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**Japan: Report on Observance of Standards and Codes—
Data Module, Response by the Authorities, and Detailed Assessments Using the
Data Quality Assessment Framework (DQAF)**

This Report on the Observance of Standards and Codes on Data Module for **Japan** was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on **March 9, 2006**. The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of Japan or the Executive Board of the IMF.

The Response by the Authorities on this report, and the Detailed Assessments Using the Data Quality Assessment Framework (DQAF) are also included.

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JAPAN

Report on the Observance of Standards and Codes (ROSC)—Data Module

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March 9, 2006

The Report on the Observance of Standards and Codes (ROSC) data module provides an assessment of Japan's macroeconomic statistics against the Special Data Dissemination Standard (SDDS), complemented by an assessment of data quality based on the IMF's Data Quality Assessment Framework, July 2003 version (DQAF). The DQAF lays out internationally accepted practices in statistics, ranging from good governance in data-producing agencies to practices specific to datasets.

The datasets assessed in this report are: national accounts, consumer and producer price indices, government finance statistics, monetary statistics and balance of payments statistics. The agencies that compile the datasets assessed are the Economic and Social Research Institute, Cabinet Office (ESRI), the Ministry of Internal Affairs and Communications (MIC), the Ministry of Finance (MOF), and the Bank of Japan (BOJ).

The datasets to which this report pertains can be accessed in print and on the Internet:

Economic and Social Research Institute, Cabinet Office
: http://www.esri.cao.go.jp/index-e.html
Ministry of Internal Affairs and Communications
: http://www.stat.go.jp/english/index.htm
Ministry of Finance : http://www.mof.go.jp/english/index.htm
Bank of Japan : http://www.boj.or.jp/en/stat/stat_f.htm

This report is based on publicly available information and on information provided prior to, and during, a staff mission from the IMF's Statistics Department during September 12–28, 2005. The mission team was headed by Ms. Lucie Laliberté and comprised Messrs. Ulhas Gunjal, Robert Heath, Mick Silver, Hidetoshi Takeda, Bent Thage (expert), Mmes. Sagé De Clerck and Nataliya Ivanik, and Ms. Stella Addo (Administrative Assistant)—all IMF Statistics Department except the expert.

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ACRONYMS

1993 SNA	*System of National Accounts 1993*
ACNA	Advisory Committee on National Accounts
BOJ	Bank of Japan
BOJL	*Bank of Japan Law*
BPM5	*Balance of Payments Manual*, fifth edition
CAO	Cabinet Office
CGPI	Corporate Goods Price Index
COICOP	Classification of Individual Consumption by Purpose
CPI	Consumer Price Index
DNA	Department of National Accounts (ESRI)
DQAF	Data Quality Assessment Framework, July 2003 version
DSBB	Dissemination Standards Bulletin Board (IMF)
EPA	Economic Planning Agency
ESRI	Economic and Social Research Institute
FEFTL	*Foreign Exchange and Foreign Trade Law*
FDI	Foreign Direct Investment
FIES	Family Income and Expenditure Survey
GDP	Gross Domestic Product
GFS	Government Finance Statistics
GFSM 1986	*A Manual on Government Finance Statistics, 1986*
GFSM 2001	*Government Finance Statistics Manual 2001*
METI	Ministry of Economy, Trade and Industry
MFI	Monetary and Financial Institutions
MFSM	*Monetary and Financial Statistics Manual*
MIC	Ministry of Internal Affairs and Communication
MOF	Ministry of Finance
NA	National Accounts
NSDP	National Summary Data Page
PC	Personal Computer
PPI Manual	*Producer Price Index Manual: Theory and Practice, 2004*
PPI	Producer Price Index
QE	Quarterly national accounts—expenditure side
ROSC	Report on the Observance of Standards and Codes
RPS	Retail Price Survey
SB	Statistics Bureau
SDDS	Special Data Dissemination Standard
SRTI	Statistical Research and Training Institute
SL	*Statistics Law* (No. 18, 1947, as amended)
VAT	Value Added Tax

I. OVERALL ASSESSMENT

1.   Japan has been subscribing to the IMF's Special Data Dissemination Standard (SDDS) since July 3, 1996 and started posting its metadata on the Dissemination Standards Bulletin Board (DSBB) on November 5, 1996. Japan met the SDDS requirements on June 9, 2000 and is currently in observance of the SDDS. It meets the SDDS specifications for coverage, periodicity, and timeliness. Japan exceeds the periodicity and/or timeliness requirements for most real and external sector data. It takes a timeliness option[1] for general government operations data; periodicity and timeliness options for data on central government operations; an "as relevant" provision[2] for the analytical accounts of the banking system, owing to its extensive bank branch network; and a calendar flexibility option for the international investment position. The SDDS data categories are disseminated on Japan's National Summary Data Page (NSDP), which is included on the DSBB website and is updated on a timely basis. Appendix I provides an overview of Japan's dissemination practices compared to the SDDS.

2.   This Report on the Observance of Standards and Codes (ROSC) data module contains an assessment of Japan's national accounts (NA), consumer price index (CPI), corporate goods price index (CGPI),[3] government finance statistics, monetary statistics, and balance of payments (BOP) statistics. The assessment is based on the IMF's Data Quality Assessment Framework (DQAF), July 2003 version. Section I presents the mission's main conclusions according to the DQAF prerequisites and five dimensions of data quality. Section II provides a summary assessment of the six datasets, based on a four-point scale, and an overview of the main characteristics of the datasets assessed. Section III covers the staff's recommendations. The authorities' response to this report and a volume of Detailed Assessments are presented in separate documents.

Prerequisites of quality

3.   Various data-producing agencies are involved in producing the datasets covered in this report, reflecting the decentralized organization of Japan's statistical system. The Economic and Social Research Institute (ESRI) produces the national accounts; the Ministry of Internal Affairs and Communication (MIC), the consumer price index; the Bank of Japan (BOJ), the corporate goods price index, and the monetary statistics. The MOF, which is responsible for the balance of payments statistics, entrusted the BOJ with the compilation of these statistics. The general government statistics are not compiled as a distinct statistical

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[1] Countries may use a limited number of options when not meeting specific SDDS requirements.

[2] An "as relevant" provision allows a country to not fully meet the SDDS requirement for the data item in question.

[3] The CGPI is assessed as a producer price index (PPI), since Japan uses the CGPI to fulfill the function of a PPI, and presents it as such on the IMF DSBB.

output (with revenues, expenditures, deficit, and financing); they are produced only as a sector of the national accounts. The responsibility to compile the datasets is governed by legislations that are specific to each relevant agency, with the CPI and CGPI also subject to the *Statistics Law* (because they are collected from survey sources). Although there is no legal requirement to do so, the datasets are widely disseminated, reflecting Japan's strong dissemination culture.

4.   The coordination of Japan's statistical system includes elements such as the *Statistics Law* and the *Statistical Reports Coordination Law*, but these apply only at the survey collection level. Also, the compilation of the input-output tables is conducted in cooperation with several departments. Enhanced coordination efforts should be pursued, especially to improve the national accounts and balance of payments statistics.

5.   Recognizing the critical need for effective coordination in a decentralized setting, Japan's Committee for Promotion of Economic and Social Statistics produced in June 2005 a report entitled *Structural Reform of Government Statistics*. The reform envisaged by the Committee would help not only to strengthen, but also to place coordination at the heart of, Japan's statistical system, enhancing synergies across statistical activities.

6.   Resources are generally adequate for statistical production. However, the staffing of the national accounts department in the ESRI is somewhat low for operational and developmental purposes, limiting, for instance, coordination with other data agencies. Throughout ministries, good procedures support data compilation continuity. Staff rotation, however, may hinder developing and maintaining statistical expertise, which is important to further advancing statistics at both the domestic and international levels.

7.   There is a strong awareness of the importance of meeting users' needs, as evidenced, among other things, by the Advisory Committee for National Accounts (ACNA) and the quarterly meeting of users of the balance of payments.

Assurances of integrity

8.   The data-producing agencies adhere to the principle of objectivity in the collection, processing, and dissemination of statistics. They demonstrate professionalism and are transparent in their policies and practices, with extensive documentation and dissemination of their policies and practices. There are laws and guidelines for staff on ethical conduct, and data are protected by strict measures of confidentiality throughout the data-producing agencies. Within agencies, the delineation of statistical functions is promoted through, for instance, formalized restrictions on internal government access to data for NA, the CGPI, and the monetary statistics. It would be useful if similar measures could be adopted for BOP and the CPI to further reflect the strong tradition of impartiality in the statistical production of these datasets.

Methodological soundness

9.   Most of the six macroeconomic datasets under review are compiled according to internationally accepted statistical concepts and definitions, scope, classification and sectorization, and bases for recording.

10.   The annual NA are produced—that is to say, compiled and disseminated—partly from the production and expenditure side and partly from the income side; this conforms to international guidelines. The quarterly accounts, which until 2002 were compiled only on the basis of final expenditures, are now also compiled using the supply approach. (However, the quarterly dissemination is still limited to the expenditure approach, preventing users from obtaining a full overview of the short-term development in the economy). Furthermore, the system treats the consumption tax according to the gross system since the source data are valued according to this concept (the main problem lies with the practical difficulties of removing the tax from the final expenditure items to obtain a correct measure of GDP at market prices). Transparency of the compilation methodology is noteworthy, with exhaustive and clear description of all deviations from the *System of National Accounts 1993* (*1993 SNA)*.

11.   Within the NA, the general government sector accounts generally follow the national accounts guidelines through adjustments to the cash transactions in order to accrue certain transactions. As noted under the Prerequisites section there is no comprehensive statement of general government with regards to revenues, expenditures, deficit, and financing; and no agency is in charge of producing these statistics.

12.   Both price indices broadly follow internationally accepted guidelines. However, the scope of the CPI would be further enhanced if one-person households were included in the expenditure estimates for weights. When the primary wholesalers play a critical role in setting the prices, the CGPI is valued at wholesale level, and not ex-factory as required by international guidelines for an output PPI.

13.   For monetary statistics, the adoption of the *Monetary and Financial Statistics Manual (MFSM)* international guidelines would be enhanced if a Depository Corporations Survey were compiled. Furthermore, the monetary survey excludes Japan Post and cooperative financial institutions, although these institutions are covered in the broader monetary aggregates as well as in the flow of funds accounts.

14.   Japan's BOP statistics are consistent with the conceptual framework of the IMF's *Balance of Payments Manual*, fifth edition (*BPM5*), though the sectoral classification differs somewhat from the *BPM5*.

Accuracy and reliability

15.   In the NA, the change in 2002 to include supply-side source data, together with other methodological changes introduced at the same time, represented a significant improvement in compilation techniques for quarterly data and, thus, in the accuracy and reliability of the data. The change to the chaining method for the volume estimates in late 2004 was another

important improvement in bringing the data closer to international guidelines. At the same time, some source data need strengthening (e.g., the coverage of the service industries and the coverage and timeliness of short-term statistics). Furthermore, adjustments are made to align government source data with national accounts classification requirements. Overall, the limitations of data sources call for a greater reliance on revision studies to inform the statistical process, in particular, for the first preliminary version of the quarterly accounts.

16.   The data sources for the two price indices are, for the most part, sound. There should be more emphasis on a systematic selection of establishments for pricing commodities for the CGPI, and of outlets for pricing items for the CPI. At the microeconomic level, data assessment procedures for the CGPI and item replacement procedures for the CPI are exemplary. Methods for treating temporarily missing items, seasonal items, and quality adjustment procedures require attention for both indices, as does the aggregation methods at both the elementary and higher levels, particularly for the CGPI. Consideration should also be given to more frequent updating of weights for both indices.

17.   The data sources and statistical techniques for the monetary and BOP statistics are generally reliable and sound. However, in the BOP statistics, a need exists to capture international transactions that are no longer captured, following the introduction of the new reporting threshold for the international transaction reporting system.

Serviceability

18.   Data for the six macroeconomic datasets are generally available with periodicities and timeliness that meet and exceed in certain cases SDDS requirements, with the notable exception of government finance statistics (where the SDDS periodicity and timeliness are not met) and, also, the analytical accounts of the banking system (where an "as relevant" option is used on account of the bank institutional setting). Revision policies and practices are generally well-established, although the period open for revisions should be extended for the BOP statistics. Consistency within and across datasets is adequate, but less so between the budgetary accounts and government finance data.

Accessibility

19.   The six macroeconomic datasets are readily accessible. Metadata are produced in fine detail, especially for the NA and BOP statistics, and are easily available in print and on the Internet. There is every evidence of attention to detail in this respect. Contact details are included, and timely answers are provided to queries.

II. ASSESSMENT BY AGENCY AND DATASET

20.   The results of the assessments of the quality of the six macroeconomic datasets under review are presented at the level of the DQAF elements, using a four-point rating scale (Table 1). For the relevant data-producing agencies, the prerequisites of data quality and the assurances of integrity (Dimensions "0" and "1" of the DQAF) are presented in tables 2a–d; and for each dataset, the methodological soundness, accuracy and reliability, serviceability, and accessibility (Dimensions "2" to "5" of the DQAF) are shown in tables 3a–f.

Table 1. Japan: Data Quality Assessment Framework July 2003—Summary Results[1]

Key to symbols: O = Practice Observed; LO = Practice Largely Observed; LNO =Practice Largely Not Observed; NO = Practice Not Observed; NA = Not Applicable

Dimensions/Elements	National Accounts	Consumer Price Index	Producer Price Index	Government Finance Statistics	Monetary Statistics	Balance of Payments Statistics
0. Prerequisites of quality						
0.1 Legal and institutional environment	O	O	O	LO	O	LO
0.2 Resources	LNO	O	O	O	O	O
0.3 Relevance	O	O	O	O	O	O
0.4 Other quality management	O	O	O	O	O	O
1. Assurances of integrity						
1.1 Professionalism	O	O	O	O	O	O
1.2 Transparency	O	O	O	O	O	O
1.3 Ethical standards	O	O	O	O	O	O
2. Methodological soundness						
2.1 Concepts and definitions	O	O	LO	LNO	LO	O
2.2 Scope	O	LO	O	O	LO	O
2.3 Classification/sectorization	O	O	O	O	LO	LO
2.4 Basis for recording	O	O	O	O	LO	O
3. Accuracy and reliability						
3.1 Source data	LO	O	LO	LO	O	LO
3.2 Assessment of source data	LO	O	O	O	O	O
3.3 Statistical techniques	O	LO	LNO	O	O	O
3.4 Assessment and validation of intermediate data and statistical outputs	O	O	O	O	O	O
3.5 Revision studies	LNO	O	O	LO	O	O
4. Serviceability						
4.1 Periodicity and timeliness	O	O	O	LNO	O	O
4.2 Consistency	O	O	O	LO	O	O
4.3 Revision policy and practice	O	O	O	O	O	LNO
5. Accessibility						
5.1 Data accessibility	O	O	O	O	O	O
5.2 Metadata accessibility	O	O	O	O	O	O
5.3 Assistance to users	O	O	O	O	O	O

Practice observed: current practices generally meet or achieve the objectives of the DQAF internationally accepted statistical practices without any significant deficiencies. **Practice largely observed:** some departures, but these are not seen as sufficient to raise doubts about the authorities' ability to observe the DQAF practices. **Practice largely not observed:** significant departures and the authorities will need to take significant action to achieve observance. **Practice not observed:** most DQAF practices are not met. **Not applicable:** used only exceptionally when statistical practices do not apply to a country's circumstances.

[1] For dimensions 0 and 1, the agencies assessed are for national accounts, the Economic and Research Institute, Cabinet Office; for consumer prices, the Ministry of Internal Affairs and Communication; for government finance statistics, the Ministry of Finance; and for the producer price index (corporate goods price index), monetary and balance of payments statistics, the Bank of Japan.

