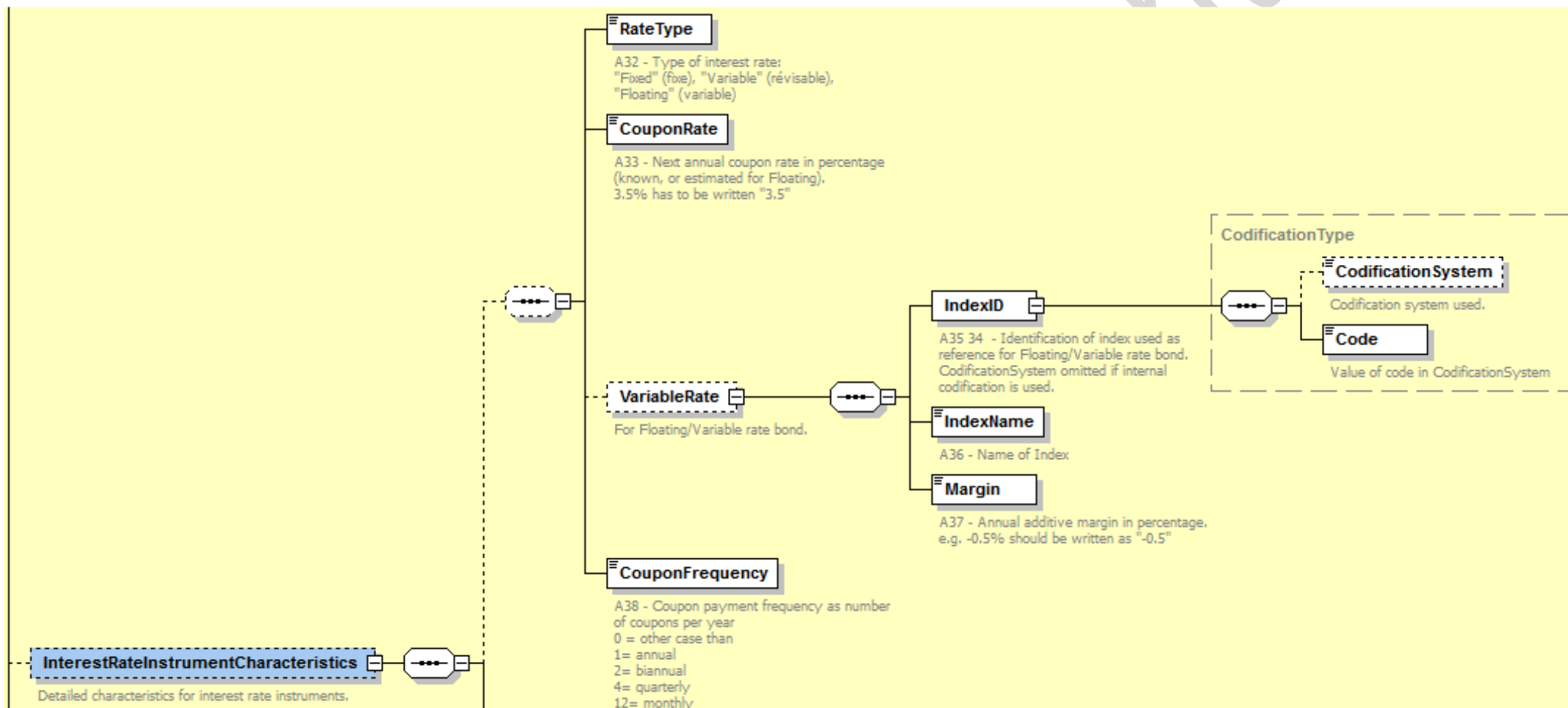
<sup>1</sup> The first two positions of the CIC code give the ISO2 country code of instrument quotation country (or "XL" if not listed or "XT" if negotiated by a contributor).

## Architecture and description of complex element Position/Valuation



<p><u>.../Valuation...</u></p> <p><u>.../AssetOrLiability</u></p> <p><u>.../Quantity</u></p> <p><u>.../TotalNominalValueQC</u></p> <p><u>.../ContractSize</u></p> <p><u>.../QuotationCurrency[ISOCurrencyCodeType]</u></p> <p><u>.../MarketValueQC</u></p> <p><u>.../CleanValueQC</u></p> <p><u>.../AccruedIncomeQC</u></p> <p><u>.../MarketValuePC</u></p> <p><u>.../CleanValuePC</u></p> <p><u>.../AccruedIncomePC</u></p> <p><u>.../PositionWeight</u></p> <p><u>.../MarketExposureQC</u></p> <p><u>.../MarketExposurePC</u></p> <p><u>.../MarketExposureWeight</u></p> <p><u>.../MarketExposureUC</u></p> <p><u>.../MarketExposureUCWeight</u></p>	<p>Valuation characteristics and market value of the line (complex element) :</p> <ul style="list-style-type: none"> <li>- (A17b) Asset or Liability flag. Set to "A" (Asset), "L" (Liability) or "NA".</li> <li>- (A18) Quantity held in portfolio.</li> <li>- (A19) Total nominal value in quotation currency.</li> <li>- (A20) Size of contract (For futures and options only, otherwise missing).</li> <li>- (A21) Quotation currency</li> <li>- (A22) Market value in <u>QuotationCurrency</u>, including accrued interests "Dirty value".</li> <li>- (A23) Market value in quotation currency, not including accrued interests "Clean value", or <u>MarketValueQC</u> duplicated.</li> <li>- (A125) Accrued interest in quotation currency.</li> <li>- (A24) Market value in portfolio currency, including accrued interests "Dirty value"</li> <li>- (A25) Market value in portfolio currency, not including accrued interests "Clean value" or <u>MarketValuePC</u> duplicated.</li> <li>- (A126) Accrued interests in <u>PortfolioCurrency</u>.</li> <li>- (A26) <u>MarketValuePC</u> as a percentage of <u>Portfolio/TotalNetAssets</u> (<math>1.23\% = 0.0123</math>)</li> <li>- (A27) Market exposure in quotation currency. May be different from <u>MarketValueQC</u> for derivatives.</li> <li>- (A28) Market exposure in portfolio currency. May be different from <u>MarketValuePC</u> for derivatives.</li> <li>- (A30) <u>MarketExposurePC</u> in percentage of <u>Portfolio/TotalNetAssets</u></li> <li>- (A29) Market exposure in quotation currency of underlying instrument.</li> <li>- (A31) <u>MarketExposureUC</u> converted into <u>PortfolioCurrency</u>, in % of <u>Portfolio/TotalNetAssets</u>. (<math>25.3\% = 0.253</math>)</li> </ul>
--	---

