

Quality Management of Statistics at the Bank of Japan

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Abstract

The Bank of Japan compiles a wide range of economic statistics, such as financial statistics, short-term economic survey “Tankan,” and price indexes. As the central bank of Japan, the bank’s activities to compile statistics involve two challenges: the bank relies solely on voluntary cooperation by data contributors in collecting the data, while at the same time, it needs to meet high expectations from the public for the bank’s good quality management of its statistics. In such circumstances, the bank has assured the quality of its statistics by making them compliant with “The Basic Principles for the Compilation, Release, and Development of Statistics” which the bank published in 2009, and by periodically reviewing the bank’s daily operations under the control self-assessment system since 2007. This paper will elaborate on how these principles and the framework for quality management are applied to the bank’s statistics by taking up the case of Tankan, which draws a great deal of attention from the media, economists and policy makers. Specifically, it will explain how the bank has made the Tankan accurate, useful, transparent, but not too burdensome for respondents under the guideline. Comparisons and studies with other quality management models, such as the European Statistics Code of Practice, will also be presented.

1. Principles and framework for quality management of statistics at the Bank of Japan

1-1. “The Basic Principles for the Compilation, Release, and Development of Statistics”

The Bank of Japan (BOJ) published “The Basic Principles for the Compilation, Release, and Development of Statistics” (hereafter referred to as the “Basic Principles”) in 2009 for the quality assurance of statistics compiled by the BOJ. [1] The Basic Principles consist of seven categories in various aspects, such as provision of accurate and

appropriate statistics, improvement of the convenience for statistics users, enhancement of transparency, reduction of the burden on reporting entities, strict confidentiality in data management, and improvement in the efficiency of statistics production operation.

The background to compiling such Basic Principles is the full revision of the Statistics Act (Act No.18 of 1947, hereafter referred to as the “Previous Statistics Act”) for the first time in 60 years. The revised Statistics Act (Act No.53 of 2007, hereafter referred to as the “Current Statistics Act”) came to effect from April 1, 2009. The Current Statistics Act, “recognizing that official statistics are critical information for the citizens in their reasonable decision making,” stipulates that official statistics shall be developed in a systematic and efficient manner. Only a few of the statistics compiled and released by the BOJ (hereafter referred to as “BOJ Statistics”) were covered by the Previous Statistics Act, but the Current Statistics Act defines all BOJ Statistics as “official statistics” and requires that they be in accordance with the fundamental principles of the Current Statistics Act.

In March 2009, the Cabinet decided on the “Master Plan Concerning the Development of Official Statistics” (hereafter referred to as the “Master Plan”), in order to comprehensively and systematically promote measures concerning the development of official statistics. The Master Plan outlines in a concrete manner what official statistics should be, the range of obstacles facing the production of official statistics, including the deterioration of the survey environment and resource constraints, and measures to overcome such obstacles.

Under the Current Statistics Act, all statistics compiled and released by the BOJ are treated as official statistics. In addition, the government has outlined in a concrete

manner various problems and priorities concerning official statistics, and measures to counter them in its Master Plan. The BOJ has therefore decided to examine anew its basic principles and to compile the Basic Principles to ensure the quality of compilation, release, and development of statistics, and to make them public.

1-2. CSA

In parallel with the publication of Basic Principles, the BOJ introduced a control self-assessment system (hereafter referred to as the “CSA”) in 2007 as a framework of internal review of the BOJ’s daily operations. The background to the introduction of CSA was to cope with the increase in the necessity of “internal control” of diversified and complex risks in the various daily operations at the BOJ. The CSA is broadly known as one of the risk control systems in the field of business management. The CSA applies bottom-up approach which fully utilizes the self-assessment by the persons taking part in the daily operations, which differs from the top-down approach system. Therefore, the CSA is regarded as an effective system in discovering risks thoroughly, which could then be exterminated in advance, and prevent contingencies.

The BOJ conducts the CSA every two or three years. The section compiling statistics at the BOJ also involve the CSA activities taking into account the Basic Principles above mentioned in 1-1. On the CSA process, all daily operations at the BOJ are carefully reviewed, and the risks that supposedly exist in the daily operations are fully detected. The risks detected are examined and judged on the basis of the degree to which they are already controlled, and the level of risks that still remain.

The results of CSA are for internal use only, and are not published for external use. The risks that remain will continue to be observed until the next CSA implementation.

The measures to exterminate the risks are considered and then implemented. In the next CSA activities, the same processes are carried out. Through such “PDCA” cycles, the BOJ continues to achieve risk reduction and the improvement of the quality of statistics.