Table 2a. Japan: Assessment of Data Quality—Dimensions 0 and 1— Economic and Social Research Institute, Cabinet Office (ESRI)

0. Prerequisites of quality	1. Assurances of integrity
Legal and institutional environment The Economic and Social Research Institute (ESRI), an agency of the Cabinet Office (CAO), compiles the national accounts under the *Cabinet Office Establishment Law* (1999). The data are compiled primarily from aggregated data compiled in turn by government ministries and the Bank of Japan. No clear legal obligation exists regarding dissemination. The ESRI does not have access to the underlying micro data unless they make a specific request in each case pursuant to the *Statistics Law* (1947). Contacts with data providers are both formal and informal. For individual data collected by the ESRI, the *Statistics Law* states that individual data should be treated as confidential and provides penalties in the event of public release. Access to individual data is restricted to staff whose duties require the information. **Resources** The total number of staff working on the national accounts in the ESRI is 45, which is relatively low for operational and developmental purposes, as well as with countries comparable to Japan. The general rotation cycle for civil servants is about two years; the ESRI attempts to keep qualified staff somewhat longer, but with limited success. The relatively few staff members with extensive professional experience in statistics are mainly found at the level of division chief. Office space is adequate but restricted. Work procedures are reviewed whenever necessary. **Relevance** Membership of the Advisory Committee on National Accounts (ACNA) and its subcommittees includes independent external experts, who are also users of the statistics. These bodies are an important source for information about user needs and the relevance of the statistics produced. Staff regularly participate in international seminars and meetings. User feedback on methodological and other issues is requested of data users through the ESRI website. **Other quality management** Management is aware of data quality dimensions, and these are emphasized at staff meetings and through on-the-job training. In August 2005, the ESRI produced a self assessment of its target to improve the quality of national accounts and published the results on its website.	**Professionalism** The ESRI is headed by a president who is usually a highly regarded academic with background in economics or the social sciences, even though no legal provision stipulates such a requirement. Professionalism is actively promoted and supported within ESRI through staff participation in internal and external training courses, as well as on-the-job training in methodological and compilation methods. Research is published through discussion papers and the department's *National Accounts Quarterly*. The choice of source data is based on statistical considerations, with participation of the ACNA and its subcommittees as a safeguard. The ESRI actively seeks to prevent misinterpretation or misuse of its statistics by providing explanatory material to the public. **Transparency** Laws and documents relating to source data for compiling national accounts statistics are posted on the relevant government websites. However, specific legal conditions under which national accounts are produced are not made available. There are explicit procedures on the day of data release concerning press briefings and internal government access, which have been announced to the public; they strictly limit access to data prior to their release. The rule on information control concerns data access within the ESRI. Usually, with the release of the first preliminary version of the quarterly data, a press conference is held by a minister, and a member of the ESRI is available in the press room for most of the morning to answer questions from reporters. Statistical products are usually marked with the logos of the ESRI, or both the ESRI and the CAO. Advance notice is given to the public when major methodological changes are introduced. **Ethical standards** The *National Public Service Ethics Law* (1999) and the *National Public Service Officials Ethics Code* (2000) establish standards for ethical behavior for all national public officials. These lay down an ethics code aimed at ensuring that employees distinguish between public and private affairs and that staff never use their position for individual gain for themselves or any organization that they belong to. Each agency has to submit a quarterly report to the National Public Service Ethics Board. For national accounts statistics, ESRI has established the rule of information control and strictly prohibits the leakage of any statistical information.

Table 2b. Japan: Assessment of Data Quality—Dimensions 0 and 1— Statistics Bureau (MIC)

0. Prerequisites of quality	1. Assurances of integrity
Legal and institutional environment	**Professionalism**
The mandate for the Statistics Bureau (SB), which is part of the Ministry of Internal Affairs and Communications (MIC), to compile the CPI is set out in the Cabinet Order on the Organization of the MIC. The CPI's source data—the retail price survey (RPS) and the family income and expenditure survey (FIES)—benefit as designated statistics from the legal provisions of the Statistics Law (SL) including confidentiality provisions for the release of individual data, and the obligations to respond. Reference to the CPI itself is made in the survey regulations of the RPS and in other legislation. The SB's responsibility for disseminating the CPI is well established in custom and practice. The practice is exemplary, even though there is no clear legislative obligation regarding dissemination.	Staff responsible for the CPI have a good knowledge of statistical issues. The SB benefits from having its own Statistical Research and Training Institute (SRTI) that provides statistical training for national and local government personnel. The choice of data sources and statistical techniques are decided by statistical criteria, subject to resource constraints. Information sheets are released to journalists to help avoid misreporting.
	Transparency
Resources	The SB has on its website an overview of CPI-related legislation. No government officials have access to the data prior to release, except for the Minister for Internal Affairs and Communications, who has more general responsibilities. Major changes to methodology take place on revision of the weights every five years, and advance notice is given to the public by way of the SB's website, articles in bulletins, briefings, and news releases.
Resources are sufficient for the compilation of the CPI. Staff rotate between departments of the MIC about every two years. There is good exposure and contribution to international meetings.	**Ethical standards**
Relevance	Every evidence shows high ethical standards. Ethical codes are embodied in legislation common to all civil servants (see also above for the ESRI).
User consultation is mainly every five years, at the time of the weight revision. Government ministries and agencies, including the BOJ, are consulted on methodological issues at this time. Also, methodological issues are discussed in internal workshops held about three times a year, to which academic experts are invited. Consideration could be given to establishing a regular user consultation forum that is representative of the user community.	
Other quality management	
The CPI is the subject of scrutiny at subcouncil meetings of the Statistics Council (SC), mainly at the time of base-weight revisions. The CPI would benefit from more frequent monitoring of quality-related indicators and associated processes.	

Table 2c. Japan: Assessment of Data Quality—Dimensions 0 and 1—Ministry of Finance (Government Finance Statistics)

0. Prerequisites of quality	1. Assurances of integrity
Legal and institutional environment	**Professionalism**
No legal mandate or other arrangement designates the compiler of government finance statistics (GFS) for the general government. General government statistics are only disseminated as sectoral accounts of the national accounts. The *Public Finance Law* designates the Ministry of Finance (MOF) for the compilation and dissemination of central government settlement accounts. The *MOF Establishment Law* designates the MOF as responsible for debt management and reporting on central government debt. The flow of administrative budget data to the MOF from other ministries and government agencies is well established. However, data sharing with statistical data compilers primarily consists of their obtaining the data as and when published and their adjusting it according to their needs. No forum exists for discussing, coordinating, and implementing new developments and making decisions about statistical developments.	Central government operations and central government debt data are compiled from administrative records, and the independence of the compilers of the accounts is reinforced by the accounting and recording systems in use. No estimations are employed. As staff are subject to civil servant rotation policies, efforts to maintain professionalism are facilitated through succession planning and extensive working guidelines to help new staff master the necessary skills to ensure continuance of activities. Staff are actively encouraged to participate in activities to promote professionalism.
	Transparency
Resources	The MOF disseminates detailed explanations of processes, methodologies, definitions, and classifications in several publications. These publications explain the budget of central government, the settlement accounts, and central government debt. The MOF is clearly identified in all its publications. The MOF website indicates that copyrights are reserved on all information provided on the website. However, some publications such as *Guide to Japanese Bonds 2005* do not specially require attribution. Advance notice of changes in the budget, the settlement accounts of central government, and central government debt are primarily vested in the political processes.
Resources in the MOF are commensurate with administrative needs and have increased in recent years in reaction to the assignment of greater responsibilities. Staff are subject to the civil servant rotation policy (about every two years). As noted under the national accounts, there are limitations in the resources for statistical data.	
	Ethical standards
Relevance	All civil servants are subject to the *National Public Service Ethics Law(1999)* and the *National Public Service Officials Ethics Code* (2000) (see also above for the ESRI).
The settlement accounts represent the status of budget execution of the central government. The needs of main users of accounting data (fiscal policymakers) are monitored through several councils and committees. As for statistical data, users' needs on government data are monitored only under the umbrella of the national accounts.	
Other quality management	
Reporting requirements, accounting systems, and audit rules ensure the quality of the data on central government operations and central government debt. The MOF, other ministries, and government organizations fully recognize the importance of the quality of the government accounts, which is evidenced by audit reports that validate the data.	

Table 2d. Japan: Assessment of Data Quality—Dimensions 0 and 1—Bank of Japan

0. Prerequisites of quality	1. Assurances of integrity
Legal and institutional environment	**Professionalism**
The Bank of Japan (BOJ) compiles the Corporate Goods Price Index (CGPI) as a "notified statistic" under Article 8 of the *Statistics Law* (1947) (SL), which does not however provide for the obligations to respond to surveys and for dissemination. For the monetary statistics, the statistical authority is derived from the BOJ's monetary policy responsibility (rather than from a specific legal mandate). For both datasets, the arrangements for data reporting are adequate. The MOF, which is responsible for balance of payments (BOP) statistics under the *Foreign Exchange and Foreign Trade Law* (1949, latest amendment in 2005), entrusted the BOJ with the compilation of these statistics; the data are published by the MOF and the BOJ, although the legal mandates do not prescribe data dissemination. The BOP data are largely collected under the *FEFTL*. With the exception of the MOF-BOJ working relationship, no formal mechanism exists with the other data source agencies to seek harmonization of methodology and consistency of results. As for administrative data, the FEFTL reports do not identify confidentiality provisions, and they are submitted to the MOF through the BOJ. Overall, legal provisions protect the confidentiality of individual data in BOJ, primarily through the *Bank of Japan Law* (1995, latest amendment, 2005).	The *Bank of Japan Law* acts to secure the professional independence of its work. Professionalism of the staff is actively promoted, with recruitment taking into account academic qualifications. Staff are encouraged to prepare research papers; the papers are published with individual recognition. **Transparency** The BOJ's website provides extensive documentation on the terms and conditions under which the three datasets are published. No internal access exists for statistics prior to their release. However, with the BOP published under the double stamp of the MOF and BOJ, the part attributable to each data-producing agency is not identified on the MOF website. This might leave the impression that the latter is involved in the data compilation. Advance notice is given of major changes in methodology, source data, and statistical techniques. **Ethical standards** The *Bank of Japan Law* and the *Guidelines to BOJ Staff* (posted on the internal site) provide for clear ethical principles and guidelines for the staff. In addition, the statistical sections have developed rules, notably on data confidentiality.
Resources	
Resources are adequate for each of the three datasets. For BOP, FEFTL requirements for MOF approval and ministerial ordinance for changing report forms reduce flexibility in accommodating emerging data requirements.	
Relevance	
Relevance is sought through communication with various groups of users and discussion of methodology with academics, and participation at international meetings. Channels include consulting users at the time of CGPI weight revision (every five years); monitoring the website, and email support in all monetary statistics publications; and quarterly meetings of BOP users chaired by a BOJ policy board member.	
Other quality management	
The BOJ has excellent procedures that promote data quality, such as micro data verification up to pre-release data checks for monetary statistics (documented, for example, in the *Bank of Japan Quarterly Bulletin* (Nov. 2002)) and planning (as evidenced in the fiscal year 2005 action plan).	

Table 3a. Japan: Assessment of Data Quality—Dimensions 2 to 5—National Accounts

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
Concepts and definitions The national accounts statistics are compiled according to the *1993 SNA* framework. Deviations are limited in number. Exhaustive and clear descriptions of all deviations and the reasons for them are provided to users. **Scope** While quarterly expenditures of GDP in nominal and real terms are compiled, quarterly estimates by activity are not. On an annual basis, institutional sector accounts are compiled, inclusive of financial flow accounts and balance sheets. Benchmark input-output tables are compiled every five years. **Classification/sectorization** Classification and sectorization broadly follow international guidelines. Deviations, which are limited in number, are kept under review. **Basis for recording** Transactions and other flows are, in principle, recorded on an accrual basis. Market output is valued at producer prices. However, "producers values" are obtained by treating the consumption tax (essentially, a VAT) according to the gross, rather than net system, owing to data limitations.	**Source data** The ESRI primarily relies on other government agencies and the BOJ for source data. The ESRI is cooperating with the data providers to improve the basis for the compilation of national accounts data. Nonetheless, some source data need strengthening (e.g., the coverage of the service industries and the coverage and timeliness of short-term statistics). Data source limitations are a problem, in particular, in the compilation of the first preliminary version of the quarterly accounts. **Assessment of source data** During the process of regular estimation and its review, source data from surveys are analyzed, but the source data are provided in aggregate form and may not be consistent across concepts, coverage, and classification. **Statistical techniques** The annual accounts are compiled by a combination of a detailed commodity flow method and a calculation of value added based on make and use matrices. Since 2002, supply-side estimates are used also in the compilation of the quarterly accounts; they are balanced with independently-determined use-side data for household consumption and private nonresidential fixed capital formation. However, the specific compilation techniques imply a high degree of dependence on ratios from the benchmark year (now 1995). Late in 2004, the chaining method for the volume estimates was introduced. **Assessment and validation of intermediate data and statistical outputs** To maintain estimation accuracy, GDP estimates are checked using as much information as is available (e.g., other macro economic data). **Revision studies** While differences between preliminary and revised estimates are routinely checked, no formal revision studies are carried out.	**Periodicity and timeliness** Periodicity and timeliness of the national accounts are in accordance with, and, in some instances, exceeds SDDS requirements. **Consistency** The quarterly data are consistent with the annual data, as concepts, definitions and classifications are the same, and the quarterly data are benchmarked to the annual data whenever new annual data become available. In the annual accounts, there is a statistical discrepancy between GDP (P) and GDP (E) that is relatively stable over time. The national accounts data are reconcilable with the BOP data and with the government data, although no reconciliation table is provided in the national accounts data. **Revision policy and practice** Revisions follow a regular and transparent schedule, except for benchmark revisions and other major changes such as the adoption of chaining. Documentation of the most important reasons for revisions is included in the publication on the ESRI website of the second preliminary quarterly accounts, with a similar procedure applied for annual data.	**Data accessibility** National accounts data are published in a clear manner, with various levels of detail. Both the quarterly and the annual accounts are released in a summary form with a more detailed form on the ESRI website. An advance release calendar for the quarterly data is available on the SNA section of the ESRI website but not for annual data. **Metadata accessibility** A comprehensive set of documents on sources and methods is published and updated regularly. For instance, the relationship to government finance data as compiled by the MOF is documented in detail. **Assistance to users** Prompt and knowledgeable service and support staff are available to national accounts data users. All statistical releases contain telephone and/or e-mail contact points to which inquiries can be directed. Catalogs of publications (titles, prices, and others) are posted on the ESRI website.

Table 3b. Japan: Assessment of Data Quality—Dimensions 2 to 5—Consumer Price Index

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
Concepts and definitions The consumer price index (CPI) broadly follows internationally accepted concepts. **Scope** An important restriction on the scope of the CPI is the exclusion of one-person households. **Classification/sectorization** Japan's classification broadly follows international guidance. It is sufficiently clear and detailed for analytical purposes. **Basis for recording** Market prices are used to value flows and stocks, though the exclusion of short-term sale prices should be reconsidered as it may serve to overstate price changes. The pricing of perishable goods benefits from sampling throughout the month. Goods and services are generally recorded on an accrual basis, as required by international guidelines.	**Source data** There is much reason to commend the source data for weights and prices. Yet attention should be given to an increase in the sample size for the family income and expenditure survey (FIES), and the selection of outlets by type, when sampling prices. Timely data allow for the provision of flash estimates for the CPI for the metropolitan area of Tokyo. **Assessment of source data** The sampling error of the FIES is determined, and excessive changes in individual prices are thoroughly checked. **Statistical techniques** At the elementary level, the Dutot formula should be confined to homogeneous items to avoid bias. The use of the Jevons index is more generally advisable, even though the results will differ from those that users may derive from the Retail Price Survey (RPS). At the upper level, the use of a Lowe index should be considered. Methods for treating temporarily missing items, seasonal items, and quality adjustment procedures require attention. Consideration should be given to the more frequent updating of weights to capture changing consumption patterns. It should be noted that Japan also publishes a (retrospective) chain-weighted CPI and uses chain-linking in their national accounts, notwithstanding problems of consistency in aggregation. **Assessment and validation of intermediate data and statistical outputs** The price data collected in the retail price survey (RPS) are published as statistics in their own right and at a highly detailed level. This disclosure requires strict validity checks at this micro level, and the benefits of this are passed on to the CPI compilation. **Revision studies** Revision studies are published on weight revisions.	**Periodicity and timeliness** Monthly data are timely. The publication of both preliminary (and revised) flash estimates for the CPI for the metropolitan area of Japan is to be applauded. **Consistency** Statistics are consistent in aggregation, although early releases following weight revisions are not consistent with final releases. **Revision policy and practice** The revision policy is, for the most part, clear.	**Data accessibility** The accessibility and level of detail are exemplary. CPI data are available at the same time for all users. **Metadata accessibility** Metadata are produced at various levels of detail and are easily available in print and on the website. **Assistance to users** There is every evidence of attention to detail in this respect, especially with regard to catalogs of publications, which is very good.

