RECORD STRUCTURE – SURVEY ON SECURITY-BASED ASSETS AND LIABILITIES OF NONFINANCIAL CORPORATIONS, FINANCIAL CORPORATIONS AND CENTRAL GOVERNMENT (SAVE)

Version 1.7 (30 September 2016)

Valid from 1 January 2017

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Version	Date	Valid	Details
1.0	15 April 2008		• First version
1.1	26 May 2008	From 1 June 2008 to 31 August 2008	• Sector code list is changed to be based on Statistics Finland 2000 sector classification • Eurostat classification list is changed to the list of International organisations • Some definitions have been made for report-level validation rules
1.2	6 August 2008	From 1 September 2008 to 31 December 2008	• Validation rule for SBS record field 15 changed • Some definitions have been made for validation rules of SBS record fields 31,32,34: a field must fulfil a given condition only if it is mandatory • Examples corrected
1.3	21 November 2008	From 1 January 2009 to 31 December 2013	• Some definitions have been made for general record descriptions (paragraph 4) • Identifiers have been added to report level validation rules (paragraph 4.3) • Data provider's identifier (field 3) of batch record must be the own business ID of the data provider • Validation rules for ISIN code (field 9) of SBS record changed: validation rules for 2 first characters have been deleted • Sector field (field 39) of SBS record allows codes with length of 6 characters • Rule SAVE.SBS.R2 (paragraph 4.3) changed to include contracting party's home country (field 29)

1.4	24 May 2013	From 1 January 2014 to 31 October 2015	• Sector code list is changed to be based on Statistics Finland 2012 sector classification • Record descriptions and validation rules have been combined in a single table. • Validation rules pertaining to each record field have been numbered. • Validation rule (002) added in batch record field 6, combining the reporting period with the date in the name of the file. • Validation rule (002) added in SBS record field 5 (Contract type). • Field 21 (Intra-group items) added. • Field 35 (Country of issue) added. • Validation rules (002 and 003) added in SBS record field 33 (Coupon rate). The rules relate to the value reported. • File-level validation rules SAVE.SBS.R3, SAVE.SBS.R4 and SAVE.SBS.R5 added. • The introduction section has been complemented as regards legal provisions concerning the use of data and the Bank's authority to obtain information.
1.5.	24 September 2015	From 1 November 2015 to 31 December 2016	• Validation rule (002) added in SBS record field 39 (Issuer sector). The rule relates to the instrument reported
1.6	30 June 2016	From 1 January 2017	• Field 30 (Issue date) added for debt securities without ISIN code.
1.7	30 September	From 1 January 2017	• Validation rule (003) added in SBS record field 34 (Coupon frequency).

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1 INTRODUCTION

The Bank of Finland collects data from companies, financial and insurance institutions, municipalities and the state on a monthly basis on securities-based assets and liabilities. This data is used particularly by the Bank of Finland, Statistics Finland and the European Central Bank (ECB) in the compilation of financial and balance of payments statistics for Finland and the euro area. In addition, the data is used in the Bank of Finland for carrying out the ESCB-related tasks (such as monetary policy and prudential oversight). Statistical data is sent to EU and international institutions, of which the most important is the ECB. The statistics are published for use by the public on, for example, the Internet sites of the Bank of Finland and the ECB.

The Bank of Finland's authority to obtain information is based on the following legal provisions: sections 26 and 28 of the Act on the Bank of Finland (214/1998), Council Regulation (2533/1998, as amended by Regulation 951/2009) concerning the collection of statistical information by the European Central Bank and the ECB Regulation ECB/2012/24 concerning statistics on holdings of securities. The ECB guidelines ECB/2004/15 and ECB/2007/3 require a security-by-security data collection method.

This document describes the record structure used in the submission of security-by-security based data by reporting institutions.

2 SUBMISSION OF DATA TO THE BANK OF FINLAND

The report sent to the Bank of Finland on a monthly basis contains a statement on securities-based assets and liabilities in respect of securities with and without ISIN codes as well as on securities underlying repo and lending agreements.

