



Description of electronic reporting of KOIA reports

1 Overview

This document describes the data structures of the MFI consolidated data collection (KOIA) and the transfer of the data to the Bank of Finland. The KOTI schema files and KOIA validation file referred to in this document are available on the website of the reporting system reform, under Instructions and recordings: <https://www.suomenpankki.fi/en/statistics/to-the-reporter/reform-of-the-reporting-system/instructions-and-recordings/?epslanguage=en>. Reporting instructions for the MFI consolidated data collection (KOIA) and other material related to reporting are available on the Bank of Finland website at <https://www.suomenpankki.fi/en/statistics/to-the-reporter/mfi-data-collection/?epslanguage=en>.

Data for KOIA reporting are generated and submitted to the Bank of Finland in accordance with the descriptions provided in this document when reporting for the first time the data for the period 2024Q3.

2 Transfer of data to the Bank of Finland

The data for KOIA reporting is submitted to the Bank of Finland via the eRegulatory data collection service provided by Regnology France. The system is the same used in reporting to the FIN-FSA. Entities under the reporting obligation may either use the service themselves or authorize a reporter of their choosing to submit the data on their behalf. The eRegulatory data collection service is logged in via Suomi.fi authentication. Before logging into the data collection service, the obligated entity must authorize the reporting persons to report the KOIA data collection in the Suomi.fi portal's authorization service. Without authorization, reporting is not possible. More detailed instructions on Suomi.fi authorizations can be found [here](#).

There are two reporting methods available for submitting reports:

- Submitting a file as a file upload (https upload)
- Direct, secure data connection between the company and the data collection service (SFTP Secure File Transfer Protocol).

Submitting a file as a file upload is suitable for obliged entities that have a lot of data to report and generate the report file from their own systems. Reporting using an SFTP connection is suitable for obliged entities that have a lot of data to report or reporting that they want to automate. When using SFTP data transfer, the reporter and the data collection service establish an SFTP connection between the service and the reporter, through which the report file transfer is performed. To order an SFTP username, the reporter must contact the Bank of Finland by email at [ReportingSupport\(at\)bof.fi](mailto:ReportingSupport(at)bof.fi).

The data is submitted in the production environment of the data collection service, called the Reporters Portal. In addition, reporting can be tested in a separate test environment, called the Validation Service.



The data collection service checks the technical integrity and structural validity of submitted report files and forwards valid report files to the Bank of Finland. Erroneous reports will not be forwarded to the Bank of Finland, but automatic feedback is given on detected errors. Any errors must be corrected, and the entire report must be sent again. The same named file can only be sent once. A new submission is identified with an updated timestamp (see more about naming the report in section 3.1. Naming files). The timestamp must be updated both in the file name and in the Header record of the report.

3 Report file

The file must be in the XML format (Extensible Markup Language), and the character set used is UTF-8.

The technical format of the file is defined in the schema files and content validations. The data content is defined in the reporting instructions.

The following paragraphs present the naming of the file and the main aspects of the structure of the file, using examples.

3.1 File naming

The file name consists of six elements: reporter's identifier, type of reporter's identifier, frequency, survey code, reporting period and the creation date and time of the report. The separator of the elements is the underscore ("_").

Example 1: FI12345678_MFI_Q_KOTI_2024-03-31_20240404104924000.XML

Meanings of the parts of the filename:

- **Reporter's ID:** valid MFI ID. In reporting, the MFI ID (MFI) is used as a unique identifier for the reporter. The ID consists of the country code and the company's business ID without a hyphen and should be written in the form FI<NNNNNNNN>. In the examples above, the reporter's ID is FI12345678.
- **Type of reporter's ID:** MFI. The type of ID is always marked as MFI in KOIA.
- **Frequency:** Q. For quarterly reports, the frequency is Q.
- **Survey code:** KOTI.
- **Reporting period: the last day of the reference period.** The reporting period is the last day of the reporting (reference) period. In example 1 above, the data for the first quarter of 2024 (i.e., data for the period 1.1.2024-31.3.2024) is reported, and the reporting period is marked as 2024-03-31.
- **Time of report formation:** <yyyy><mm><dd><hh><mm><ss><000> (timestamp). The timestamp is the time of data extraction for the report, which is unique for each transmission. When it comes to a correction file, the timestamp must be changed, as it is not possible to resend a file with the same name. The moment of extraction is in the form of year + month + day + hour + minute + second + 000. The last three numbers are always 000. (i.e. 17 characters, zeroes in the front where necessary).



