Security-Based Swap Data Technical Specification (DRAFT)

December 11, 2015

This draft Security-Based Swap Data Technical Specification is being posted for public review before Commission approval of potential regulatory changes. Commission staff encourages the public to participate in the public review of this draft Technical Specification, which provides the technical specifications that security-based swap data repositories will use to provide the Commission with direct electronic access to data that they store. The availability for public comment of this draft Technical Specification does not indicate Commission approval of any potential regulatory changes reflected in this draft Technical Specification. Please provide comments on the draft Security-Based Swap Data Technical Specification via email to StructuredData@sec.gov and include "Draft Security-Based Swap Data Technical Specification" in the "General Subject Matter" section no later than February 22, 2016.

1   INTRODUCTION

1.1   Goal

This document provides the technical specification for how a security-based swap data repository ("SDR") must provide the Commission with direct electronic access under Exchange Act Rule 13n-4(b)(5).[1]

This Technical Specification describes the two schemas from which an SDR must choose when making security-based swap data available to the Commission. The specification defines syntax constraints on individual data elements, their contents, and the content of arrangements of elements that describe an individual security-based swap.

This Technical Specification has been created for the limited purpose of providing a technical audience with the specifications for conforming security-based swap data to the Commission's FIXML and FpML schemas. This specification does not provide interpretative guidance for the SDR Rules[2] or Regulation SBSR.[3]

1.2   General Approach to the Common Data Model and the Schemas

When an SDR makes security-based swap data available to the Commission, the Commission will test the security-based swap data for validity against formatting constraints, and only if the data adheres to those formatting constraints will the SDR be considered to have provided the

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[1]   17 CFR 240.13n-4(b)(5). See also 17 CFR 240.13n-4(a)(5) (defining "direct electronic access").

[2]   Securities Exchange Act Release No. 74246 (February 11, 2015), 80 FR 14437 (March 19, 2015) ("SDR Rules").

[3]   Securities Exchange Act Release No. 74244 (February 11, 2015), 80 FR 14563 (March 19, 2015) ("Regulation SBSR").

Commission with direct electronic access. SDRs are encouraged to use the schemas to check the validity of the security-based swap data before making the data available to the Commission.

The common data model allows an SDR to use multiple identifier sources for a Unique Identification Code ("UIC"), as defined by Rule 900(qq).[4] Where a UIC is required but the Commission does not mandate a specific code list or code issuing authority, the common data model specifies a default identifier source, and the SDR is free to choose a standard identifier source to be used consistently across otherwise identical data. For example, the common data model identifies GLEIF as the default identifier source for the parties to a swap, but an SDR may use other entity identifiers so long as their source is given and the identifiers are used consistently.

The common data model allows an SDR to include the additional "flags" that are dependent on SDR-specific policies and procedures. The schemas limit the format of these flags but not their names or content.

The common data model allows an SDR to provide transaction information of an open-ended or evolving nature, such as the details of non-standard terms or payment streams, subject to schema validation as detailed in this specification or as detailed by the underlying standard format.

2 COMMON DATA MODEL

2.1 Security-Based Swap Data Reports

The data describing a new security-based swap transaction or a life cycle event such as an amendment or termination is contained in a distinct "report."

Primary Trade Information ("PTI") reports contain only the data about a single transaction as required by Rule 901(c)[5] and the life cycle events in Rule 901(e).[6]

Regulatory Trade Information ("RTI") reports contain all of the information in a PTI along with the Secondary Trade Information ("STI") required by Rule 901(d).[7] The content of an RTI is a superset of that in a PTI.

Acceptance for Clearing reports are produced by clearing services, not the SDR, and are not detailed in this specification.

2.2 Definition Table Columns

A concept definition table shows:

Ref denotes a clause within Rule 901.[8]

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[4]   17 CFR 242.900(qq).

[5]   17 CFR 242.901(c).

[6]   17 CFR 242.901(e).

[7]   17 CFR 242.901(d).

[8]   17 CFR 242.901.

Concept shows the formal name of the concept, which is then abbreviated in some fashion when it appears in FIXML or FpML. For example, "Trade Identifier" is a concept, while "trdID" and "tradeId" would be legitimate abbreviations in FIXML and FpML, respectively. In some cases where the meaning of the term is defined precisely in Regulation SBSR, that defining phrase is used instead of a name.

Data type: Simple concepts may be described as text, numbers, dates, etc., but in a complex model, it is useful to define a data type that may itself be composed of other elements. In this Technical Specification, the data type may be the subject of yet another element definition table. Two asterisks (**) indicate a reference to a different table.

2.3 Definition Tables

2.3.1 Primary trade information report

Ref.	Concept	Data Type
(c)(1)	Product ID	Text
(c)(1)(i)	Asset Class	Text
(c)(1)(i)	Underlying Reference Asset(s)	** Asset
(c)(1)(i)	Underlying Reference Issuer(s)	** Issuer
(c)(1)(i)	Underlying Reference Index	** Index
(c)(1)(ii)	Effective Date	YYYY-MM-DDZ (ISO 8601, UTC)
(c)(1)(iii)	Scheduled Termination Date	YYYY-MM-DDZ
(c)(1)(iv)	Terms of any standardized fixed rate payments	** Fixed Rate Payment Terms
(c)(1)(iv)	Frequency of any fixed rate payments	** Frequency
(c)(1)(iv)	Terms of any standardized floating rate payments	** Floating Rate Payment Terms
(c)(1)(iv)	Frequency of any floating rate payments	** Frequency
(c)(1)(v)	Custom Swap Flag	Boolean
(c)(2)	Execution Date Time (the date and time, to the second, of execution, expressed using Coordinated Universal Time (UTC))	YYYY-MM-DDTHH:MM:SSZ (ISO 8601, UTC)
(c)(3)	The price	Positive Number
(c)(3)	The currency in which the price is expressed	ISO 4217 Code
(c)(3)	The amount(s) of any up-front payments	Positive Number[9]
(c)(3)	The currenc(ies) of any up-front payments	ISO 4217 Code
(c)(4)	The notional amount(s)	Positive Number
(c)(4)	The currenc(ies) in which the notional amount(s) is expressed	ISO 4217 Code
(c)(5)	Inter-Dealer Transaction Flag	Boolean
(c)(6)	Intention to Clear Flag	Boolean

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[9] Primary trade information includes no identification of payer or receiver parties, so the sign of the number is moot.