Table 3c. Japan: Assessment of Data Quality—Dimensions 2 to 5—Corporate Goods Price Index

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
Concepts and definitions The Corporate Goods Price Index (CGPI) broadly follows internationally accepted concepts. A notable exception is that output is priced at the primary wholesaler, when such wholesalers play an active role. This does not accord with the needs of *1993 SNA* and the *PPI Manual*. Ex-factory prices should be used for an output PPI. **Scope** The scope of the CGPI is broadly consistent with internationally accepted guidelines, and expanding the coverage of the business service industry in the Corporate Services Price Index is an important development that is to the credit of the BOJ. **Classification/sectorization** The classification is at a sufficiently fine level for detailed economic analysis. Additional attention should be given to instances of negative weights for the domestic CGPI arising from misclassification between the Harmonized System and Japan Standard Industrial Classification. **Basis for recording** The basis for recording is broadly consistent with international guidelines except that the CGPI is compiled including consumption tax. However, a reference index, which excludes the tax, is compiled and published.	**Source data** Source data generally accord with international guidelines. Attention should be directed to the inclusion of some commodities excluded on pragmatic grounds. Also, there is an excessive 15-month lag before the incorporation of new weights following the revision of CGPI base year that occurs every five years. The selection of respondents should be more systematic. **Assessment of source data** The accuracy of all sample prices and their changes are assessed. Unusual results are queried by phone with the respondents. **Statistical techniques** The general use of the Carli index at the elementary aggregate level is inappropriate. The use of unit value and averaged prices should also be reconsidered. At the upper level, the use of the Lowe index should be considered Methods for treating temporarily missing items, seasonal items, and quality adjustment procedures also require reconsideration. The proactive substitution of replacements by industry specialists is commendable. Consideration should be given to the more frequent updating of weights in the official CGPI. **Assessment and validation of intermediate data and statistical outputs** There is a meticulous assessment of micro data. The CGPI is compared against other price indices, as applicable. **Revision studies** Revisions studies are carried out to inform the statistical process.	**Periodicity and timeliness** Periodicity and timeliness are within SDDS requirements. **Consistency** Series are reconcilable over a reasonable period of time. **Revision policy and practice** The revision cycle is regular and transparent, and preliminary data are clearly identified. Archived releases are available on the website for users to analyze revisions. Revision studies are undertaken but not published.	**Data accessibility** The level of detail published and the ease of access are to the credit of the institution. **Metadata accessibility** Metadata at a sufficiently high level of detail are provided along with technical papers, all being readily accessible on the website. **Assistance to users** The BOJ's website contains much information on documents and publications that, for the most part, can be downloaded. All of this helps the user.

Table 3d. Japan: Assessment of Data Quality—Dimensions 2 to 5—Government Finance Statistics

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
Concepts and definitions General government data are compiled as the sector accounts of the national accounts in accordance with the *1993 SNA* (see national accounts, table 3a above). **Scope** There is no comprehensive statement with regard to revenues, expenditures, deficit, and finance of general government. Data presented for the general government sector in the national accounts are broadly consistent with international guidelines, covering central government, local government, and social security funds, and including government-controlled nonprofit institutions engaged in nonmarket production, and excluding those with market activities. **Classification/sectorization** The central government, as defined in the budgetary system of Japan, is comprised of the general account and 31 special accounts. These special accounts are adequately reclassified in the SNA according to the SNA principles. **Basis for recording** For the general government sector accounts in the SNA, adjustments are made for certain accrual transactions though the data sources are primarily compiled on a cash basis. Settlement accounts are compiled on a cash basis, and government debt is reported at face value.	**Source data** For general government, data sources are comprehensive, but there is a lack of timeliness. Source data do not approximate the SNA, and manual reclassification of settlement account data is required. **Assessment of source data** Quality controls embedded in the accounting and reporting system of government ensure the accuracy of source data. Data are assessed routinely to ensure the accuracy of the accounting records. **Statistical techniques** Compilation of the general government sector accounts employs sound statistical techniques. No statistical techniques are employed for central government flow and debt data, since these are derived from comprehensive administrative records. **Assessment and validation of intermediate data and statistical outputs** For general government accounts, intermediate data, such as the consolidated central government account and local government reports, are not subject to detailed validation due to tight quality controls employed in the accounting source data. **Revision studies** There are no revisions for central government settlement accounts and debt. For general government, no formal revision studies are carried out.	**Periodicity and timeliness** Japan took a flexibility option on the timeliness (but not periodicity) for general government sector accounts and a periodicity and timeliness flexibility option for central government operations. Central government debt is disseminated in accordance with the SDDS requirements. **Consistency** The general government annual data disseminated for the national accounts and central government settlement account and debt data are consistent within their datasets and over time. Mainly owing to differences in classifications and sectorization, data for the central government (national accounts) differ from the central government consolidated settlement account. Tables bridging the data are disseminated once a year. However, the consistency of the aggregates in these two statistics is not monitored through reconciliation exercises. **Revision policy and practice** National accounts follow a regular and transparent schedule. No revision policy or revision cycle is applicable on the administrative data of the central government settlement accounts and debt.	**Data accessibility** National accounts are presented in such a way as to facilitate interpretation and meaningful comparison but not analysis in accordance with the government finance statistics (GFS). For general government data, the main GFS aggregates require some aggregation and recalculation. Data are released to all users at the same time, and data not disseminated are made available on request. Central government accounts data are presented in a table for the current period, for the corresponding period of the previous fiscal year, as well as for the corresponding full fiscal year. Publications on central government debt present the data in several formats to facilitate the analysis of the data. **Metadata accessibility** Metadata on the national accounts are available in several formats. Similarly, several publications with metadata on the central government debt exist. Specific metadata for central government accounts data, outside of the DSBB, are not available, although background information is readily available on central government operations, such as in the publication *"Understanding the Japanese Budget."* **Assistance to users** Assistance to users is provided through contact details in publications and on websites, and for a single MOF port of entry for general enquiries and publications (see also national accounts, table 3a).

Table 3e. Japan: Assessment of Data Quality—Dimensions 2 to 5—Monetary Statistics

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
Concepts and definitions The BOJ does not compile a Depository Corporations Survey but, instead, compiles a Monetary Survey that provides input to its Flow of Funds Accounts. **Scope** The coverage of the BOJ's Monetary Survey comprises the BOJ and resident commercial banks, and excludes Japan Post and cooperative financial institutions, which are significant depository corporations. However, the BOJ compiles four monetary aggregates of progressively wider coverage, with the deposit liabilities of Japan Post and cooperative financial institutions included in the broadest two. **Classification/sectorization** The sectorization scheme used for the Monetary Survey is less detailed than is required by the *MFSM*, while the definition of residence for individuals used for the Monetary Survey is not in line with *BPM5* and *MFSM* one-year "rule." **Basis for recording** As recommended by *MFSM* methodology, the Monetary Survey relies on accrual accounting and corrects grossing and netting operations, but uses book values, not market prices, for valuation.	**Source data** BOJ maintains a comprehensive and current register of financial sector institutions, including depository corporations and other financial intermediaries. Data are collected on a timely basis. The source data do not provide sufficient detail to classify sectors in line with *MFSM* methodology (as referred to under the Scope section). **Assessment of source data** Assessment of source data is sound. Staff scrutinize the data submitted for out-of-trend changes or high-value transactions, and they contact the banks for verification. **Statistical techniques** The only major example of the use of statistical techniques occurs in the derivation of the seasonally adjusted monetary aggregates. In this respect, BOJ uses X-12 ARIMA, an internationally accepted software. **Assessment and validation of intermediate data and statistical outputs** BOJ occasionally uses information from other departments to validate balance sheet data collected from commercial banks. BOJ investigates classification/sectorization errors or omissions as possible sources of fluctuations or discrepancies in monetary statistics. However, no attempt is made to reconcile the implied flows in monetary statistics with those in government budget and balance of payments data. Published interbank positions between the BOJ and commercial banks are consistent. **Revision studies** Revisions arise from the finalization of monetary data. BOJ prepares revision studies on a periodic basis.	**Periodicity and timeliness** The periodicity of the Central Bank's Survey and Other Depository Corporations' Survey is in line with the SDDS requirements. The timeliness of the Central Bank's Survey is also in line with the SDDS requirements. Owing to the extensive banking branch network, an SDDS "as relevant" provision is taken on timeliness for the Other Depository Corporations' Survey. **Consistency** Monetary statistics are consistent within the dataset. Monetary and balance of payments statistics use the same data on the banks' foreign assets and liabilities. Monetary statistics and government budget data use the same data on the central government's bank deposits and credit. **Revision policy and practice** Revisions follow a regular and transparent schedule. The revision policy is clearly publicized on the BOJ website. Preliminary and revised data are clearly identified.	**Data accessibility** BOJ disseminates monetary statistics in formats that suit user needs. It releases them on a preannounced schedule and makes them available to all users simultaneously. **Metadata accessibility** Metadata, in the form of detailed explanations, are available from the BOJ's *Guide to Japan's Money Stock Statistics* (June 2004), and in the form of highly informative methodological footnotes in the BOJ's *Monthly Economic and Financial Statistics* and *Bank of Japan Statistics*. Metadata are posted on the IMF's DSBB in the form of SDDS metadata which, however are not hyperlinked to the BOJ website. **Assistance to users** BOJ provides adequate assistance to users. Its publications and website provide contact information. The BOJ website also provides a catalog of BOJ's publications, together with their prices.

Table 3f. Japan: Assessment of Data Quality—Dimensions 2 to 5—Balance of Payments Statistics

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
Concepts and definitions Balance of payments statistics are compiled in broad conformity with the conceptual framework and classification structure of *BPM5*. **Scope** Scope is consistent with internationally accepted guidelines. In principle, all institutional units and all transactions with nonresidents are covered. **Classification/sectorization** Generally, the classification of transactions is consistent with *BPM5*, with some exceptions that are minor in terms of value (e.g. residency definition for individuals is not in line with *BPM5*). The three-sector sectorization (public sector, banks, and other) is less detailed than is required by the *BPM5*. **Basis for recording** Transactions are valued at market prices and recorded on an accrual basis.	**Source data** Data sources are broadly adequate. There is a need to implement additional surveys to capture data that are missed with the introduction of the new threshold in ITRS (e.g, on services and remittances). **Assessment of source data** Consistency checks are performed, and monthly reports of result editing and verification results are produced to inform the data collection process. **Statistical techniques** The data compilation procedures used by the BOJ to compile the balance of payments statistics are sound, with adjustments sufficiently robust. **Assessment and validation of intermediate data and statistical outputs** Merchandise trade data for major trade partners are monitored by the BOJ. Bilateral data reconciliation is conducted by Customs and Tariff Bureau of the MOF. The BOJ uses international sources (Bank for International Settlements and IMF Coordinated Portfolio Investment Survey data) for data validation. **Revision studies** Revisions studies are conducted.	**Periodicity and timeliness** The periodicity and timeliness of balance of payments data exceed SDDS requirements. **Consistency** Internal data consistency is assured by applying the same concepts, definitions, and classifications in producing the monthly, quarterly, and annual balance of payments statistics. Statistics are not entirely reconcilable over the time, as retroactive revision is conducted only occasionally. Statistics are reconcilable with those obtained through other statistical frameworks, although some differences with national accounts data arise from a different classification, between income and services (current account transactions). **Revision policy and practice** Monthly balance of payments data are preliminary when first released. The final data are disseminated about three months after the end of the reference quarter. The data are released at a press conference held by the MOF. The final data are not revised on consideration that such revisions may affect the credibility of the statistics. No specific studies of routine revisions are made public.	**Data accessibility** Statistics are disseminated by the MOF (under the signature of the MOF and BOJ) consistent with the standard components of *BPM5*. Data are disseminated in hardcopy and on the websites. The BOJ provides a more detailed breakdown approximately three weeks after the release in the BOJ's *Balance of Payments Monthly*. Data are released simultaneously to all interested parties, according to a preannounced schedule. **Metadata accessibility** A detailed description of the balance of payments concepts, sources, and methods is posted on the BOJ website. **Assistance to users** A contact number and an e-mail address are identified on both the MOF and BOJ websites. Arrangements have been made within the BOJ to ensure that queries are properly directed. Information on published documents is available on the BOJ website. A wide range of data can be downloaded from the BOJ website free of charge.

III. STAFF'S RECOMMENDATIONS

21.   Based on the review of Japan's statistical practices, discussions with the data-producing agencies, and discussions and responses from data users (see the Detailed Assessments volume), the mission has a set of recommendations. They are designed to further strengthen Japan's statistical system for the compilation and dissemination of macroeconomic statistics and further increase Japan's adherence to internationally accepted statistical practices. Some additional technical suggestions are included in the Detailed Assessments volume.

Cross-cutting recommendations

- In line with the more general findings of the Committee for Promotion of Economic and Social Statistics, take steps to improve overall coordination of macroeconomic statistics.

- Consider introducing legal authority to disseminate statistical information along the lines of that used in other countries.

- Further formalize the delineation between the statistical and nonstatistical functions within data-producing agencies to maintain their strong traditions of impartiality.

- Further promote staff statistical expertise through the review of current rotation practices.

- Conduct revision studies to enhance the reliability of preliminary estimates and publish these studies.

- Promote data consistency across the datasets, by systematizing consultation with data-producing agencies on methodological and data developments, both at the source data and statistical outputs levels.

National Accounts

- Review the current level of staffing of the national accounts data given that it is somewhat low for operational and developmental purposes.

- Further develop quarterly accounts from the production side with the view to disseminate these data.

- Enhance the coverage of source data for service industries, in general, and of short-term statistics for the quarterly accounts.

Consumer Price Index

- Expand the scope of the CPI to include one-person households with concomitant developments in the source data for doing so. Consider reviewing the sample design to validate the outlet selection.

- Include the price of items "on sale" for seven days or less.

- Review the use of the ratios of the averages as the main formula at the elementary level. Consider a Lowe index as the fixed basket index at the higher level of aggregation; also consider the more frequent updating of weights.

- Review the treatment of temporarily missing items, seasonal goods and services, and quality adjustment procedures.

Producer Price Index

- Replace output priced at the primary wholesaler with ex-factory prices.

- Consider the use of a more systematic approach for the sample of establishments.

- Review the treatment of temporarily missing items, seasonal goods and services, and quality adjustment procedures.

- Replace the average of relatives with a geometric mean at the elementary level. Consider a Lowe index as the fixed basket index at the higher level of aggregation; consider the more frequent updating of weights.

Government Finance Statistics

- Specify the responsibility for collecting, processing and disseminating GFS and develop working arrangements for data sharing and coordination among the relevant data producing agencies.

- Compile an integrated set of statements (operating statements, statement of other flows, and balance sheet) for the general government according to international statistical guidelines, and disseminate widely.

- Compile a monthly statement of sources and uses of cash for budgetary central government, and disseminate in accordance with SDDS requirements.

- Improve the timeliness of source data for local government statistics.

- Bring the timeliness of general government sector accounts and the periodicity and timeliness for central government operations into line with SDDS requirements.

Monetary Statistics

- Develop a Depository Corporations Survey by expanding the coverage of the Monetary Survey to include Japan Post and cooperative financial institutions.

- Collect source data on commercial banks and other deposit-taking institutions in a format that fully meets international statistical guidelines.

- Disseminate monetary statistics within a one-month period from the end of the reference month.

Balance of Payments Statistics

- While the MOF is responsible for the balance of payments data, identify the BOJ as the compiler of data to avoid the impression of MOF involvement in the data compilation.

- Adopt more detailed sectorization to further conform to *BPM5*.

- Develop additional sources for the data lost with the introduction of the new ITRS threshold, for example for trade in services.

- Review the revision policy that does not permit changes to the data once they are finalized; and publish revision studies.

Table 4. Japan: Practices Compared to the SDDS Coverage, Periodicity, and
Timeliness of Data

SDDS Data Category	Coverage (meets SDDS requirement)	Periodicity		Timeliness		Comments
		SDDS	Japan	SDDS	Japan	
Real Sector						
National accounts	Yes	Q	Q	1Q	6W	Timeliness exceeds SDDS requirements.
Production Index/indices	Yes	M	M	6W *(1M encouraged)*	NLT 1M	Timeliness exceeds SDDS requirements.
Forward-looking Indicators	*(encouraged)*	*M or Q*		*M or Q*		
Employment	Yes	Q	M	1Q	NLT 6W	Periodicity and timeliness exceed SDDS requirements
Unemployment	Yes	Q	M	1Q	NLT 6W	Periodicity and timeliness exceed SDDS requirements
Wages/earnings	Yes	Q	M	1Q	M	Periodicity and timeliness exceed SDDS requirements
Consumer price Index	Yes	M	M	1M	M	
Producer price Index	Yes	M	M	1M	8 WD	Timeliness exceeds SDDS requirements.
Fiscal Sector						
General govt. Operations	Yes	A	A	2Q	8M 20D	Japan employs a timeliness flexibility option on general government operations data.
Central govt. operations	Yes	M	A	1M	8M	Japan employs periodicity and timeliness flexibility options (data published every November)
Central govt. debt	Yes	Q	Q	1Q	NLT 1Q	
Financial Sector						
Analytical accounts of the banking sector	Yes	M	M	1M	6-8 WD (money stocks) 6-8 WD (loans and deposits (total credit)) 6-7W (banks' external assets and liabilities) 6-7W (credit to government and to the private sector)	Money stocks and total credit only available within one month; breakdown of claims on central government, local governments, public nonfinancial corporations, and private sector after 1 month and 10 working days; external position of the banking sector after 6-7 weeks. Due to an extensive branch banking system, Japan uses the "as relevant" provision, and disseminates data on the analytic accounts of the banking sector with the present timeliness.