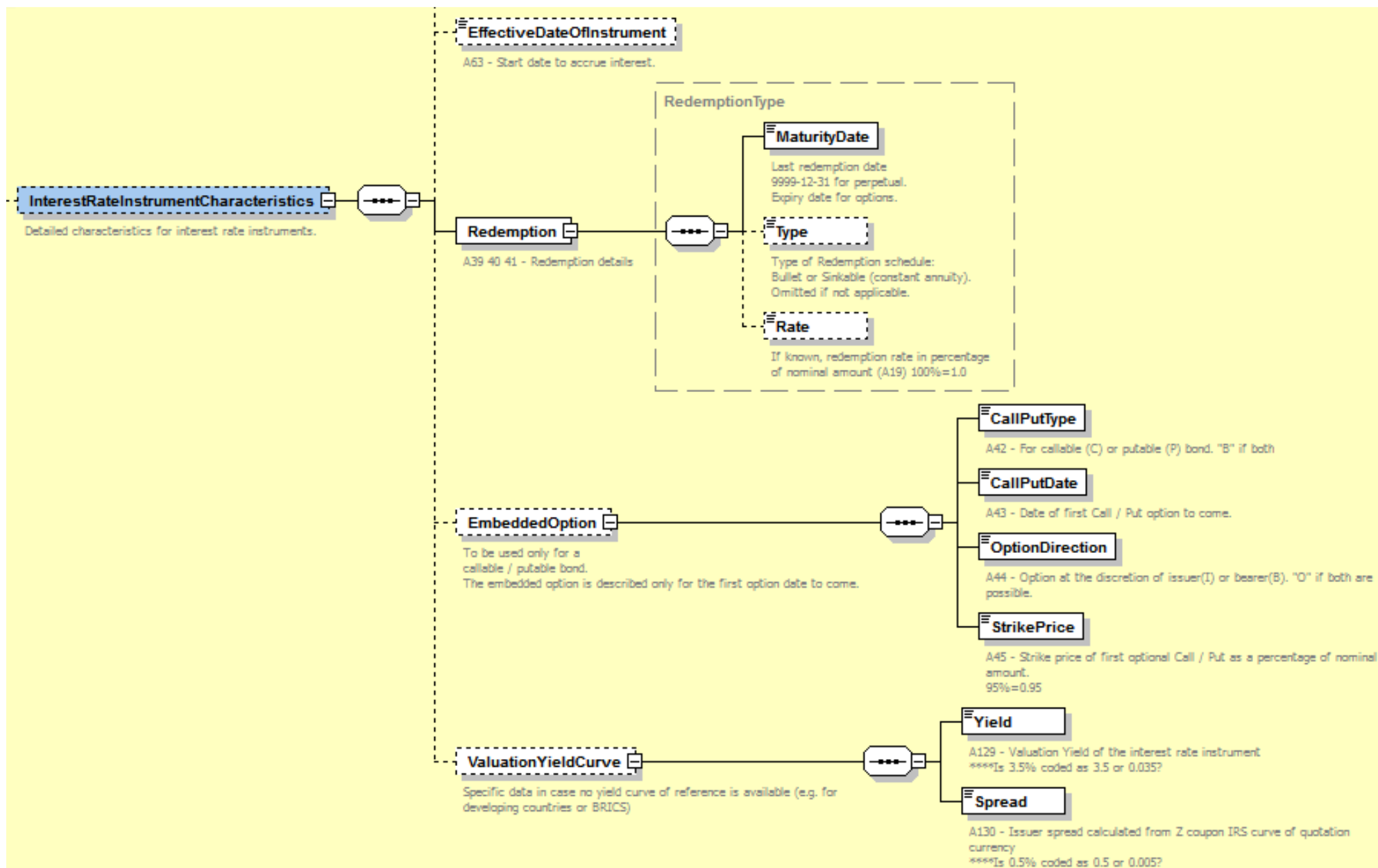
## Architecture and description of complex element Position/InterestRateInstrumentCharacteristics 1/2





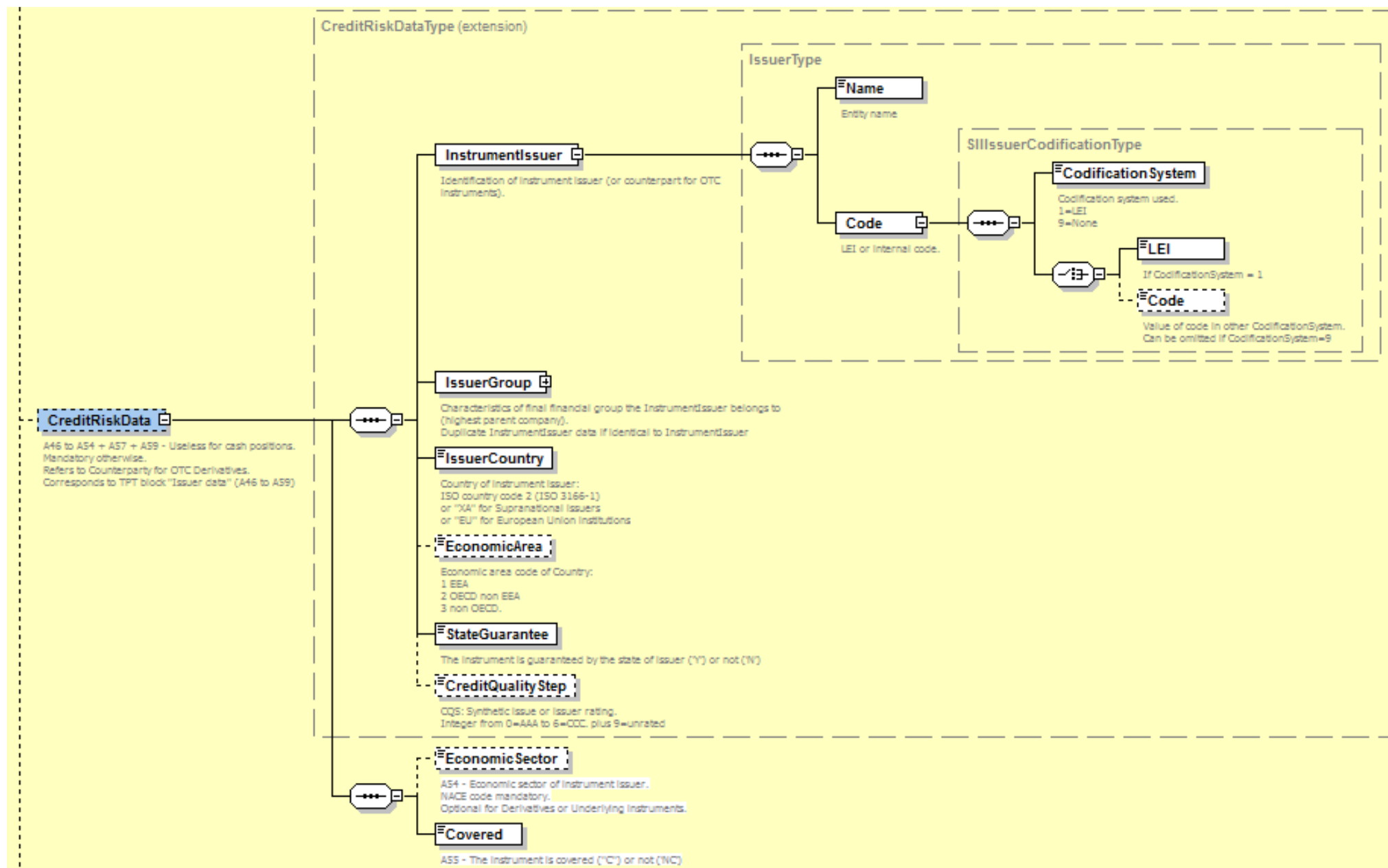
<p><u>.../InterestRateInstrumentCharacteristics...</u></p> <p><u>.../RateType</u></p> <p><u>.../CouponRate[PercentageType]</u></p> <p><u>.../VariableRate</u></p> <p><u>.../IndexID(CodificationType)</u></p> <p><u>.../CodificationSystem</u></p> <p><u>.../Code</u></p> <p><u>.../IndexName</u></p> <p><u>.../Margin[PercentageType]</u></p> <p><u>.../CouponFrequency[SIICouponFrequencyType]</u></p>	<p>Optional complex element containing characteristics of current position (only if current instrument is a bond or equivalent, or other interest rate instrument).</p> <p>The following elements are all together included in an optional "sequence":</p> <ul style="list-style-type: none"> <li>- (A32) Rate type: "Fixed", "Variable" or "Floating"</li> <li>- (A33) Annual nominal rate of next coupon (percentage) ; extrapolated for "Floating". 3.5% = 3.5</li> <li>- Complex group "Variable Rate" characteristics (for variable/floating bonds only): <ul style="list-style-type: none"> <li>- (A34 35) Identification of the reference index (codification system and code) <ul style="list-style-type: none"> <li>(A34) Codification system used</li> <li>(A35) Value of <u>Code</u> in <u>CodificationSystem</u></li> </ul> </li> <li>- (A36) Name of the reference index</li> <li>- (A37) Additive margin (positive or negative) in percentage of par. E.g. -0.5% = -0.5</li> <li>- (A38) Coupon frequency as number of coupons per year <ul style="list-style-type: none"> <li>(1=yearly, 2=semestrial, 4=quarterly, 12= monthly, 0=Other case)</li> </ul> </li> </ul> </li> </ul> <p>...</p>
--	---

