# Release Notes for SEC Taxonomies 2022

# Dated 2022-03-21

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#### 1 Overview

The 2022 draft release updates all SEC-maintained XBRL taxonomies for acceptance in EDGAR, as shown below. Of the nine existing taxonomies already accepted in EDGAR, this draft release includes additions, modifications, and deletions to the contents for three taxonomies relative to their prior year versions. *Note: Prior to this release, the variable insurance product (vip) taxonomy was only available in draft form.* 

Figure 1. SEC-maintained XBRL taxonomies and all versions proposed to be or historically accepted in EDGAR

|          | 2022          | 2021                 | 2020                     | 2019                | 2018                | 2017          | pre 2017                                       |
|----------|---------------|----------------------|--------------------------|---------------------|---------------------|---------------|--|
| cef      | cef-2022      | cef-2021q4           | <del>cef draft</del>     |                     |                     |               |  |
| country  | country-2022  | country-2021         | country-2020             |                     |                     | country-2017  | country-2016 country-2012 country-2013         |
| currency | currency-2022 | currency-2021        | <del>currency-2020</del> | currency 2019       |                     | currency 2017 | currency 2016 currency 2014 currency 2012      |
| dei      | dei-2022      | dei-2021q4, dei-2021 | <del>dei-2020</del>      | <del>dei 2019</del> | <del>dei 2018</del> |               | <del>dei 2014 dei 2012 dei 2013 dei 2009</del> |
| exch     | exch-2022     | exch-2021            | exch-2020                | exch-2019           | exch 2018           | exch 2017     | exch 2016 exch 2015 exch 2014 exch 2013        |
| invest   |               |                      |                          |                     |                     |               | invest 2013 invest 2012                        |
| naics    | naics-2022    | naics-2021           |                          |                     |                     | naics-2017    | naics 2011                                     |
| rr       | rr-2022       | rr-2021              |                          |                     | <del>rr-2018</del>  |               | <del>rr 2012</del>                             |
| sic      | sic-2022      | sic-2021             | sic 2020                 |                     |                     |               | sic 2011                                       |
| stpr     | stpr-2022     | stpr-2021            |                          |                     | stpr-2018           |               | <del>stpr 2011</del>                           |
| vip      | vip-2022      |                      | <del>vip-draft</del>     |                     |                     |               |  |

EDGAR is now accepting the 2022 taxonomies, and will subsequently notify the public when it will no longer accept a taxonomy with a double strike-through in the table above. For reference purposes, taxonomy versions in gray and a single strike-through will have already been deleted from EDGAR in an earlier release.

### 1.1 Consolidation of 2022 Taxonomy Files

Prior to the 2021 versions of the taxonomies listed above, every SEC-maintained eXtensible Business Reporting Language (XBRL) taxonomy contained several schemas with element, type and role declarations, empty schemas having only linkbase pointers ("entry points") and linkbases that referenced each other in a hierarchy three or four layers deep. Certain schemas, entry points and linkbases were permitted in Electronic Data Gathering, Analysis, and Retrieval (EDGAR) filings, some used only internally in EDGAR for validation and rendering, and some used only to provide the "entire" entry point of all files. The growing complexity of published materials — sec.gov/info/edgar/edgartaxonomies.xml, derived web pages such as sec.gov/structureddata/dera\_taxonomies, interactive data test suites, and applications for analysis and validation -- all pointed to a need for a simplification effort.

As of the 2021 versions of all SEC-maintained XBRL taxonomies, the taxonomy schemas use a simplifying XBRL 2.1 feature documented in the XBRL 2.1 specification section 3.2 and generally referred to as "embedded" linkbases. Any number or type of linkbases may appear in an XML Schema <appinfo> element of an SEC-maintained taxonomy. There are no longer separate linkbase files suffixed ".xml"; all linkbases are now embedded in schemas. In some cases, more than one type of linkbase is embedded in a single schema. Furthermore, only those linkbases that could potentially be used separately from other linkbases in a taxonomy will appear embedded in separate files.