SDDS Data Category	Coverage (meets SDDS requirement)	Periodicity		Timeliness		Comments
		SDDS	Japan	SDDS	Japan	
Analytical accounts of the central bank	Yes	M (1W recommended)	3 times a month—the Bank of Japan Accounts M monetary base	2W *(1W encouraged)*	2-5WD (the Bank of Japan Accounts) 2WD (monetary base)	Timeliness exceeds SDDS requirements.
Interest rates	Yes	D	D (Short-term and Long-term Government Bond Yields)	1/	D (Official Discount Rate) 1WD (Short-term and Long-term Government Bond Yields)	
Stock market: share price index	Yes	D	D	1/	1WD	
External Sector						
Balance of payments	Yes	Q	M	1Q	1 M and 8 WD	Periodicity and timeliness exceed SDDS requirements.
Official reserve assets	Yes	M (W recommended)	M	1W for official reserve assets	NLT 5WD	Timeliness exceeds SDDS requirements.
Reserves template	Yes	M	M	1M *(1W encouraged for the reserves template)*	NLT 5WD	
Merchandise trade	Yes	M	M	8W *(4–6W encouraged)*	3-4W	Timeliness exceeds SDDS requirements.
International Investment position	Yes	A (Q recommended)	A	3Q *(1Q encouraged)*	5M	Timeliness exceeds SDDS requirements.
External debt	Yes	Q	Q	1Q	10-11W	Timeliness exceeds SDDS requirements.
Exchange rates	Yes	D	D	1/	D	
Addendum: Population	Yes	A	M	…	1M	

Note: Periodicity and timeliness: (D) daily; (W) weekly or with a lag of no more than one week from the reference data or the closing of the reference week; (M) monthly or with a lag of no more than one month; (Q) quarterly or with a lag of no more than one quarter; (A) annually; and (…) not applicable.

1/ Given that the data are broadly disseminated by private means, the timeliness with which official data are disseminated is not time critical.

Italics indicate encouraged categories.

INTERNATIONAL MONETARY FUND

JAPAN

Report on the Observance of Standards and Codes (ROSC)—Data Module

Response by the Authorities

March 9, 2006

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The responses concerning the cross-cutting recommendations and the Consumer Price Index have been prepared by the Ministry of Internal Affairs and Communications (MIC) and other relevant agencies; National Accounts by the Economic and Social Research Institute (ESRI) of the Cabinet Office (CAO); Government Finance Statistics by the Ministry of Finance (MOF), the ESRI and the MIC; Corporate Goods Price Index, Monetary Statistics and Balance of Payment Statistics by the Bank of Japan (BOJ).

I. CROSS-CUTTING RECOMMENDATIONS

- *In line with the more general findings of the Committee for Promotion of Economic and Social Statistics, take steps to improve the overall coordination of macroeconomic statistics.*

In line with the proposal made by the Committee for Promotion of Economic and Social Statistics (CPESS), the Japanese authorities have been striving to develop comprehensive economic statistics, including an economic census, and short-term statistics on services to cope systematically with structural changes in Japan's industry.

In addition, the Committee for Planning Statistical Systems Reform (CPSSR), the successor committee to the CPESS, is now discussing systematic development of a government statistical system. Thus, the Japanese authorities will take the necessary steps to improve the overall system of government statistics, including coordination of macroeconomic statistics, based on the results of CPSSR discussions.

- *Consider introducing legal authority to disseminate statistical information along the lines of that used in other countries.*

As described in the report, the Statistics Law of Japan provides, in principle, a legal obligation to disseminate the results of "designated statistics". There are no provisions stipulating a legal obligation to disseminate the results of "approved statistics" and "notified statistics" but, in practice, as a matter of principle, all statistics have been disseminated except for the results of certain preliminary surveys that are not appropriate for dissemination. Therefore, the authorities recognize that it will be necessary to consider carefully in terms of its urgency and necessity the imposition of a legal obligation to disseminate all statistics.

- *Further formalize the delineation between the statistical and nonstatistical functions within data-producing agencies to maintain their strong traditions of impartiality.*

Necessary measures have been taken in order to ensure the independence of the statistical functions from the non-statistical functions within data-producing agencies. For example, in the organizational structure of the agencies conducting major statistical surveys and censuses, separate bureaus or divisions responsible for statistical affairs have been established apart from those responsible for policy-making. In addition, under the provision of the Statistics Law, any staff who falsify the results of "designated statistical surveys" will be penalized,

and the results of "designated statistical surveys" need to be disseminated as quickly as possible. Data-producing agencies have attempted to delineate clearly the statistical functions from the non-statistical functions internally and will strengthen their efforts as needed.

- *Further promote staff statistical expertise* through *the review of current rotation practices.*

The Japanese government has already taken specific steps to enhance the staff's statistical expertise, including consideration of formulating basic principles for the training of both central and local government statistical staff, at the "Working Group of Development and Training of Statistical Staff, and Public Relations" which was established following the agreement of the Meeting of the Heads of the Statistical Departments of the Cabinet Office and Ministries to promote "New Directions in the Development of Government Statistical Services (June 2003)."

The recommendations made by the CPESS include the need to contemplate properly human resource management in the ministries and agencies in order to secure and build capacity of the statistical staff, and to promote rotation of personnel among the ministries and agencies. In addition, the CPESS pointed out that the new "Control Tower" of the government statistical system should develop the staff's statistical expertise as one of its core roles. Moving forward, the relevant ministries and agencies intend to take appropriate measures to develop further the statistical expertise of their staff, taking into account the CPSSR discussions.

- *Conduct revision studies to enhance the reliability of preliminary estimates and publish these studies.*

(CAO : National Accounts)
The CAO recognizes the usefulness of revision studies in improving the accuracy of national accounts data, and will conduct revision studies for the quarterly expenditure accounts and publish the outcomes.

- *Promote data consistency across the* datasets *by systematizing consultation with data-producing agencies on methodological and data developments, both at the source data and statistical output levels.*

(CAO : National Accounts)
Discussions are underway at the CPSSR on the functions and organization of the "Control Tower" for government statistics. Utilizing the functions of the "Control Tower" that would be established based on discussions held by the Committee, and the existing coordination frameworks, such as "the Study Meeting for Development of Statistics on Service Industries" and "the Expert Meeting for Development of Statistics related to National Accounts," the CAO will continue to engage in necessary consultations and coordination with data-producing agencies.

(BOJ：Balance of Payments)
The BOJ's International Department, in cooperation with the MOF, will further exchange views with the ESRI of the CAO, which is responsible for national accounts.

A. National Accounts

- *Promote* data *consistency across the datasets, by systematizing consultation with data-producing agencies.*

Discussions are underway at the CPSSR on the functions and organization of the "Control Tower" for government statistics. Utilizing the functions of the "Control Tower" that would be established based on discussions held by the Committee, and the existing coordination frameworks such as "the Study Meeting for Development of Statistics on Service Industries" and "the Expert Meeting for Development of Statistics related to National Accounts," the CAO will continue to engage in necessary consultations and coordination with data-producing agencies.

- *Review the current level of staffing of* the *national accounts data, given that it is somewhat low for operational and developmental purposes.*

The CAO recognizes the shortage of human resources in meeting the increasing need for national accounts statistics, and will strive to enhance the level of staffing both in quality and in quantity, through various measures, including collaboration with the research section, provision of appropriate training, and a request for an increase in staff.

- *Further develop quarterly* accounts *from the* production side with the view to disseminate these data.

Extension of the coverage of quarterly accounts is one of the highest priority tasks, and the CAO has begun to study how to develop preliminary quarterly accounts for production series and others.

- *Treat the consumption tax in valuation* according *to the net approach as recommended in the 1993 SNA.*

Due to the limitation of source data, the consumption tax is not being treated according to the net approach in the current Japanese national accounts. The CAO will consult with relevant agencies about the availability of necessary source data, and will conduct studies on the feasibility of net treatment of the consumption tax, taking data availability into account.

- *Enhance the coverage of* source *data for service industries, in general, and of short-term statistics for the quarterly accounts, and consider further development of a reliable, up-to-date, sampling frame of establishments (business register).*

Specific steps to develop statistics on service industries and statistics related to national accounts are being discussed concretely among the relevant agencies, such as the MIC and

statistical experts. The CAO participates in these discussions and offers feedback from the viewpoint of improving the national accounts.

- *Undertake revision studies for* the *quarterly expenditure account releases and publish the outcomes.*

The CAO recognizes the usefulness of revision studies to improve the accuracy of national accounts data, and will conduct revision studies for the quarterly expenditure accounts and publish the outcomes.

- *Provide more detail in the* quarterly *release for household consumption expenditures (COICOP group, durable/nondurable) and on capital investment by type.*

The CAO plans to publish more detailed data for household consumption expenditures and on capital investment in the near future. As for capital formation, the CAO has already begun a comprehensive study on refinement of concepts and data compilation by type of assets.

B. Consumer Price Index

- *Expand the scope of the CPI to include one-person households with concomitant developments in the source data for doing so. Consider reviewing the sample design to validate the outlet selection.*

As the number of one-person households has been increasing recently, the index based on the basket of total households, including one-person households, is also compiled for reference annually beginning in the 2000 revision. The official index in general is only 0.1 point higher than the index for total households in 2005. To meet various user requests, a monthly index for total households is scheduled to be included in the indices for reference in the 2005 revision. Further, it will be reviewed to include one-person households in the scope of the CPI in the future, giving consideration to comments by users.

On the other hand, the framework for sampling should not be arranged by validating the outlet selection because outlets are established or demolished here and there one after another in Japan. The framework for sampling should depend on more fixed construction, such as regional demarcations that would not be easily influenced by changes in society.

- *Include the price of items "on sale" for seven days or less.*

Collected prices represent monthly prices although they are collected on a specific weekday; either on Wednesday, Thursday or Friday. The price of items "on sale" for seven days or less may not be the price for the largest sale in the month. For example, if a product were to be "on sale" only on Friday each week, that price cannot be regarded as representative. So it should be excluded.

- *Review the use of the ratios of the averages as the main formula at the elementary level. Consider a Lowe index as the fixed basket index at the higher level of aggregation; also consider the more frequent updating of weights.*

Either the Dutot or the Jevons is acceptable as the formula at the elementary level because specifications are so tight that products or services in each item are homogeneous, or at least nearly so. The chain-weighted index with annually updated weights has been in effect since 1975. Changing the consumption pattern does not require much, since the difference between the official CPI and the chain-weighted index is only 0.4 in 2005 based on the 2000 bases. Also, the absolute values of differences between the official index and the chain-weighted index have shown to be less than 0.5 in the next base year, five years after the current base year. In addition, in order to meet various user requests, the monthly chain-weighted index in general, excluding fresh food, will be released in the 2005 revision. However, chain-weighted indices have some shortcomings, such as inconsistency in aggregation. As for the CPI, the lack of consistency in aggregation of the chain-weighted index is serious since the elements of changes must be clarified every month. Many users watch changes by category as well as in general in Japan. In most Western countries, the chain-weighted indices are regarded as official indices since the base year has been fixed for some time. In Japan, however, the base year is revised every five years, and revised indices are released within eight months after the base year. Therefore, the differences between the fixed-weighted indices and updated-weighted indices are less.

- *Review the treatment of temporarily missing items, seasonal goods and services, and quality adjustment procedures.*

The CPI in Japan is compiled with methodologies accepted by the CPI Manual for the treatment of temporarily missing items, seasonal goods and services, and quality adjustment procedures. However, since goods and services for consumers have been diversified, quality adjustment methodologies should be improved to produce the most accurate index possible.

C. Corporate Goods Price Index

- *Consider establishing a forum where users are regularly consulted.*

The BOJ listens to users' opinions. The base year of the CGPI is revised every five years. Each time, the BOJ presents a revised plan to the public, and collects comments from the public on the plan.

The BOJ has not received any requests to establish a forum. Nevertheless, it will consult with users about their need to establish one.

- *Replace output priced at the primary wholesaler with ex-factory prices.*

The primary objective of the CGPI is "to investigate price developments that reflect most sensitively the supply and demand conditions of individual goods." This objective has been inherited from the Wholesale Price Index (WPI), the predecessor of the CGPI.

With the revision to the 2000 base, the BOJ set a price investigation rule giving priority to producer prices. According to this rule, in cases where the prices of wholesalers and producers seem to reflect equally the supply and demand situation, the prices of producers are chosen as the sample prices, in principle (the WPI used to investigate prices of wholesalers in such cases). In cases where the prices of wholesalers reflect the supply and demand situation and the prices of producers remain rigid, the BOJ will adopt the prices of wholesalers as the sample prices.

The reasons for that rule are two-fold. First, the BOJ wants the CGPI to meet its primary objective of investigating price developments that reflect most sensitively the supply and demand conditions of individual goods. Second, the BOJ aims to meet users' needs to utilize the CGPI as a deflator, a request it received with the revision to the 2000 base.

The price investigation concept of the current Japanese CGPI does not coincide completely with that of the PPI due to the unique feature of Japanese trade practices. In some industries, the producer prices are stiff, and wholesalers function as the adjuster for supply and demand.

If the uniqueness in Japanese trade practices changes and producer prices reflect supply and demand in all industries, according to the price investigation rule, the CGPI's price investigation concept would coincide with that of the PPI.

- *Reduce the time lag between the survey period for weights and their adoption in the index and consider the use of a more systematic approach for the sampling of establishments.*

i) Reducing the time lag would be a difficult task as the BOJ faces limitations in the availability of source data.

ii) The BOJ has invested a large amount of resources in order to improve its sampling method, and intends to continue this practice. However, the BOJ believes that there is little room for immediate improvement because at this time the availability of source data is limited.

- *Review the treatment of temporarily missing items, seasonal goods and services, as well as quality adjustment procedures and the composition of commodities for which the averaging of prices is used.*

- *Replace at the elementary level the average of relatives with a geometric mean, or for strictly homogeneous commodities, a ratio of averages. Consider a Lowe index as the fixed basket index at the higher level of aggregation; also consider the more frequent updating of weights.*

i) The imputation methods advised in the PPI manual would carry the risk of exacerbating errors in the CGPI because the actual investigated prices in Japan show that goods belonging to the same commodity have different revision frequencies or time periods in many cases. The BOJ believes that, while expansion of the coverage of the imputation method would help

cancel undue stability in the index, it would cause undue fluctuations, and inevitably, the losses from implementing the imputation method would be greater than those of the current method in Japan.

The BOJ has examined the imputation methods advised in the PPI manual, and concludes that the BOJ's current method is the most appropriate. With regard to its imputation method for temporarily missing seasonal items, the BOJ is aware that the use of annual averages as a substitute for the missing prices does cause systematic change in the first and last time period of the season. However, the BOJ believes that this method helps maintain the accuracy of the index in the long run.

ii) Averaged prices have been introduced from the 2000 base index to obtain accurate price movements as the BOJ observed diversities in goods and differing price setting actions by corporations. On the one hand, the BOJ is aware of the possibility that averaged prices could fluctuate depending on responding corporations or trading conditions, even if items are homogeneous. On the other hand, some sampling prices other than averaged prices cannot accurately follow actual price movements.

The BOJ carefully selects the commodity prices to be averaged. Its method of adopting averaged prices is to run a comparison test to see whether it can reflect the price movement of a certain commodity more accurately than that of other sampling prices. The BOJ adopts average prices only when they prove to be more accurate than other sampling prices. The BOJ will continue to apply averaged prices according to the strict rules as necessary.

iii) The smallest unit of the CGPI is "commodity," which is designed to be identical and not further divisible in principle. In this sense the elementary level of the CGPI maintains the homogeneity of commodities to a certain extent.

The BOJ does not believe that using a geometric average only for elementary level aggregation is the best method. As a measure to solve the possible bias in the current index, the BOJ began releasing a chain-weighted index beginning in the 2000 base index. The BOJ is also going to conduct research on the Lowe index as a future candidate method.

iv) In the case of element 3.3, the CGPI received 'LNO' from the mission although other countries that have received rating of 'O' or 'LO' adopt similar treatments.

The mission explained that the standards have been changed in recent years, and the BOJ acknowledges the possibility of such changes. However, in order to avoid confusion among ROSC readers, the BOJ requests that the IMF publish the following statement in the ROSC website: a) the criteria for assessment change with the passage of time, and b) that simply comparing country results is therefore inappropriate.

The BOJ believes the PPI manual has room for improvement. The BOJ proposes a revision to allow for flexible options. This is because the manual does not seem to reach out to unique customs or situations found in individual countries. If the BOJ applies the PPI manual to the

CGPI without considering Japan's features or modifying the method to accommodate Japan's uniqueness, the index would not reflect the actual price movements, as explained above.

- *To give the Corporate Service Price Index further prominence, consider identifying it in Japan's SDDS metadata on the IMF's Dissemination Standards Bulletin Board and on Japan's National Summary Data Page, along with the Corporate Goods Price Index.*

The BOJ appreciates the positive remarks received for its efforts to develop services price statistics. The BOJ will continue to allocate an appropriate amount of resources to our research to maintain Japan's position as the leading country in this area.

As recommended by the IMF staff, the BOJ will include the Corporate Service Price Index as part of Japan's SDDS metadata on the IMF's Dissemination Standards Bulletin Board and on Japan's National Summary Data Page, along with the Corporate Goods Price Index.