## Architecture and description of complex element Position/InterestRateInstrumentCharacteristics 2/2



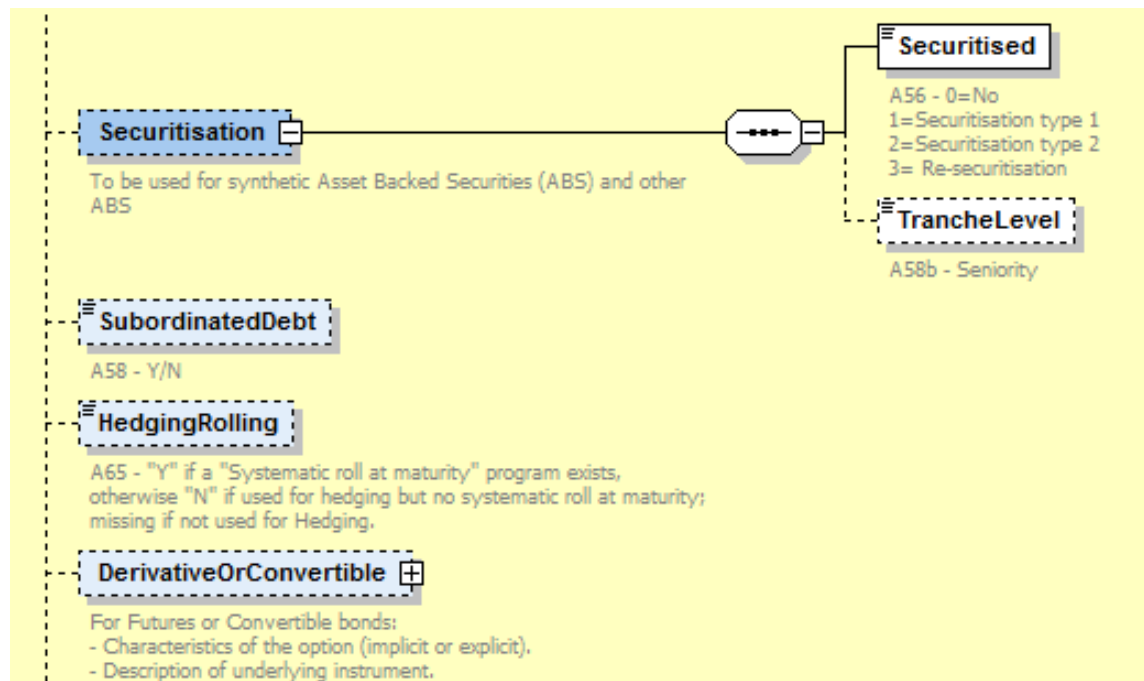
<p><u>.../InterestRateInstrumentCharacteristics...</u> (cont.)</p> <p><u>.../EffectiveDateOfInstrument</u></p> <p><u>.../Redemption(RedemptionType)</u></p> <p><u>.../MaturityDate</u></p> <p><u>.../Type</u></p> <p><u>.../Rate</u></p> <p><u>.../EmbeddedOption...</u></p> <p><u>.../CallPutType</u></p> <p><u>.../CallPutDate</u></p> <p><u>.../OptionDirection</u></p> <p><u>.../StrikePrice</u></p> <p><u>.../ValuationYieldCurve</u></p> <p><u>.../Yield</u></p> <p><u>.../Spread</u></p>	<p>Bond characteristics (cont.).</p> <ul style="list-style-type: none"> <li>- (A63) Start date to accrue interest of instrument.</li> <li>- Complex element for redemption characteristics: <ul style="list-style-type: none"> <li>- (A39) Maturity date of the bond (9999-12-31 if perpetual). Also used for expiry date of an option. In this case, <u>/Type</u> and <u>/Rate</u> are missing</li> <li>- (A40) Redemption description ("Bullet" or "Sinkable", "NA" or missing if not applicable)</li> <li>- (A41) Redemption price ( % of nominal value; 100% = 1.)</li> </ul> </li> <li>- Complex element (optional) for bond with call/put option(s): <ul style="list-style-type: none"> <li>- (A42) Indicator of existence of an integrated option ("C"=callable, "P"=putable, "B"=both)</li> <li>- (A43) Date of next call/put option</li> <li>- (A44) Option direction flag ("I" for issuer, "B" for bearer or "O" for both)</li> <li>- (A45) Strike price of option (% of nominal value; e.g. 0.95 for 95%*****)</li> </ul> </li> <li>- Optional group; present if no yield curve is available for the currency of instrument in position. Used for valuation. <ul style="list-style-type: none"> <li>- (A129) Yield used for valuation of instrument in position.</li> <li>- (A130) Market spread observed for instrument issuer. Computed from the zero coupon yield curve of swaps.</li> </ul> </li> </ul>
---	--

## Architecture and description of complex element Position/CreditRiskData



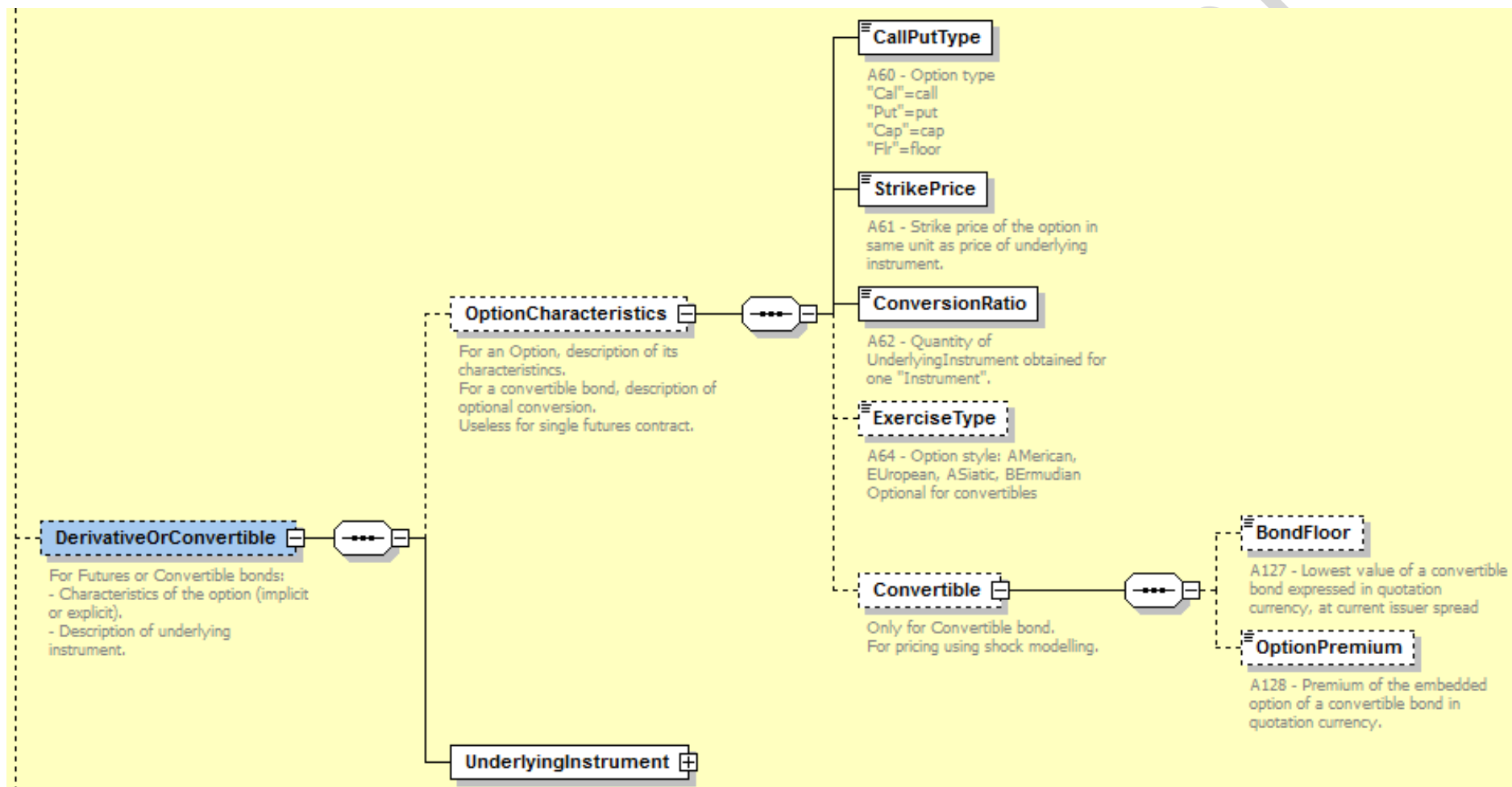
<p><u>.../CreditRiskData(CreditRiskDataType)...</u></p> <p><u>.../InstrumentIssuer(IssuerType)</u></p> <p><u>.../Name</u></p> <p><u>.../Code(SIIIssuerCodificationType)</u></p> <p><u>.../CodificationSystem</u></p> <p>+ choice between</p> <p><u>.../LEI</u></p> <p><u>.../Code</u></p> <p><u>.../IssuerGroup(IssuerType)</u></p> <p><u>.../IssuerCountry[ISOCountryCodeType]</u></p> <p><u>.../EconomicArea[EconomicArea2Type]</u></p> <p><u>.../StateGuarantee[YesNoL1Type]</u></p> <p><u>.../CreditQualityStep</u></p> <p><u>.../EconomicSector[NACECodeType]</u></p> <p><u>.../Covered</u></p>	<p>Data about credit and issuer risks linked to the instrument (except cash positions).</p> <p>* (A46 to A48) Characteristics of issuer, or counterparty for OTC positions (<b><u>IssuerType</u></b>):</p> <ul style="list-style-type: none"> <li>- (A46) Name of issuer or counterparty</li> <li>- Issuer identification (<b><u>SIIIssuerCodificationType</u></b>). <ul style="list-style-type: none"> <li>° (A48) Codification system used (1=LEI 9=None or non LEI)</li> <li>° (A47) Value of issuer code in <b><u>CodificationSystem</u></b> Uses a "choice" between: <ul style="list-style-type: none"> <li>LEI code if CodificationSystem =1</li> <li>Non LEI code of the issuer or missing if <b><u>CodificationSystem</u></b> = 9</li> </ul> </li> </ul> </li> </ul> <p>* (A49 50 51) Characteristics of the financial group the issuer belongs to (<b><u>IssuerType</u></b> as above)</p> <p>* (A52) ISO2 code of the issuer country; XA for supranational issuer; EU for European Union institutions.</p> <p>* (A53) Economic area code of <b><u>Country</u></b> (1=EEA, 2=OECD-non EEA, 3=Non OECD)</p> <p>* (A57) Flag of guarantee by the state of <b><u>IssuerCountry</u></b> (Y/N).</p> <p>* (A59) Synthetic rating of issue or issuer (by default) (integer from 0=AAA to 6=CCC or lower, or 9 if unrated).</p> <p>Extension of component <b><u>CreditRiskDataType</u></b> :</p> <ul style="list-style-type: none"> <li>* (A54) Economic sector of instrument issuer (NACE Code)</li> <li>* (A55) Indicator of "covered" instrument ("C" if position is covered, "NC" otherwise)</li> </ul>
--	---