Figure 2. Examples of consolidation of files in 2021 relative to earlier versions.

| Contents                  | Example locations prior to 2021                  | Corresponding locations since 2021 |
|---------------------------|--|------------------------------------|
| Entry point for all files | dei-ent-dep-2020-01-31.xsd                       | dei-entire-2021.xsd                |
| Core schema               | dei-2020-01-31.xsd                               | dei-2021.xsd                       |
| (elements, roles, types)  |  |                                    |
| Optional Standard labels  | dei-std-2020-01-31.xsd<br>dei-lab-2020-01-31.xml | dei-2021_lab.xsd                   |
|                           | de1-1ab-2020-01-31.xml                           |                                    |

| Contents                               | Example locations prior to 2021 | Corresponding locations since 2021 |
|--|---------------------------------|------------------------------------|
| Optional Presentation links            | dei-pre-2020-01-31.xsd          | dei-2021_pre.xsd                   |
|  | dei-pre-2020-01-31.xml          |                                    |
| Optional Definition relationships      | dei-def-2020-01-31.xml          | dei-2021_def.xsd                   |
| '                                      | dei-def-2020-01-31.xsd          |                                    |
| Documentation labels                   | dei-doc-2020-01-31.xml          | dei-2021_doc.xsd                   |
| (for rendering – filings cannot use)   | dei-all-2020-01-31.xsd          |                                    |
| (101 Teridering – Illings carinot use) |                                 |                                    |
| Authoritative references               | dei-ref-2020-01-31.xml          | dei-2021_ref.xsd                   |
| (for rendering – filings cannot use)   | dei-all-2020-01-31.xsd          |                                    |
|  | rr-dep-def-2020-01-31.xml       | rr-entire-2021.xsd                 |
| Deprecation relationships              | _                               | II encire 2021.XSu                 |
| (for validation – filings cannot use)  | rr-dep-pre-2020-01-31.xml       |                                    |
| (101 validation mings carmot use)      | rr-ent-dep-2020-01-31.xsd       |                                    |

#### 1.2 Locations of FINAL taxonomies

There is a single ZIP archive of all SEC-maintained taxonomies for a given date at:

https://xbrl.sec.gov/{yyyy}{q?}.zip

e.g., https://xbrl.sec.gov/2022-draft.zip

If future taxonomies require more than one version in a given year, the four-digit year is augmented with "q2", "q3", or "q4" as the case may be, to indicate the calendar quarter in which it is published.

The "entire" entry point of a taxonomy having short name {name} will be found at

https://xbrl.sec.gov/{name}/{yyyy}{q?}/{name}-entire-{yyyy}{q?}.xsd

e.g., https://xbrl.sec.gov/dei/2021/dei-entire-2021.xsd, with namespace http://xbrl.sec.gov/dei-entire/2021.

The core schema file of each final version will be found at this location:

#### https://xbrl.sec.gov/{name}/{yyyy}{q?}/{name}{yyyy}{q?}.xsd

e.q., https://xbrl.sec.gov/exch/2021/exch-2021.xsd with namespace http://xbrl.sec.gov/exch/2021.

If, for example, DEI taxonomy required updating in mid-2022, there would be a new zip file <a href="https://xbrl.sec.gov/2022q3.zip">https://xbrl.sec.gov/2022q3.zip</a> and a new taxonomy at <a href="https://xbrl.sec.gov/dei/2022q3/dei-entire-2022q3.xsd">https://xbrl.sec.gov/dei/2022q3.xsd</a> having target namespace <a href="https://xbrl.sec.gov/dei/2022q3">https://xbrl.sec.gov/dei/2022q3</a>.

#### 1.3 Synchronization of Taxonomy Version Years

Prior to the 2021 versions of the taxonomies listed above, any version year of each taxonomy within a submission was compatible with any other version year, as long that version was still accepted in EDGAR. Beginning with the 2021 versions of the taxonomies listed above, all taxonomies within a submission must use the same version year. Quarterly releases within the same version year will also be compatible.

e.g., http://xbrl.sec.gov/dei/2021q4 is compatible with https://xbrl.sec.gov/exch/2021 but is not compatible with https://xbrl.sec.gov/exch/2022.

The only exception to this rule is from March to June of every year, when the current year version of the ifrs taxonomy is not yet available. During this period, when a submission uses a current year version of the us-gaap taxonomy, the submission may also use the prior year version of the ifrs taxonomy.

## 2 Element Changes and Deprecated Elements

Detail about the date, reasons, and relationships between deprecated elements and their replacements are found in the taxonomy entry points having the token **\_dep** or **-entire** in them. The arc roles and label roles are those used in the us-gaap taxonomy. For example, to see all information about deprecated elements in the rr-2021 taxonomy, see the entry point:

https://xbrl.sec.gov/rr/2021/rr-entire-2021.xsd

# 3 Specific Changes

## 3.1 Document & Entity (DEI) Taxonomy

To simplify EX-101.\* attachments for smaller filings such as 8-Ks, an additional entry point, dei-sub-2022.xsd, was added. This imports all standard labels, definition and presentation linkbases, and if the filing defines no custom elements, it makes custom linkbases unnecessary.