The reports must be submitted to the Bank of Finland on the 10th banking day of the month following the reporting month, at the latest.

The data to be reported is described in more detail in separate reporting instructions for security holders and issuers.[1]

2.1 DCS data transfer

The data is submitted by the data provider or reporting entity to the Bank of Finland using the DCS service (Data Collection Service). The DCS service is maintained by the service provider, ie the DCS operator.

The reporting entity is responsible for reporting the data on a monthly basis to the DCS operator. For the purposes of data transfer, it is crucial that reporting entities compile a file with record structures as presented in this document.

The DCS operator acts as an intermediary and provides a suitable technical service platform. The service provider ensures the technical integrity and correctness of data submitted by the data provider and submits the validated data to the Bank of Finland.

When a correction needs to be made to a report that has already been sent, the entire report must be sent again to the DCS operator.

Separate instructions apply to reporting entities' procedures with the DCS operator.

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[1] Reporting instructions – Survey of security-based assets and liabilities of nonfinancial corporations, financial corporations and central government (SAVE), Bank of Finland.

2.2 Testing

Reporting may be tested by marking the contents of the report as test data (see batch record field 5). Test reports are sent to the operator in the usual manner. Test results are sent to the contact person indicated by the reporting entity.

2.3 Paper reports and dispatch of portable data media

The data is transferred primarily via the DCS operator. In exceptional cases, the reports may be sent using a separate portable data medium (such as CD) or on paper. These cases must be agreed on specifically with the Bank of Finland.

A paper report may be used to report a maximum of 10 securities.

If the report is sent using portable data media, a note must be appended containing technical information on the data media. The portable data media must be protected sufficiently for mail handling purposes.

The data is only reported once, either via the DCS operator, in portable data media, or on a paper form.

3 REPORT FILE

Report files are created as CSV (Comma Separated Value) files using a semicolon as the separator.

The character set used in the file must be ISO-Latin-1 (code name ISO 8859-1).

3.1 File structure

The file consists of a *batch record* and a variable number of *content records* describing actual data to be reported. The batch record is on the first row of the file.

Record type	Record ID (field 1)
Batch record	000
Content record	SBS

3.2 Naming of file

The name of the file consists of the code identifying the survey, ie 'SAVE', the month subject to reporting and the reporting entity's business ID without hyphen.

SAVE_<YYYY><Frequency><MM>_<Business ID without hyphen>.CSV

Example: February 2014 SAVE report:
SAVE_2014M02_01234562.CSV

3.3 Validation of file

The DCS operator validates the technical correctness of the report file. Validation is conducted at file, record and field level. Validation is performed in connection with data transfer and the reporting entity is immediately informed of possible errors.

In addition, the Bank of Finland conducts its own reviews of content on validated files transmitted by the DCS operator.

4 RECORD DESCRIPTIONS

The following general rules apply to the records:
- Fields are separated from each other with a semicolon (ASCII 59). There is no semicolon after the last field of the row.
- The contents of record fields may not contain quotation marks or CR (Carriage Return) or LF (Line Feed) characters.
- Records are separated from each other with the CR-LF character pair. The CR-LF character pair is added also to the last row of the file.
- Alphanumeric fields are demarcated with quotation marks. Quotation marks are not counted in the length of the field.
- Decimals, if any, of numeric values are separated with a comma.
- Numeric fields shall only include a negative sign.

Structure	Explanation
Number(x[,y])	Indicates numeric data. The maximum length of the field is given in parentheses. The number of potential decimals is shown with a comma. The comma and data after the comma are not obligatory if they are zeros. For example format 'Number(18,2)' indicates that the field may contain a maximum of 18 characters, of which 16 are integers and 2 decimals.
Char(x)	Indicates alphanumeric data comprising a fixed number of characters. The length of the field is given in parentheses. The value of the field is given either by leaving the field empty or entering the number of characters given in parentheses.
Varchar(x)	Indicates alphanumeric data comprising a variable number of characters. The maximum length of the field is given in parentheses.