## Description of complex element .../Positions/Position (cont.)



<b><u>Position/...</u></b>	Detailed data for each <b><u>Portfolio/Positions/Position.</u></b> (cont.).
<u>.../Securitisation</u> <u>.../Securitised</u> <u>.../TrancheLevel</u>	Group present for securitised instruments (Synthetic and other ABSs). Otherwise missing. * (A56) Securitisation flag ("0"=No, or Securitisation type "1" or "2", or "3"=Re-securitisation). * (A58b) Tranche level (seniority). Missing if <b><u>Securitised</u></b> = "0"
<u>.../SubordinatedDebt[YesNoL1Type]</u>	* (A58) Subordinated debt flag ("Y" ou "N")
<u>.../HedgingRolling</u>	* (A65) Flag indicating existence of a hedge program* ("Y" = Systematic roll at maturity; "N" = no roll). Omitted if not used for hedging.
<u>.../DerivativeOrConvertible/...</u>	See next pages.

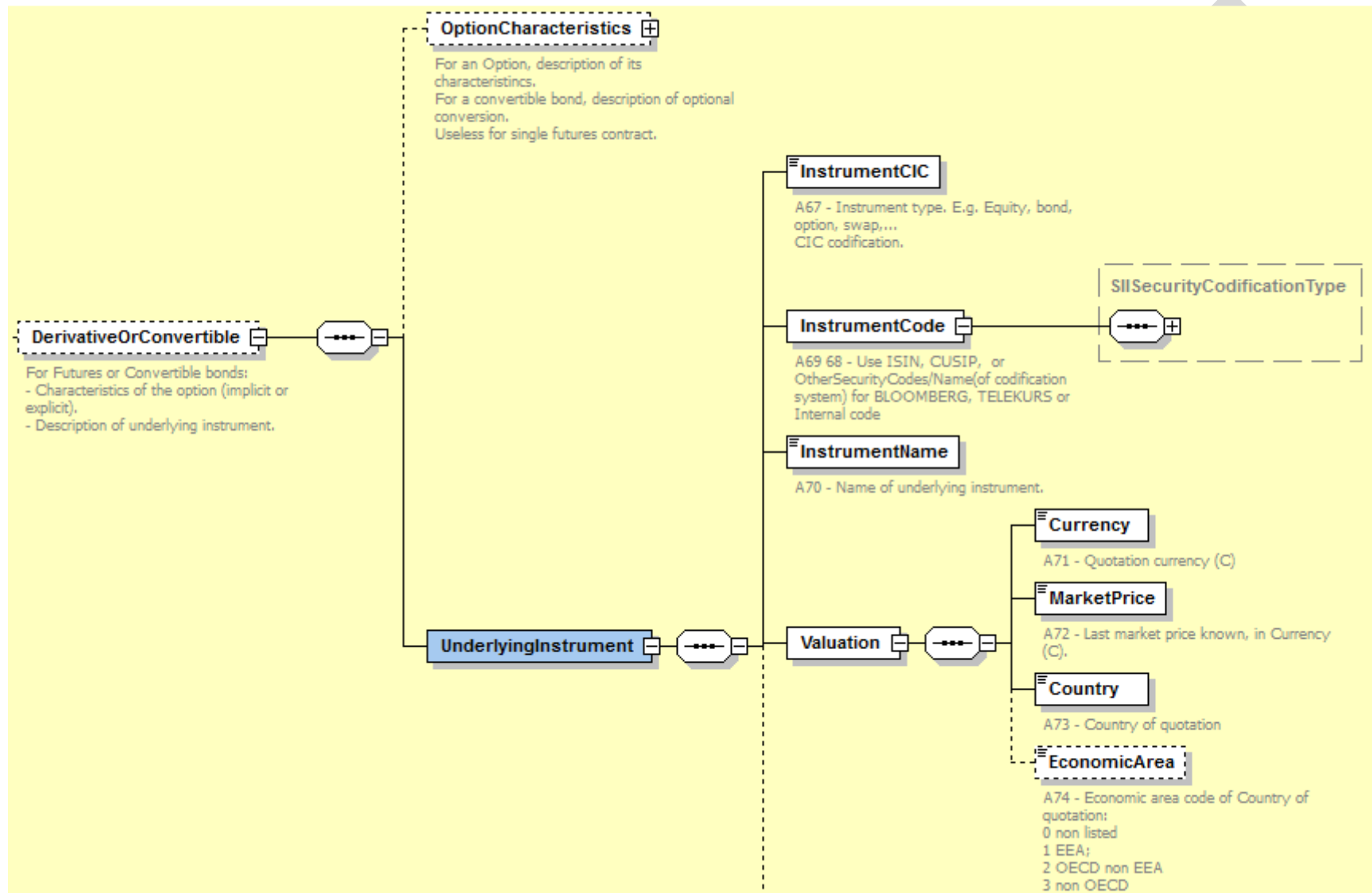
## Architecture and description of complex element Position/DerivativeOrConvertible