## 3.2 Closed-End (CEF) Taxonomy

There are no changes to the concepts of the CEF taxonomy for 2022. However, priority=10 attributes were added to additional arc roles so that they cannot be overridden.

## 3.3 Countries (COUNTRY) Taxonomy

The COUNTRY codes have been brought up to date with the International Organization for Standardization (ISO) 3166 and U.S. Government's Geopolitical Entities, Names, and Codes (GENC) standards as of our review on August 12, 2021, with the following change to COUNTRY 2022 relative to COUNTRY 2021:

#### 3.3.1 COUNTRY Concepts Modified

COUNTRY 2022 modifies the standard labels for the following concepts to conform to ISO 3166 and GENC standards.

| Element | New Standard Label |
|---------|--------------------|
| CI      | Côte d'Ivoire      |
| LY      | Libya              |
| RE      | Réunion            |
| TW      | Taiwan             |

# 3.4 Variable Insurance Product (VIP) Taxonomy

VIP 2022 adds or modifies references for a number of elements compared to the draft version of the VIP taxonomy released in March 2020.

#### 3.4.1 VIP Concepts Modified

All elements derived from the domain item type are now derived from the domain item type in <a href="https://www.xbrl.org/dtr/type/2020-01-21/types.xsd">https://www.xbrl.org/dtr/type/2020-01-21/types.xsd</a>.

The VIP 2022 taxonomy modifies the following references.

| Form | Element                              | 2022 Reference | 2020 Reference |
|------|--------------------------------------|----------------|----------------|
| N-4  | BenefitsDescriptionTableTextBlock    | Item 10b       | Item 11b       |
| N-3  | Benefits Limitation Table Text Block | Item 11c       | Item 11        |

The VIP 2022 taxonomy adds the following references for each respective form and element below.

| Form | Element  | Reference              |
|------|--|------------------------|
| N-4  | AnnualFee  | Item 4, Instruction 12 |
| N-3  | AverageAnnualTotalReturns10YearsPercent            | Item 18, Item 19       |
| N-3  | AverageAnnualTotalReturns1YearPercent              | Item 18, Item 19       |
| N-3  | Average Annual Total Returns 5 Years Percent       | Item 18, Item 19       |
| N-3  | NameOfBenefitTextBlock                             | Item 11 Instruction 2  |
| N-3  | OfferedEndingDate                                  | Item 4                 |
| N-3  | OfferedStartingDate                                | Item 4                 |
| N-4  | AnnualFee  | Item 4, Instruction 12 |
| N-4  | BenefitsAvailableTableTextBlock                    | Item 10                |
| N-4  | BenefitsLimitationTableTextBlock                   | Item 10.c              |
| N-4  | Expense Reimbursements Fee Waivers Note Text Block | Item 4 Instruction 17  |
| N-4  | NameOfBenefitTextBlock                             | Item 10 Instruction 2  |
| N-4  | OfferedEndingDate                                  | Item 4                 |
| N-4  | OfferedStartingDate                                | Item 4                 |
| N-6  | BasisOfPercentageTextBlock                         | Item 4 Instruction 3.h |
| N-6  | BenefitsAvailableTableTextBlock                    | Item 11                |
| N-6  | BenefitsDescriptionTableTextBlock                  | Item 11.b              |
| N-6  | BenefitsLimitationTableTextBlock                   | ltem 11.c              |
| N-6  | OfferedEndingDate                                  | Item 4                 |
| N-6  | OfferedStartingDate                                | Item 4                 |

# 3.5 Exchanges (EXCH) Taxonomy

The EXCH codes have been brought up to date with the ISO 10383 (MIC) standard as of our review of the standard on August 12, 2021, with the following changes relative to EXCH 2021.

