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Integrated Monetary Financial Institution's data collection framework at the Bank of Finland

Prepared by Bank of Finland

Summary

The paper presents a case study on the data collection process, tools and services of the Monetary Financial Institutions' (MFI) data at the Bank of Finland. In Finland the statistical reporting requirements for the MFIs' have been integrated into one framework. Datasets collected on a granular level makes it possible to compile statistics for different purposes and with different aggregation levels from the same coherent dataset. Time series for the ECB and international organizations are compiled by the Bank of Finland. Data are also sent via pipeline to Statistics Finland for the compilation of BoP and Financial Accounts. The supervisory needs are not integrated into the statistical data collection, but the Financial Supervisory Authority has the right to use the statistical data for supervisory purposes.

All units included in the target population are surveyed. The large part, 98 per cent, of balance sheet total is surveyed monthly basis. Smaller units are covered quarterly. The data collection is carried out via two alternative modes: data files according to predefined reporting framework and the web-survey questionnaire. Furthermore, part of the data validation is integrated already into data collection. The response burden is minimized by collecting directly only the part of the data that cannot be derived from the reference sources. After the data has entered into the compilation systems, it is enriched and all needed estimations are made. Cooperation with the respondent agents is important part of the statistical work and is carried out via seminars and continuous respondent support. Respondent satisfaction is measured annually via satisfaction survey. The target is to have high service level and satisfaction for data providers and users.

I. The data collection rights and data sharing within the Bank of Finland

1.   The basic requirements for the data collection are defined in the European Central Bank's regulation ECB (867/2016). Data is collected under the Act on the Bank of Finland (214/1998). In the chapter 1 and section 3 the Act defines the tasks of the Bank of Finland and the data collected within the survey can be used for serving these tasks.

2.   The task of the Bank of Finland shall be to contribute to the execution of monetary policy as defined by the Governing Council of the European Central Bank.

3.   The Bank of Finland shall also:

- contribute to maintenance of the currency supply and issuance of bank notes;

- contribute to holding and management of foreign exchange reserves;

- participate in maintaining the reliability and efficiency of the payment system and overall financial system and participate their development; and

- provide for the compilation and publication of statistics as necessary for carrying out its tasks.

4.   That is the data can be shared also in the micro-level, if it is needed to carry out the tasks of the Bank of Finland.

II. The target population of Finnish MFI survey

5.   According to ESA 2010 MFIs consist of three group Central bank, Deposit-taking corporations except central bank and Money market funds (MMFs). Under ESA 2010 (2.67) the population of MFIs is defined by the ECB. The target population for the survey is defined according to MFI-list maintained by the ECB.

6.   That is, institutions that belong to the list are part of the target population. Regulation EU (1071/2013) of the ECB defines in the article 4 following:

List of MFIs for statistical purposes

1. The Executive Board shall establish and maintain a list of MFIs for statistical purposes, taking into account the requirements in respect of frequency and timeliness which arise from its use in the context of the ECB's minimum reserve system. The list of MFIs for statistical purposes shall include an entry on whether or not they are subject to the ECB's minimum reserve system. The list of MFIs shall be up-to- date, accurate, as homogeneous as possible and sufficiently stable for statistical purposes.

2. The list of MFIs for statistical purposes and its updates shall be made accessible by NCBs and the ECB to the reporting agents in an appropriate manner, including by electronic means, via the internet or, at the request of the reporting agents, in paper form.

3. The list of MFIs for statistical purposes shall be for information only. However, if the latest accessible version of the list is incorrect, the ECB shall not impose sanctions on any entity which did not properly fulfil its statistical reporting requirements to the extent that it relied in good faith on the incorrect list.

7.   In January the total number of MFIs in Finland was 278. The MMFs are not collected via MFI data collection. In Finland information from MMFs, 10 respondents in Finland, is collected within Investment fund's data collection (IFs). That is, the number of respondents for the MFI data collection, including the central bank, is 268.

8.   All units included in the target population are surveyed, but the reporting agents can apply for the derogation and report only quarterly level if they are not significant. The large part, 98 per cent, of balance sheet total is surveyed on a monthly basis and only 2 percent are covered quarterly. Number of full reporters, agents reporting at monthly level, was 219 in January 2018. Number of tail reporters, reporting quarterly, was 49.

