Description of electronic reporting of SAVE reports

1 Overview

This document describes the data structure of the survey of securities-based assets and liabilities of non-financial corporations, financial corporations, and central government (SAVE) and the submission of the data to the Bank of Finland. The SAVE schema files and SAVE validation file referred to in the document are available on the website of the reporting system reform:https://www.suomenpankki.fi/en/statistics2/to-the-reporter/raportointijarjestelman-uudistus/ohjeet/. Reporting instructions for the SAVE data collection and other material related to reporting are available on the Bank of Finland's website at https://www.suomenpankki.fi/en/statistics2/to-the-reporter/security-statistics.

The data for SAVE 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 2024M08.

2 Transfer of data to the Bank of Finland

The data for SAVE reporting are submitted to the Bank of Finland through 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 authorise 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 in the data collection service, the obliged entity must authorise the reporting persons to report in the SAVE data collection in the authorisation service of the Suomi.fi portal. Without an authorisation, reporting is not possible. More detailed instructions about Suomi.fi authorisations are available here.

There are three ways available for report submission:
- Reporting in a web template
- File submission as file upload (https upload)
- Direct encrypted access protocol between the company and the data collection service (SFTP Secure File Transfer Protocol).

Reporting in a web template is suitable for entities under the reporting obligation with little to report. The submission of a file as file upload is suitable for obliged entities that have a lot to report and generate the report file from their own systems. Reporting using an SFTP connection is suitable for obliged entities with a lot of reportable data or reporting they want to automate. When using the SFTP data transfer, the reporter and the data collection service establish an SFTP connection between themselves to conduct the report file transfer. To order an SFTP identifier, the reporter must contact the Bank of Finland by email at ReportingSupport(at)bof.fi.

The data are submitted in the production environment of the data collection system, in addition to which reporting can be tested in a separate test environment. The test

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environment and production environment will open in June 2024. The exact date will be communicated later.

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 will be given on detected errors. Any errors must be corrected and the whole report resubmitted. A file with the same name may only be submitted once. The new submission will be identified by an updated time stamp (see more about naming the report in section 3.1. File naming). The time stamp will have to be updated both in the report name and Header section.

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.

When using the manual web template for data submission, the data will be automatically in the correct format.

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: FI12345678_VAT_M_SAVE_2024-01-31_20240209104924000.XML

Meaning of the file name components:
- **Reporter's identifier: valid VAT code.** The reporter's unique identifier used in the reporting is the business ID (VAT number). The identifier consists of the country code and the company's business ID without a hyphen, in the following format: FI<NNNNNNNN>. The reporter's identifier in the examples above is FI12345678.
- **Type of reporter's identifier VAT.** The identifier type used in SAVE is always VAT.
- **Frequency: M.** In monthly reporting, the frequency is always M (monthly).
- **Survey code: SAVE**
- **Reporting period: last day of the reference period.** The reporting period is the last day of the reportable (reference) period. Example 1 above is concerned with the data for January 2024 (i.e. data for the period 1 January–31 January 2024), and so the reporting period is indicated as 2024-01-31.

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- **Creation date and time: <YYYY><MM><DD><HH><MM><SS>< 000> (time stamp).** Time stamp is the time when the data for the report was retrieved. It is unique for each data submission. In the case of a revision file, the time stamp will have to be replaced, since it is not possible to re-send a report with the exact same name. The data retrieval time takes the format: year + month + day + hour + minute + second + 000. The last three digits are always 000. (I.e. 17 characters, zeroes in the front where necessary).
- **Note. The elements of the file name are separated by an underscore ("_").**

3.2 Structure of this report

The structure of the XML document is defined by the SAVE schema, consisting of two separate XSD files: the XSD file defining the file structure, named as SAVE_1.0.xsd and the XSD file defining the data content of the file, named SAVE_Types_1.0.xsd. In addition, the structure/data content is defined by content validations presented in the document SAVE reporting – validation rules.

The file consists of general specifications at the beginning, one Header section and one or more so-called content 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 SAVE 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 SAVE schema).

Table 1: general information

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 SAVE schema)
Definition of the name universe	xmlns="http://bof.fi/SAVE"

Example: General information at the beginning of the report

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

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3.2.2 Header section

The first section of the report is a Header section, which always includes the mandatory meta data to be included in the report: These are the type of data provider's identifier, data provider's VAT code, type of reporter's identifier, reporter's VAT 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 section and their more detailed explanations are provided in Table 2, *Elements contained in the Header section.*

Table 2. Elements contained in the Header section

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

Example: Header section of the 2023M01 report

```xml
<header>
  <typeOfDataProviderIdentifier>VAT</typeOfDataProviderIdentifier>
  <dataProviderIdentifier>FI12345671</dataProviderIdentifier>
  <typeOfReporterIdentifier>VAT</typeOfReporterIdentifier>
  <reporterIdentifier>FI12345671</reporterIdentifier>
  <surveyCode>SAVE</surveyCode>
  <reportingPeriodEnd>2024-01-31</reportingPeriodEnd>
  <frequency>M</frequency>
  <entitysComment>Testi</entitysComment>
  <creationDate>2024-02-09T10:49:24</creationDate>
</header>
```

3.2.3 Content sections of the report

The content sections are named in the structural part of the SAVE schema file (SAVE_1.0.xsd) as follows: SBS = sbsRecords. The report must contain exactly one SBS content section. The actual data contents are reported in the "sbs" content element. The number of content elements in a report is unlimited.

The data items (elements) contained in the content elements/records are listed in Table 3. They are also found in the schema file SAVE_Type.xsd and SAVE validation rules, which

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also define the details of the data types, threshold values, content requirements, value accuracies, code lists used and required formats.

Table 3. Elements contained in the SBS section

XML element	Explanation
category	Indication of the category to which the reportable security belongs conceptually.
contractType	Contract type of repo or securities lending agreement valid at the end of the reporting period
instrument	Instrument category of the security
internalIdentificationCode	Unique, permanent identifier of the security
isinCode	ISIN code under the ISO 6166 Standard
instrumentName	Name of the security as known to the reporting entity.
numberOfInstruments	Number of instruments
totalNominalValue	Total nominal value of the security reported using a single ISIN code or internal identifier
nominalCurrency	ISO 4217 code of the currency
totalMarketValue	Total market value of the security reported using a single ISIN code or internal identifier
marketCurrency	ISO 4217 code of the currency
intraGroupItem	"true" or "false"
dividends	Gross dividends paid to the holder during the month
dividendCurrency	ISO 4217 code of the currency
contractingPartysHomeCountry	Home country of the contracting party in accordance with the ISO 3166 classification or the list of international organisations
issueDate	Issue date, YYYY-MM-DD
maturityDate	Maturity Date, YYYY-MM-DD
nextCouponDate	Next date of coupon payment, YYYY-MM-DD
couponRate	Interest rate payable on the nominal value as specified in the debt security
couponFrequency	Number of coupon payments in a year
countryOfIssue	Country of issue in accordance with the ISO 3166 classification
issuersSector	Sector code of the issuer in accordance with Statistics Finland's Classification of Sectors 2023
issuersHomeCountry	Home country of the issue in accordance with the ISO 3166 classification or the list of international organisations

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. The header section of the XML report 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 within the SBS element located in the sbsRecords element. Hence, each content element of the XML report (i.e. individual SBS element) corresponds to an individual row in the CSV report.

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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.

4 Further information

Further inquiries about the submission of the report should be sent by email at ReportingSupport(at)bof.fi. Further inquiries about the content should be sent by email at arvopaperitilastot(at)bof.fi.