### 3.5.1 EXCH Concepts Deleted

These elements were deprecated as of 2021-01-31 and will be deleted:

| Deleted Element |
|-----------------|
| ATDF            |
| AXSI            |
| BMLX            |
| BMSI            |
| CGME            |
| CICX            |
| CSLP            |
| EBSD            |
| EBSI            |
| GSBX            |
| JLSI            |
| NEXY            |
| PLPX            |
| RESE            |
| TRQS            |
| WEED            |

| WGAS |  |
|------|--|
| WOPO |  |
| XDBC |  |
| XDBV |  |
| XDBX |  |
| XICB |  |
| XNDX |  |
| XNMR |  |
| XSLS |  |
| XWEE |  |
| XZAM |  |

## 3.5.2 EXCH Concepts Modified

The following concepts will be deprecated in conformity with the ISO 10383 standard.

| Element | Standard label   |
|---------|--|
| BULK    | NASDAQ COMMODITIES - BULK COMMODITY [Member] (Deprecated 2022-01-31)                                       |
| CONE    | CBOE OPTIONS EXCHANGE [Member] (Deprecated 2022-01-31)   |
| CTWO    | CBOE C2 OPTIONS EXCHANGE [Member] (Deprecated 2022-01-31)  |
| DBCR    | DEUTSCHE BANK - CENTRAL RISK BOOK [Member] (Deprecated 2022-01-31)   |
| DBCX    | DEUTSCHE BANK - CLOSE CROSS [Member] (Deprecated 2022-01-31)   |
| DBDC    | DEUTSCHE BANK - DIRECT CAPITAL ACCESS [Member] (Deprecated 2022-01-31)                                     |
| DBIX    | DEUTSCHE BANK INTERNALISATION [Member] (Deprecated 2022-01-31)   |
| DBSE    | DEUTSCHE BANK - SUPERX EU [Member] (Deprecated 2022-01-31)   |
| NOCO    | NASDAQ STOCKHOLM AB - COMMODITIES [Member] (Deprecated 2022-01-31)   |
| NZFX    | NEW ZEALAND FUTURES & OPTIONS [Member] (Deprecated 2022-01-31)   |
| SSWM    | SSW MARKET MAKING - SYSTEMATIC INTERNALISER [Member] (Deprecated 2022-01-31)                               |
| STEE    | NASDAQ COMMODITIES - STEEL COMMODITY [Member] (Deprecated 2022-01-31)                                      |
| UBIM    | UBI BANCA - SYSTEMATIC INTERNALISER [Member] (Deprecated 2022-01-31)                                       |
| VFUK    | VIRTU FINANCIAL IRELAND LIMITED (LONDON BRANCH) - SYSTEMATIC INTERNALISER [Member] (Deprecated 2022-01-31) |
| хосн    | ONECHICAGO, LLC [Member] (Deprecated 2022-01-31)   |
| XVTX    | SIX SWISS EXCHANGE - BLUE CHIPS SEGMENT [Member] (Deprecated 2022-01-31)                                   |

# 3.5.3 EXCH Concepts Added

The following concepts will be added in conformity with the ISO 10383 standard.

| Element | Standard label   | Doc label  |
|---------|--|--|
| ABNC    | ABN AMRO CLEARING BANK - SYSTEMATIC                          | ABN AMRO CLEARING BANK - SYSTEMATIC INTERNALISER;                        |
|         | INTERNALISER [Member]  | AMSTERDAM, THE NETHERLANDS (NL)  |
| ABXX    | ARABIAN BOURSE LIMITED [Member]                              | ARABIAN BOURSE LIMITED; ABU DHABI, UNITED ARAB EMIRATES (AE)             |
| AFEX    | AFRINEX LIMITED [Member]                                     | AFRINEX LIMITED; CYBERCITY, EBENE, MAURITIUS (MU)                        |
| AILT    | ARRACO IRELAND LTD [Member]                                  | ARRACO IRELAND LTD; DUBLIN, IRELAND (IE)                                 |
| AMLG    | AMERICAN LEDGER ATS [Member]                                 | AMERICAN LEDGER ATS; MOORPARK, UNITED STATES OF AMERICA (US)             |
| AQED    | AQUIS EXCHANGE EUROPE NON DISPLAY ORDER BOOK (NDOB) [Member] | AQUIS EXCHANGE EUROPE NON DISPLAY ORDER BOOK (NDOB); PARIS, FRANCE (FR)  |
| BACR    | BANK OF AMERICA SECURITIES - CENTRAL RISK [Member]           | BANK OF AMERICA SECURITIES - CENTRAL RISK; HONG KONG, HONG KONG (HK)     |
| BBLX    | BONDBLOX EXCHANGE [Member]                                   | BONDBLOX EXCHANGE; SINGAPORE, SINGAPORE (SG)                             |
| ввок    | BARCLAYS SINGLE DEALER PLATFORM [Member]                     | BARCLAYS SINGLE DEALER PLATFORM; NEW YORK, UNITED STATES OF AMERICA (US) |