(c)(7)	If applicable, any flags pertaining to the transaction that are specified in the policies and procedures of the registered security-based swap data repository	** Transaction Flag (varies by SDR)
(f)	Time stamp, to the second, its receipt of any information submitted to the SDR	YYYY-MM-DDTHH:MM:SSZ (ISO 8601, UTC)
(g)	A transaction ID to each security-based swap	SDR (or third party) Defined
(e)(1)(i)	A life cycle event, and any adjustment due to a life cycle event, that results in a change to information previously reported	Sequence Number
(e)(1)(i)	Amendment	** Amendment
(e)(1)(i)	Termination (Allocation, Assignment, Novation)	** Terminations
(e)(2)	All reports of life cycle events… shall include the transaction ID of the original transaction.	SDR (or third party) Defined

2.3.2 Secondary trade information report

Ref.	Concept	Data Type
(c)	(See above)	** Primary trade information report
(d)(1)	The counterparty ID [on the reporting side]	Party
(d)(1)	The execution agent ID [on the reporting side], as applicable	Party
(d)(1)	The counterparty ID [on the non-reporting side]	Party
(d)(1)	The execution agent ID [on the non-reporting side], as applicable	Party
(d)(2)	[As applicable] the branch ID of the direct counterparty on the reporting side	Text (SDR Defined)
(d)(2)	[As applicable] the broker ID of the direct counterparty on the reporting side	Text (SDR Defined)
(d)(2)	[As applicable] the execution agent ID of the direct counterparty on the reporting side	Party
(d)(2)	[As applicable] the trader ID of the direct counterparty on the reporting side	Text (SDR Defined)
(d)(2)	[As applicable] the trading desk ID of the direct counterparty on the reporting side	Text (SDR Defined)
(d)(3)	the terms of any fixed or floating rate payments, or otherwise customized or non-standard payment streams	** Payment Stream
(d)(3)	the frequency of any fixed or floating rate payments, or otherwise customized or non-standard payment streams	** Payment Stream
(d)(3)	the contingencies of any fixed or floating rate payments, or otherwise customized or non-standard payment streams	** Payment Stream
(d)(4)	title of any master agreement	Text
(d)(4)	date of any master agreement	YYYY-MM-DDZ (ISO 8601, UTC)
(d)(4)	title of any collateral agreement	Text

Ref.	Concept	Data Type
(d)(4)	date of any collateral agreement	YYYY-MM-DDZ (ISO 8601, UTC)
(d)(4)	title of any margin agreement	Text
(d)(4)	date of any margin agreement	YYYY-MM-DDZ (ISO 8601, UTC)
(d)(4)	title(s) of any other agreement(s)	Text
(d)(4)	date(s) of any other agreement(s)	YYYY-MM-DDZ (ISO 8601, UTC)
(d)(5)	any additional data elements included in the agreement between the counterparties that are necessary for a person to determine the market value of the transaction	** Agreement Data
(d)(6)	the name of the clearing agency to which the security-based swap will be submitted for clearing	Text
(d)(7)	whether they have invoked the exception in Section 3C(g) of the Exchange Act (15 U.S.C. 78c-3(g))	Boolean
(d)(8)	a description of the settlement terms	** Settlement Terms
(d)(8)	whether the security-based swap is cash-settled or physically settled, and the method for determining the settlement value	** Settlement Terms
(d)(9)	The platform ID, if applicable	SDR Defined
(d)(10)	The transaction ID of an allocated security-based swap	SDR Defined Unique Transaction Identifier (UTI)
(d)(10)	The transaction ID of a terminated security-based swap	SDR Defined UTI
(d)(10)	The transaction ID of an assigned security-based swap	SDR Defined UTI

2.3.3   Asset (Instrument)

Ref.	Concept	Data Type
(c)(1)(i)	Asset Identifier	Text
(c)(1)(i)	Asset Identifier Authority (Scheme)	Text

2.3.4   Issuer (of an Instrument)

Ref.	Concept	Data Type
(c)(1)(i)	Issuer Identifier	Text
(c)(1)(i)	Issuer Identifier Authority (Scheme)	Text

2.3.5   Index

Ref.	Concept	Data Type
(c)(1)(i)	Index Identifier	Text
(c)(1)(i)	Index Identifier Authority (Scheme)	Text

2.3.6   Frequency

Ref.	Concept	Data Type
(c)(1)(iv)	Period	ISO 8601 Duration Designator: P, Y, M, W, or D
(c)(1)(iv)	Period Multiplier	Positive Number[10]
(c)(1)(iv)	First Period Start Date	ISO 8601 UTC

2.3.7   Fixed Rate Payment Terms

Ref.	Concept	Data Type
(c)(1)(iv)	Fixed Rate	Number
(c)(1)(iv)	Base Currency	ISO 4217
(c)(1)(iv)	Base Amount[11]	Positive Number

2.3.8   Floating Rate Payment Terms

Ref.	Concept	Data Type
(c)(1)(iv)	Floating Rate Index	** Index
(c)(1)(iv)	Spread(s)	Number(s)
(c)(1)(iv)	Reset Dates	** Frequency
(c)(1)(iv)	Index Tenor	** Frequency
(c)(1)(iv)	Base Currency	ISO 4217
(c)(1)(iv)	Base Amount[12]	Positive Number

2.3.9   Party (per SDR)

The Party ID consists of an authority (source or scheme) and an identifier issued by that authority. When unspecified, the Authority defaults to ISO 17442 (Legal Entity Identifier).

Ref.	Concept	Data Type
(d)(2)	Party ID	Text
(d)(2)	Party ID Authority (Scheme)	Text

2.3.10   Transaction Flag (Examples)

Transaction flags are defined by SDRs. Two non-normative examples are shown here.

Ref.	Concept	Data Type
(c)(7)	Collateralization Type	Text
(c)(7)	Intent to Allocate	Boolean

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[10]   For example, a quarterly payment schedule is represented as Period=M and Multiplier=3.

[11]   The base currency and amount appear only if the principal is different from the notional.

[12]   The base currency and amount appear only if the principal is different from the notional.

2.3.11 Terminations

In addition to a simple termination of a security-based swap, reportable events such as allocations, assignments, and novations also result in a termination and one or more new reportable events, affecting both the primary and the secondary trade information, and both of which must be reported by the SDR as transactions that refer back to the original transaction. All RTI is reported for any kind of termination.

2.3.11.1 Termination - Additional Primary Information

Ref.	Concept	Data Type
(e)(1)(ii)	Original Transaction ID	SDR (or third party) Defined

A termination resulting from allocation of a trade requires the RTI along with the allocated notionals and fees.

2.3.11.2 Termination - Additional Primary Information for an Allocation

Ref.	Concept	Data Type
(e)(1)(i)	Allocation Fee Currenc(ies)	ISO 4217
(e)(1)(i)	Allocation Fee Amount(s)	Positive Number
(e)(1)(i)	Allocation Notional Currenc(ies)	ISO 4217
(e)(1)(i)	Allocation Notional Amount(s)	Positive Number

2.3.11.3 Termination - Additional Secondary Information for an Allocation

Ref.	Concept	Data Type
Ref.	Concept	Data Type
(e)(1)(i)	Allocation Part(ies)	Party

2.3.12 Amendment

All PTI is reported for each reportable event resulting from amendment of a previously reported transaction even if the amendment affected only the STI (for example, an amendment to the Agreement data, which is not in the PTI).

Amendments include: a change in the cash flows originally reported; for a security-based swap that is not a clearing transaction, any change to the title or date of any master agreement, collateral agreement, margin agreement, or any other agreement incorporated by reference into the security-based swap contract; or a corporate action affecting a security or securities on which the security-based swap is based (e.g., a merger, dividend, stock split, or bankruptcy).