In numeric fields the zero value is an acceptable mandatory value unless there is a specific validation rule in the field requiring another figure than zero.

If there is no data to be entered in an alphanumeric field, the field can be left empty and without quotation marks.

Fields marked as 'Reserved' are left empty and without quotation marks.

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If there is no data to be entered in the last fields of a record, the semicolons of last empty fields can be left out.

If more than one code list may be used for reporting data in a specific field, the value entered in the field must be found in one of the code lists provided (for example, country code can be chosen from the code list for countries according to ISO 3166 standard or the code list for international organisations).

Not all values in a code list are necessarily usable. For example, the sectoral classification is based on Statistics Finland's Classification of Sectors 2012, but not all sector codes are possible in this survey.

4.1 Batch record

The batch record (000 record) contains general information on the report. The report always includes one batch record, and it is the first record in the file.

4.1.1 Fields in the record

Sequence	Field	Code list	Structure	Rule	Left side	Operator	Right side
1	**Record type** "000" = Batch record	1: Record type	Varchar(4)	001	Value of 000 record field 1 (Record type)	=	"000"
2	**Type of reporting entity's identifier** Y = 'Y-tunnus' denoting the Finnish business ID	3: Type of identifier	Char(1)	001	Value of 000 record field 2 (Type of data provider's identifier)	=	"Y"
3	**Reporting entity's identifier** Business ID without hyphen in format NNNNNNNN		Char(8)	001	Value of 000 record field 3 (Data provider's identifier)	=	Valid business ID
				002	Value of 000 record field 3 (Data provider's identifier)	is in format	<NNNNNNNN>
4	**Survey code** SAVE = Survey on securities-based assets and liabilities of nonfinancial corporations,		Varchar(5)	001	Value of 000 record field 4 (Survey code)	=	"SAVE"

		financial corporations and central government					
5	**Data type** N = Test file, not transmitted to the Bank of Finland T = Test file, transmitted to the Bank of Finland P = Production data	2: Data type	Char(1)	001	Value of 000 record field 5 (Data type)	=	"N", "T" OR "P"
6	**Reporting period** Month subject to reporting in format <YYYY>M<MM> (= year-letter M for monthly reporting frequency-month)		Char(7)	001	Value of 000 record field 6 (Reporting period)	is in format	<YYYY>M<MM>
				002	Value of 000 record field 6 (Reporting period)	=	Part of file name "SAVE_<YYYY>M<MM>_<Data provider's business ID>.CSV" in format <YYYY>M<MM>
7	**Creation date** Date and time at which the report was created in format <YYYY><MM><DD><HH><MM> (= year-month-day-hour-minutes)		Char(12)	001	Value of 000 record field 7 (Creation date and time)	is in format	<YYYY><MM><DD><HH><MM>
8	**Number of rows** Number of rows in the file including batch record		Number(10)	001	Value of 000 record field 8 (Number of rows)	=	Number of rows in the file
9	**Reporting entity's comment** Possible short comment by the reporting entity		Varchar(500)				

4.1.2 Example

The batch record in the example below indicates that the test report includes 1523 rows in February 2014. The test report is not transmitted to the Bank of Finland. It is used for validating the report format with the DCS operator.

"000";"Y";"01234562";"SAVE";"N";"2014M02";"201403021254";1523;"This is a test report."

The batch record in the example below indicates that the report includes 1523 rows of production data in February 2014. The report is transmitted to the Bank of Finland.

"000";"Y";"01234562";"SAVE";"P";"2014M02";"201403021254";1523;

4.2 Content record

The actual securities-based assets and liabilities, repos and lending agreements are reported in content records.