III.   The data contents of Finnish MFI data collection and enriched items

9.   The data contents of the Finnish MFI data collection is defined at the dedicated web page   (https://www.suomenpankki.fi/en/Statistics/reporting-instructions/mfi-data-collection/). The data contents are very detailed. The report includes all parts of the MFI balance sheet. It consists of three files balance sheet (BS record), securities (SBS record) and loans and deposits (LD record). The data collected is very granular. Securities are reported (SBS record) at the agreement level. Each security is reported. BS record and LD record are aggregated records. Also these records are very detailed but single loans and deposits are not reported. On average the three largest reports alone include 20 000 rows whereas a median report is approximately 1 100 rows. Smallest reports contain fewer than 10 rows.

10.   The major classifications within reporting framework are sectoral, industrial, country and currency classifications. The requirements for the sectoral and industrial classifications at MFI guidelines are satisfying the needs of national accounting. The country and currency breakdowns are more detailed for Balance of Payments requirements. The Bank of Finland collects these classifications directly at the level needed by Balance of Payments. There are also other classifications referring to allocation of balance sheet items, collaterals, maturity, interest rates, size of loan, intra-group items and loan purposes.

11.   As mentioned above securities data (SBS record) is collected at the security level. For these data only value and identification information is collected directly and then enriched from other data sources. That is, all classifications are enriched for the securities from the ECB's centralized securities database (CSDB) or from the national business register, which is received from the Statistics Finland.

IV.   The data collection process and tools

12.   Very detailed reporting requirements and monthly production cycle implies that data collection has to be automatized to high extent. The Bank of Finland offers to reporting agents two modes of data transmission: data files (csv-format) according to predefined reporting framework and a web-survey questionnaire. Automated data delivery is supported. This means that the data collection guidelines are published on web pages and expert-support is provided for the reporting agents so they can map their accounting systems to meet statistical data collection requirements.

13.   Only for the smallest reporters it is rational to use web survey and the vast majority uses the automated approach. The automated reporting improves the accuracy and quality of the data collection because there are no data entry errors in the automated approach. For the large scale reporters it is impossible to fully automatize the data collection due to massive amount of granular data. The reporting involves manual phases at reporter side where data for the reporting has to be collected from several databases.
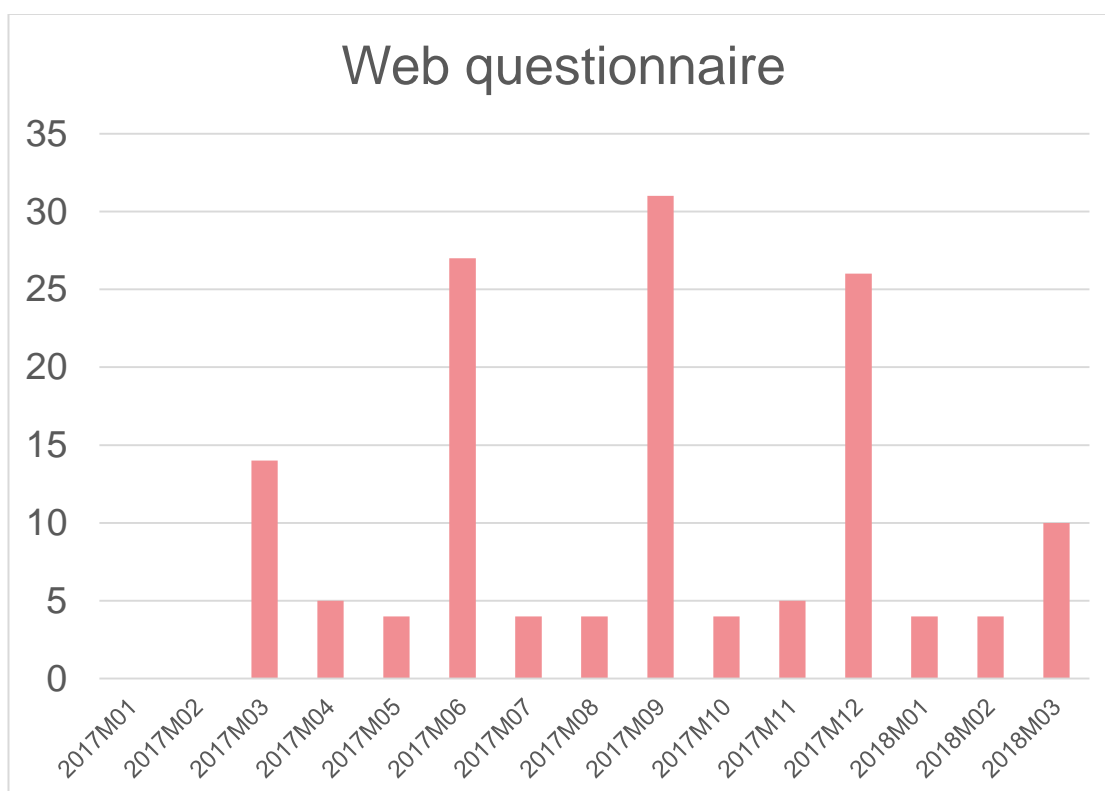
14.   Fewer than 10 reporting agents monthly use the web questionnaire. In January and Febuary 2017 there was no use of web questionnaire. For the quarterly reporting there is increase in the use of web survey due to smaller tail reporters. They report only quarterly