2.3.12.1 Amendment - Additional Primary Information

Ref.	Concept	Data Type
(e)(1)(ii)	Original Transaction ID	SDR (or third party) Defined

2.3.12.2 Amendment - Additional Secondary Information

Ref.	Concept	Data Type
(e)(1)(ii)	Primary Trade Information	** Amendment - Primary

2.3.13 Payment Stream

Ref.	Concept	Data Type
(d)(3)	Initial Payment Payer	Party
(d)(3)	Initial Payment Receiver	Party
(d)(3)	Initial Payment Currency	ISO 4217
(d)(3)	Initial Payment Amount	Number
(d)(3)	Initial Payment Points	Number
(d)(3)	Periodic Payment Payer	Party
(d)(3)	Periodic Payment Receiver	Party
(d)(3)	Payment Frequency	** Frequency
(d)(3)	First Payment Date	ISO 8601 YYYY-MM-DDZ
(d)(3)	Fixed Periodic Payment Currency	ISO 4217
(d)(3)	Fixed Periodic Payment Amount	Number
(d)(3)	Fixed Rate Payment Terms	** Fixed Rate Payment Terms
(d)(3)	Floating Rate Payment Terms	** Floating Rate Payment Terms

2.3.14 Settlement Terms

Ref.	Concept	Data Type
(d)(8)	Cash Settlement Date	ISO 8601 YYYY-MM-DDZ
(d)(8)	Cash Settlement Time	ISO 8601 HH:MM:SSZ
(d)(8)	Cash Settlement Quotation Method	Text
(d)(8)	Cash Settlement Quotation Currency	ISO 4217
(d)(8)	Cash Settlement Quotation Amount	Nonnegative Number
(d)(8)	Cash Settlement Business Days	Nonnegative Number
(d)(8)	Cash Settlement Fixed Recovery Currency	ISO 4217
(d)(8)	Cash Settlement Fixed Recovery Amount	Number
(d)(8)	Cash Settlement Recovery Factor	Number
(d)(8)	Cash Settlement Accrued Interest	Boolean
(d)(8)	Cash Settlement Valuation Method	Text
(d)(8)	Physical Settlement Business Days	Number
(d)(8)	Physical Settlement Obligations	Any
(d)(8)	Physical Settlement Escrow	Boolean

2.3.15 Agreement Data

Rule 901(d)(5) of Regulation SBSR requires the STI to include any additional data elements included in the agreement between the counterparties that are necessary for a person to determine

the market value of the transaction. This may involve additional concepts that could be considered part of the product description, payment stream, settlement terms, or any other data item in the STI.

Ref.	Concept	Data Type
(d)(5)	Additional Terms	Any (per SDR)

3 FIXML SCHEMAS

The schemas in this document are derived from FIXML 5.0 SP2 EP 193. Final schemas will be derived from a FIXML final recommendation, not a working draft. When a schema is presented here in its entirety, note that the `xsd:documentation` element for each redefinition does not repeat the `xsd:documentation` content of the original element. It only describes the way in which the original data type is being restricted, and is shown in a box only to facilitate review. Concepts in the common data model that are implemented in the base FIXML schemas without change are not duplicated in this document.

3.1 FIXML Type Restrictions

Schema sec-sbsr-tradecapture-types-5-0-SP2.xsd

```
<?xml version="1.0" encoding="utf-8"?>
<!--
This schema was created by staff of the U.S. Securities and Exchange Commission.
Data and content created by government employees within the scope of their employment
are not subject to domestic copyright protection. 17 U.S.C. 105.
-->
<xs:schema targetNamespace="http://www.fixprotocol.org/FIXML-5-0-SP2"
xmlns="http://www.fixprotocol.org/FIXML-5-0-SP2"
xmlns:fm="http://www.fixprotocol.org/FIXML-5-0-SP2/METADATA"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.fixprotocol.org/FIXML-5-0-SP2/METADATA
fixmlschema_FIX.5.0SP2_EP193/fixml-metadata-5-0-SP2.xsd"
elementFormDefault="qualified" attributeFormDefault="unqualified">

    <!-- This schema restricts the content of the FIX data types using the Schema 1.0
construct xs:redefine, which is deprecated in Schema 1.1.  An equivalent schema could
be constructed using xsd:override. -->

  <xs:redefine schemaLocation="fixmlschema_FIX.5.0SP2_EP193/fixml-tradecapture-base-5-
0-SP2.xsd">

    <xs:simpleType name="UTCTimestamp">
      <xs:annotation>
        <xs:documentation>
```

```
As restricted, timestamps are to the second, 901(c)(2).
```

```
        </xs:documentation>
      </xs:annotation>
      <xs:restriction base="UTCTimestamp">
        <xs:pattern value=".*..:..:..Z"/>
      </xs:restriction>
    </xs:simpleType>

    <xs:simpleType name="TZTimestamp">
      <xs:annotation>
```

```
          <xs:documentation>
```
As restricted, timestamps are to the second in time zone UTC, 901(c)(2).
```
        </xs:documentation>
      </xs:annotation>
      <xs:restriction base="TZTimestamp">
        <xs:pattern value=".*..:..:..Z"/>
      </xs:restriction>
    </xs:simpleType>


    <xs:simpleType name="ClearingRequirementException_enum_t">
      <xs:annotation>
        <xs:documentation>
```
Flag indicating whether the End-user exception applies, 901(d)(7).
```
        </xs:documentation>
        <xs:appinfo>
          <fm:EnumDoc value="0">No exception</fm:EnumDoc>
          <fm:EnumDoc value="2">End-user exception</fm:EnumDoc>
        </xs:appinfo>
      </xs:annotation>
      <xs:restriction base="ClearingRequirementException_enum_t">
        <xs:enumeration value="0"/>
        <xs:enumeration value="2"/>
      </xs:restriction>
    </xs:simpleType>


    <xs:simpleType name="RegulatoryReportType_enum_t">
      <xs:restriction base="RegulatoryReportType_enum_t">
        <xs:annotation>
          <xs:documentation>
```
Secondary Trade Information includes RT ("Report of data relating to a regulated
transaction including price and volume that is to be disseminated publically.") and PET
("Report to regulators of the full terms of a regulated transaction included in the
legal confirmation.") for trade and post-trade events.
```
          </xs:documentation>
          <xs:appinfo>
            <fm:EnumDoc value="4">Combination of RT and PET</fm:EnumDoc>
            <fm:EnumDoc value="9">Post-trade event</fm:EnumDoc>
            <fm:EnumDoc value="10">Post trade event RT reportable</fm:EnumDoc>
          </xs:appinfo>
        </xs:annotation>
        <xs:enumeration value="4"/>
        <xs:enumeration value="9"/>
        <xs:enumeration value="10"/>
      </xs:restriction>
    </xs:simpleType>


    <xs:complexType name="RegulatoryTradeIDGrp_Block_t">
      <xs:annotation>
        <xs:documentation>
```
Trade ID and Src attributes are required, Evnt and Typ optional; other attributes
prohibited, 901(g).
```
        </xs:documentation>
      </xs:annotation>
      <xs:complexContent>
        <xs:restriction base="RegulatoryTradeIDGrp_Block_t">
          <xs:sequence/>
          <xs:attribute name="ID" type="RegulatoryTradeID_t" use="required"/>
          <xs:attribute name="Src" type="RegulatoryTradeIDSource_t" use="required"/>
          <xs:attribute name="Evnt" type="RegulatoryTradeIDEvent_t" use="optional"/>
          <xs:attribute name="Typ" type="RegulatoryTradeIDType_t" use="optional"/>
        </xs:restriction>
      </xs:complexContent>
```

```
        </xs:complexType>

        <xs:complexType name="RootParties_Block_t">
          <xs:annotation>
            <xs:documentation>
Party and Counterparty identifiers, 901(d)(1).
            </xs:documentation>
          </xs:annotation>
          <xs:complexContent>
            <xs:restriction base="RootParties_Block_t">
              <xs:sequence>
                <xs:element name="Sub" type="RootSubParties_Block_t" minOccurs="4"
maxOccurs="unbounded">
                  <xs:annotation>
                    <xs:documentation>
Parties are required to have an ID 901(d)(1) and branch, desk, broker and trader
identification 901(d)(2).
                    </xs:documentation>
                  </xs:annotation>
                </xs:element>
              </xs:sequence>
              <xs:attribute name="ID" type="RootPartyID_t" use="required"/>
              <xs:attribute name="Src" type="RootPartyIDSource_t" default="N">
                <xs:annotation>
                  <xs:documentation>
Default to Legal Entity Identifier (ISO 17442) LEI
                  </xs:documentation>
                </xs:annotation>
              </xs:attribute>
              <xs:attribute name="R" type="RootPartyRole_t" use="optional"/>
              <xs:attribute name="Qual" type="RootPartyRoleQualifier_t" use="required"/>
            </xs:restriction>
          </xs:complexContent>
        </xs:complexType>

      </xs:redefine>

</xs:schema>
```