4.2.1 Content record fields

A content record includes the following fields:

Group	Sequence	Field	Code list	Structure	Rule	Left side	Operator	Right side
Record type	1	**Record type** SBS =Security-by-security record	1: Record type	Varchar(4)	001	Value of SBS record field 1 (Record type)	=	"SBS"
	2	**Type of reporting entity's identifier** Y = Business ID	3: Identifier type	Char(1)	001	Value of SBS record field 2 (Type of reporting entity's identifier)	=	"Y"

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	3	**Reporting entity's identifier** Business ID of company on which data is reported, without hyphen, in format NNNNNNNN.		Varchar(20)	001	Value of SBS record field 3 (Reporting entity's identifier)	=	Valid business ID
					002	Value of SBS record field 3 (Reporting entity's identifier)	is in format	<NNNNNNNN>
Classifications	4	**Category** Security category code for conceptual classification of security.	4: Category	Char(1)	001	Value of SBS record field 4 (Category)	=	"A", "L" OR "R"
	5	**Contract type** Contract type code for classifying the contract type of repo or lending agreement which is valid at the end of reporting period.	5: Contract type	Char(2)	001	IF the value of SBS record field 4 (Category) = "R", THEN the value of SBS record field 5 (Contract type)	=	"RB", "RS", "LB" OR "LS"
					002	IF the value of SBS record field 4 (Category) = "A" or "L", THEN the value of SBS record field 5 (Contract type)	=	null (empty)
	6	**Instrument** Security classification code.	6: Instrument	Varchar(5)	001	Value of SBS record field 6 (Instrument)	=	"331", "332","51", "511", "512", "513" OR "52"
					002	IF the value of SBS record field 4 (Category) = "L", THEN the value of SBS record field 6 (Instrument)	<>	begins with "5"
	7	Reserved						
Instrument identification data	8	**Internal identification code** Internal unchangeable code used by reporting entity for security identification. For securities		Varchar(100)	001	Value of SBS record field 8 (Internal identification code)	=	Mandatory

		with ISIN code, the same value can be entered in this field as in field 9 (ISIN code).						
	9	**ISIN code** Security's ISIN code in accordance with ISO 6166 standard. ISIN code has the following structure: • Length 12 characters • Characters 1-2: Letters • Characters 3-11: Alphanumeric characters • Character 12: Verification number for purposes of "Modulus 10 Double Add Double" calculation		Char(12)	001	IF a value is entered in SBS record field 9 (ISIN code), the value	=	Valid ISIN code
	10	Reserved						
	11	**Instrument's name** Security's name as known by reporting entity.		Varchar(255)	001	IF no value is entered in the SBS record field 9 (ISIN code), THEN the value of SBS record field 11 (Instrument's name)	=	Mandatory
	12	Reserved						

Data on number and value	13	**Number of instruments** Number of individual instruments.		Number(24,6)	001	IF the value of SBS record field 6 (Instrument) begins with "5", THEN the value of SBS record field 13 (Number of instruments)	=	Mandatory
					002	IF the value of SBS record field 4 (Category) = "L" or "R", AND a value is entered in the SBS record field 13 (Number of instruments), THEN the value of SBS record field 13 (Number of instruments)	≥	0
	14	**Total nominal value** Aggregated nominal value of individual security with ISIN or internal identification code. Reported in selected currency rounded to two decimal places.		Number(20,2)	001	IF the value of SBS record field 6 (Instrument) begins with "33", THEN the value of SBS record field 14 (Total nominal value)	=	Mandatory
					002	IF the value of SBS record field 4 (Category) = "L" or "R", AND a value is entered in SBS record field 14 (Total nominal value), THEN the value of SBS record field 14 (Total nominal value)	≥	0