| Element | Standard label  | Doc label   |
|---------|---|---|
| BEBG    | BULGARIAN ENERGY TRADING PLATFORM   | BULGARIAN ENERGY TRADING PLATFORM; SOFIA, BULGARIA (BG)   |
| DCI II  | [Member]  | DCI DND DADIDAC CVCTEMATIC INTERNALICED. HIVEMADOLIDO   |
| BGLU    | BGL BNP PARIBAS - SYSTEMATIC INTERNALISER [Member]                                | BGL BNP PARIBAS - SYSTEMATIC INTERNALISER; LUXEMBOURG, LUXEMBOURG (LU)                            |
| BLFX    | BAYERNLB - FX DERIVATIVES MARKET [Member]   | BAYERNLB - FX DERIVATIVES MARKET; MUNICH, GERMANY (DE)  |
| BNPC    | BNPP CORTEX ATS [Member]  | BNPP CORTEX ATS; NEW YORK, UNITED STATES OF AMERICA (US)  |
| BNPL    | BNP PARIBAS SA LONDON BRANCH -  | BNP PARIBAS SA LONDON BRANCH - SYSTEMATIC INTERNALISER;   |
|         | SYSTEMATIC INTERNALISER [Member]  | LONDON, UNITED KINGDOM (GB)   |
| BNPX    | BNP PARIBAS ALTERNATIVE TRADING SYSTEM [Member]                                   | BNP PARIBAS ALTERNATIVE TRADING SYSTEM; TOKYO, JAPAN (JP)   |
| BRED    | BRED BANQUE POPULAIRE - SYSTEMATIC  | BRED BANQUE POPULAIRE - SYSTEMATIC INTERNALISER; PARIS,   |
| BSAB    | INTERNALISER [Member] BANCO DE SABADELL, S.A SYSTEMATIC                           | FRANCE (FR)  BANCO DE SABADELL, S.A SYSTEMATIC INTERNALISER; SABADELL,                            |
| DOAD    | INTERNALISER [Member]   | SPAIN (ES)  |
| BSPL    | BNP PARIBAS SECURITIES SERVICES LONDON  | BNP PARIBAS SECURITIES SERVICES LONDON BRANCH - SYSTEMATIC  |
|         | BRANCH - SYSTEMATIC INTERNALISER [Member]   | INTERNALISER; LONDON, UNITED KINGDOM (GB)   |
| BSTX    | BOSTON SECURITY TOKEN EXCHANGE LLC [Member]                                       | BOSTON SECURITY TOKEN EXCHANGE LLC; BOSTON, UNITED STATES OF AMERICA (US)                         |
| BTRL    | BANCA TRANSILVANIA S.A. [Member]  | BANCA TRANSILVANIA S.A.; CLUJ NAPOCA, ROMANIA (RO)  |
| CAPL    | CREDIT AGRICOLE BANK POLSKA S.A<br>SYSTEMATIC INTERNALISER [Member]               | CREDIT AGRICOLE BANK POLSKA S.A SYSTEMATIC INTERNALISER;<br>WROCLAW, POLAND (PL)                  |
| CBKS    | COMMERZBANK INTEREST RATE SWAPS -   | COMMERZBANK INTEREST RATE SWAPS - SYSTEMATIC INTERNALISER;  |
|         | SYSTEMATIC INTERNALISER [Member]  | FRANKFURT, GERMANY (DE)   |
| CCMX    | CARTAX [Member]   | CARTAX; NEW YORK, UNITED STATES OF AMERICA (US)   |
| CECA    | CECABANK - SYSTEMATIC INTERNALISER [Member]                                       | CECABANK - SYSTEMATIC INTERNALISER; MADRID, SPAIN (ES)  |
| CEDX    | CBOE EUROPE DERIVATIVES [Member]  | CBOE EUROPE DERIVATIVES; AMSTERDAM, THE NETHERLANDS (NL)  |
| CFIC    | CHINAFICC [Member]  | CHINAFICC; LONDON, UNITED KINGDOM (GB)  |
| CGXS    | ONECHRONOS [Member]   | ONECHRONOS; NEW YORK, UNITED STATES OF AMERICA (US)   |
| CNOD    | CNODE [Member]  | CNODE; SINGAPORE, SINGAPORE (SG)  |
| EBXV    | LEVEL ATS - VWAP CROSS [Member]   | LEVEL ATS - VWAP CROSS; BOSTON, UNITED STATES OF AMERICA (US)                                     |
| ENSL    | ENGNSOL - OMP [Member]  | ENGNSOL - OMP; FIAC, FRANCE (FR)  |
| EQCA    | EQUILEND CANADA CORP. [Member]  | EQUILEND CANADA CORP.; TORONTO, CANADA (CA)   |
| EQOC    | EQUOS SPOT [Member]   | EQUOS SPOT; SINGAPORE, SINGAPORE (SG)   |
| EQOD    | EQUOS DERIVATIVES [Member]  | EQUOS DERIVATIVES; SINGAPORE, SINGAPORE (SG)  |
| EQOS    | EQUOS [Member]  | EQUOS; SINGAPORE, SINGAPORE (SG)  |
| EQUS    | EQUILEND LLC [Member]   | EQUILEND LLC; NEW YORK, UNITED STATES OF AMERICA (US)   |
| ESLO    | ENGNSOL [Member]  | ENGNSOL; FIAC, FRANCE (FR)  |
| EVOL    | EVOLUTION MARKETS [Member]  | EVOLUTION MARKETS; LONDON, UNITED KINGDOM (GB)  |
| EWRM    | TURKISH MERCANTILE EXCHANGE - ELECTRONIC  | TURKISH MERCANTILE EXCHANGE - ELECTRONIC WAREHOUSE RECEIPT  |
|         | WAREHOUSE RECEIPT MARKET [Member]   | MARKET; ANKARA, TURKEY (TR)   |
| FREX    | FAIRX [Member]  | FAIRX; CHICAGO, UNITED STATES OF AMERICA (US)   |
| FXPS    | REFINITIV SEF REQUEST FOR STREAM [Member]   | REFINITIV SEF REQUEST FOR STREAM; NEW YORK, UNITED STATES OF AMERICA (US)                         |
| FXRS    | FINANCIAL AND RISK TRANSACTIONS SERVICES IRELAND LIMITED - FXALL RFS MTF [Member] | FINANCIAL AND RISK TRANSACTIONS SERVICES IRELAND LIMITED -<br>FXALL RFS MTF; DUBLIN, IRELAND (IE) |
| GFAM    | GFI SECURITIES LLC - ALL MARKETS [Member]   | GFI SECURITIES LLC - ALL MARKETS; NEW YORK, UNITED STATES OF AMERICA (US)                         |
| GMBG    | MTF SOFIA - GROWTH MARKET [Member]  | MTF SOFIA - GROWTH MARKET; SOFIA, BULGARIA (BG)   |
| ICOR    | ICAP EU - OTF - REGISTRATION [Member]   | ICAP EU - OTF - REGISTRATION; PARIS, FRANCE (FR)  |
| IDXM    | IDX MARKETS, LLC [Member]   | IDX MARKETS, LLC; NEW YORK, UNITED STATES OF AMERICA (US)   |
| JNSI    | JANE STREET NETHERLANDS B.V SYSTEMATIC INTERNALISER [Member]                      | JANE STREET NETHERLANDS B.V SYSTEMATIC INTERNALISER;<br>AMSTERDAM, THE NETHERLANDS (NL)           |
| KLSH    | KALSHIEX LLC [Member]   | KALSHIEX LLC; NEW YORK, UNITED STATES OF AMERICA (US)   |