3.2   FIXML Primary Information Report

Schema sec-sbsr-tradecapture-primary-5-0-SP2.xsd

```
<?xml version="1.0" encoding="utf-8"?>
<!--
This schema was created by staff of the U.S. Securities and Exchange Commission.
Data and content created by government employees within the scope of their employment
are not subject to domestic copyright protection. 17 U.S.C. 105.
-->
<xs:schema targetNamespace="http://www.fixprotocol.org/FIXML-5-0-SP2"
xmlns="http://www.fixprotocol.org/FIXML-5-0-SP2"
xmlns:fm="http://www.fixprotocol.org/FIXML-5-0-SP2/METADATA"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.fixprotocol.org/FIXML-5-0-SP2/METADATA fixml-metadata-
5-0-SP2.xsd" elementFormDefault="qualified" attributeFormDefault="unqualified">

  <xs:include schemaLocation="sec-sbsr-tradecapture-types-5-0-SP2.xsd"/>

  <xs:complexType name="PublicTradeInformationReport_message_t" final="#all">
    <xs:annotation>
      <xs:documentation>
```

```
Based on the TradeCaptureReport in Volume 5 of the FIXML specification.
        </xs:documentation>
        <xs:documentation>
Required attributes: TrdID, TxnmyTyp, Ccy, TxnTm, RegRptTyp, ClrIntn; Fixed
attributes: QtyTyp; all other attributes prohibited.
        </xs:documentation>
        <xs:documentation>
Required and optional elements: RegTrdID, Instrmt, InstrmtExt, Pmt, Undly, TrdLeg,
TrdRegTS, Qty, RptSide, TrdRepIndicatorsGrp. All other elements prohibited.
        </xs:documentation>
    </xs:annotation>
    <xs:complexContent>
      <xs:extension base="Abstract_message_t">
        <xs:sequence>
          <xs:element name="RegTrdID" type="RegulatoryTradeIDGrp_Block_t"/>
          <xs:element name="Instrmt" type="Instrument_Block_t"/>
          <xs:element name="InstrmtExt" type="InstrumentExtension_Block_t"
minOccurs="0"/>
          <xs:element name="Pmt" type="PaymentGrp_Block_t" minOccurs="0"
maxOccurs="unbounded"/>
          <xs:element name="Undly" type="UndInstrmtGrp_Block_t" minOccurs="0"
maxOccurs="unbounded"/>
          <xs:element name="TrdLeg" type="TrdInstrmtLegGrp_Block_t" minOccurs="0"
maxOccurs="unbounded"/>
          <xs:element name="TrdRegTS" type="TrdRegTimestamps_Block_t"/>
          <xs:element name="Qty" type="TradeQtyGrp_Block_t" minOccurs="0"
maxOccurs="unbounded"/>
          <xs:element name="RptSide" type="TrdCapRptSideGrp_Block_t"
maxOccurs="unbounded"/>
          <xs:element name="TrdRepIndicatorsGrp" type="TrdRepIndicatorsGrp_Block_t"
minOccurs="0" maxOccurs="unbounded"/>
        </xs:sequence>
        <xs:attribute name="TrdID" type="TradeID_t" use="required">
          <xs:annotation>
            <xs:documentation>
Transaction ID, 901(g).
            </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="TrdNum" type="TradeNumber_t" use="optional">
          <xs:annotation>
            <xs:documentation>
Sequence Number, 901(e)(1)(i).
            </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="RptID" type="TradeReportID_t" use="optional">
          <xs:annotation>
            <xs:documentation>
Optional trade report message identifier
            </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="RptRefID" type="TradeReportRefID_t" use="optional"/>
        <xs:attribute name="TxnmyTyp" type="TaxonomyType_t" use="required">
          <xs:annotation>
            <xs:documentation>
Asset Identifier Authority, 901(c)(1)(i)
            </xs:documentation>
          </xs:annotation>
        </xs:attribute>
```

```
        <xs:attribute name="QtyTyp" type="QtyType_t" fixed="1">
          <xs:annotation>
            <xs:documentation>
```
Quantity type 1 = Contracts.
```
          </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="LastPx" type="LastPx_t" use="optional">
          <xs:annotation>
            <xs:documentation>
```
The price, 901(c)(3).
```
          </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="Ccy" type="Currency_t" use="required">
          <xs:annotation>
            <xs:documentation>
```
The currency in which the price is expressed, 901(c)(3).
```
          </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="SettlCcy" type="SettlCurrency_t" use="optional">
          <xs:annotation>
            <xs:documentation>
```
Cash settlement currency, 901(d)(8).
```
          </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="PxPrcsn" type="PricePrecision_t" use="optional">
          <xs:annotation>
            <xs:documentation>
```
Optional decimal precision of the price, 901(c)(3).
```
          </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="TrdPxNegottnMeth" type="TradePriceNegotiationMethod_t"
use="optional"/>
        <xs:attribute name="LastUpfrontPx" type="LastUpfrontPrice_t" use="optional"
default="0">
          <xs:annotation>
            <xs:documentation>
```
Upfront price, 901(c)(3).
```
          </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="UpfrontPxTyp" type="UpfrontPriceType_t" use="optional">
          <xs:annotation>
            <xs:documentation>
```
Percentage or currency used to express upfront price, 901(c)(3).
```
          </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="TrdDt" type="TradeDate_t" use="optional"/>
        <xs:attribute name="MLegRptTyp" type="MultiLegReportingType_t"
use="optional"/>
        <xs:attribute name="TxnTm" type="TransactTime_t" use="required">
          <xs:annotation>
            <xs:documentation>
```
Execution date time, 901(c)(2).
```
          </xs:documentation>
          </xs:annotation>
```

```
          </xs:attribute>
          <xs:attribute name="SettlDt" type="SettlDate_t" use="optional">
            <xs:annotation>
              <xs:documentation>
```
```
Cash settlement date, 901(d)(8).
```
```
              </xs:documentation>
            </xs:annotation>
          </xs:attribute>
          <xs:attribute name="StlDt" type="UnderlyingSettlementDate_t" use="optional"/>
          <xs:attribute name="ExecMeth" type="ExecMethod_t" use="optional"/>
          <xs:attribute name="CurrencyRatio" type="CurrencyRatio_t" use="optional"/>
          <xs:attribute name="TZTransactTime" type="TZTransactTime_t" use="optional"/>
          <xs:attribute name="ReportedPxDiff" type="ReportedPxDiff_t" use="optional"/>
          <xs:attribute name="GrossTrdAmt" type="GrossTradeAmt_t" use="optional"/>
          <xs:attribute name="TotGrossTrdAmt" type="TotalGrossTradeAmt_t"
use="optional"/>
          <xs:attribute name="ClrIntn" type="ClearingIntention_t" use="required">
            <xs:annotation>
              <xs:documentation>
```
```
Intention to Clear Flag, 901(c)(6).
```
```
              </xs:documentation>
            </xs:annotation>
          </xs:attribute>
          <xs:attribute name="CnfmMeth" type="ConfirmationMethod_t" use="optional"/>
          <xs:attribute name="MandClrInd" type="MandatoryClearingIndicator_t"
use="optional"/>
          <xs:attribute name="MixedSwapInd" type="MixedSwapIndicator_t" use="optional"/>
          <xs:attribute name="MAsstSwapInd" type="MultiAssetSwapIndicator_t"
use="optional"/>
          <xs:attribute name="IntlSwapInd" type="InternationalSwapIndicator_t"
use="optional"/>
          <xs:attribute name="OffMktPxInd" type="OffMarketPriceIndicator_t"
use="optional"/>
          <xs:attribute name="VerfctnMeth" type="VerificationMethod_t" use="optional"/>
          <xs:attribute name="ClrReqmtExcptn" type="ClearingRequirementException_t"
use="optional" default="0">
            <xs:annotation>
              <xs:documentation>
```
```
Whether the parties have invoked the exception in Section 3C(g) of the Exchange Act
(15 U.S.C. 78c-3(g)).
```
```
              </xs:documentation>
            </xs:annotation>
          </xs:attribute>
          <xs:attribute name="RegRptTyp" type="RegulatoryReportType_t" use="required"/>
        </xs:extension>
      </xs:complexContent>
    </xs:complexType>

    <xs:element name="PriTrdInfoRpt" type="PublicTradeInformationReport_message_t"
substitutionGroup="Message"/>

</xs:schema>
```