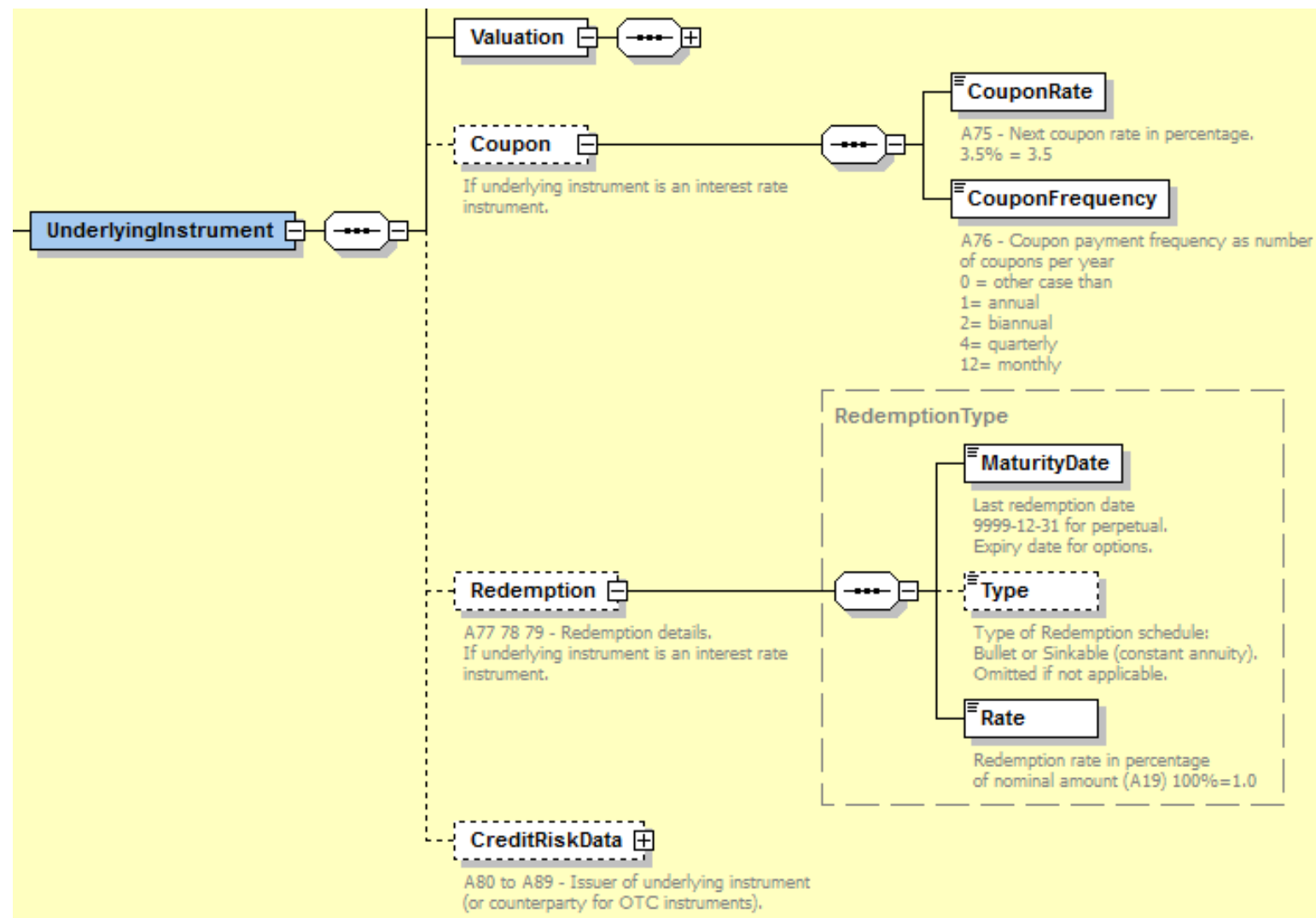
<u>.../DerivativeOrConvertible...</u>	For listed derivatives or convertible bonds, details of explicit (derivatives) or implicit option (convertible) and of underlying instrument.
<u>.../OptionCharacteristics</u> <u>.../CallPutType</u> <u>.../StrikePrice</u> <u>.../ConversionRatio</u>  <u>.../ExerciseType</u>  <u>.../Convertible</u> <u>.../BondFloor</u> <u>.../OptionPremium</u>	* Description of implicit or explicit option. Missing for single Future contracts. - (A60) Option type ("Cal"=call, "Put"=put, "Cap"=cap, "Flr"=floor) - (A61) Strike price of option in the same unit as for quotation of underlying instrument. - (A62) Conversion ratio (Number of underlying units obtained from one unit of instrument in <b><u>Position</u></b> ) - (A64) Option style ("AM"=American, "EU"=European, "AS"=Asian, "BE"=Bermudian). Optional for convertible bond. - Group used for valuation of convertible bond ("Shock modelling") - (A127) Lowest value of the bond (in quotation currency) with current issuer spread. - (A128) Premium of implicit option in quotation currency
<u>.../UnderlyingInstrument...</u> ...	* Description of underlying instrument (see next pages)

## Architecture and description of complex element Position/DerivativeOrConvertible/UnderlyingInstrument 1/3



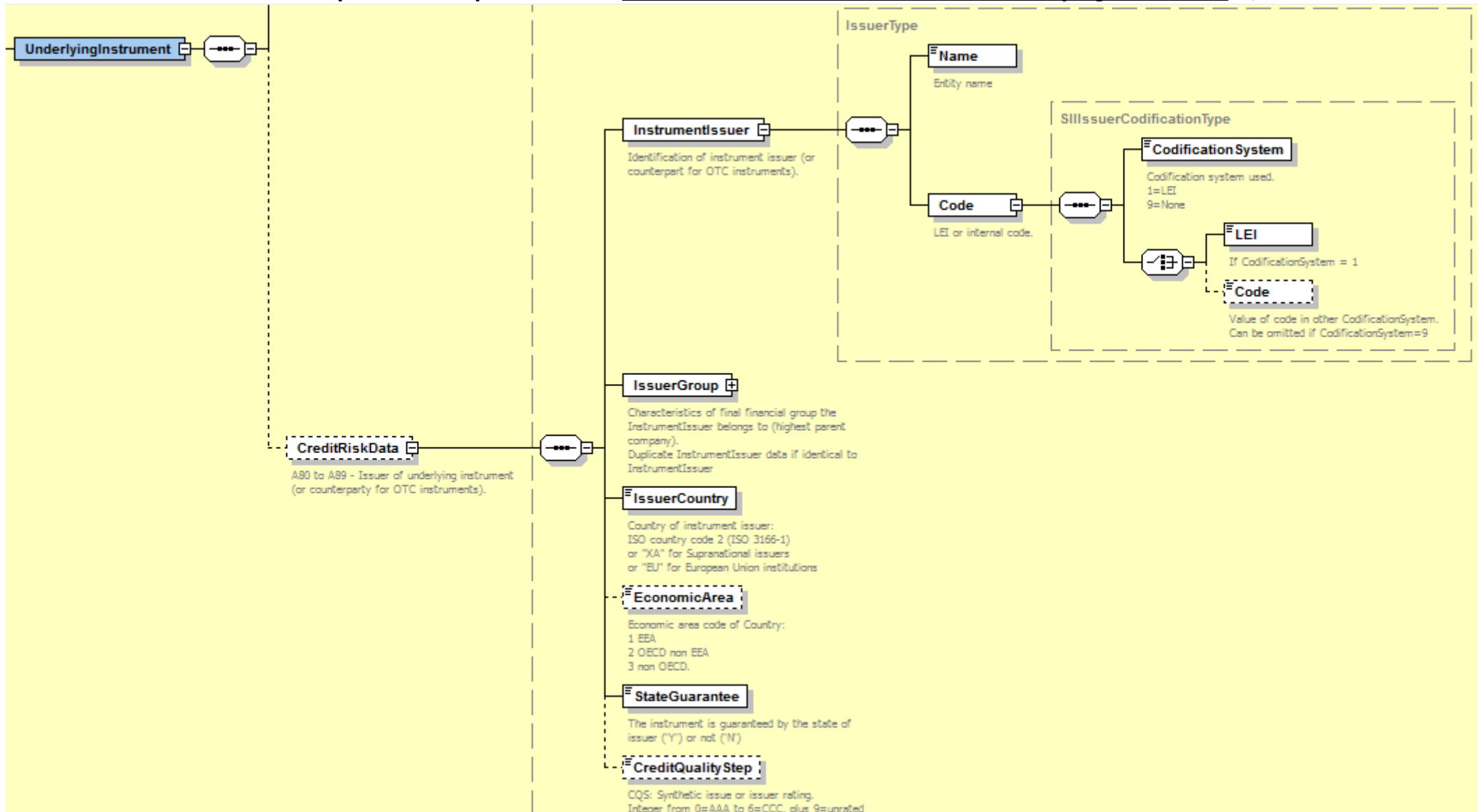
<p><u>.../DerivativeOrConvertible...</u> (cont.)</p> <p><u>.../UnderlyingInstrument...</u></p> <p><u>.../InstrumentCIC[CICCodeType]...</u></p> <p><u>.../InstrumentCode(SecurityCodificationType)</u></p> <p><u>.../CodificationSystem</u></p> <p><u>.../Code</u></p> <p><u>.../InstrumentName</u></p> <p><u>.../Valuation</u></p> <p><u>.../Currency[ISOCurrencyCodeType]</u></p> <p><u>.../MarketPrice</u></p> <p><u>.../Country[ISOCountryCodeType]</u></p> <p><u>.../EconomicArea[EconomicAreaType]</u></p> <p>...</p>	<p>* Underlying instrument characteristics:</p> <ul style="list-style-type: none"> <li>- (A67) CIC code giving instrument type of underlying instrument.</li> <li>- (A69 68) Identification of underlying (<b><u>CodificationType</u></b>). <ul style="list-style-type: none"> <li>(A69) Codification system used (ISIN priority, or BLOOMBERG, etc.).See page 7 A02</li> <li>(A68) ID Code of underlying instrument in <b><u>CodificationSystem</u></b>.</li> </ul> </li> <li>- (A70) Name of underlying instrument.</li> <li>- Information about valuation of the underlying instrument: <ul style="list-style-type: none"> <li>° (A71) Quotation currency C.</li> <li>° (A72) Market price in <b><u>Currency</u></b> C.</li> <li>° (A73) ISO2 code of quotation country.</li> <li>° (A74) Economic area of <b><u>Country</u></b> (0=Non listed, 1=EEA, 2=OECD-non EEA, 3=Non OECD)</li> </ul> </li> </ul>
--	--