D. Government Finance Statistics

- *Specify the responsibility for collecting, processing and disseminating GFS and develop working arrangements for data sharing and coordination among the relevant data producing agencies.*

- *Compile an integrated set of statements (operating statements, statement of other flows, and balance sheet) for the general government according to international statistical guidelines, and disseminate widely.*

- *Compile a monthly statement of sources and uses of cash for the budgetary central government, and disseminate in accordance with SDDS requirements.*

- *Improve the timeliness of source data for local government statistics.*

- *Bring the timeliness of general government sector accounts and the periodicity and timeliness for central government operations into line with SDDS requirements.*

The CAO will examine the feasibility of extending general government accounts in the national accounts and their earlier release, through consultation and coordination with relevant data-producing agencies.

The MOF has disseminated several monthly reports about the fiscal situation of the central government as partially described in the Detailed Assessment Report. The MOF recognizes that these monthly reports basically meet the SDDS requirements. The MOF will deliberate on dissemination of metadata in line with the periodicity and timeliness requirements of SDDS.

The outline of the data for local government statistics presented by the MIC is disseminated about a month after the end-August deadline for local governments to submit their settlement

accounts to the assembly. In view of the fact that the data were disseminated several months after the deadline in the fiscal year 2001, this has been a great improvement in terms of timeliness.

E. Monetary Statistics

- *Develop a Depository Corporations Survey by expanding the coverage of the Monetary Survey to include the Japan Post and cooperative financial institutions.*

The Monetary Survey has the purpose of showing the relationship between changes in M2 + CDs, the most representative indicators among the Money Stock statistics, and changes in the assets and liabilities of financial institutions. At present, the Monetary Survey does not include Postal Savings, etc.

The BOJ plans to revise the Money Stock statistics in accordance with on-going reforms in Japan, such as in privatization of the Japan Post. The BOJ also plans to conduct a periodical revision of the broadly defined liquidity in the summer of 2007.

Under the circumstances, the BOJ will consider expanding coverage of the Monetary Survey, if necessary, taking into account differences of financial institutions in terms of their statutory positions and their reporting burdens.

- *Collect source data on commercial banks and other deposit-taking institutions in a format that fully meets international statistical guidelines.*

The BOJ believes that it is essential to revise monetary and financial statistics such as the Flow of Funds Accounts statistics, so that those statistics trace the condition of the economy accurately. This becomes especially true as structural changes in the financial system are largely observed.

When reviewing and improving revision of monetary and financial statistics, the BOJ believes it important to prioritize the revision works and in terms of collecting source data, to take into account survey coverage and survey items, giving consideration to the reporting burdens of financial institutions.

- *Disseminate monetary statistics within a one-month period from the end of the reference month.*

The Monetary Survey is disseminated a month and ten business days after the reference month, rather than within a month.

We do not plan to review the above timeliness as availability of source data is limited. The "SDDS Guide" approves this timeliness, "as relevant" provision for the analytical accounts of the banking system, owing to the extensive bank branch network.

F. Balance of Payments Statistics

- *While the MOF is responsible for balance of payments data, identify the BOJ as the compiler of data to avoid the impression of the MOF involvement in the data compilation.*

The MOF and the BOJ will consider putting a note, "aggregated/estimated by the Bank of Japan" at the time of data release in order to make it clear that the MOF is not engaged in data aggregation/estimation. However, the MOF is legally responsible for the balance of payments statistics, and therefore it is not necessary to avoid the impression that the MOF is involved in data compilation. The MOF's responsibility also includes designing the legal framework of data collection for balance of payments statistics. It is in this context that streamlining of data collection procedures can be considered.

- *Adopt more detailed sectorization to further conform to BPM5.*

The BOJ, in cooperation with the MOF, will consider reclassifying public financial institutions from the public sector to other sectors and separating the monetary authorities from the public sector, when implementing the next edition of *IMF Balance of Payments Manual (BPM)*.

- *Develop additional sources for the data lost with the introduction of the new ITRS threshold, for example for trade in services.*

The BOJ, in cooperation with the MOF, will review the data collection system, including the expansion of survey-type data, when implementing the next edition of *BPM*. Data sources for workers' remittances have been widened since January 2006.

- *Review the revision policy that does not permit changes to the data once they are finalized; and publish revision studies.*

The BOJ, in cooperation with the MOF, will review the revision policy and consider publishing further revision studies when implementing the next edition of *BPM*.

INTERNATIONAL MONETARY FUND

JAPAN

Detailed Assessments Using the Data Quality Assessment Framework (DQAF)

Prepared by the Statistics Department

Approved by William E. Alexander and Wanda Tseng

March 9, 2006

> This document contains a detailed assessment by dataset of the elements and indicators that underlie the data quality dimensions discussed in Japan's Report on the Observance of Standards and Codes (ROSC)—Data Module. It also includes as appendices the DQAF generic framework.

Contents   **Page**

ACRONYMS

1968 SNA	*System of National Accounts 1968*
1993 SNA	*System of National Accounts 1993*
ACNA	Advisory Committee on National Accounts
ADAMS-System	Government Accounting Affairs Data Communications Management System
AIDEI	Average Index for Domestic Corporate Goods, Exports and Imports
BIS	Bank for International Settlements
BOJ	Bank of Japan
BOJL	*Bank of Japan Law*
BOPS	Balance of Payments Statistics Section
BOPSY	*Balance of Payments Statistics Yearbook*
BPM4	*Balance of Payments Manual*, fourth edition
BPM5	*Balance of Payments Manual*, fifth edition
CEFP	Council on Economic and Fiscal Policy
CGPI	Corporate Goods Price Index
c.i.f.	Cost, insurance and freight
CM	Census of Manufacturers
COFOG	Classification of Functions of Government
COICOP	Classification of Individual Consumption by Purpose
CPI	Consumer Price Index
CPI Manual	*Consumer Price Index Manual: Theory and Practice, 2004*
CSD	Consumer Statistics Division
DCGPI-chain	DCGPI using chain-weighted index formula
DCGPI	Domestic Corporate Goods Price Index
DNA	Department of National Accounts (in ESRI)
DQAF	Data Quality Assessment Framework
DQAF July 2003	Data Quality Assessment Framework, July 2003 version
ESRI	Economic and Social Research Institute
DSBB	Dissemination Standards Bulletin Board (IMF)
ESCAP	Economic and Social Commission for Asia and the Pacific
FAQ	Frequently Asked Questions
FDI	Foreign Direct Investment
FEFTL	*Foreign Exchange and Foreign Trade Law*
FEO	Foreign Exchange Order
FIES	Family Income and Expenditure Survey
FISIM	Financial intermediation services indirectly measured
f.o.b.	Free on board
GDP	Gross Domestic Product
GDDS	General Data Dissemination System
GFS	Government Finance Statistics
GFSM 1986	*A Manual on Government Finance Statistics*, 1986
GFSM 2001	*Government Finance Statistics Manual 2001*
HBS	Household Budget Survey
ILO	International Labor Organization
IMF	International Monetary Fund

IPI	Import Price Index
ISDU	Index by Stage of Demand and Use
ISIC	International Standard Industrial Classification
ISI	International Statistical Institute
ITRS	International Transactions Reporting System
JGB	Japanese Government Bonds
JSIC	Japan Standard Industrial Classification
JNTO	Japan National Tourist Organization
LEMIC	The Law to Establish the Ministry of Internal Affairs and Communications
METI	Ministry of Economy, Trade and Industry
MFI	Monetary and Financial Institutions
MFSM	*Monetary and Financial Statistics Manual*
MLIT	Ministry of Land, Infrastructure and Transportation
MIC	Ministry of Internal Affairs and Communications
MOCFE	Ministerial Ordinance Concerning Foreign Exchange
MOCRFET	Ministerial Ordinance Concerning Reports on Foreign Exchange Transactions
MOF	Ministry of Finance
NPO	Non Profit Organizations
NA	National Accounts
NSDP	National Summary Data Page
NSFIE	National Survey of Family Income and Expenditure
NSP	National Survey of Prices
OJT	On-the-Job Training
PDA	Personal Digital Assistance
PPI	Producer Price Index
PPI Manual	*Producer Price Index Manual: Theory and Practice, 2004*
PSS	Price Statistics Section
QE	Quarterly National Accounts – expenditure side
ROSC	Report on the Observance of Standards and Codes
RPS	Retail Price Survey
SB	Statistics Bureau
SC	Statistical Council
SDDS	Special Data Dissemination Standard
SHE	Survey of Household Economy
SL	*Statistics Law* (No. 18, 1947, as amended)
SNA	System of National Accounts
SRTI	Statistical Research and Training Institute
STA	IMF Statistics Department
UN	United Nations
UN Ottawa Group	International Working Group on Price Indices
VAT	Value Added Tax
XPI	Export Price Index

DETAILED ASSESSMENT USING THE DATA QUALITY ASSESSMENT FRAMEWORK (DQAF)

The following detailed information on indicators of Japan's statistical practices in the areas of the national accounts, prices, government finance, monetary, and balance of payments statistics was gathered from publicly available documents and information provided by the Japanese officials. This information, which is organized along the lines of the generic DQAF (see Appendix II), was used to prepare the summary assessment of data quality elements, based on a four-part scale of observance, shown in Japan's Report on the Observance of Standards and Codes (ROSC)—Data Module.

I. NATIONAL ACCOUNTS

0. **Prerequisites of quality**

0.1 *Legal and institutional environment*

0.1.1 *The responsibility for collecting, processing, and disseminating the statistics is clearly specified*

The Law Establishing the Cabinet Office (Cabinet Establishment Law of July 16, 1999) provides that the production of national accounts data is within the jurisdiction of the Cabinet Office (CAO). The actual compilation of the national accounts takes place in the Economic and Social Research Institute (ESRI), a so-called "extraordinary organ" in the organization chart of the CAO, and is conducted by the Department of National Accounts (DNA) of the ESRI.

The CAO website states, "The ESRI was founded in January 2001 as part of the Cabinet Office. Its main role is to strengthen its functions as a policy research institute by conducting theoretical and experimental research related to economic activities and policies, social activities, and other issues. The ESRI publishes both the Preliminary Quarterly GDP Estimates and the Annual Report on National Accounts. Moreover, the ESRI compiles and publishes the Diffusion Index and other business statistics."

National accounts are regarded as second-tier statistics in Japan, because they use data compiled by other agencies (including the survey data). Data collected from surveys in Japan are subject to the *Statistics Law* and/or the *Statistical Reports Coordination Law*. These laws classify survey-based statistics into "designated statistics," "notified statistics," or "approved statistics." Designated statistics are supported by stronger legal restrictions, such as penalties for noncompliance. The statistics are prepared under a decentralized system, whereby a relevant government ministry or agency implements the surveys, including censuses, in the field of its own public administrative jurisdiction. This is in accordance with its own collection provisions covered by the statistical law, as relevant.

0.1.2 Data sharing and coordination among data-producing agencies are adequate

The DNA contacts and arranges with source data-producing agencies to promote consistency with international standards and to improve coverage and accuracy. The relationships are both formal and informal. The informal contacts with data providers usually resolve questions about special developments in source data, which are dealt with in aggregate data.

The DNA uses administrative data sources only to a very limited extent because, for legal and confidentiality reasons, such data usually cannot be made available for statistical purposes. As in other countries, administrative data held by the tax authority would potentially be a useful data source for national accounts.

DNA contacts include regular meetings with the Statistics Bureau of the Ministry of Internal Affairs and Communications (MIC). In addition, a working group with members from all involved parties meets every two weeks on a permanent basis to prepare the next five-yearly input-output table as soon as the preceding one has been completed. This is a joint project by ten ministries and agencies; the Statistics Bureau of MIC acts as coordinator. The MIC published the most recent table in March 2004 for 2000 (English hardcopy version in June 2005). Given that the five-yearly input-output table is used as a benchmark for the annual national accounts, it is noticeable that DNA is only one among many parties interested in the compilation.

The June 2003 *New Directions in the Development of Government Statistical Services*—an official agreement at the Meeting of the Heads of the Statistical Departments of the Cabinet Office and Ministries and others—promotes contacts and arrangements across data-producing agencies.

In November 2004, the Cabinet Office established the Committee for Promotion of Economic and Social Statistics to follow up on the Cabinet's June 2004 decision "Basic Policies for Economic and Fiscal Policy Management and Structural Reform 2004." The decision pointed out the necessity of a fundamental reform of existing official statistics and strengthening of the statistical system. In its report *Structural Reform of Government Statistics,* published in June 2005, the Committee identified measures for specific statistical programs, including for improving national accounts. These measures encompass establishing closer communication and coordination among the national accounts department and the departments in charge of compiling the basic statistics, which should help promote the enhancement of the accuracy and reliability of the national accounts.

0.1.3 Individual reporters' data are to be kept confidential and used for statistical purposes only

The DNA is not involved in primary data collection except for two surveys that it conducts under the *Statistics Law* (see 0.1.4). It receives most source data for national accounts statistics as aggregates, essentially collected by other agencies.

The confidentiality provisions for the individual survey data are governed by the *Statistics Law* and related ordinances, which clearly state that individual data should be treated as confidential and used only for statistical purposes. Article 14 or the *Statistics Law* determines that all information of any person, juridical person, or other body, collected through official surveys, will be kept confidential. In addition, Article 15 of the Law also indicates that no person shall use individual "designated statistics" questionnaires for nonstatistical purposes, unless the use of such information is approved and made public by the minister. The law indicates that if any staff involved in the operations of statistical surveys, without lawful authority, publishes, communicates, or uses any confidential information which came into his/her possession in the performance of his/her duties, he/she could be liable to imprisonment for a term not exceeding one year or to a fine not exceeding one hundred thousand yen.

In addition, survey questionnaires state that the information respondents provide is to be used only for statistical purposes. Rules in the Government Official Act and the Act for Protection of Personal Data Held by Administrative Organs also apply.

Access to individual data is restricted to staff who require the information in the performance of their statistical duties. Staff review all data prepared for dissemination for possible indirect disclosure of individual data; they design tables and outputs in a way that prevents disclosure of individual data.

0.1.4 *Statistical reporting is ensured through legal mandate and/or measures to encourage response*

The two surveys conducted by DNA are on (1) basic statistics for nonprofit organizations (NPO), for which there are no other statistics, and (2) expenditures of local governments, based on a sample of primarily big cities. This collection supplements surveys conducted by the MIC for intermediate input ratios and other data, under the *Statistics Law*. The DNA uses the local government results exclusively for national accounts purposes, whereas it also publishes the NPO results as separate statistics. There is however no legal mandatory reporting of these basic data, because they are not "designated statistics" (see 0.1.1).

The majority of statistical source data for national accounts collected by other agencies falls under the *Statistics Law* for "designated statistics" surveys. Article 5 of this law stipulates that the government, the chief of local public entities, or a board be authorized to oblige a person or a juridical person to answer survey questionnaires. In terms of this obligation, Article 19 determines that a respondent could be liable for imprisonment for a term not exceeding six months or a fine not exceeding one hundred thousand yen if (1) the respondent refuses to respond or gives false answers; (2) obstructs answering in any way; (3) obstructs field workers in any way; and (4) brings a person engaged in designated statistical surveys to falsify the results of the survey. Although this penalty mechanism is in place, it is rarely employed.

0.2   Resources

0.2.1. Staff, facilities, computing resources, and financing are commensurate with statistical programs

The total number of staff in DNA is 45. About 60 percent have an academic degree. The role of the nongraduates should not be understated, because to a great extent, they represent the continuity in the compilation work against a background of a rotation system for the graduate staff. While this implies most staff will work in the DNA for only a relatively short period (two years), the DNA attempts to keep qualified staff somewhat longer, although with limited success. It should be noted that obtaining expertise in national accounts is a long-term endeavor. Skills of staff members are developed and maintained primarily by training courses and on-the-job training.

The relatively few staff of long professional experience are found mainly at the level of division chiefs. About 30 staff are fully allocated to tasks related to the current compilation work. The remaining 15 deal with capital stock calculations, regional accounts (mainly coordination and the annual publication on regional accounts), and other tasks. None are explicitly allocated to research to improve the accounts. Any developments in this area are undertaken by operational staff as a side activity. Although the present staff is able to compile and publish a relatively comprehensive set of national accounts data in a timely fashion, they also perform tasks relating to source data (such as formal cooperation with data providers), system development, and analysis of the resulting national accounts data.

The staff is relatively small compared with the staffing of national accounts in comparable countries (see *SNA News and Notes*, No. 20, April 2005, UN Statistical Division, that shows the average number of national accounts staff by country size and development stage).

The National Personnel Authority secures a uniform salary system for central government so that the same grade has the same pay in all government agencies. In addition, in the context of the importance of the seniority system, CAO tends to have relatively more high-grade positions. Salary levels are seen as adequate.

Office buildings provide working facilities (e.g., lighting, heat, and cooling) and office furniture and equipment (e.g., desks, chairs, filing cabinets, telephones, and related equipment). While these facilities are adequate to perform required tasks, the total office area for the 45 staff members is 360 square meters and consists of one single room where the whole staff work.