3.3 FIXML Regulatory Information Report

Schema sec-sbsr-tradecapture-regulatory-5-0-SP2.xsd

```
<?xml version="1.0" encoding="utf-8"?>
<!--
This schema was created by staff of the U.S. Securities and Exchange Commission.
Data and content created by government employees within the scope of their employment
```

```
are not subject to domestic copyright protection. 17 U.S.C. 105.
-->
<xs:schema targetNamespace="http://www.fixprotocol.org/FIXML-5-0-SP2"
xmlns="http://www.fixprotocol.org/FIXML-5-0-SP2"
xmlns:fm="http://www.fixprotocol.org/FIXML-5-0-SP2/METADATA"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.fixprotocol.org/FIXML-5-0-SP2/METADATA fixml-metadata-
5-0-SP2.xsd" elementFormDefault="qualified" attributeFormDefault="unqualified">

   <xs:include schemaLocation="sec-sbsr-tradecapture-types-5-0-SP2.xsd"/>

   <xs:complexType name="NonpublicTradeInformationReport_message_t" final="#all">
     <xs:annotation>
       <xs:documentation>
Based on the TradeCaptureReport in Volume 5 of the FIXML specification. This element
is called "Nonpublic" to avoid ambiguity with the use of "Secondary" in many FIX
names.
       </xs:documentation>
       <xs:documentation>
Required attributes: TrdID, TxnmyTyp, Ccy, TxnTm, RegRptTyp, ClrIntn; Fixed
attributes: QtyTyp; all other attributes prohibited.
       </xs:documentation>
       <xs:documentation>
Required and optional elements: RegTrdID, Pty, Instrmt, InstrmtExt, FinDetls, Pmt,
Undly, TrdLeg, TrdRegTS, Qty, RptSide, TrdRepIndicatorsGrp. All other elements
prohibited.
       </xs:documentation>
     </xs:annotation>
     <xs:complexContent>
       <xs:extension base="Abstract_message_t">
         <xs:sequence>
           <xs:sequence>
             <xs:element name="RegTrdID" type="RegulatoryTradeIDGrp_Block_t"/>
             <xs:element name="Pty" type="RootParties_Block_t" minOccurs="2"
maxOccurs="2"/>
             <xs:element name="Instrmt" type="Instrument_Block_t"/>
             <xs:element name="InstrmtExt" type="InstrumentExtension_Block_t"
minOccurs="0"/>
             <xs:element name="FinDetls" type="FinancingDetails_Block_t">
               <xs:annotation>
                 <xs:documentation>
Agreement titles and dates, 901(d)(4).
                 </xs:documentation>
               </xs:annotation>
             </xs:element>
             <xs:element name="Pmt" type="PaymentGrp_Block_t" minOccurs="0"
maxOccurs="unbounded"/>
             <xs:element name="Undly" type="UndInstrmtGrp_Block_t" minOccurs="0"
maxOccurs="unbounded"/>
             <xs:element name="TrdLeg" type="TrdInstrmtLegGrp_Block_t" minOccurs="0"
maxOccurs="unbounded"/>
             <xs:element name="TrdRegTS" type="TrdRegTimestamps_Block_t"/>
             <xs:element name="Qty" type="TradeQtyGrp_Block_t" minOccurs="0"
maxOccurs="unbounded"/>
             <xs:element name="RptSide" type="TrdCapRptSideGrp_Block_t"
maxOccurs="unbounded"/>
             <xs:element name="TrdRepIndicatorsGrp" type="TrdRepIndicatorsGrp_Block_t"
minOccurs="0" maxOccurs="unbounded"/>
           </xs:sequence>
         </xs:sequence>
         <xs:attribute name="TrdID" type="TradeID_t" use="required">
```

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```
            <xs:annotation>
              <xs:documentation>
```
Transaction ID, 901(g).
```
            </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="TrdNum" type="TradeNumber_t" use="optional">
          <xs:annotation>
            <xs:documentation>
```
Sequence Number, 901(e)(1)(i).
```
            </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="RptID" type="TradeReportID_t" use="optional">
          <xs:annotation>
            <xs:documentation>
```
Optional trade report message identifier.
```
            </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="TrdID2" type="SecondaryTradeID_t" use="optional"/>
        <xs:attribute name="FirmTrdID" type="FirmTradeID_t" use="optional"/>
        <xs:attribute name="FirmTrdID2" type="SecondaryFirmTradeID_t" use="optional"/>
        <xs:attribute name="PackageID" type="PackageID_t" use="optional"/>

        <xs:attribute name="RptRefID" type="TradeReportRefID_t" use="optional"/>
        <xs:attribute name="RptRefID2" type="SecondaryTradeReportRefID_t"
 use="optional"/>
        <xs:attribute name="RptID2" type="SecondaryTradeReportID_t" use="optional"/>
        <xs:attribute name="TxnmyTyp" type="TaxonomyType_t" use="required">
          <xs:annotation>
            <xs:documentation>
```
Asset Identifier Authority, 901(c)(1)(i).
```
            </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="QtyTyp" type="QtyType_t" fixed="1">
          <xs:annotation>
            <xs:documentation>
```
Quantity type 1 = Contracts
```
            </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="LastPx" type="LastPx_t" use="optional">
          <xs:annotation>
            <xs:documentation>
```
The price, 901(c)(3).
```
            </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="Ccy" type="Currency_t" use="required">
          <xs:annotation>
            <xs:documentation>
```
The currency in which the price is expressed, 901(c)(3).
```
            </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="SettlCcy" type="SettlCurrency_t" use="optional">
          <xs:annotation>
            <xs:documentation>
```
Cash settlement currency, 901(d)(8).