2. Application of Basic Principles in the case of Tankan

In this section, the ways in which the Basic Principles are applied to the Short-term Economic Survey of Enterprises in Japan (hereafter referred to as the “Tankan”) will be explained. [2] [3] In the following explanations, the quality management of Tankan is presented. It will be clarified that the quality of Tankan is fully assured.

2-1. A brief explanation of Tankan

The Tankan is a statistical quarterly survey conducted by the BOJ in accordance with the Current Statistics Act. The Tankan has a long history since its first publication in 1957, previously referred to as “Principal Enterprises TANKAN.” The Tankan is conducted with the aim to provide an accurate picture of business trends of enterprises in Japan, thereby contributing to the appropriate implementation of monetary policy. Current Tankan survey items consist of four groups: (a) “Judgment Survey,” (b) “Annual Projections,” (c) “Inflation Outlook of Enterprises,” and (d) “Number of New Graduates Hired (surveyed only in June and December).” They are all surveyed on a non-consolidated basis.

2-2. The main workflow up to the release of Tankan

For each survey, we send the survey forms to the sample enterprises (currently about 10,000) by mail or online about one month prior to the scheduled survey release date (in principle, at the beginning of April, July, October, and mid-December).

The completed survey forms are sent back either to the BOJ head office (Research and Statistics Department) or to the branch offices. After the responses are keyed into the aggregation system at the head office, they are reviewed by the sections in charge. When necessary, staffs in charge at the head office or branches contact respondents by phone with requests for clarification or confirmation.

At the head office, the answers are reviewed again, and then the results are calculated for publication.

2-3. Ensuring Confidentiality (corresponding to Basic Principle 5)

The survey results prior to the release date and the figures of individual enterprises of the Tankan are kept strictly confidential based on internal rules.

The entire compiling process of each Tankan survey is undertaken in an area physically separated from other sections of the BOJ, and staff members other than those designated are kept out from the area during the survey period. Paper based confidential information is handled by a limited number of staff members and are kept securely locked, and electronic based confidential materials are protected by passwords.

Not a single member of staff is allowed access before finalizing the results on the date of release, and even during the release date, the number of people in charge of handling the material prior to the release time (released at 8:50 a.m.) is limited.

2-4. Achievements in advancing the publication date (corresponding to Basic Principles 2, 6)

The release date of Tankan has been moved forward by around one week since the August 1996 survey (the August survey corresponds to the present September survey).

This was made possible by the following two measures: (a) revising the release content, and (b) ending the reporting of survey results to the board before release. (As a result, it now takes about one month from sending the survey sheets to releasing the survey results.)

From the March 1999 survey, “The Comprehensive Data Set” (paper format) has been released about two weeks earlier mainly as a result of streamlining the workflow. Also, from the December 2000 survey, “The Comprehensive Data Set” (electronic format) and the “long-term time series data” have been released one business day earlier.

2-5. Main points of the March 2014 “Revisions of the Tankan survey items” (corresponding to Basic Principles 1 - 4, 6, 7)

In March 2014, the following revisions were made in order to maintain and further improve the quality of the Tankan survey for users as well as to reduce the burden on survey respondents.

2-5-1. Abolition of some survey items

Taking account of the benefits of the survey item to its users, the burden on survey respondents, and the overlap between the survey item and other statistics, the following items have been abolished: Material Costs, Personnel Expenses, Depreciation, Financial Income, and Financial Expenses of “Annual Projections,” and all items of “Quarterly Data.”

2-5-2. Introduction of survey on “Inflation Outlook of Enterprises”

A survey on “Inflation Outlook of Enterprises,” which is deemed to provide a better grasp of economic and price conditions, has been introduced. The BOJ believes that

the gathering of information with regard to inflation expectations will support effective decision-making by businesses as well as facilitate the assessment of economic conditions.

2-5-3. Revision of sample enterprises for “Conditions for CP Issuance”

“Conditions for CP Issuance (Based on CP-Issuing Enterprises),” which had been released only as reference data until the December 2013 survey, has been changed to official data. The definition of “CP-Issuing Enterprises” was expanded to include “large enterprises with 1 billion yen and more in capital that are considering CP issuance at a future date” as well as “large enterprises with 1 billion yen and more in capital that issued CP at least once in the past two years.”

3. Comparison of Quality Management between BOJ Statistics and European Statistics

3-1. COP and Quality Assurance Framework for European Statistics

The European Statistics Code of Practice (hereafter referred to as the “COP”) is the standard for developing, producing and disseminating European statistics. [4] [5] The COP was introduced by the adoption of the Statistical Programme Committee in 2005 and defined as the quality criteria for European Statistics in European Statistical Law in 2009. The current version of COP has been set by the revision made in 2011. Together with the new version of the COP, the European Statistical System Committee adopted the Quality Assurance Framework. The Quality Assurance Framework serves as guidance on how to implement the COP.