- **Note:** The parts of the filename are separated from each other with an underscore (" _").

3.2 Structure of this report

The structure of the XML document is defined by the KOTI schema, which consists of two separate XSD files: an XSD file defining the structure of the file, named KOTI_1.0.xsd, and an XSD file defining the content of the file, named KOTI_Types_1.0.xsd. In addition, the structure/data is defined by content validations, which are presented in the document KOIA reporting - validation rules.

The file consists of general specifications at the beginning, one Header record and one or more so-called content record sections.

3.2.1 General information

At the beginning of the report, there is a description of the XML version, character set used, schema information and description of the name universe. The schema version changes when changes are made to the KOTI schema. One schema is valid on each reporting date. When revising an old report from a period with a different schema from that used on the revision date, the revision report must be based on the schema valid during the period of the report being revised (identifying the schema version by the version number of the KOTI schema).

xml version	1.0
Character set used	utf-8
Schema instance	http://www.w3.org/2001/XMLSchema-instance
Schema	http://www.w3.org/2001/XMLSchema
Schema version	1.0 (version number of the KOTI schema)
Definition of the name universe	xmlns=" http://bof.fi/KOTI "

Example 2. General information at the beginning of the report

```
<?xml version="1.0" encoding="utf-8"?>
<KOTIReport xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" schemaVersion="1.0"
xmlns="http://bof.fi/KOTI">
```

3.2.2 Header record

The first section of the report is a Header record, which always includes the mandatory metadata to be included in the report: These are the type of data provider's identifier, data provider's MFI code, type of reporter's identifier, reporter's MFI code, identifier of the data collection, last date of the reporting reference period, reporting frequency, report creation date and time and possibly a comment concerning the report. The elements contained in the Header record and their more detailed explanations are provided in Table 2, Elements contained in the Header record.



Table 2. Elements contained in the Header record

Element name	Explanation
typeOfDataProviderIdentifier	Type of data provider's identifier, "MFI"
dataProviderIdentifier	Data provider's MFI number in format FI<NNNNNNNN>
typeOfReporterIdentifier	Type of reporter's identifier, "MFI"
reporterIdentifier	Reporter's MFI number in format FI<NNNNNNNN>
surveyCode	"KOTI"
reportingPeriodEnd	Last day of the reportable month, YYYY-MM-DD
frequency	"Q"
creationDate	Creation date and time <YYYY>-<MM>-<DD>T<HH>:<MM>:<SS>
entitysComment	Possible short comment relating to the report.

Below is an example of the Header record of the XML report.

Example 3. Header record of the 2024Q01 report

```
<header>
  <typeOfDataProviderIdentifier>MFI</typeOfDataProviderIdentifier>
  <dataProviderIdentifier>FI12345671</dataProviderIdentifier>
  <typeOfReporterIdentifier>MFI</typeOfReporterIdentifier>
  <reporterIdentifier>FI12345671</reporterIdentifier>
  <surveyCode>KOTI</surveyCode>
  <reportingPeriodEnd>2024-03-31</reportingPeriodEnd>
  <frequency>Q</frequency>
  <creationDate>2024-04-04T10:49:24</creationDate>
  <entitysComment>Testi</entitysComment>
</header>
```

3.2.3 Record sections of the report

The record sections are named in the structural part of the KOTI schema file (KOTI_1.0.xsd) as follows:

- CSIA = csiaRecords
- CSDR = csdrRecords
- BSIA = bsiaRecords

Actual data contents are reported in records contained in the record sections, comprising csia, csdr and bsia records. The number of the record sections and records is presented in the following table.