```
          </xs:documentation>
        </xs:annotation>
      </xs:attribute>
      <xs:attribute name="PxPrcsn" type="PricePrecision_t" use="optional">
        <xs:annotation>
          <xs:documentation>
```
Optional decimal precision of the price, 901(c)(3).
```
          </xs:documentation>
        </xs:annotation>
      </xs:attribute>
      <xs:attribute name="TrdPxNegottnMeth" type="TradePriceNegotiationMethod_t"
use="optional"/>
      <xs:attribute name="LastUpfrontPx" type="LastUpfrontPrice_t" use="optional"
default="0">
        <xs:annotation>
          <xs:documentation>
```
Upfront price, 901(c)(3).
```
          </xs:documentation>
        </xs:annotation>
      </xs:attribute>
      <xs:attribute name="UpfrontPxTyp" type="UpfrontPriceType_t" use="optional">
        <xs:annotation>
          <xs:documentation>
```
Percentage or currency used to express upfront price, 901(c)(3).
```
          </xs:documentation>
        </xs:annotation>
      </xs:attribute>
      <xs:attribute name="TrdDt" type="TradeDate_t" use="optional"/>
      <xs:attribute name="MLegRptTyp" type="MultiLegReportingType_t"
use="optional"/>
      <xs:attribute name="TxnTm" type="TransactTime_t" use="required">
        <xs:annotation>
          <xs:documentation>
```
Execution date time, 901(c)(2).
```
          </xs:documentation>
        </xs:annotation>
      </xs:attribute>
      <xs:attribute name="SettlDt" type="SettlDate_t" use="optional">
        <xs:annotation>
          <xs:documentation>
```
Cash settlement date, 901(d)(8).
```
          </xs:documentation>
        </xs:annotation>
      </xs:attribute>
      <xs:attribute name="StlDt" type="UnderlyingSettlementDate_t" use="optional"/>
      <xs:attribute name="ExecMeth" type="ExecMethod_t" use="optional"/>
      <xs:attribute name="CurrencyRatio" type="CurrencyRatio_t" use="optional"/>
      <xs:attribute name="TZTransactTime" type="TZTransactTime_t" use="optional"/>
      <xs:attribute name="ReportedPxDiff" type="ReportedPxDiff_t" use="optional"/>
      <xs:attribute name="GrossTrdAmt" type="GrossTradeAmt_t" use="optional"/>
      <xs:attribute name="TotGrossTrdAmt" type="TotalGrossTradeAmt_t"
use="optional"/>
      <xs:attribute name="ClrIntn" type="ClearingIntention_t" use="required">
        <xs:annotation>
          <xs:documentation>
```
Intention to Clear Flag, 901(c)(6).
```
          </xs:documentation>
        </xs:annotation>
      </xs:attribute>
      <xs:attribute name="CnfmMeth" type="ConfirmationMethod_t" use="optional"/>
```

```
        <xs:attribute name="MandClrInd" type="MandatoryClearingIndicator_t"
use="optional"/>
        <xs:attribute name="MixedSwapInd" type="MixedSwapIndicator_t" use="optional"/>
        <xs:attribute name="MAsstSwapInd" type="MultiAssetSwapIndicator_t"
use="optional"/>
        <xs:attribute name="IntlSwapInd" type="InternationalSwapIndicator_t"
use="optional"/>
        <xs:attribute name="OffMktPxInd" type="OffMarketPriceIndicator_t"
use="optional"/>
        <xs:attribute name="VerfctnMeth" type="VerificationMethod_t" use="optional"/>
        <xs:attribute name="ClrReqmtExcptn" type="ClearingRequirementException_t"
use="optional" default="0">
          <xs:annotation>
            <xs:documentation>
```
```
Whether the parties have invoked the exception in Section 3C(g) of the Exchange Act
(15 U.S.C. 78c-3(g)).
```
```
            </xs:documentation>
          </xs:annotation>
        </xs:attribute>
        <xs:attribute name="RegRptTyp" type="RegulatoryReportType_t" use="required"/>
        <xs:attribute name="TrdCollztn" type="TradeCollateralization_t"
use="optional"/>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>

  <xs:element name="SecTrdInfoRpt" type="NonpublicTradeInformationReport_message_t"
substitutionGroup="Message"/>

</xs:schema>
```

3.4   Additional FIXML Validation Criteria

Ordinary XML Schema validation against the appropriate FIXML schema will signal errors such as duplicate ID attributes, unbound IDREF attributes, along with all of the syntax definitions in the security-based swap data schema derived from FIXML.

4   FPML SCHEMAS

The FpML schemas to implement the common data model are derived by XML Schema Restriction from FpML. Restrictions are used to define acceptable values for XML elements or attributes. In XML Schema 1.0, the XML Schema "redefine" construct allows restrictions on data elements to use the same element names as in a base schema. XML Schema 1.1 deprecates the redefine construct in favor of the XML Schema "override" construct, but for the present purpose the effect is the same.

The schemas in this document are derived from FpML 5.9 WD 2. Final schemas will be derived from an FpML final recommendation, not a working draft. When a schema is presented here in its entirety, note that the `xsd:documentation` element for each redefinition does not repeat the `xsd:documentation` content of the original element. It only describes the way in which the original data type is being restricted, and is shown in a box only to facilitate review. Concepts in the common data model that are implemented in the base FpML schemas without change are not duplicated in this document.

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4.1   FpML Primary Trade Information Report

The PTI report redefines the data type `PublicInformationReport` in the FpML Transparency View having target namespace URI `http://www.fpml.org/FpML-5/transparency`.

Schema sec-sbsr-transparency-5-9-1.xsd

```
<?xml version="1.0" encoding="utf-8"?>
<!--
This schema was created by staff of the U.S. Securities and Exchange Commission.
Data and content created by government employees within the scope of their employment
are not subject to domestic copyright protection. 17 U.S.C. 105.
-->
<xsd:schema xmlns="http://www.fpml.org/FpML-5/transparency"
targetNamespace="http://www.fpml.org/FpML-5/transparency" version="draft"
xmlns:fpml="http://www.fpml.org/FpML-5/transparency"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:dsig="http://www.w3.org/2000/09/xmldsig#" elementFormDefault="qualified"
attributeFormDefault="unqualified">

  <!-- This schema restricts the content of the FpML type PublicExecutionReport using
the Schema 1.0 construct xs:redefine, which is deprecated in Schema 1.1.  An
equivalent schema could be constructed using xsd:override. -->
  <xsd:redefine schemaLocation="5-9-1-wd-1/transparency/fpml-main-5-9.xsd">

    <xsd:complexType name="PublicExecutionReport">
      <xsd:annotation>
        <xsd:documentation>
A PublicExecutionReport must not have Correlation elements, elements related to
Valuation, must not have any Account related elements, and must either have no Party
information OR exactly two Party elements both of type Dealer.
        </xsd:documentation>
      </xsd:annotation>
      <xsd:complexContent>
        <xsd:restriction base="PublicExecutionReport">
          <xsd:sequence>
            <xsd:element name="header" type="RequestMessageHeader"/>
            <xsd:element name="isCorrection" type="xsd:boolean" minOccurs="0"/>
            <xsd:group ref="Sequence.model"/>
            <xsd:group ref="OnBehalfOf.model"/>
            <xsd:group ref="TradingAndPostTradeEvents.model"/>
            <xsd:sequence minOccurs="0">
              <xsd:element name="party" type="Party" minOccurs="2" maxOccurs="2"/>
            </xsd:sequence>
          </xsd:sequence>
          <xsd:attributeGroup ref="VersionAttributes.atts"/>
        </xsd:restriction>
      </xsd:complexContent>
    </xsd:complexType>