15	**Nominal currency** ISO 4217 code of currency in which total nominal value is reported.	8: Currency (ISO 4217)	Char(3)	001	If the value of SBS record field 14 (Total nominal value) $\neq 0$, THEN the value of SBS record field 15 (Nominal currency)	=	Mandatory
16	Reserved						
17	Reserved						
18	Reserved						
19	**Total market value** Aggregated market value of individual security with ISIN or internal identification code. Reported in selected currency rounded to two decimal places.		Number(20,2)	001	Value of SBS record field 19 (Total market value)	=	Mandatory
				002	IF the value of SBS record field 4 (Category) = "L" or "R", THEN the value of SBS record field 19 (Total market value)	$\geq$	0
20	**Market currency** ISO 4217 code of currency in which market value is reported.	8: Currency (ISO 4217)	Char(3)	001	Value of SBS record field 20 (Market currency)	=	Mandatory
21	**Intra-group item** "Y" = Yes "N" = No		Char(1)	001	IF the value of SBS record field 4 (Category) = "A", THEN the value of SBS record field 21 (Intra-group item)	=	Mandatory
				002	IF a value is entered in the SBS record field 21 (Intra-group item), the value	=	"Y" OR "N"
22	Reserved						

	23	**Dividends** Gross dividends paid to holder during the month. Reported in selected currency rounded to two decimal places.		Number(20,2)	001	IF the value of SBS record field 6 (Instrument) begins with "51", THEN the value of SBS record field 23 (Dividends)	=	Mandatory
					002	IF a value is entered in the SBS record field 23 (Dividends), the value	≥	0
	24	**Dividend currency** ISO 4217 code of currency in which dividends are reported.	8: Currency (ISO 4217)	Char(3)	001	IF the value of SBS record field 23 (Dividends) > 0, THEN the value of SBS record field 24 (Dividend currency)	=	Mandatory
	25	Reserved						
	26	Reserved						
	27	Reserved						
	28	Reserved						
	29	**Contracting party's home country** Contracting party's home country in accordance with ISO 3166 standard or International organisations classification.	10: Country, ISO 3166 11: International organisations	Char(2)	001	IF the value of SBS record field 4 (Category) = "R", THEN the value of SBS record field 29 (Contracting party's home country)	=	Mandatory

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	30	**Issue date** Issue date of the security in format YYYYMMDD.		Char(8)	001	IF no value is entered in the SBS record field 9 (ISIN code) AND the value of field 6 (Instrument) is "331" or 332" THEN the value of SBS record field 30 (Issue date)	=	Mandatory
					002	IF a value is entered in the SBS record field 31 (Maturity date), the value	is in format	<YYYY><MM><DD>
Maturity and coupon rate	31	**Maturity date** Maturity date of the security in format YYYYMMDD.		Char(8)	001	IF no value is entered in the SBS record field 9 (ISIN code) AND a value is entered in the SBS record field 33 (Coupon rate) AND no value is entered in the SBS record field 32 (Next coupon date), THEN the value of SBS record field 31 (Maturity date)	=	Mandatory
					002	IF a value is entered in the SBS record field 31 (Maturity date), the value	is in format	<YYYY><MM><DD>
	32	**Next coupon date** In format YYYYMMDD.		Char(8)	001	IF no value is entered in the SBS record field 9 (ISIN code) AND a value is entered in the SBS record field 33 (Coupon	=	Mandatory

						rate) AND no value is entered in the SBS record field 31 (Maturity date), THEN the value of SBS record field 32 (Next coupon date)		
					002	IF the value of SBS record field 32 (Next coupon date) is entered, the value	is in format	<YYYY><MM><DD>
	33	**Coupon rate** Interest paid on the nominal value specified in the debt security, rounded at maximum to four decimal places.		Number (22,4)	001	IF no value is entered in the SBS record field 9 (ISIN code) AND the value of SBS record field 6 (Instrument) begins with "33", THEN the value of SBS record field 33 (Coupon rate)	=	Mandatory
					002	IF a value is entered in the SBS record field 33 (Coupon rate) , the value	≥	0
					003	IF a value is entered in the SBS record field 33 (Coupon rate), the value	≤	100
	34	**Coupon frequency** Number of coupon payments per year in integers.		Number (3)	001	IF no value is entered in the SBS record field 9 (ISIN code) AND a value is entered in the SBS record field 33 (Coupon rate),	=	Mandatory