The COP consists of 15 principles, covering the institutional environment (6 principles),

the statistical production process (4 principles), and the output of statistics (5 principles). The statistical authorities, comprising the Commission (Eurostat), National Statistical Institutes (NSIs) and other national authorities of Member States commit to the COP. The Eurostat and the national statistical offices evaluate their statistics according to the COP. The European Statistical Governance Advisory Board (ESGAB), a body of independent statistical experts, was created in 2008 to provide an independent overview of the European Statistical System (hereafter referred to as the “ESS”¹) as regards the implementation of the COP. ESGAB evaluates the results of Eurostat and national statistical offices and publishes reports with recommendations regarding the COP and the ESS as a whole. Through this process, the quality assurance of European statistics as a whole is presented to the public.

3-2. Difference in Quality Management between BOJ Statistics and European Statistics

Comparing the Basic Principles to COP, the principles included in both are almost all the same. There are two principles that are not included in the Basic Principles, but are in the COP, which are “professional independence,” “mandate for data collection” corresponding to COP 1 and 2 respectively. Those two principles are already covered by the Japanese Law: the former by the Bank of Japan Act (Act No.89 of June 18, 1997) in the Article 5 that stipulates the public nature of the BOJ’s business and its autonomy, and the latter by the Current Statistics Act in the Article 2 that stipulates definition of terms, and the Article 25 that stipulates statistical surveys conducted by “incorporated

¹ The ESS forms partnerships among the Community statistical authority, which is the Commission (Eurostat), and the NSIs and other national authorities responsible in each Member States for the development, production and dissemination of European Statistics. This partnership also includes the EEA and EFTA countries.

administrative agencies, etc.” which includes the BOJ.

The Basic Principle 4, which expands further the content of COP 9, mentions further details compared to the COP about the information provision to reporting entities to obtain their cooperation for the statistics survey. This is because the statistics conducted by the BOJ are treated as the “official statistics” by the Current Statistics Act, but the Current Statistics Act does not stipulate the obligation to report by the reporting entities regarding the official statistics compiled by the BOJ. In addition, the Basic Principle 3, which also elaborates the contents of COP 6, 15, mentions further details compared to the COP about conducting an announcement in advance to receive opinions and comments from a broad range of users and reporting entities, when the BOJ plans substantial revisions of statistics.

From the viewpoints other than principles above mentioned, there are differences in quality management between the BOJ Statistics (with Basic Principles and CSA) and the European Statistics (with COP and Quality Assurance Framework) in the following two aspects: the publication and frequency of implementation. The result of quality evaluation of European Statistics is published by the ESGAB. On the other hand, that of the BOJ Statistics is not published, but utilized only for internal use. Regarding the frequency of quality checks, those on the European Statistics are implemented every year, while those on the BOJ Statistics are conducted every two or three years through the CSA activities.

4. Remaining issues and the Way Forward

The BOJ compiles and publishes statistics according to the Basic Principles and reviews the quality of statistics every two or three years through the CSA activities.

Comparing the Basic Principles to COP, while there are similarities between these principles, there are also differences between the two, in terms of the publication, and the frequency of implementing the quality management of statistics. The BOJ will continue to make efforts in improving the quality of BOJ Statistics. In addition, we would like to learn from the experiences of European statistics, referencing to the COP and their Quality Assurance Framework.

References:

[1] Bank of Japan (2009), Bank of Japan's Basic Principles for Statistics: "The Basic Principles for the Compilation, Release, and Development of Statistics" and Present Priorities in the Development of Statistics. http://www.boj.or.jp/en/statistics/outline/general_notice/ron0903a.htm

[2] Bank of Japan (2014), Explanation of the Short-Term Economic Survey of Enterprises in Japan (*Tankan*).
<http://www.boj.or.jp/en/statistics/outline/exp/tk/extk03.htm>

[3] Bank of Japan (2014), FAQ (Frequently Asked Questions) on *Tankan* (Short-term Economic Survey of Enterprises in Japan).
<http://www.boj.or.jp/en/statistics/outline/exp/tk/faqtk03.htm>

[4] Eurostat (2011), European Statistics Code of Practice. http://epp.eurostat.ec.europa.eu/portal/page/quality/code_of_practice

[5] Clarke, S. (2012), The ESS Quality Assurance Framework and its role supporting the Code of Practice.
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