and have less content in the reports than larger ones. That is, they have less incentives to develop and use automated reporting.

15.   IT development and maintenance of data collection tools is outsourced to the external service provider.   We communicate with our service provider on weekly bases as the majority of technical issues are addressed to us by our reporting entities but can only be solved by the service provider. In addition to this we cooperate closely to carry out minor adjustments in our surveys and when launching any new surveys. All changes are tested and approved by our staff, and after completing the comprehensive testing changes are introduced into the production environment. The service provider has separate environments for testing and production which both are available for our staff as well as the reporting entities.

Graph 1
Use of web-questionnaire, number of reports

V.   The data validation and editing process

16.   The reports are validated when they enter to the Bank of Finland system. Only reports which are formally valid can enter the system. In practice assets has to equal liabilities before data will be transmitted to the Bank of Finland. The deadline for the reports is roughly two weeks (ten banking days) post the reference month. There is less than one week for the data treatment in the Bank of Finland. During this period data is enriched with classifications from additional data sources, the derived attributes are calculated, potential errors are traced and reporting agents are contacted to confirm or to correct the figures. The reporting agents have time to revise the figures until next month's data delivery.

17.   A new snapshot of the data is saved to the audit dimension in order to leave possibilities for further data developments around 20th - 23rd of t+1 month. Then data is transmitted to the ECB. Each month 4 500 time series on balance sheet data are transmitted and 5 500 each quarter. Also 200 aggregated interest rate series are transmitted each month. That is, the aggregated data is required in very granular level. In addition 5 000 individual bank level series are send each month. An important part of the validation process is feedback reports from the ECB. The monthly feedback reports are received 1-3 days after the data transmission to ECB. In the feedback report major changes are highlighted and the comments from the Bank of Finland are expected within few days timeframe.
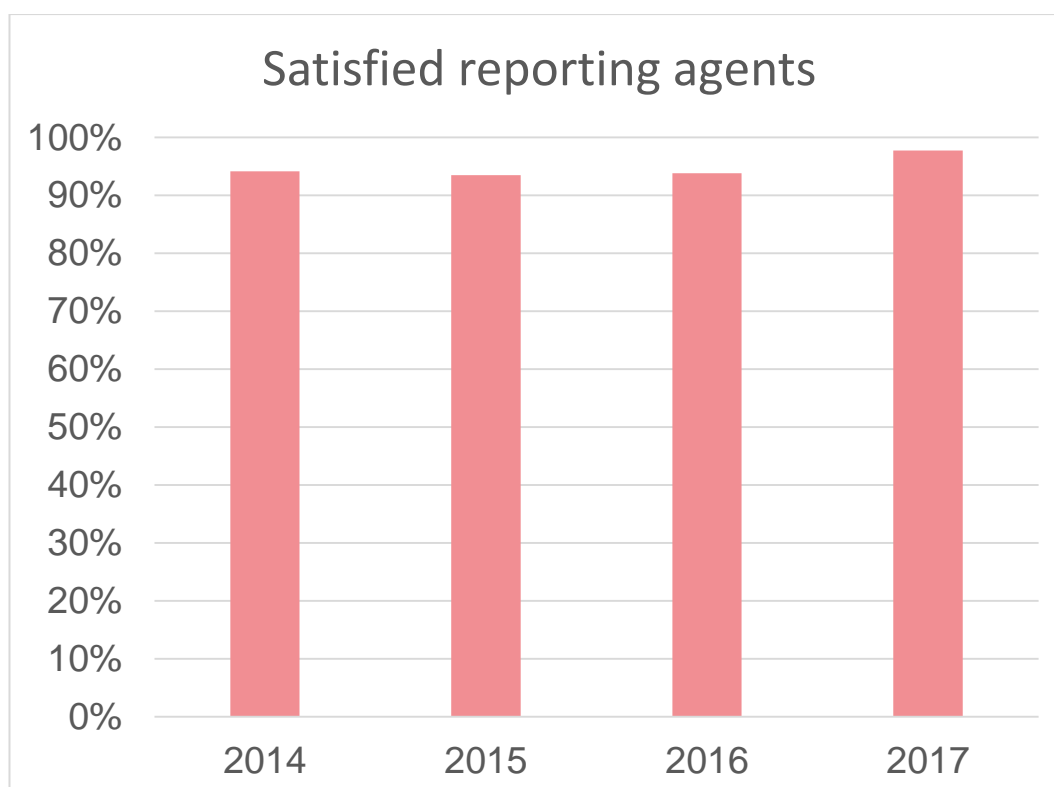
VI.   Co-operation with respondents