| Element | Standard label  | Doc label   |
|---------|---|---|
| LATG    | GFI SECURITIES LLC - CREDITMATCH (LATG)   | GFI SECURITIES LLC - CREDITMATCH (LATG); NEW YORK, UNITED   |
| 140.00  | [Member]  | STATES OF AMERICA (US)  |
| МВСР    | MILLENNIUM BCP-SYSTEMATIC INTERNALISER [Member]                                     | MILLENNIUM BCP-SYSTEMATIC INTERNALISER; PORTO, PORTUGAL (PT)  |
| MBSI    | MORGAN STANLEY BANK INTERNATIONAL   | MORGAN STANLEY BANK INTERNATIONAL LIMITED - SYSTEMATIC  |
| 14100   | LIMITED - SYSTEMATIC INTERNALISER [Member]  | INTERNALISER; LONDON, UNITED KINGDOM (GB)   |
| MIDC    | MIDCHAINS [Member]  | MIDCHAINS; ABU DHABI, UNITED ARAB EMIRATES (AE)   |
| MSBI    | MORGAN STANLEY BANK INTERNATIONAL LIMITED [Member]                                  | MORGAN STANLEY BANK INTERNATIONAL LIMITED; LONDON, UNITED KINGDOM (GB)                              |
| MUDX    | MITSUBISHI DIAMOND CROSSING [Member]  | MITSUBISHI DIAMOND CROSSING; TOKYO, JAPAN (JP)  |
| NTUK    | NATIXIS LONDON BRANCH [Member]  | NATIXIS LONDON BRANCH; LONDON, UNITED KINGDOM (GB)  |
| OCEA    | BLUE OCEAN ALTERNATIVE TRADING SYSTEM [Member]                                      | BLUE OCEAN ALTERNATIVE TRADING SYSTEM; SEA GIRT, UNITED STATES OF AMERICA (US)                      |
| OLBB    | OLDENBURGISCHE LANDESBANK AG FX HANDEL -<br>SYSTEMATIC INTERNALISER [Member]        | OLDENBURGISCHE LANDESBANK AG FX HANDEL - SYSTEMATIC INTERNALISER; OLDENBURG, GERMANY (DE)           |
| ONEC    | CITI-ONE [Member]   | CITI-ONE; NEW YORK, UNITED STATES OF AMERICA (US)   |
| OSDS    | OSL DIGITAL SECURITIES EXCHANGE [Member]  | OSL DIGITAL SECURITIES EXCHANGE; HONG KONG, HONG KONG (HK)  |
| OSSG    | OSL SG EXCHANGES [Member]   | OSL SG EXCHANGES; SINGAPORE, SINGAPORE (SG)   |
| RABL    | RABOBANK INTERNATIONAL UK - SYSTEMATIC INTERNALISER [Member]                        | RABOBANK INTERNATIONAL UK - SYSTEMATIC INTERNALISER;<br>LONDON, UNITED KINGDOM (GB)                 |
| RMMS    | RMB MORGAN STANLEY [Member]   | RMB MORGAN STANLEY; JOHANNESBURG, SOUTH AFRICA (ZA)   |
| RMMX    | RMB MORGAN STANLEY - INVENTORY MANAGER [Member]                                     | RMB MORGAN STANLEY - INVENTORY MANAGER; JOHANNESBURG, SOUTH AFRICA (ZA)                             |
| RR4G    | ROUTE4GAS [Member]  | ROUTE4GAS; AMSTERDAM, NETHERLANDS, THE (NL)   |
| SEBA    | STIFEL EUROPE BANK AG - SYSTEMATIC INTERNALISER [Member]                            | STIFEL EUROPE BANK AG - SYSTEMATIC INTERNALISER; FRANKFURT, GERMANY (DE)                            |