## Architecture and description of complex element Position/DerivativeOrConvertible/UnderlyingInstrument 2/3



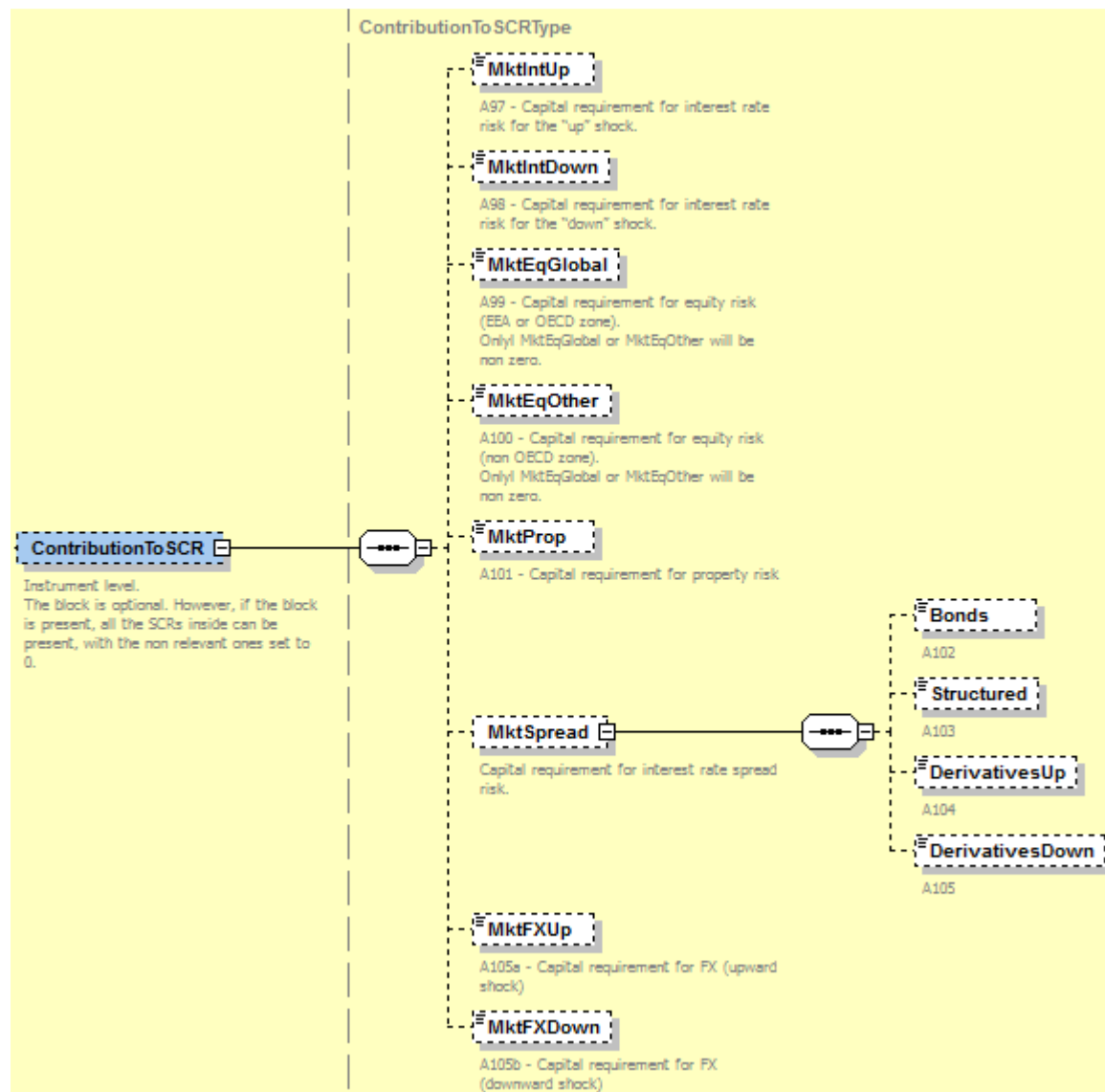
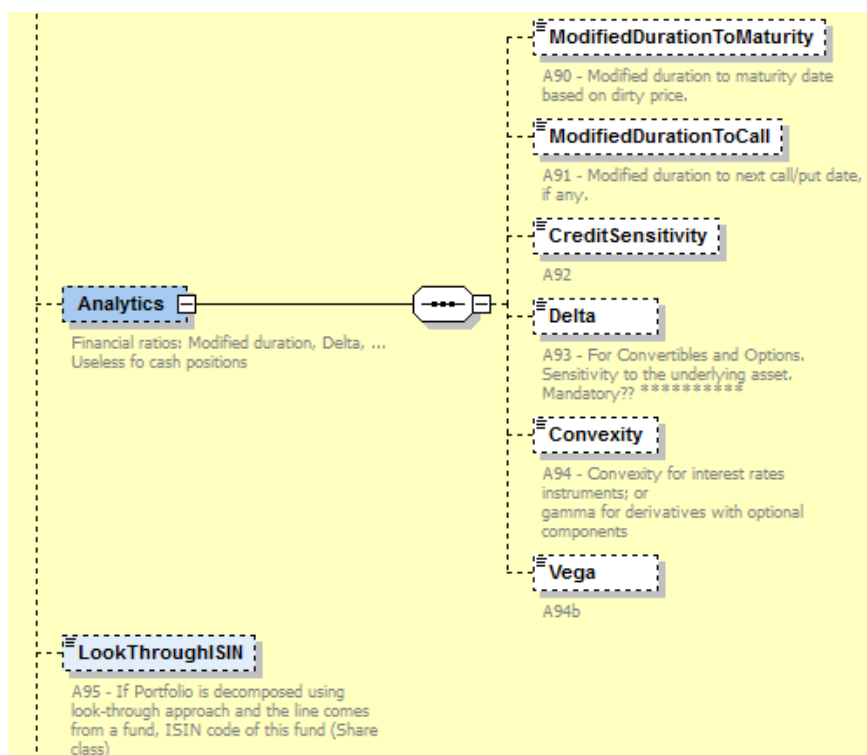
<p><u>.../DerivativeOrConvertible...</u> (cont.)</p> <p><u>.../UnderlyingInstrument...</u> (cont.)</p> <p><u>.../Coupons...</u></p> <p><u>.../CouponRate[PercentageType]</u></p> <p><u>.../CouponFrequency[SIICouponFrequencyType]</u></p> <p><u>.../Redemption[RedemptionType]</u></p> <p><u>.../MaturityDate</u></p> <p><u>.../Type</u></p> <p><u>.../Rate</u></p> <p><u>.../CreditRiskData(CreditRiskDataType)</u> ...</p>	<p>* Underlying instrument characteristics (cont):</p> <ul style="list-style-type: none"> <li>- Coupon description (if underlying instrument an interest rate instrument) <ul style="list-style-type: none"> <li>° (A75) Annual nominal rate of coupon in percentage, e.g. 2.5% = 2.5</li> <li>° (A76) Coupon frequency as number of coupons per annum (1=annual, 2=semi-annual, 4=quarterly, 12=monthly, etc.)</li> <li>° Redemption data (if underlying instrument an interest rate instrument) : <ul style="list-style-type: none"> <li>(A77) Maturity date of the bond.</li> <li>(A78) Redemption type ("Bullet" or "Sinkable", or missing if not relevant).</li> <li>(A79) Redemption price in % of par. 100% = 1</li> </ul> </li> </ul> </li> <li>- (A80 to A89) Data about credit and issuer risks linked to the underlying and its issuer (Uses <u>CreditRiskDataType</u>; See next pages).</li> </ul>
---	--