0.2.2   Measures to ensure efficient use of resources are implemented

No current record keeps track of the time spent compiling types of national accounts statistics. Nor are there processes to keep track of the resources used and developments in productivity. Reference is made to the Japanese management practice, based on the team

National Accounts

approach rather than individual job descriptions. One important feature of the team approach is the flexibility it allows in moving staff to wherever they are most needed at any time.

Work processes are reviewed whenever necessary. Improvement of work processes is one of the subjects of a comprehensive review of the so-called legacy system. This review, which includes computing resources and work processes, is at present taking place in various government agencies, and the CAO has been selected to participate. In the ESRI, the Division for Information Systems and Public Affairs that belongs to the Department of Information and Research Cooperation specializes in developing and managing the hardware resources of the ESRI.

In the case of the DNA, it is expected that the present mainframe-based systems will migrate to the PC network, open systems using UNIX machines for instance, or others. The present system dates from the 1980s, is increasingly difficult to use, and contains several "black boxes." The language creates particularly difficult data-processing problems in Japan, and it is expected that the whole migration process will last for about seven years. The computer systems will be migrated in the following sequence: quarterly accounts, annual accounts, and other systems, such as the rebasing system.

0.3   *Relevance*

0.3.1.   *The relevance and practical utility of existing statistics in meeting users' needs are monitored*

The Advisory Committee for the National Accounts (ACNA) is an important source of information about user needs and the relevance of the statistics produced. It has up to 22 independent external experts as members, who are also users of the statistics. The full Committee is supposed to meet about once a year, but met three times in 2004—the main activity takes place in its four subcommittees. The four subcommittees deal with (1) benchmark revisions (the transition from 1995 to 2000 as benchmark year), (2) FISIM, (3) fixed capital formation and capital stock, and (4) the system of statistics (mainly dealing with the data providers). Each month two subcommittees will usually meet. Staff members of policy departments of the CAO and other ministries may attend the meetings as observers.

In March 2005, the ESRI hosted a conference on "Next Steps for Japanese SNA: Towards More Accurate Measurement and More Comprehensive Accounts" with prominent international and Japanese speakers.

Staff members regularly participate in statistical meetings and seminars held by the United Nations, the OECD, and other organizations (e.g., sessions of the UN Statistical Commission and meetings of the OECD Working Party on National Accounts). DNA usually participates in the Canberra II Group's meetings, but participation in the ongoing SNA updating process has been limited, mainly because of resource restrictions. (See 1.1.1 for more details.)

A process called the "Estimation Review" has been established, in which opinions and comments on methodological and other issues are asked of data users through the website, and the replies examined. This process was initiated in April 2005. However, so far, only a few comments have been received.

0.4   Other quality management

0.4.1.   Processes are in place to focus on quality

The list of annual objectives states that the DNA will produce high-quality data objectively. Management is aware of the dimensions of data quality and emphasizes these repeatedly at staff meetings and through on-the-job training.

The annual objectives are defined in the framework of the policy evaluation, which requires that each government agency must (1) specify a set of objectives or targets, (2) produce a policy evaluation implementation plan, and (3) assess its achievement and be accountable by publishing the results of the self-assessment. In this framework, the target of the DNA is to improve the quality of the national accounts. In August 2005, the DNA conducted its self-evaluation according to the above framework, and the result is published on the CAO website.

0.4.2.   Processes are in place to monitor the quality of the statistical program

DNA seeks to improve quality by evaluating the accuracy of the estimates whenever necessary. It conducts a systematic review of the quality of the statistics from April to September each year to arrive at the annual results. In addition, during the process of benchmark revisions in every fifth year, complete reviews are conducted.

0.4.3.   Processes are in place to deal with quality considerations in planning the statistical program

The planning process takes place from January to August for the next year. For national accounts, the planning is based on the above-mentioned review meeting, at which ESRI outlines a plan for implementing a "task list" and requests the resources in the framework of the budgeting procedure. In the current work program for ESRI, they started to strengthen the collaboration of the research section of the ESRI with the DNA for better quality of national accounts.

During the budgeting process, the DNA explains to the financing authorities the contents of programs, the necessity for them, and other related points. Also, while budgets are institutionally drawn up annually, the DNA can conduct statistical projects beyond one year.

1. **Assurances of integrity**

1.1 **Professionalism**

1.1.1 Statistics are produced on an impartial basis

The CAO clearly recognizes its traditions and a culture of professionalism as essential to the credibility of statistical results. In the organization chart of CAO, ESRI is listed under "extraordinary organs," indicating a distance from the policy-oriented agencies of the CAO. It is further argued that the professional independence of such bodies as the ESRI is a long tradition in Japan. ESRI has its own website. It should be noted, however, that the Law Establishing the Cabinet Office, which provides for the compilation of national accounts data within the jurisdiction of the Cabinet Office, contains no legal or other formal provision to support professional independence of the ESRI (or DNA) in its capacity as producer of statistics.

The ESRI president is usually a highly regarded academic with a background in the economic or social sciences, although no legal provision stipulates such a requirement. The president is appointed for a two-year renewable term. The incumbent is the third since the creation of the ESRI in connection with the administrative reform of central government in 2001. The tenure term does not usually coincide with that of the government. The ESRI president has the final decision on all statistical matters under the competence of the ESRI and may see and formally approve statistical data before they are released.

Independence is reinforced by the fact that the public is well aware that ESRI strictly prohibits the leakage of statistical information by the rule of information control (see 1.3.1). Also, prior ministerial access to the data is only provided minutes before the scheduled release time in connection with a press briefing of the quarterly accounts.

Professionalism is actively promoted and supported within the DNA. Training courses and on-the-job training in the methodology and compilation methods are provided, including participation in seminars, courses, and workshops arranged by regional and international organizations. Easy access to professional literature is provided.

Processes and activities in the workplace promote a culture of professionalism (e.g., recognition of authors of methodological papers, organization of lectures and conferences, and the institutional support of professional bodies). ESRI has several channels for publishing research and analysis, such as the *Discussion Paper* series of the ESRI and the *National Accounts Quarterly* of the Department. The publication of the *Discussion Paper* series is subject to internal review. Even if a formal process of internal review is not established, explanation to and discussion with the executives supports the quality of papers, including documentation (metadata).

The ACNA was established in 1974. Its members are independent external experts, nominated by the ESRI president and appointed by the Prime Minister. By means of the

frequent meetings of the subcommittees and close contact with the current national accounts work, the ACNA contributes to ensuring objectivity in the compilation of the statistics. (See also 0.3.1.) All discussion papers and minutes related to these committees are made public on the ESRI website.

However, the present staff resource situation limits somewhat Japanese participation in international cooperation in national accounts. Major positive spin-offs result from active membership in the international community of national accountants. Although on-the-job training, as carried out in DNA, will always be essential, it cannot fully compensate for the incentives obtained from international cooperation, which are important both to retain qualified staff members and to promote professionalism in general.

1.1.2 *Choices of sources and statistical techniques as well as decisions about dissemination are informed solely by statistical considerations*

The choice of source data and statistical techniques is based on measurement objectives and data requirements. The involvement of ACNA and its subcommittees in many of these decisions is a further safeguard.

Specific release dates of quarterly preliminary estimates are announced in a release calendar on the ESRI website and determined by the timing of release of the relevant source data. However, the timeliness of the preliminary quarterly estimates releases (6 weeks after the reference quarter) has been determined by more overarching considerations, where a balance between timeliness and reliability has been decided.

1.1.3 *The appropriate statistical entity is entitled to comment on erroneous interpretation and misuse of statistics*

The DNA actively seeks to prevent misinterpretations or misuse of its statistics by providing explanatory materials to the public, including the media. It also briefs the media on the release of the quarterly data. (See 5.1.4.)

DNA follows the media coverage of its statistics in cooperation with the Public Relations Office. In case the statistics are misinterpreted or misused by the media or others, ESRI usually formally requests to be allotted a refutation. The ESRI president decides whether a refutation should be requested or not.

Further explanations of and comments on public criticism of the released data have in some cases been published on the ESRI website. Thus, in 2000, two examples were "The recent opinions on Japan's GDP figures and our approach" and "For promoting understanding of Japan's GDP figures–some comments on recent opinions on Japan's GDP figures." They were published on the ESRI website and can still be found there.

1.2   Transparency

1.2.1   The terms and conditions under which statistics are collected, processed, and disseminated are available to the public

The particular legal conditions under which the national accounts are produced (compiled and disseminated) are not made available—neither with the release of national accounts data nor on the ESRI website.

Laws and documents relating to source data for compiling national accounts statistics are posted on the relevant government department websites and/or included in published collections of laws and regulations. Copies of the relevant laws are available from the Government Publications Service Center.

Several documents in various degrees of detail are available to explain the System of National Accounts in Japan. These documents on compilation methods, release schedule, and other material are posted—often in great detail—on the ESRI website. The ESRI website and the DNA statistical publications also indicate where users can find more information. Contact points are clearly shown on the ESRI website and in each publication.

1.2.2   Internal governmental access to statistics prior to their release is publicly identified

The schedule that is announced on the day of the data release (from August 1999) specifies who has access to data prior to the release. This schedule is well-known and available in print to the press and other interested parties but is not posted on the ESRI website**.** On the day of the release, a briefing is held for members of the Press Club at 8:30–8:50 a.m., and reporters are not allowed to leave the room or engage in any form of external communication until the official release of the data at 8:50 a.m. At the same time, a briefing is given to representatives of the ministers who also receive the data minutes before the scheduled release. This prior access is only given for the first version of the preliminary quarterly accounts. For the second preliminary version, a press briefing starts at 9:00 a.m.

An economics minister or a deputy will comment on the data at a press meeting that is usually held at 10:00 a.m., only in connection with the release of the first preliminary version. Usually a staff member from the DNA will be available in the press room most of the morning to respond to questions from reporters.

1.2.3   Products of statistical agencies/units are clearly identified as such

The ESRI statistical products are usually marked with only the logo of ESRI or the logos of both ESRI and CAO. The text version of national account releases is always indicated as coming from the Department of National Accounts, Economic and Social Research Institute, Cabinet Office. Thus the major *Annual Report on National Accounts* has both the logos of ESRI and CAO on the front cover, whereas a print from the ESRI website of a quarterly

release has only the ESRI logo. Documentation and prints of individual tables from the ESRI website will often have a more limited identification.

There are no cases where DNA has been involved in joint publications that also contain policy interpretations. DNA requests attribution when its statistics are used or reproduced.

1.2.4 Advance notice is given of major changes in methodology, source data, and statistical techniques

Advance notice is given to the public usually on the ESRI website. More comprehensive changes, such as the introduction of the *System of National Accounts 1993* (*1993 SNA*), in Japan national accounts are also announced in articles and news releases. For instance, the change to chaining methods in the volume data in December 2004 was announced two months in advance.

In such cases, the ACNA is often consulted. Also, because the discussions that precede the changes are open to the public, the users will often be aware of the pending changes long before the changes are actually implemented

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are in place and are well known to the staff

All civil servants are subject to the *National Public Service Ethics Law* (Law No. 129 of 1999). The law provides for the establishment of the *National Public Service Officials Ethics Code* (April 2000), which creates a standard for ethical behavior for all national public officials. The rules are therefore not specific for statistical staff but deal generally with government employees and the way they should perform their duties. The purpose of the law is to ensure trust of public servants, deter them from activities that could create suspicion or distrust about the fairness of their duties, and bestow on them the recognition that they are servants of the whole nation.

To this effect, the ethics code requires that employees always make sure not to give unfair treatment to the public, distinguish between private and public affairs, not take action that may create public suspicion or distrust, and work in the public interest. It also mandates that government employees never use their positions for individual gain for themselves or any organization they belong to. In terms of this code, heads of ministries and government agencies can, in addition, develop their own ethics instructions applicable specifically for their agency. According to the Public Service Code, each agency has to submit a quarterly report to the National Public Service Ethics Board about any incidents that may come under the code.

For the national accounts statistics, ESRI has established the rule of information control (see 1.1.1.). This rule deals also with the internal access to the data during the compilation process.

Management acknowledges its status as a role model and is vigilant in following the standards, and staff are reminded periodically of the *National Public Service Ethics Law* and the *National Public Service Officials Ethics Code*.

2. Methodological soundness

The methodological basis for the statistics follows internationally accepted standards, guidelines, or good practices

The methodological soundness dimension is assessed against the guidelines outlined in the *1993 SNA* or the *European System of Accounts 1995* (*1995 ESA*). The *1993 SNA* and *1995 ESA* are viewed as interchangeable whenever reference is made in this document to the *1993 SNA*.

2.1 Concepts and definitions

2.1.1 The overall structure in terms of concepts and definitions follows internationally accepted standards, guidelines, or good practices

Since 2000, Japan has followed the *1993 SNA* as a general framework for compiling the national accounts statistics. The benchmark input-output table for 2000, released in March 2004, is also broadly compiled according to the *1993 SNA* concepts and definitions and will shortly be applied as the basis for a benchmark updating of the national accounts data.

The deviations from *1993 SNA* are limited and described in detail in an appendix in *System of National Accounts 1993 in Japan (Definitions and Concepts).* This publication also outlines the introduction of the *1993 SNA* and the changes that took place compared to the earlier data, based on the *1968 SNA*. (See also 5.2.1.) For each area of change from the *1968 SNA* to the *1993 SNA*, in total 65, the publication indicates if the change is introduced in its entirety, partially introduced, or not introduced. If the change is not fully introduced, the reason is given as (1) constraints on data, (2) necessity of the former system, (3) consistency with other major statistics, (4) ambiguous contents of the *1993 SNA*, (5) lack of necessity of classification, (6) lack of harmony with the situation in Japan, or (7) task for the future. In most cases where the *1993 SNA* is not fully introduced, lack of data is given as the main reason.

Examples of deviations from the *1993 SNA* are as follows: (1) production and generation of income accounts are not compiled for institutional sectors; (2) output and value added by economic activity are valued at the distinct concept of producers' prices that results from the treatment of the consumption tax (a value-added type tax), according to the gross methodology; (3) in line with (2), the distinction between "taxes on products" and "other taxes on production" is not applied; and (4) in tables with data according to economic activity, the first level distinction is between market producers and nonmarket producers

(producers of government services and NPISHs) and the second economic activity, as in the *1968 SNA.*

2.2   Scope

2.2.1   The scope is broadly consistent with internationally accepted standards, guidelines, or good practices

Japan compiles the *1993 SNA* tables and accounts that the ISWGNA[1] determined as a *minimum requirement* for its implementation, as listed below:

- annual value added and GDP at current and constant prices by activity;
- annual expenditures of GDP at current and constant prices;
- annual value added components at current prices by activity;
- sequence of accounts for the total economy (up to financial accounts) with an annual frequency; and
- annual rest of the world accounts (until net lending).

Japan also compiles the following tables (except for the quarterly accounts by economic activity) determined as *recommended* by the ISWGNA:

- quarterly expenditures of GDP at current and constant prices;
- quarterly accounts by economic activity;
- annual supply and use tables.

Annual supply and use tables are compiled. In addition, annual input-output tables, consistent with the final annual national accounts data, are compiled, along with the detailed five-yearly benchmark input-output tables compiled as a joint project between ESRI and nine other ministries and agencies. Furthermore, institutional sector accounts are compiled on an annual basis, inclusive of financial flow accounts and balance sheets. Aggregated capital stock data are also compiled.

The delineation of the constituent units of the economy is broadly in accordance with the *1993 SNA.* As Japan's balance of payments (BOP) statistics are the source for the rest of the world account in the national accounts, the conversion rules, etc. used in the BOP are automatically included in the national accounts. In principle, the Japanese BOP follows the IMF *Balance of Payments Manual*, 5th edition (*BPM5)* and should thus be consistent with the *1993 SNA* rest of the world account.

There are, however, certain differences. For the definition of residence, the BOP follows the definitions given in the *Foreign Exchange and Foreign Trade Control Law* that deviates

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[1] Inter-secretariat Working Group on National Accounts.

somewhat from the *1993 SNA* and *BPM5* definitions of residency for natural persons; this difference is not deemed important. Receipts from construction abroad (that lasts more than one year) by Japanese enterprises abroad are considered as services in the balance of payments (a departure from *BPM5*). In the national accounts they are, according to the *1993 SNA*, treated as a receipt from a nonresident unit. Similarly, the BOP treats patent fees as a service, whereas the national accounts treats them as property income.

The production boundary is broadly in accordance with the *1993 SNA*. Thus, the following items are within the scope for output measurement:[2] own-account production of all goods for own final consumption, output of goods for own-account fixed capital formation, and mineral exploration. Production of entertainment, literary, or artistic originals is, in principle, included but not treated as an intangible fixed asset. Research on own account is not identified in the annual calculations (but in the five yearly input-output table). Illegal output sold to willing buyers is not included in the accounts.