| SGA2    | SG AMERICAS SECURITIES, LLC - SECOND VENUE [Member]                                 | SG AMERICAS SECURITIES, LLC - SECOND VENUE; NEW YORK, UNITED STATES OF AMERICA (US)                 |
| SGMU    | SIGMA X EUROPE NON-DISPLAYED BOOK [Member]  | SIGMA X EUROPE NON-DISPLAYED BOOK; PARIS, FRANCE (FR)   |
| SGMV    | SIGMA X EUROPE AUCTION BOOK [Member]  | SIGMA X EUROPE AUCTION BOOK; PARIS, FRANCE (FR)   |
| SGMW    | SIGMA X EUROPE NEGOTIATED TRADE [Member]  | SIGMA X EUROPE NEGOTIATED TRADE; PARIS, FRANCE (FR)   |
| SIDX    | SCOTIABANK (IRELAND) DESIGNATED ACTIVITY COMPANY - SYSTEMATIC INTERNALISER [Member] | SCOTIABANK (IRELAND) DESIGNATED ACTIVITY COMPANY -<br>SYSTEMATIC INTERNALISER; DUBLIN, IRELAND (IE) |
| SIFX    | SIEGE FX LIMITED [Member]   | SIEGE FX LIMITED; LONDON, UNITED KINGDOM (GB)   |
| SPBE    | SPB EXCHANGE - ALL MARKETS [Member]   | SPB EXCHANGE - ALL MARKETS; MOSCOW, RUSSIA (RU)   |
| STRM    | PURESTREAM [Member]   | PURESTREAM; NEW YORK, UNITED STATES OF AMERICA (US)   |
| STUE    | BOERSE STUTTGART - REGULIERTER MARKT -<br>TECHNICAL PLATFORM 3 [Member]             | BOERSE STUTTGART - REGULIERTER MARKT - TECHNICAL PLATFORM 3;<br>STUTTGART, GERMANY (DE)             |
| STUF    | BOERSE STUTTGART - FREIVERKEHR - TECHNICAL PLATFORM 3 [Member]                      | BOERSE STUTTGART - FREIVERKEHR - TECHNICAL PLATFORM 3;<br>STUTTGART, GERMANY (DE)                   |
| T212    | TRADING 212 LIMITED - SYSTEMATIC INTERNALISER [Member]                              | TRADING 212 LIMITED - SYSTEMATIC INTERNALISER; SOFIA, BULGARIA (BG)                                 |
| TBSA    | WARSAW STOCK EXCHANGE/BONDS/TREASURY BOND/BONDSPOT/B2C MARKET/MTF [Member]          | WARSAW STOCK EXCHANGE/BONDS/TREASURY BOND/BONDSPOT/B2C MARKET/MTF; WARSAW, POLAND (PL)              |
| TEUR    | TRADITION ESPANA OTF [Member]   | TRADITION ESPANA OTF; MADRID, SPAIN (ES)  |
| TMCY    | TRADING 212 MARKETS LIMITED - SYSTEMATIC INTERNALISER [Member]                      | TRADING 212 MARKETS LIMITED - SYSTEMATIC INTERNALISER;<br>LIMASSOL, CYPRUS (CY)                     |
| TMEX    | TURKISH MERCANTILE EXCHANGE [Member]  | TURKISH MERCANTILE EXCHANGE; ANKARA, TURKEY (TR)  |
| TPEE    | TP ICAP EU - MTF - EQUITY AND ETF [Member]  | TP ICAP EU - MTF - EQUITY AND ETF; PARIS, FRANCE (FR)   |
| TPER    | TULLETT PREBON EU OTF - REGISTRATION [Member]                                       | TULLETT PREBON EU OTF - REGISTRATION; PARIS, FRANCE (FR)  |
| TPSV    | TPSEF, INC - VOICE [Member]   | TPSEF, INC - VOICE; JERSEY CITY, UNITED STATES OF AMERICA (US)                                      |
| TRUK    | TRADING 212 UK LIMITED [Member]   | TRADING 212 UK LIMITED; LONDON, UNITED KINGDOM (GB)   |
|         |   |   |