## Architecture and description of complex element Position/DerivativeOrConvertible/UnderlyingInstrument 3/3



<p><u>.../CreditRiskData(CreditRiskDataType)...</u></p> <p><u>.../InstrumentIssuer(IssuerType)</u></p> <p><u>.../Name</u></p> <p><u>.../Code(SIIIssuerCodificationType)</u></p> <p><u>.../CodificationSystem</u></p> <p>+ choice between</p> <p><u>.../LEI</u> or</p> <p><u>.../Code</u></p> <p><u>.../IssuerGroup(IssuerType)</u></p> <p><u>.../IssuerCountry/ISOCountryCodeType]</u></p> <p><u>.../EconomicArea[EconomicArea2Type]</u></p> <p><u>.../StateGuarantee[YesNoL1Type]</u></p> <p><u>.../CreditQualityStep</u></p>	<p>Data about instrument linked credit and issuer risks (except cash positions).</p> <p>* (A80 to A82) Characteristics of issuer or counterparty for OTC positions (<u><b>IssuerType</b></u>):</p> <ul style="list-style-type: none"> <li>- (A80) Name of issuer or counterparty</li> <li>- Issuer identification (<u><b>SIIIssuerCodificationType</b></u>). <ul style="list-style-type: none"> <li>° (A82) Codification system used (1=LEI 9=none)</li> <li>° (A81) Value of issuer code in <u><b>CodificationSystem</b></u> Uses a "choice" between: <ul style="list-style-type: none"> <li>LEI code if <u><b>CodificationSystem</b></u> =1</li> <li>Non LEI code of the issuer or missing if <u><b>CodificationSystem</b></u> = 9</li> </ul> </li> </ul> </li> </ul> <p>* (A83 85 84) Characteristics of the financial group the issuer belongs to (<u><b>IssuerType</b></u> as above)</p> <p>* (A86) ISO2 code of the issuer country.</p> <p>* (A87) Economic area code of <u><b>IssuerCountry</b></u> (1=EEA, 2=OECD-non EEA, 3=Non OECD)</p> <p>* (A88) Flag of guarantee by the state of <u><b>Country</b></u> (Y/N).</p> <p>* (A89) Synthetic rating of issue or issuer; (Integer from 0=AAA to 6=CCC or lower, or 9 if unrated).</p>
--	---

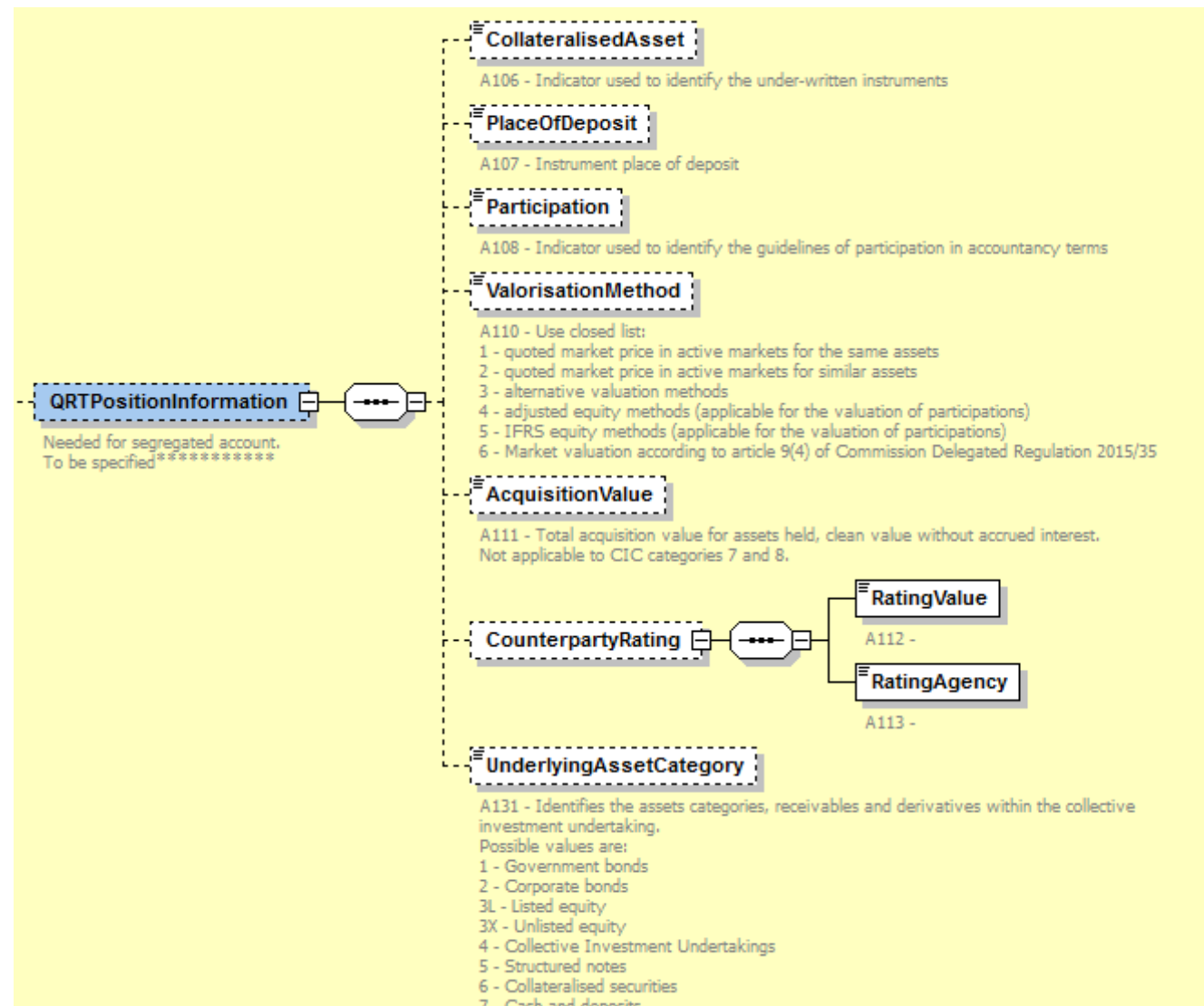
## Architecture and description of complex elements Position/Analytics to .../ContributionToSCR





<p><u>.../Analytics...</u></p> <p><u>.../ModifiedDurationToMaturity</u></p> <p><u>.../ModifiedDurationToCall</u></p> <p><u>.../CreditSensitivity</u></p> <p><u>.../Delta</u></p> <p><u>.../Convexity</u></p> <p><u>.../Vega</u></p>	<p>- Financial indicators of the instrument. All are optional.</p> <ul style="list-style-type: none"> <li>- (A90) Modified duration to maturity.</li> <li>- (A91) Modified duration to maturity of the next embedded option.</li> <li>- (A92) Credit sensitivity.</li> <li>- (A93) Delta. For convertibles and options, sensitivity to the underlying asset.</li> <li>- (A94) Convexity for interest rate instruments or gamma for derivatives with optional components.</li> <li>- (A94b) Vega</li> </ul>
<p><u>.../LookThroughIsin</u></p>	<p>- (A95) When the inventory uses look-through processing and the position comes from that processing, ISIN code of the Fund the current line comes from.</p>
<p><u>.../ContributionToSCR(ContributionToSCRType]</u></p> <p><u>.../MktIntUp</u></p> <p><u>.../MktIntDown</u></p> <p><u>.../MktEqGlobal</u></p> <p><u>.../MktEqOther</u></p> <p><u>.../MktProp</u></p> <p><u>.../MktSpread</u></p> <p><u>.../Bonds</u></p> <p><u>.../Structured</u></p> <p><u>.../DerivativesUp</u></p> <p><u>.../DerivativesDown</u></p> <p><u>.../MktFXUp</u></p> <p><u>.../MktFXDown</u></p>	<p>Contributions of current line to each SCR market by risk.</p> <p>Contributions are given as percentages of <b><u>TotalNetAssets</u></b>. (1.23%=0.0123)</p> <ul style="list-style-type: none"> <li>- (A97) Contribution to SCR "MktIntUp" (Interest rate, Up shock).</li> <li>- (A98) Contribution to SCR "MktIntDown" (Interest rate, Down shock).</li> <li>- (A99) Contribution to SCR "MktEq1" (Equities of EEA ou OECD zones).</li> <li>- (A100) Contribution to SCR "MktEqOther" (Equities of other zones).</li> <li>- (A101) Contribution to SCR "MktProp" on property assets.</li> <li>- Contributions to SCR "MktSpread". Detailed by type of shock. <ul style="list-style-type: none"> <li>(A102) Contribution of bonds or equivalent.</li> <li>(A103) Contribution of structured products.</li> <li>(A104) Contribution of derivatives, Up shock.</li> <li>(A105) Contribution of derivatives, Down shock.</li> </ul> </li> <li>- (A105a) Contribution to SCR FX Up shock</li> <li>- (A105b) Contribution to SCR FX Down shock.</li> </ul>