Table 3. Number of the record sections and records

Report	Record section	Number of record sections	The record section contains the following records	Number of records
Q	CSIA (csiaRecords)	0-1	csia	0 - unlimited
Q	CSDR (csdrRecords)	0-1	csdr	0 - unlimited
Q	BSIA (bsiaRecords)*	1	bsia	1

* The records section is always mandatory.

Data items (elements) contained in the records have been listed in the tables at the end of this document. They are also found in the schema file KOTI_TYPE.xsd and KOIA validation rules, which also define the details of the data types, threshold values, content requirements, value accuracies, code lists used and required formats.

3.3 Comparison of CSV and XML reports

In the CSV file, data on the reporter and reporting period as well as other general information are provided in the batch record on the 000 row at the beginning of the report (marked in blue). In the XML report, the header record corresponds to the 000 row of the CSV report.

The actual reportable statistics i.e. individual records are reported in the CSV file as rows. The corresponding data in the XML report is reported i.e., within a csia record (element), which are placed inside the csiaRecords record section (element). Hence, each record of the XML report corresponds to an individual row in the csv report.

If the reportable data element is not applicable to the reportable content element, the XML element concerned must be left altogether unreported. The reporting of empty XML elements is not allowed.

3.4 Further information

Further inquiries about the submission of the report should be sent by email at Reporting-Support(at)bof.fi. Further inquiries about the content should be sent by email at rahoitustilastot(at)bof.fi.



APPENDIX Elements contained in the records

Elements contained in a CSIA record

XML element	Description
allocationOfBalanceSheetItem	Allocation Of Balance Sheet Item
transaction	Transaction
bisUnit	BIS Unit
instrument	Instrument
internalIdentificationCode	Internal unchangeable code used by reporter for identification of security.
sector	Sector code of counterparty to the item in accordance with Statistics Finland's Classification of Sectors 2023, without prefix "S".
countryCode	Home country of item counterparty in accordance with ISO 3166 or list of international organisations.
homeCountryOfGroupEntityCountryCode	Home country of group entity (Country code)
conversionCurrency	ISO 4217 code of currency from which book value has been converted.
bookValue	Total book value of the instrument reported in EUR and rounded to two decimal places.
bookValueCurrency	ISO 4217 code of currency in which book value is reported. Currency of value is always "EUR".
remainingMaturity	Remaining maturity
targetCountryOfRiskTransfer	Target country of risk transfer
targetSectorOfRiskTransfer	Target sector of risk transfer
collateralType	Collateral type
debtSecurityType	Debt security type
accountingClassification	Accounting classification
typeOfEquityInvestment	Type of equity investment
subordination	Subordination ("True"/"False")
insuranceAssetType	Insurance asset type
insurancePolicyType	Insurance policy type
equityType	Equity type



Elements contained in a CSDR record

XML element	Description
transaction	Transaction
bisUnit	BIS Unit
instrument	Instrument
internalIdentifier	Internal unchangeable code used by reporter for identification of security.
sector	Sector code of counterparty to the item in accordance with Statistics Finland's Classification of Sectors 2023, without prefix "S".
countryCode	Home country of item counterparty in accordance with ISO 3166 or list of international organisations.
conversionCurrency	ISO 4217 code of currency from which book value has been converted.
bookValue	IF Measure type is "B" or "C", THEN Book value is consistent with fair value. IF BIS Unit is "G" and Measure type is "A", THEN Book value is consistent with nominal value of the underlying.
bookValueCurrency	ISO 4217 code of currency in which book value is reported. Currency of value is always "EUR".
remainingMaturity	Remaining maturity of financial assets or liabilities
measureType	Measure type
currencyBought	Currency bought
currencySold	Currency sold
marketRisk	Market risk
derivativeContractType	Derivative contract type
foreignExchangeDerivateContractType	Foreign exchange derivative contract type

Elements contained in a BSIA record

XML element	Description
reportersName	Reporter's name
riskWeightedAssets	Total amount of risk-weighted assets
tier1Capital	Total amount of Tier 1 capital items
bankingGroupBalanceSheet	Banking group's balance sheet
totalConsolidatedBalanceSheet	Report the consolidated balance sheet total of the entire group including insurance companies, other entities, and adjustments/eliminations