						THEN the value of SBS record field 34 (Coupon frequency)		
					002	IF a value is entered in the SBS record field 34 (Coupon frequency), the value	≥	0
					003	IF a value is entered in the SBS record field 34 (Coupon frequency), the value	≤	52
Place of issue	35	**Country of issue** Country in which the debt security is issued by the reporter in accordance with ISO 3166 classification	10: Country, ISO 3166	Char(2)	001	IF the value of SBS record field 4 (Category) = "L" AND the value of SBS record field 6 (Instrument) begins with "33" AND no value is entered in the SBS record field 9 (ISIN code), THEN the value of SBS record field 35 (Country of issue)	=	Mandatory
Data on issuer	36	Reserved						
	37	Reserved						
	38	Reserved						

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	39	**Issuer's sector** Issuer's sectoral classification code in accordance with Statistics Finland 2012 sector classification.	9: Sector	Varchar(6)	001	IF no value is entered in the SBS record field 9 (ISIN code) AND the value of SBS record field 4 (Category) = "A", THEN the value of SBS record field 39 (Issuer's sector)	=	Mandatory
					002	IF field 9 (ISIN code) of SBS record is left empty AND value of SBS record field 6 (Instrument) is "52" THEN value of SBS record field 39 (Issuer's sector)	=	"123", "124", "1241" OR "1242"
	40	**Issuer's home country** Issuer's home country in accordance with ISO 3166 standard or International organisations classification.	10: Country, ISO 3166 11: International organisations	Char(2)	001	IF no value is entered in the SBS record field 9 (ISIN code) AND the value of SBS record field 4 (Category) = "A", THEN the value of SBS record field 40 (Issuer's home country)	=	Mandatory

4.2.2 Example

SBS example 1: Share with an ISIN code.

Share with an ISIN code. ISIN code has been used as an internal identification code. Semicolons denoting last empty fields have been left in.

```
"SBS";"Y";"01234562";"A";;"51";;"FI0003021865";"FI0003021865";;;;120;;;;;;7689,83;"GBP";"N";;120,10;"GBP";;;;;;;;;;;;;;
```

SBS example 2: Security without an ISIN code.

```
"SBS";"Y";"01234562";"A";;"332";;"JVK1";;;"JVKABC";;;120400,1;"GBP";;;;130120;"GBP";"N";;;;;;;;;"20141231";;1,5;2;;;;;
"12231";"SE"
```

4.3 Report-level validation rules

The following validation rules do not relate to individual rows but pertain to the report on the whole. Empty field is also considered to be a value.

Rule SAVE.SBS.R1
- The same internal identification code (field 8) has always same values in the following fields, when data is entered:
    - Instrument (field 6)
    - ISIN code (field 9)
    - Nominal currency (field 15)
    - Issuer's sector (field 39)
    - Issuer's home country (field 40).

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Rule SAVE.SBS.R2
- Reporter's data on one foreign asset or liability must be reported on one row. There can be only one SBS record in the file with the same combination of fields:
  - Reporting entity's identifier (field 3)
  - Category (field 4)
  - Contract type (field 5)
  - Internal identification code (field 8)
  - Contracting party's home country (field 29).

Rule SAVE.SBS.R3
- Data relating to the same ISIN code must be reported as aggregated data in the selected category and contract type. If a value is reported for ISIN code (field 9), there can be only one internal identification code (field 8) for a specific individual ISIN code among securities reported with the selected combination of category (field 4) and contract type (field 5).

Rule SAVE.SBS.R4
- A security reported under repo and lending agreements and sold or delivered to a non-resident must also be reported as a security-based asset. An ISIN code (field 9) reported with category R (field 4), contract types RS or LS (field 5) must be found in SBS records among ISIN codes reported with category A.

Rule SAVE.SBS.R5
- A file may contain data on one reporting company only. There can be only one reporting entity identifier (field 3) in SBS records.