    <xsd:complexType name="IdentifiedDate">
      <xsd:annotation>
        <xsd:documentation>
A Date element must record the date as of UTC time zone.
        </xsd:documentation>
      </xsd:annotation>
      <xsd:simpleContent>
        <xsd:restriction base="IdentifiedDate">
          <xsd:pattern value=".*Z"/>
          <xsd:attribute name="id" type="xsd:ID"/>
        </xsd:restriction>
      </xsd:simpleContent>
```

```
        </xsd:complexType>

        <xsd:complexType name="ExecutionDateTime">
          <xsd:annotation>
            <xsd:documentation>
```
An ExecutionDateTime element must record the time in the UTC time zone, to the second
only.
```
            </xsd:documentation>
          </xsd:annotation>
          <xsd:simpleContent>
            <xsd:restriction base="ExecutionDateTime">
              <xsd:pattern value=".*T..:..:..Z"/>
              <xsd:attribute name="executionDateTimeScheme" type="NonEmptyURI"/>
            </xsd:restriction>
          </xsd:simpleContent>
        </xsd:complexType>

        <xsd:complexType name="ExecutionVenueType">
          <xsd:annotation>
            <xsd:documentation>
```
An element of type ExecutionVenueType must use the default FpML scheme.
```
            </xsd:documentation>
          </xsd:annotation>
          <xsd:simpleContent>
            <xsd:restriction base="ExecutionVenueType">
              <xsd:attribute name="executionVenueTypeScheme" type="NonEmptyURI"
fixed="http://www.fpml.org/coding-scheme/execution-venue-type"/>
            </xsd:restriction>
          </xsd:simpleContent>
        </xsd:complexType>

        <xsd:complexType name="RegulatorId">
          <xsd:annotation>
            <xsd:documentation>
```
The RegulatorId must be a SEC CIK of 1 to 10 digits.
```
            </xsd:documentation>
          </xsd:annotation>
          <xsd:simpleContent>
            <xsd:restriction base="RegulatorId">
              <xsd:pattern value="[0-9]{1,10}"/>
              <xsd:attribute name="regulatorIdScheme" type="NonEmptyURI"
fixed="http://www.sec.gov/CIK"/>
            </xsd:restriction>
          </xsd:simpleContent>
        </xsd:complexType>

        <xsd:complexType name="Party">
          <xsd:annotation>
            <xsd:documentation>
```
An element of type Party may only appear in Primary Trade Information if its
organization type is 'Dealer'.
```
            </xsd:documentation>
          </xsd:annotation>
          <xsd:complexContent>
            <xsd:restriction base="Party">
              <xsd:sequence>
                <xsd:element name="organizationType" type="OrganizationType"
fixed="Dealer"/>
              </xsd:sequence>
            </xsd:restriction>
          </xsd:complexContent>
```

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```
        </xsd:complexType>

    <xsd:complexType name="TradeInformation">
      <xsd:annotation>
        <xsd:documentation>
```
Primary trade information is restricted to exclude the optional elements relatedParty,
timestamps, intentToallocate, allocationStatus, clearingStatus,
collaterializationType, offMarketPrice, largeSizeTrade, executionType,
verificationMethod and confirmationMethod.
```
        </xsd:documentation>
      </xsd:annotation>
      <xsd:complexContent>
        <xsd:restriction base="TradeInformation">
          <xsd:sequence>
            <xsd:element name="executionDateTime" type="ExecutionDateTime"/>
            <xsd:element name="intentToClear" type="xsd:boolean"/>
            <xsd:element name="reportingRegime" type="ReportingRegime"/>
            <xsd:element name="nonStandardTerms" type="xsd:boolean"/>
            <xsd:element name="executionVenueType" type="ExecutionVenueType">
              <xsd:annotation>
                <xsd:documentation>
```
Element executionVenueType is required by the underlying type TradeInformation. Its
content may be left blank.
```
                </xsd:documentation>
              </xsd:annotation>
            </xsd:element>
          </xsd:sequence>
        </xsd:restriction>
      </xsd:complexContent>
    </xsd:complexType>

  </xsd:redefine>

  <xsd:element name="primaryTradeInformationReport" type="PublicExecutionReport"/>

</xsd:schema>
```

4.2 FpML Regulatory Trade Information Report

The RTI report redefines types in the FpML architecture Record Keeping View having target
namespace URI http://www.fpml.org/FpML-5/recordkeeping. The schema restricts the base
types IdentifiedDate, ExecutionDateTime, ExecutionVenueType, and RegulatorId in the same
way the PTI schema does.

