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A New Scheme for the Electronic Reporting of BOP Statistics

Prepared by the Bank of Japan

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Bank of Japan

A New Scheme for the Electronic Reporting of BOP Statistics

Ⅰ. Anticipated improvements in the BOP statistics following implementation of our online development project

The Bank of Japan (BOJ) has embarked on a project to implement a system for the online reporting of balance of payments data via Internet instead of using paper documents or MT. The project will require about 2,000 man-months to complete and will be the largest ever decentralized data processing system development at BOJ. We plan to introduce the new electronic reporting system in the beginning of 2005 (paper-based reporting will remain optional).

Based on the 'e-Japan' project, which the Japanese Government announced last March, the new system will enable the reports and notices (in the case of BOP data being reported to the Ministry of Finance (MOF)) to be effected via Internet, with a view to improving reporters' convenience and administrative efficiency.

BOJ believes that this project will contribute to improving the quality of BOP statistics in the following way:

First, this will enable us to collect data and compile statistics more swiftly and efficiently. We are preparing ― avoiding an excessive burden on reporters ― for the more frequent dissemination of regional balance of payments (Summary Table: semi-annually → quarterly; portfolio investment and direct investment: semi-annually → monthly), and new publication of the balance of payments by currency (portfolio investment) and by industry (direct investment), which is hoped to contribute to improvement in Japan's BOP statistics.

Second, taking this opportunity, MOF and BOJ have reviewed all aspects covering data collection, compilation and dissemination of statistics (BPR: business process reengineering), enabling reporters to streamline the whole process and compile statistics of higher quality for users.

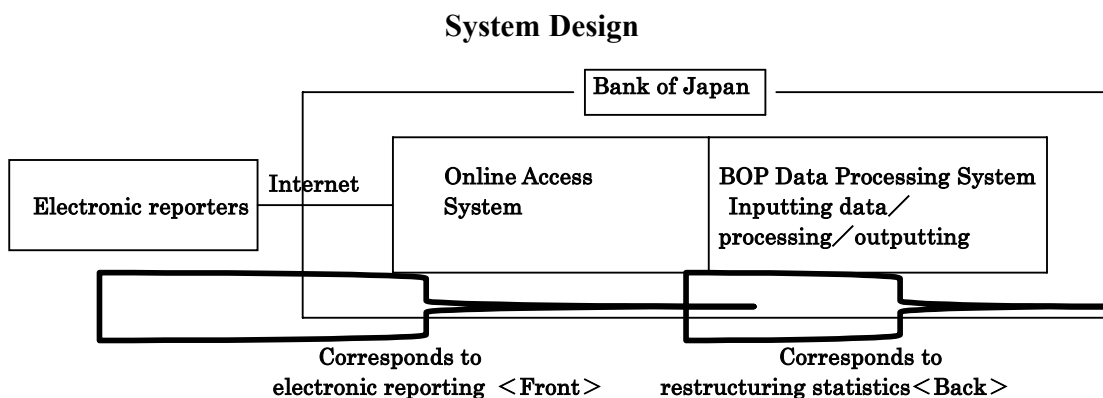① Methodological improvement will contribute to improving accuracy and

integrity as well as reliability.

　② Reporters will be able to input data electronically instead of manually drawing up paper documents, which should reduce processing errors such as misreporting or misinputting.　Besides, we will provide a complete FAQ and take concrete measures for promoting reporting, which will contribute to improving the quality of data sources as well as the accuracy of statistics.

Ⅱ．Outline of the project

(1) Basic principles

　　　Together with the introduction of the online access system, data processing procedures are to be restructured with a high level of computerization.　A key feature is that all procedures from collection of data to compilation of statistics will be electronically processed, instead of using printed outputs, which will eventually lead to straight-through processing (STP).　There are three objectives that this project is aimed at.

System Design

	Bank of Japan	
Electronic reporters	Internet　Online Access System	BOP Data Processing System Inputting data／processing／outputting

Corresponds to
electronic reporting ＜Front＞

Corresponds to
restructuring statistics＜Back＞

① General usability and user convenience
　　　First, since the system may be used by a large and diverse group of reporters covering non-financial companies, financial institutions and individuals, it will be designed for Internet use, which is an open and extensive network.　This will contribute to enhancing user convenience.

② Security

Second, a security-conscious approach is indispensable for both gaining reporters' confidence and protecting BOJ's LAN/WAN infrastructure from external crackers. With respect to the former, since BOP reports involve information regarding reporters' rights and duties as well as their privacy, special consideration has to be given to network security to prevent the risk of revealing other's information. Hence, we plan to introduce (1) advance applications of client-application programs by reporters, (2) user authentication by Identification Number, password, and one-time password, (3) server authentication, (4) encryption on the communication line, and (5) acquisition of logging record. With respect to the last, we are discussing setting up two firewalls between Internet open network and BOJ's LAN/WAN infrastructure.

③ Maintainability

Third, the current BOP data processing system is a complicated system composed of eight sub-systems (each of which is devoted to specific reports) and a main-system. Since application program architecture differs, the maintenance workload in managing change of specification requires considerable manpower (three staff workers are constantly engaged in maintenance). Since BOP statistics is subject to frequent review as is being discussed by the IMF BOP Committee, we plan to develop the system of higher maintainability, which can be smoothly adapted to such future reviews.

(2) Outline

The main feature of the online reporting system is summarized as follows. MOF, related ministries and reporters (its agents) who require online access will have to install the program in their computers connected by Internet, before they become able to electronically send (upload) or receive (download) BOP reports at their Internet terminals.

An outline of online reporting is illustrated in the attached diagram.

① Using the program, reporters electronically send reports at their Internet terminals to the BOJ terminals.

② Upon electronically receiving reports, BOJ verifies whether required information has been filled in.

③ BOJ transfers reporting information to a server for the exclusive use of MOF and related ministries in the Access Server.

④ BOJ transfers reporting information to the BOP data processing system for compilation of BOP statistics. BOJ then transfers BOP data to the Access Server for the exclusive use of MOF and related ministries.

⑤ MOF and related ministries electronically receive (download) individual reports and BOP statistics (only in the case of MOF) from the Access Server.