18.   We annually host two regular meetings at the Bank of Finland for full and tail reporters. The meetings cover themes relating to expected changes in data collection, challenges in reporting and new projects relating to reporting requirements. Usually changes in data collection relate nationally relevant special themes. Challenges in reporting are introduced when we observe that several reporting agents encounter similar issues in their reports. Major project that has been discussed with the reporting agents recently is analytical credit database (AnaCredit).

19.   We regularly collect feedback from the respondents and it appears that the reporting agents in general are content with the co-operation and implementation of the data collection process and in recent years we have experienced increase in satisfaction levels. However, the ever increasing demands such as AnaCredit are not yet reflected in the satisfaction levels.

Graph 2
Satisfied reporting agents, %

VII. Co-operation with Statistics Finland

20.   The granular MFI data is sent via pipeline to Statistics Finland every month same time as it is sent to ECB. Statistics Finland uses the data for the production of Balance of Payments (BoP) and Financial Accounts (FA). The Bank of Finland also receives the business register, BoP and FA data from Statistics Finland for development, production and quality improvement of statistics for which it is responsible. Under the national legislative framework economists from the Bank of Finland Statistics unit participate in meetings at Statistics Finland prior to publication of FA and BoP data. This is crucial because the Bank of Finland is responsible for the transmission of Finnish FA and BoP to the ECB.

21.   The right to share data is based on the following regulations and MoUs:

1) The MoU between the Bank of Finland and Statistics Finland covers all data exchange and there is regular procedure for updating it annually.

2) The right of Statistics Finland to access administrative data is defined in the Statistical Act 280/2004 section 14. The right of the Bank of Finland to receive data from Statistics Finland is guaranteed by the Statistics Act (280/2004), section 12.

3) According to Article 21 of the Regulation EC (223/2009) of the European Parliament and of the Council of 11 March 2009 on European statistics transmission of confidential statistical data is possible within ESS and between ESS and ESCB.

4) Article 8 of Council Regulation EC (2533/1998) enables member states to share confidential data within ESCB and between ESCB and ESS.

VIII. Way forward

22.   Further integration of data collection needs to be investigated. Reporting requirements are increasing and simultaneously reporting frameworks are adjusting. New requirements should not duplicate the work for the reporting agents, we need to form a plan on how to integrate new reporting requirements to existing frameworks. Also in the globalized world reporting should be coordinated between countries so that global financial enterprises do not have to implement a different solutions for each country.

23.   Activities:

1) To investigate integrating supervisory data collection with statistical data collection.

2) To investigate AnaCredit data collection and to integrate it with traditional MFI data collection, where applicable.

3) To participate actively ESCB initiatives BIRD and IReF which support more integrated reporting for the MFIs

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