## Architecture and description of complex element *Position/QRTPositionInformation*



<u>QRTPositionInformation</u>	* QRT data for current <b><u>Position</u></b> (To be specified*****)
<u>.../CollateralizedAsset</u>  <u>.../PlaceOfDeposit</u> <u>.../Participation</u>  <u>.../ValorisationMethod</u>          <u>.../AcquisitionValue</u>  <u>.../CounterpartyRating</u> <u>.../RatingValue</u> <u>.../RatingAgency</u> <u>.../UnderlyingAssetCategory</u>	<ul style="list-style-type: none"> <li>- (A106) - Indicator used to identify the under-written instruments</li> <li>- (A107) - Instrument place of deposit</li> <li>- (A108) - Indicator used to identify the guidelines of participation in accountancy terms</li> <li>- (A110) - Valorisation method. Use closed list: <ul style="list-style-type: none"> <li>1 - quoted market price in active markets for the same assets</li> <li>2 - quoted market price in active markets for similar assets</li> <li>3 - alternative valuation methods</li> <li>4 - adjusted equity methods (applicable for the valuation of participations)</li> <li>5 - IFRS equity methods (applicable for the valuation of participations)</li> <li>6 - Market valuation according to article 9(4) of Commission Delegated Regulation 2015/35</li> </ul> </li> <li>- (A111) Total acquisition value for assets held, clean value without accrued interest. Not applicable to CIC categories 7 and 8.</li> <li>- Counterparty rating: <ul style="list-style-type: none"> <li>- (A112) Rating (not CQS)</li> <li>- (A113)</li> </ul> </li> <li>- (A131) - Identifies the assets categories, receivables and derivatives within the collective investment undertaking. Also applies to Underlying instrument. Possible values are: <ul style="list-style-type: none"> <li>1 - Government bonds</li> <li>2 - Corporate bonds</li> <li>3L - Listed equity</li> <li>3X - Unlisted equity</li> </ul> </li> </ul>

	4 - Collective Investment Undertakings 5 - Structured notes 6 - Collateralised securities 7 - Cash and deposits 8 - Mortgages and loans 9 - Properties 0 - Other investments (including receivables) A – Futures B – Call Options C – Put Options D – Swaps E – Forwards F – Credit derivatives L - Liabilities  When the look-through regards a Fund of funds, category “4 - Collective Investment Units” shall be used only for non-material residual values.
End of description *****	

-o-O-o-

## Annex 1

For the message "TripartiteTemplateSolvencyIIMessage", the content of which has been defined in the "Solvency II Tripartite Data Exchange Template", an XML format has been proposed by FundsXML France. The main data types used are as follows:

Tripartite Template format	XML type <sup>4</sup>	Valid XML values	Valid If empty <sup>5</sup>	Rejected values (Valid XML equivalent)
Alpha()	xs:string	Any string of characters excluding the following: & < > because they can be ambiguous. Special strings must be used to replace the forbidden characters.	yes	S & P (S & P) A > B (A &gt; B) B < C (B &lt; C)
Integer	xs:integer	Any positive, negative or null integer :  0 37564329876 -0 -0123 05 543210	No	1E5 (100000)
Decimal <sup>6</sup>	xs:decimal	Any real number, expressed in decimal format:  0.0 0 -12345 .02 9876  -123456789012 3456.78901	No	0.3E-6 (0.0000003)  12,34 (12.34 because there is no comma as decimal point in XML)

<sup>4</sup> xs:abcdef means that abcdef is a standard format of the XML language.

<sup>5</sup> Do not confuse a missing element Toto (no <Toto> markup) and an empty element (<Toto/> or <Toto></Toto>)

<sup>6</sup> XML uses the Anglo-Saxon decimal point but doesn't use the French comma for storage of numerical data.

Float	xs:float	Any real number expressed in decimal or floating format:  0.2 2 23.4567 0.2E-3 2E3 2.34E+4 3E-2  Whenever possible, FundsXML prefers the xs:decimal type.	No	E-2 (1E-2 or 0.02)
Date	xs:date	XML imposes dates with the format YYYY-MM-DD which is an ISO format:  2014-08-13 for 13 August 2014  -37-03-25  (~25/03 in 37 BC)  12345-05-14	No	13/08/2012 (2012-08-13)  2010-06-31 (30 days in June)  2007-15-27 (invalid month)  An infinite date shall be written 9999-12-31, not 9999-99-99 which is not a valid date.
Percentage	xs:decimal	A percentage is a decimal number which has to be divided in 100 to be used in calculations.  If it is stored as a percentage (e.g. 12.34 for 12.34%) 12.34 will have to become 0.1234 for computations.  It is the latter format which will be used for the " TripartiteTemplateSolvencyIIMessage " message: 12.34% will be stored as 0.1234 (unless specified otherwise).  This makes calculations simple, since no division is necessary.  On the opposite, for reports, the percentage will have to be multiplied by 100 before printing.  The symbol "%" is never used with the stored data.	No	12.34% (12.34)

## Other remarks:

- The TripartiteTemplateSolvency2Message uses the "Core-Satellite" architecture. This means that its XML schema [TripartiteTemplateSolvencyIIMessageV3.xsd](#) is a Satellite of the Core schema [FundsXML3.2.xsd](#). The link is done with the "include" command in the Satellite. Doing so, the Satellite can use all the components of the Core, especially the [complexType TripartiteSolvencyIIType](#) and all its descendants. The two schemas [FundsXML3.2](#) [TripartiteTemplateSolvencyIIMessageV3.xsd](#) and [FundsXML3.2.xsd](#) are parts of the same namespace <http://www.fundxml.org/XMLSchema/3.2>. The namespace is a URI (Unit Resource Identifier) but is not a URL.

- Using an XML editor, the message design will be visible when opening the satellite [TripartiteTemplateSolvencyIIMessageV3.xsd](#). The [FundsXML3.2.xsd](#) schema should not be open directly. This schema is a huge one, used for many other purposes than the [TripartiteTemplateSolvencyIIMessage](#) documented here. The core schema [FundsXML3.2.xsd](#) contains all the components used by the satellite [TripartiteTemplateSolvencyIIMessageV3.xsd](#) as well as many other components which are not used by the satellite and have no relationship with it. To have more information about the FundsXML3.2 schema, please refer to

<http://www.fundxml.org/public/funds-xml.html>

- The FundsXML model is supposed to be international. So its writing and documentation language is English. The consequences are:

XML element names are in English.

"enumeration"s (lists of possible values for an element) are in English as well, including abbreviations.

For example, for the coding of possible values of an interest rate type (Fixed/Variable/Floating which in French correspond respectively to Fixe/Révisable/Variable), the English wording will be preferred to TF/TR/TV which could have been a nice abbreviation in French of Taux fixe/Taux révisable/Taux variable, but would be totally inappropriate in English. FundsXML will use "Fixed", "Variable", "Floating".

The whole XML language is case sensitive, so are enumerations: "Fixed" is different from "fixed".

- The lists of values provided by enumerations are mandatory<sup>7</sup> in XML when they exist in the schema. So people should be very cautious when using such enumerations: for data fields having standardized and limited lists of values (e.g. country codes or currency codes determined by ISO), there is no risk using enumerations. On the opposite, for non-exhaustive or changing nomenclatures, it is preferable to propose lists of recommended or suggested value. Such lists are non-exhaustive and cannot be constraining. They will be documented in the "annotations" of the schema, given as examples in the schema (this possibility is not supported by all the XML editors), or explained in a user documentation of the schema. Enumerations which end by "other" (which is a meaningless value) should be prohibited in general.

---

<sup>7</sup> This means that an XML data file containing a value not included in the enumeration list of the element concerned will be declared non-conform to the corresponding schema.