Owing to a lack of data, in-house production of computer software is not separately measured and cannot be included as fixed capital formation as stipulated by the *1993 SNA*. Attempts to obtain this kind of information by a recent survey were not successful. Similarly, purchases of ready-made software packets are not yet treated as fixed capital formation. However, they are in the new benchmark input-output table for 2000, and will therefore be included with the next benchmark revision of the national accounts (at the end of 2005). In accordance with the *1993 SNA*, outsourced software development is at present included in fixed capital formation, based on information from the supply side.

The asset boundary is broadly in accordance with the *1993 SNA*. It includes, in particular, the following tangible assets: defense-related assets that could be used for civilian purposes; historical monuments (but not valuables); and partly, the growth of cultivated assets, such as livestock and timber tracts. Among intangible assets, it includes mineral exploration (whether successful or not) and patented entities; only part of system and standard application computer software and databases are included (see above). Entertainment, literary, or artistic originals are not included. Deviations, limited in number, are kept under review, taking into account the availability of source data. (See also 5.2.1.)

2.3   Classification/sectorization

2.3.1   Classification/sectorization systems used are broadly consistent with internationally accepted standards, guidelines, or good practices

The *1993 SNA* is followed to classify institutional units, transactions, and other flows. JSIC (Japanese Standard Industrial Classification) is used to classify economic activity. The classification is comparable with international standards such as ISIC. A national product

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[2] Irrespective of the coverage actually achieved.

classification compatible to CPC is used to classify products. COICOP[3] is used to classify household consumption, and COFOG[4] is used to classify functions of government. Data for final expenditures are published at a high level of aggregation, although they are compiled at a finer level. In the annual accounts, household consumption is published according to the 12 main COICOP groups and with a breakdown for durables, nondurables and services. Functions of government are published according to the 10 main COFOG groups. Fixed capital formation is published according to the main categories by type (including a subitem for software) and by institutional sector (including a subdivision on private and public), but not by activity. In the quarterly accounts, household consumption is shown as a total supplemented with separate information on imputed rent; and fixed capital formation is broken down into private residential and private nonresidential and public investment. Data for household consumption are compiled for 87 groups, both quarterly and annually, but not seen as reliable enough to be published.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

In the Japanese national accounts, market output is valued at prices inclusive of consumption tax. The consumption tax (CT) possesses most of the characteristics of a value-added tax (VAT). This implies that the valuation system is essentially a gross VAT system. However, the gross treatment is chosen because the CT system in practice deviates from a standard VAT system.

In a gross VAT system, the taxes that the purchasers can later deduct will be included in the prices, such as in the purchasers' prices for intermediate consumption and fixed capital formation and changes in inventories. In Japan, the enterprises registered to pay CT are only required to submit an annual declaration disclosing their total sales and purchases (following the schedule of their own accounting year), and this forms the basis for the actual payment of CT to the tax authority. The concepts of invoiced and deductible VAT play no role in the invoicing practices of the enterprises. In current transactions, the CT is therefore not necessarily identified, which also implies that the value concept including CT is used in all statistical reporting. The present approach is called the "modified gross approach" in the terminology of the Japanese national accounts (modified because the CT on investments is later deducted).

With the gross system, the main problem in the national accounts is to have the CT removed from the final expenditure items, for which it is deductible, to obtain the correct measure for GDP at market prices from the expenditure side. In practice, this problem is related to fixed

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[3] Classification of Individual Consumption by Purpose.

[4] Classification of the Functions of Government.

capital formation (but excluding residential buildings and most public investment) and changes in inventories. The total deductible CT from these items is posted as a negative CT on the expenditure side, with a similar negative amount as a balancing item on the production side, so that the total CT that appears as taxes on production in the national accounts will equal the government revenue from this tax.

The *1993 SNA* (par. 6.207-6.214) requires that the net system of recording VAT should be followed. On the other hand, it states that: "The VAT is shown separately on the sellers' invoices so that the purchasers know the amount they have paid" (Par. 6.208), a condition that is not always fulfilled in the case of the CT. The Japanese "VAT" system has thus some unique characteristics that make the required net treatment difficult. The use of the gross method does, however, also involve specific estimation procedures to obtain the CT that should be included as part of the value added in each economic activity. In fact, because the CT by activity is estimated, it is easier to use the gross method than if the actual payments of CT by activity were the point of departure. In that case, a complicated distribution by activity of the negative CT from the expenditure side would have been necessary.

In addition to CT, other taxes on products are also included in the producers' values. The most important statistical implication of the use of the producers' values is that the value added by activity is measured at producers' prices, a concept that is not recommended in the *1993 SNA* because it distorts the measure of the relative importance of the economic activities. Thus the present gross treatment of the CT in the Japanese national accounts departs from the international standards that recommend the net treatment; a change to the net method would involve adjusting basic statistical information before it could be used in the compilation of the accounts, and thus it implies a complete separation between the data in basic statistics and in the national accounts.

Outputs for own use are valued at equivalent market prices, and transfer prices are not usually detected. Total exports and imports are recorded on an f.o.b. basis, and the information on insurance and freight necessary to transform the imports c.i.f. is available from the estimates made to compile the BOP.

2.4.2   *Recording is done on an accrual basis*

Transactions and flows, including work in progress, are in principle recorded on an accrual basis. The government accounts data sources are on a cash basis, as is the case in several countries. However, adjustments are made in compiling the national accounts for some important types of expenditures, for which monthly information is available. An example is medical expenditures that are recorded on an accrual basis on the assumption that the payments take place one month later than the transaction. Consumption of fixed capital in government nonmarket production is also estimated on an accrual basis. Other government-related transactions are recorded on a cash basis, owing to the limited availability of source data.

2.4.3   Grossing/netting procedures are broadly consistent with internationally accepted standards, guidelines, or good practices

Transactions between establishments within the same enterprise are in principle recorded on a gross basis, but in general the national accounts will depend on the procedures embedded in the source data as compiled by the data providers. For the government accounts, some explicit netting is carried out for national accounts purposes.

3.   Accuracy and reliability

The accuracy and reliability dimension is applied to annual and quarterly gross domestic product estimates by activity and expenditure categories. Both current price estimates and volume measures are evaluated.

3.1   Source data

3.1.1.   Source data are collected from comprehensive data collection programs that take into account country-specific conditions

Although comprehensive and with a good coverage in many fields, Japan's decentralized data collection program has weaknesses when seen as a data source for the compilation of quarterly and annual national accounts statistics.

Whereas both short-term statistics and structural statistics are well developed in the traditional areas, such as agriculture and manufacturing industries, gaps still exist in the statistical coverage despite new statistical developments in recent years. This is in general the case for statistics on many service industries, for which data sources are insufficient for both the quarterly and annual national accounts. In addition, and for a broader area, there are insufficient timely short-term statistics for a solid underpinning of, in particular, the first preliminary version of the quarterly accounts that are released about six weeks after the reference quarter.

As referred to under 0.1.2, the problems are clearly identified in the *Structural Reform of Government Statistics* (June 2005). Measures are being devised, involving a broad review of data sources with a view, among other things, to improving the database for compiling national accounts.

Annual enterprise/establishment statistics

A business register, "Statistical Frame of Establishments and Enterprises," is located in MIC. It is updated every five years, most recently in 2004, on the basis of an "establishments and enterprises census," carried out by enumerators. The enumerators physically identify all workplaces in the country and register their addresses, activity code, legal organization, and employment. The updating of the register in the intervals between censuses is not ongoing.

This register is used as a sample frame for most surveys of private business, but some government data-producing agencies maintain their own registers, which may originally have been part of the above register. These local registers are used and updated according to specific needs but without others having access to the updated information. When conducting the "quarterly financial statement statistics of corporations by industry," the MOF has the major benefit of direct access to the tax records for corporations. Efforts are underway to enhance the effectiveness of the business register.

Data for compiling annual accounts

The current annual data collection (see Text Table 1) is generally sufficient to derive annual national accounts aggregates (particularly output, intermediate consumption, fixed capital formation, and changes in inventories). For manufacturing industries, sufficiently detailed data are available from the "Census of Manufacturers"—a census survey of manufacturing establishments, conducted by the Ministry of Economy, Trade, and Industry (METI). For service industries, some source data are available from the "Survey of Selected Service Industries" conducted by the METI, but these data sources are in general not sufficient.

Text Table 1: Main Sources for the Annual Accounts

Production approach		
Japanese Standard Industrial Classification	**Main source**	**Adequacy for annual estimates**
Agriculture, hunting, and forestry	- Yield, unit price, and cost surveys for agricultural products - For forestry, output and cost surveys and corporate goods price index	Good
Fishing	- Statistics on catch by kind of fish - Annual cost survey	Good
Mining and quarrying	- Output and cost surveys - For gravels and stones, output data from relevant organizations and corporate goods price index	Good
Manufacturing	- Shipment and cost data from annual census survey for manufactures - Financial statements statistics of corporations	Good
Electricity, gas, and water supply	- Output and cost data from the Ministry of Economy, Trade and Industry - Financial statements statistics of corporations - For water supply, financial statements of local public corporations	Good
Construction	- Construction commodity flow approach - Employment data for construction industry from employment statistics - Social security data - Financial statements statistics of corporations	Satisfactory

Production approach		
Japanese Standard Industrial Classification	**Main source**	**Adequacy for annual estimates**
Wholesale and retail trade, repair of motor vehicles, and personal and household goods	- Turnover and cost data from three-yearly census survey and annual survey for commerce - Data on trade margin from five-yearly survey and financial statements statistics of corporations - Annual cost survey for medium and small-sized enterprises - Annual survey for motor vehicle overhaul industry - For repair of motor vehicles, no direct information on cost structure	Repair of motor vehicles: Satisfactory Other: Good
Hotels and restaurants	- Five-yearly input-output tables - Five-yearly census survey for establishments and enterprises - Business data on sales	Not satisfactory
Transport, storage, and communication	- Monthly statistics on transport volume and sales - Financial statements of certain enterprises	Good
Financial intermediation	- Financial statements of certain financial corporations - Bank of Japan accounts	Not sufficient information for calculation of FISIM
Real estate, renting, and business activities	- Five-yearly census survey for establishments and enterprises - Financial statements statistics of corporations - Annual survey for selected service industries - Financial statements of certain enterprises - Often no direct information on cost structure	Not satisfactory
Public administration and defense; compulsory social security	- Annual government accounts - Financial statements of social security funds	For preliminary NA: Not satisfactory. For final: Good
Education/ Health and social work	- Five-yearly census survey for establishments and enterprises - Annual government accounts - Annual survey for NPISH - Health insurance data - For education, often no direct information on cost structure	Good
Other community, social, and personal service activities	- Five-yearly census survey for establishments and enterprises - Employment statistics - Often no direct information on cost structure	Not satisfactory

Expenditure approach		
Expenditure category	**Main source**	**Adequacy for annual estimates**
Household final consumption expenditure	- Commodity flow approach	Good
Final consumption expenditure of nonprofit institutions serving households	- Derived from production approach	Good
Government final consumption expenditure	- Derived from production approach	Good
Acquisitions less disposals of tangible fixed assets	- Commodity flow approach - Monthly construction statistics for dwellings - Annual government accounts - Financial statements of public corporations	Good
Acquisitions less disposals of intangible fixed assets	- Commodity flow approach	Not satisfactory for software
Additions to the value of non-produced nonfinancial assets	- Financial statements statistics of corporations - Annual government accounts - Financial statements of public corporations	Good
Changes in inventories	- Commodity flow approach - Annual government accounts - Financial statements of public corporations	Good
Acquisitions less disposals of valuables	(Conceptually they are reflected in calculations that use the commodity flow method, but in the Japanese national accounts, they are not explicitly estimated.)	-
Exports and imports of goods	- Balance of payments statistics - Trade statistics	Good
Exports and imports of services	- Balance of payments statistics	Good

Household budget surveys

The system of household budget surveys in Japan consists of three related surveys:
(1) the Family Income and Expenditure Survey (FIES), (2) Survey of the Household
Economy, and (3) National Survey of Family Income and Expenditures (NFIE). The first two
are monthly with sample sizes of 8,000 and 33,000 households, respectively, whereas the
third is five-yearly (conducted for years ending on 4 and 9), with a sample size of about
53,000 households, and can be seen as the benchmark survey.

The results of the FIES are so timely that they can be used in the first preliminary version of
the quarterly accounts. The survey of the household economy is relatively new, introduced
on the initiative of the national accounts compilers, to better cover those goods and services
that are infrequently bought. Therefore, the questionnaire specifically asks for 64 items of
this kind (including rent and repair of dwellings).

For national accounts purposes, the information obtained from the survey of the household economy replaces what has been obtained on the 41 corresponding items in the FIES and thus improves the overall coverage and reliability of the combined data set. Before the data are introduced into the national accounts calculations, they are further adjusted for insufficient coverage of the single person households (which were estimated to account for about 28 percent of all households in Japan in 2000 but are very difficult to cover in this type of survey).

These data are also adjusted by means of correction factors, where the ratio of expenditure per household according to the FIES to expenditure per household according to the "national survey of family income and expenditure" is determined per item. The current quarterly expenditure obtained from FIES is multiplied by this ratio to determine the "benchmarked" amounts. The section about the specific quarterly compilation techniques explains how these data are incorporated into the compilation of the quarterly accounts. More technical details about the household surveys are given in the DQAF on the Consumer` Price Index (CPI).

Government finance statistics

Because statistics with good coverage for government are only available with a lag, various sources are used for compiling the national accounts data for the quarterly data and the preliminary annual data.

The total estimates are derived as the sum of separate estimates for each of the cost components: intermediate consumption, compensation of employees, consumption of fixed capital, and taxes on production less sales of products. As noted in 0.1.4, the DNA carries out a special survey on local government, only for the purpose of producing national accounts; the results are not separately published. The results are mainly used for determining the cost composition, whereas the total is obtained from budget data and trend extrapolations. For central government, the DNA uses the number of government employees (surveyed informally) and wage information. Major parts of central government expenditures can be estimated by means of the monthly records of the payments for medical care, nursing care, etc. The ratios of intermediate consumption, sales of products, consumption of fixed capital, and taxes on production are to a considerable extent based on constant proportions or trend extrapolations.

For compiling the final data at the end of the second year after the reference year, all the reference year comprehensive data are available for both central and local government as well as for social security institutions. Thus a good basis exists for the annual benchmarking of the series on which the preliminary estimates are based.

Data collections based on administrative data sources

While administrative data of the Financial Services Agency are used, exploitation of other administrative data for national accounts compilation is very limited in Japan. This is due to

very strict confidentiality rules in force for those agencies in possession of these data, such as, in particular, the tax authorities.

Periodic (two to five years) surveys/censuses and ad hoc surveys are conducted

Comprehensive large-scale surveys, such as the Population Census and the Establishment and Enterprise Census, are conducted every three to five years. The latter contains detailed employment data and industrial classification and legal organization for all enterprises in the country; it was last conducted for the reporting year 2004. In connection with the five-yearly input-output table, a great number (about 50) of special surveys are conducted, in particular on input structures, structure of fixed capital formation, etc. Some surveys on service industries are held every three years, and, as mentioned above, the national survey of family Income and Expenditure, every five years.

Price statistics used to derive constant price estimates are adequate

Price indices are adequate and timely for the volume estimates of the national accounts. The available price statistics are sufficient for national accounts purposes. Examples are the general price indices (CPI and corporate goods price index (CGPI); see the DQAFs on CPI and producer price index or PPI) and the more specialized price indices for services (the corporate service price index or CSPI), together with the price indices for exports and imports. It is especially noted that the two price indices for mainframe computers and personal computers are now compiled as hedonic indices and show a price development very similar to this type of price indices in other countries. The availability of individual price indices allows the volume estimates to be made at an approximately 400 product level in both the quarterly and the annual accounts.

Data for compiling the quarterly GDP

The table below (Text Table 2) lists the data sources for the quarterly accounts and their adequacy for the purpose of compiling quarterly accounts. While monthly/quarterly data are not as extensive as annual data, quarterly estimates of GDP are compiled using alternative data where no direct source data are available.