| Element | Standard label  | Doc label  |
|---------|---|--|
| UBEC    | UNIVERSAL BARTER EXCHANGE CREDIT UNION [Member]   | UNIVERSAL BARTER EXCHANGE CREDIT UNION; ATLANTA, UNITED STATES OF AMERICA (US)                     |
| UGEN    | UNITEDBLOCKTRADE [Member]   | UNITEDBLOCKTRADE; BRADFORD, UNITED KINGDOM (GB)  |
| UNGB    | UNICREDIT BANK AG - LONDON BRANCH - UK<br>SYSTEMATIC INTERNALISER [Member]              | UNICREDIT BANK AG - LONDON BRANCH - UK SYSTEMATIC INTERNALISER; LONDON, UNITED KINGDOM (GB)        |
| XBIS    | BARBADOS STOCK EXCHANGE - INTERNATIONAL SECURITIES MARKET [Member]                      | BARBADOS STOCK EXCHANGE - INTERNATIONAL SECURITIES MARKET;<br>BRIDGETOWN, BARBADOS (BB)            |
| XDLP    | SIX SWISS EXCHANGE - DEAL POOL - BOOK<br>BUILDING AND ANNOUNCEMENT PLATFORM<br>[Member] | SIX SWISS EXCHANGE - DEAL POOL - BOOK BUILDING AND ANNOUNCEMENT PLATFORM; ZURICH, SWITZERLAND (CH) |
| XGLO    | WARSAW STOCK EXCHANGE/ EQUITIES/GLOBAL CONNECT - MTF [Member]                           | WARSAW STOCK EXCHANGE/ EQUITIES/GLOBAL CONNECT - MTF; WARSAW, POLAND (PL)                          |
| XLQC    | LIQUIDITY CUBE PTY LTD [Member]   | LIQUIDITY CUBE PTY LTD; SYDNEY, AUSTRALIA (AU)   |
| XNOM    | NOMISMA (LIECHTENSTEIN) AG [Member]   | NOMISMA (LIECHTENSTEIN) AG; VADUZ, LIECHTENSTEIN (LI)  |
| XSTP    | BOERSE STUTTGART - TECHNICAL PLATFORM 3 [Member]  | BOERSE STUTTGART - TECHNICAL PLATFORM 3; STUTTGART, GERMANY (DE)                                   |
| XTXD    | XTX DIRECT [Member]   | XTX DIRECT; NEW YORK, UNITED STATES OF AMERICA (US)  |