Schema sec-sbsr-recordkeeping-5-9-1.xsd

```
<?xml version="1.0" encoding="utf-8"?>
<!--
This schema was created by staff of the U.S. Securities and Exchange Commission.
Data and content created by government employees within the scope of their employment
are not subject to domestic copyright protection. 17 U.S.C. 105.
-->

<xsd:schema xmlns="http://www.fpml.org/FpML-5/recordkeeping"
targetNamespace="http://www.fpml.org/FpML-5/recordkeeping" version="draft"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified"
attributeFormDefault="unqualified">
```

```
    <!-- This schema restricts the content of the FpML type PublicExecutionReport using
the Schema 1.0 construct xs:redefine, which is deprecated in Schema 1.1.  An
equivalent schema could be constructed using xsd:override. -->

    <xsd:redefine schemaLocation="5-9-1-wd-1/recordkeeping/fpml-main-5-9.xsd">

      <xsd:complexType name="IdentifiedDate">
        <xsd:annotation>
          <xsd:documentation>
A Date element must record the date as of UTC time zone.
          </xsd:documentation>
        </xsd:annotation>
        <xsd:simpleContent>
          <xsd:restriction base="IdentifiedDate">
            <xsd:pattern value=".*Z"/>
            <xsd:attribute name="id" type="xsd:ID"/>
          </xsd:restriction>
        </xsd:simpleContent>
      </xsd:complexType>

      <xsd:complexType name="ExecutionDateTime">
        <xsd:annotation>
          <xsd:documentation>
An ExecutionDateTime element must record the time in the UTC time zone, to the second
only.
          </xsd:documentation>
        </xsd:annotation>
        <xsd:simpleContent>
          <xsd:restriction base="ExecutionDateTime">
            <xsd:pattern value=".*T..:..:..Z"/>
            <xsd:attribute name="executionDateTimeScheme" type="NonEmptyURI"/>
          </xsd:restriction>
        </xsd:simpleContent>
      </xsd:complexType>

      <xsd:complexType name="ExecutionVenueType">
        <xsd:annotation>
          <xsd:documentation>
An element of type ExecutionVenueType must use the default FpML scheme.
          </xsd:documentation>
        </xsd:annotation>
        <xsd:simpleContent>
          <xsd:restriction base="ExecutionVenueType">
            <xsd:attribute name="executionVenueTypeScheme" type="NonEmptyURI"
fixed="http://www.fpml.org/coding-scheme/execution-venue-type"/>
          </xsd:restriction>
        </xsd:simpleContent>
      </xsd:complexType>

      <xsd:complexType name="RegulatorId">
        <xsd:annotation>
          <xsd:documentation>
The RegulatorId must be a SEC CIK of 1 to 10 digits.
          </xsd:documentation>
        </xsd:annotation>
        <xsd:simpleContent>
          <xsd:restriction base="RegulatorId">
            <xsd:pattern value="[0-9]{1,10}"/>
            <xsd:attribute name="regulatorIdScheme" type="NonEmptyURI"
fixed="http://www.sec.gov/CIK"/>
          </xsd:restriction>
```

```
          </xsd:simpleContent>
      </xsd:complexType>

      <xsd:complexType name="PartyTradeInformation">
        <xsd:annotation>
          <xsd:documentation>
PartyTradeInformation is restricted according to 901(d)(2) so that at least two
related business units and two related persons are present.
          </xsd:documentation>
        </xsd:annotation>
        <xsd:complexContent>
          <xsd:restriction base="PartyTradeInformation">
            <xsd:sequence>
              <xsd:group ref="PartyAndAccountReferences.model"/>
              <xsd:element name="relatedParty" type="RelatedParty" minOccurs="0"
maxOccurs="unbounded"/>
              <xsd:element name="relatedBusinessUnit" type="RelatedBusinessUnit"
minOccurs="2" maxOccurs="unbounded"/>
              <xsd:element name="relatedPerson" type="RelatedPerson" minOccurs="2"
maxOccurs="unbounded"/>
              <xsd:element name="isAccountingHedge" type="xsd:boolean" minOccurs="0"/>
              <xsd:element name="category" type="TradeCategory" minOccurs="0"
maxOccurs="unbounded"/>
              <xsd:element name="executionDateTime" type="ExecutionDateTime"/>
              <xsd:element name="timestamps" type="TradeProcessingTimestamps"
minOccurs="0"/>
              <xsd:element name="intentToAllocate" type="xsd:boolean" minOccurs="0"/>
              <xsd:element name="allocationStatus" type="AllocationReportingStatus"
minOccurs="0"/>
              <xsd:element name="intentToClear" type="xsd:boolean"/>
              <xsd:element name="clearingStatus" type="ClearingStatusValue"
minOccurs="0"/>
              <xsd:element name="collateralizationType" type="CollateralizationType"
minOccurs="0"/>
              <xsd:element name="collateralPortfolio" type="PortfolioName"
minOccurs="0"/>
              <xsd:element name="reportingRegime" type="ReportingRegime" minOccurs="0"
maxOccurs="unbounded"/>
              <xsd:element name="endUserException" type="xsd:boolean"/>
              <xsd:element name="nonStandardTerms" type="xsd:boolean" minOccurs="0"/>
              <xsd:element name="offMarketPrice" type="xsd:boolean" minOccurs="0"/>
              <xsd:element name="largeSizeTrade" type="xsd:boolean" minOccurs="0"/>
              <xsd:element name="executionType" type="ExecutionType" minOccurs="0"/>
              <xsd:element name="executionVenueType" type="ExecutionVenueType"
minOccurs="0"/>
              <xsd:element name="verificationMethod" type="VerificationMethod"
minOccurs="0"/>
              <xsd:element name="confirmationMethod" type="ConfirmationMethod"
minOccurs="0"/>
              <xsd:element name="compressedTrade" type="xsd:boolean" minOccurs="0"/>
            </xsd:sequence>
          </xsd:restriction>
        </xsd:complexContent>
      </xsd:complexType>

      <xsd:complexType name="PartyId">
        <xsd:annotation>
          <xsd:documentation>
            Party Id has default value
          </xsd:documentation>
        </xsd:annotation>
        <xsd:complexContent>
          <xsd:restriction base="PartyId">
```

```
            <xsd:attribute name="partyIdScheme" type="NonEmptyURI"
default="http://www.fpml.org/coding-scheme/external/iso17442"/>
          </xsd:restriction>
        </xsd:complexContent>
      </xsd:complexType>

      <xsd:complexType name="PartyRole">
        <xsd:annotation>
          <xsd:documentation>
```

PartyRole is restricted to be either ExecutionFacility or ClearingOrganization
supporting Rule 901(d)(2). The scheme is restricted to the FpML default party-role
scheme.

```
          </xsd:documentation>
        </xsd:annotation>
        <xsd:simpleContent>
          <xsd:restriction base="PartyRole">
            <xsd:enumeration value="ExecutionFacility"/>
            <xsd:enumeration value="ClearingOrganization"/>
            <xsd:attribute name="partyRoleScheme" type="NonEmptyURI"
fixed="http://www.fpml.org/coding-scheme/party-role"/>
          </xsd:restriction>
        </xsd:simpleContent>
      </xsd:complexType>

      <xsd:complexType name="BusinessUnitRole">
        <xsd:annotation>
          <xsd:documentation>
```

BusinessUnitRole is restricted to be either RegisteredBranch or TradingDesk supporting
Rule 901(d)(2).   The scheme is restricted to the FpML default unit-role scheme.

```
          </xsd:documentation>
        </xsd:annotation>
        <xsd:simpleContent>
          <xsd:restriction base="BusinessUnitRole">
            <xsd:enumeration value="RegisteredBranch"/>
            <xsd:enumeration value="TradingDesk"/>
            <xsd:attribute name="unitRoleScheme" type="NonEmptyURI"
fixed="http://www.fpml.org/coding-scheme/unit-role"/>
          </xsd:restriction>
        </xsd:simpleContent>
      </xsd:complexType>

      <xsd:complexType name="PersonRole">
        <xsd:annotation>
          <xsd:documentation>
```

PersonRole is restricted to be either Broker or Trader supporting Rule 901(d)(2). The
scheme is restricted to the FpML default person-role scheme.

```
          </xsd:documentation>
        </xsd:annotation>
        <xsd:simpleContent>
          <xsd:restriction base="PersonRole">
            <xsd:enumeration value="Broker"/>
            <xsd:enumeration value="Trader"/>
            <xsd:attribute name="personRoleScheme" type="NonEmptyURI"
fixed="http://www.fpml.org/coding-scheme/person-role"/>
          </xsd:restriction>
        </xsd:simpleContent>
      </xsd:complexType>

      <xsd:complexType name="BusinessUnit">
        <xsd:annotation>
          <xsd:documentation>
```

```
BusinessUnit is required to have a businessUnitId, supporting Rule 901(d)(2).
          </xsd:documentation>
      </xsd:annotation>
      <xsd:complexContent>
        <xsd:restriction base="BusinessUnit">
          <xsd:sequence>
            <xsd:element name="name" type="String" minOccurs="0"/>
            <xsd:element name="businessUnitId" type="Unit"/>
            <xsd:element name="contactInfo" type="ContactInformation" minOccurs="0"/>
            <xsd:element name="country" type="CountryCode" minOccurs="0"/>
          </xsd:sequence>
          <xsd:attribute name="id" type="xsd:ID"/>
        </xsd:restriction>
      </xsd:complexContent>
    </xsd:complexType>
  </xsd:redefine>

  <xsd:element name="regulatoryTradeInformationReport"
type="NonpublicExecutionReport"/>

</xsd:schema>
```

4.3   Additional FpML Validation Criteria

Ordinary XML Schema validation against the appropriate security-based swap data schema will signal errors such as duplicate ID attributes, unbound IDREF attributes, along with all of the syntax definitions in the security-based swap data schema derived from FpML.

Also, for any element whose post-validation infoset includes one of the FpML coding scheme attributes, validation warnings or errors will be signaled when the element content is not among the values enumerated in that scheme.

Possible additional validation criteria include:

- Warnings of unreferenced elements of type Party
- Elements and attributes deprecated in FpML 5.9.

5   REFERENCES

FIXML 5.0 SP 2: www.fixtradingcommunity.org/pg/structure/tech-specs/fix-version/50-service-pack-2/

FpML 5.9 WD 2: www.fpml.org/spec/fpml-5-9-2-wd-2/

FpML Coding Schemes: www.fpml.org/spec/coding-scheme/

XML Schema: www.w3.org/XML/Schema