Text Table 2: Main Sources for the Quarterly Accounts

Production approach (only in compilation)		
By a 90 product classification (only market-products)	**Main sources for indicators (M: monthly; Q: quarterly)**	**Adequacy for quarterly estimates**
Agriculture	Monthly statistical Reports on Agriculture (M). Index numbers of Commodity Prices for (M) Agriculture. A number of separate surveys on markets for individual agricultural products (Vegetables and fruit, Meat, Beef, Milk, Egg) (M)	Good
Agricultural services	Derived from related sources	Not satisfactory
Forestry	Inspection of saw mill sample (M) Price index, DCGPI	Reasonable
Fishing	Statistical survey on marketing quantity of fishery products by landing area (M)	Satisfactory
Mining and quarrying	Indices of producers shipments (M) Import price indices (M) DCGPI (M)	Good
Manufacturing	Indices of producers' shipments. Quantity (M) DCGPI (M) Current survey of production (M) Estimates by CAO (for tobacco and medicine) Price estimate by CAO (shipbuilding)	Good
Construction	Monthly labor survey (on wages) (M) Labor Force Survey (M)	Not satisfactory
Electricity	Monthly report on electric power statistics (M)	Good
Gas and heat supply	Current survey of production (gas) (M)	Good
Water	Final expenditure estimate applied	Reasonable
Water disposal	Monthly labor survey	Not satisfactory
Wholesale and retail trade	Current survey of commerce (M) Financial statement statistics of corporations by industry (Q) Report on basic survey on commercial and manufacturing structure and activities (every 5 years)	Reasonable/good
Finance (commission only)	Monthly statistics report (Tokyo Stock Exchange) (M)	Reasonable
Insurance	Website of Life Insurance Association of Japan (3 M after reference month) Monthly economic report on land, infrastructure and transport CPI	Not satisfactory
Brokers and letters of real estate	Monthly labor survey (M)	Not satisfactory
Rent	Demand side estimate applied	Reasonable
Transport	Monthly economic report on land, infrastructure and transport (M, but after 3 months) The summary report on trade of Japan (M) Corporate service price index (M) Quick report on 50 major travel agencies' travel sale (M)	Reasonable

Production approach (only in compilation)		
Telecommunication	Communications industry survey (M, but after 3 months)	Reasonable
Postal service	Post and telecommunications administration statistics (M) Price index estimated by CAO	Reasonable
Education Scientific research	Monthly labor survey (M)	Not satisfactory
Medical services Health services Welfare services	Demand side estimates applied	
Business services	Current survey of selected service industries (M) Monthly labor survey (M)	Not satisfactory
Automobile and machine repair	Monthly economic report on land, infrastructure and transport (M, but after 3 months)	Not satisfactory
Broadcasting	Communications industry survey (M, but after 3 months) Website of NHK (Japan Broadcasting Corporation).	Not satisfactory
Theatres, cinema, and other entertainment	Current survey of selected service industries (M)	Reasonable
Restaurants, bars etc	Survey of food service industry activity (M)	Not satisfactory
Hotels and other accommodations	Quick report on conditions of 50 major travel agencies' travel sale (M)	Not satisfactory
Other personal services	Current survey of selected service industries	Not satisfactory

Expenditure approach		
Expenditure category	**Main sources**	**Adequacy for quarterly estimates**
Household final consumption expenditure	Family income and expenditure survey Survey of the household economy Monthly report on current population Supply side estimates	Reasonably good
Final consumption expenditure by government	Budget data Number of government employees (estimated by the DNA by hearings, etc) Statistical report of payroll payments Payments of care and social insurance Special survey on local government expenditures, carried out by DNA	Not satisfactory
Final consumption expenditure by nonprofit institutions serving households	Survey on private nonprofit institutions Trend estimation	Reasonably good
Private gross fixed capital formation in residential buildings	Statistics on building construction starts Estimates of average construction time	Reasonable
Private gross fixed nonresidential capital formation in	Quarterly Financial Statement Statistics of Corporations by Industry. Business and Investment survey of incorporated enterprises Statistics on building construction starts Supply side estimates	Reasonable, but only supply side estimates available for 1st preliminary estimate
Public fixed capital formation	Integrated statistics on construction works Statistics on public works advance payments guarantee Extrapolation	Reasonably good
Changes in inventories	Hearings of public inventory holders Extrapolation of annual data Inventories of rice Financial statement statistics of corporations by industry Current survey of commerce	Less than satisfactory, especially for the 1st preliminary estimate
Exports and imports	Foreign trade statistics Balance of payments statistics	Good

3.1.2. *Source data reasonably approximate the definitions, scope, classifications, valuation, and time of recording required*

Some source data are not consistent with the definitions, classifications, and requirements of the national accounts, and they are adjusted before being used in the compilation. The coverage of total economic activities (in terms of value added) by all data sources is higher for final than for preliminary versions of the accounts. In the final accounts, at least 80 percent of economic activities are covered, and the coverage is good for activities (in terms of value added) within the most important industrial groups (e.g., ISIC one-digit level), except for some service industries.

3.1.3 Source data are timely

Timeliness of data is broadly sufficient. This is practically always the case for the data needed for the final annual accounts. But in some cases, and in particular for the short-term data needed for the first preliminary estimate of the quarterly accounts, and the first estimate of the annual data, timeliness is lagging. When direct source data are missing, estimates are based on approximations, related indicators, trend extrapolations, etc.

3.2 Assessment of source data

3.2.1 Source data—including censuses, sample surveys, and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and nonsampling error; the results of the assessments are monitored and made available to guide statistical processes

DNA checks the information received from the data providers before using it. When necessary, DNA refers to source data-producing agencies, usually on an informal basis. However, the possibilities of assessment of source data are largely limited to consistency in time and the broad relationship to other data sources, since the data are received as aggregates. The information on the potential sources of errors, including response rates, is uneven. Furthermore, the absence of an updated data sampling frame (business register), potential gaps/duplication in data sources, and differences in concepts used among various data services and classification make it difficult to assess the accuracy of several types of source data.

3.3 Statistical techniques

3.3.1 Data compilation employs sound statistical techniques to deal with data sources

As the same types of source data are used period after period, the national accounts compilers have obtained good insight into the potential problems related to each type of statistics, and they sometimes adjust the data received. On the other hand, the institutional distance from the producers of the source data limits these possibilities, though grossing-up procedures have often already been applied by the data producers, and will usually be accepted.

3.3.2 Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques

The data adjustments that take place within the compilation systems to balance supply and use employ sound statistical techniques. In cases where source data are missing in the compilation of preliminary accounts, DNA uses various estimation techniques, such as trend extrapolation.

It has been decided not to try to include explicit estimates of informal, hidden, or illegal activities in the accounts. The estimation methods for certain activities not covered by any

statistical source data (e.g., construction) are such that some of these activities will automatically be included. The absence of tips is another factor that limits the importance of the informal economy in Japan.

Integrated Production and expenditure approach

Compilation techniques in the annual accounts

The annual compilation system consists of a commodity flow system, in which essentially final expenditures are determined, and a value added system, in which value added by economic activities is determined.

In the commodity flow system, total supply for the domestic market of about 2,200 products is calculated from output (no breakdown by economic activity), imports less exports, and trade and transport margins. In the next step, allocation ratios that are derived from the latest benchmark input-output table are used to distribute the supply to the demand side, that is, to intermediate consumption (no breakdown by economic activity), private household consumption, gross fixed capital formation, and changes in inventories. In this method, the final uses are thus completely determined from the production side. Nonetheless, the result is GDP from the expenditure side. There are no residuals or balancing problem.

The high level of detail is essential for the reliability of this method. Thus about half the products have only a single use in the horizontal distribution. By using the estimates derived from the commodity flow method as a control total, output of each of 83 economic activities is estimated from the output matrix by economic activities (V Matrix). The input matrix (U Matrix) is separately estimated to obtain intermediate input by economic activities. This system implies a relatively sophisticated mixture of use of detailed annual data in connection with the detailed structures from a benchmark year. In this way, the information content in the actual data is maintained and used in the estimates.

Value added by economic activities is estimated by deducting the intermediate input from the output. At the same time, the constituent items of value added (i.e., compensation of employees, consumption of fixed capital, taxes on production and imports, subsidies, operating surplus, and mixed income) are estimated for each economic activity. This system provides for efficient use of existing data.

The commodity flow method and the value-added method cover total market production. Output of nonmarket services on the supply side by producers of government services and NPISHs and their allocation to demand are separately estimated, as are intermediate consumption, value added, and its components for these activities.

The sum of value added of industries, producers of government services, producers of private nonprofit services to households, and taxes and duties on imports, deducting consumption taxes for gross capital formation and imputed bank service charge, determine GDP from the production side. Because of various adjustments in the course of the application of the two

methods mentioned above, a small statistical discrepancy will usually exist between GDP from the production side and GDP from the expenditure side. The latter is assumed to be the most accurate, and the difference is therefore entered on the production side.

The constant price calculations take place within the same two systems but after the 2,200 products have been aggregated to a 400 grouping. The volume estimate from the production side is based on double deflation. The volume estimates are carried out using the chaining approach with the preceding year as the base year and 2000 as a reference year (implying a Laspeyres chain for the volume estimates and a Paasche chain for the implicit price indices). The reference series with a fixed base year (1995) are also compiled. Proper methods are used for the volume estimates of trade margins and taxes on products. Nonmarket activities of government and NPISHs are deflated from the cost side. The implicit deflator for household consumption is largely consistent with the CPI, although the two price concepts have different weight structures. The procedures used for deflation are in line with international standards.

Both the particular commodity flow approach and the value-added method rely to a relatively high degree on ratios from a benchmark year more than five years old. However, the influence of this is alleviated by the use of a very detailed product classification and the modification of the input ratios annually based on current information of the input ratio and on some of the main input components.

Proper techniques are used to address specific issues of GDP compilation

Output for owner-occupied dwellings is valued as the estimated rentals that tenants would pay for similar accommodation. Growing crops, standing timber, and livestock reared for purposes of food are treated as work-in-progress. Large construction projects are treated as fixed capital formation for those made to order.

Consumption of fixed capital in the private sector is estimated based on data for depreciation from corporate surveys and other sources, because the capital stock is not estimated for economic activities but only for institutional sectors. To establish the connection between the opening stocks and the closing stocks, it is therefore necessary to adjust for this insufficient valuation method. This is done in a special revaluation account "others" created for this purpose. For government activities, the consumption of fixed capital for social infrastructure and software is based on the perpetual inventory method, whereas for buildings, the capital consumption is calculated directly from the value of the buildings.

Gross fixed capital formation is compiled by type of assets and by institutional sectors, not by activities, and only in the annual accounts. In the quarterly accounts, there is a breakdown into private residential, private nonresidential, and public investments. Changes in inventories are compiled by type of inventory (finished, work-in-progress, etc.) and by institutional sectors but not by activities.

Specific issues of GDP compilation

The following treatments largely accord with good practices. Government final expenditure excludes incidental sales, expenses of residents abroad are included in household final consumption expenditure and in imports, and expenses of nonresidents in the economy are excluded from household final consumption expenditure and included in exports. When items that are considered stores of wealth are produced or sold, they are in principle covered by the calculations in the commodity flow system; there is, however, no special final expenditure category for this item, as is the case in most countries, though it deviates from *1993 SNA*.

Specific quarterly compilation techniques

The quarterly compilation techniques have recently been significantly improved in two steps. First, in 2002, a supply side approach was introduced in the compilation of the data to supplement the previous exclusive reliance on the final expenditure approach. At the same time, other methodological and data source-related changes were introduced, though dissemination is still limited to final expenditure data. Second, in the latter part of 2004, the chaining method for the volume estimates was introduced. The techniques described in the following refer to the system after these changes.

Essentially, the supply and use sides are determined independently and are afterwards brought to balance. The quarterly compilation techniques thus broadly mirror the annual one, although in a simplified form. This should contribute to relatively small adjustments in the quarterly data when they are benchmarked on the annual ones. The balancing takes place in a commodity flow system containing 90 products that are aggregates of the 2,200 products in the annual system.

On the *supply side*, an indicator for the quarter-to-quarter development of sales from domestic producers is identified for each of the 90 products. Benchmarking on the annual data (aggregated from 2,200 to 90 groups) results in the identification of benchmark-to-indicator ratios (BI), which can be used in transforming the indicator into estimates for the current quarters. The benchmarking is of the pro rata type, where the BI factor for the most recent annually benchmarked quarter is applied. Total supply for the domestic market for each of the 90 products is obtained as domestic sales plus imports less exports. It is revalued into purchasers' prices using a simplified version of the annual trade and transport margin system. Changes in inventories of intermediate products and in trade are also deducted at this stage, and the total available for domestic use obtained is determined.

On the use side, there are three categories: intermediate consumption, household consumption, and fixed capital formation. Because the purpose of the system (at present) is only to support estimates of the final uses, intermediate consumption is ignored, and the horizontal allocation ratios found in the latest annual estimates for household consumption and fixed capital formation are used to estimate these categories at the 90 group level in the current quarterly calculation. Using the transformation matrices from the latest annual

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estimates, the product-classified quarterly supply side estimates of household consumption and private nonresidential investment are transformed into the 87-purpose classification for household consumption (COICOP) and into an institutional classification (private nonfinancial corporations, financial institutions and households) for nonresidential investment. These are the *supply side* estimates.

Independent *use side* estimates are made for the 87-purpose household consumption groups and for the three nonresidential investments groups. For each of these groups, an indicator is identified, and—following the same benchmark method used in estimating sales from domestic producers—estimates for the current quarter are made. These are the use side estimates.

In the next step, the supply and use side estimates are integrated. The two parallel estimates are weighted together using weights that in principle reflect their relative variance. Since the use side data are based on sample surveys, it is possible to calculate their sampling errors, whereas estimates of the variance on the supply side data are more difficult. The weights are in the interval 0.5 - 0.6 for the use estimates, which imply almost equal weights. The integration procedure is carried out according to the formula without regard to the difference between the two indicators. In the categories of nonresidential investments, considerable difference may exist between the estimates from the two sides.

Some categories of supply and use are by their nature not included in the above general compilation process. These are activities where supply and use are two sides of the same estimate, such as rent, residential investments, medical and nursing care services, and consumption and investment expenditures of general government and NPISHs.

In the volume estimates, the chain-linking method is applied. The previous year is the base year for the volume estimates for the quarters of the following year. Thus the chain volume measures are of the Laspeyres type, and the chain deflator, of the Paasche type. The year 2000 is chosen as the reference year. The "fourth quarter overlapping approach" is used to ensure continuity when a new base year is introduced in the estimates for the first quarter.

Even though only rather aggregated data are in the releases of the quarterly data, the volume estimates are made at a more detailed level. Price indices for the 87 COICOP groups and the nonresidential investments are obtained by applying the product weights from the latest annual data, obtained by using a 400-group aggregation of the 2,200 products. Construction deflators are estimated from the price development in intermediate consumption and wages. Government final consumption expenditures are deflated from the cost side, where intermediate consumption is deflated using weights from the 400 grouping in the annual accounts, compensation of employees with the change of the average public employees' wage, and consumption of fixed capital with the fixed capital formation deflator for the general government sector. Exports and imports are deflated at the same level of detail, using the import price indices (IPI) and export indices (EPI) where relevant, and otherwise unit values for goods. Foreign trade in services is, where applicable, deflated with the corporate service prices index (CSPI) or with specially designed price indices.

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Both the current price estimates and the volume estimates are benchmarked on the annual data whenever a new set of annual data becomes available. The benchmarking method applied is the proportional Denton method, as explained in the IMF *Quarterly National Accounts Manual* for chain-linked series, and the pro rata method for others.

Both the current price and the volume estimates are seasonally adjusted by application of the X-12-ARIMA program. The ARIMA model selected is the same for both nominal and real values to avoid effects on the implicit deflators. The period for the seasonal adjustment is from the first quarter of 1994 to the most recent quarter. Thus seasonal factors are adjusted each quarter, causing seasonally adjusted values to be modified retroactively to 1994. To retain the bookkeeping identities, all the seasonally adjusted aggregates are obtained as the sum of their underlying seasonally adjusted series (at the release level). This is good practice by international standards.

Even though the first and the second preliminary estimates of the quarterly data are, in principle, compiled using the above method, some differences are caused by limitations in data availability when the first version is compiled. Thus the first version contains no fixed capital estimates from the demand side, and changes in certain categories of inventories are based on trend extrapolations. Where monthly data sources are used, data for the third month in a number of cases will be missing and will be either imputed by extrapolation or assumed unchanged.

3.4   *Assessment and validation of intermediate data and statistical outputs*

3.4.1   Intermediate results are validated against other information where applicable

Intermediate data, that is, the data before the balancing process takes place, are checked for temporal consistency and compared to the development in other types of data. Sometimes these checks result in changes in the data, as has for example been the case after detecting discontinuities in the financial statement statistics for corporations by industry.

3.4.2   Statistical discrepancies in intermediate data are assessed and investigated

The commodity flow system and the supply and use framework are used to investigate discrepancies and to adjust the statistical output. During the annual estimation process, a systemic procedure exists to routinely assess the potential discrepancies in intermediate data.

3.4.3   Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated

When the compilation process is completed, a control procedure is established to check the results. Staff from the five divisions of the DNA who primarily have been involved in the compilation will explain the results to the director of DNA. They will also relate the results of the overall picture given by various short-term statistics and macroeconomic data in general.

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A statistical discrepancy between GDP by production activities and GDP by expenditure components is shown explicitly on the production side in the published tables.

3.5   Revision studies

3.5.1   Studies and analyses of revisions are carried out routinely and used internally to inform statistical processes (see also 4.3.3)

Differences between preliminary and revised data are routinely checked, and when data problems or methodological problems are identified, they are used as a basis for review of estimations methods or the specific use of data sources.

Although no regular studies are conducted to investigate if there are systematic biases or other problems in the preliminary versions of the released data, the revisions between the first and the second preliminary quarterly accounts since 2000 seem now relatively modest, and the bias slightly positive, as is the norm internationally.

However, it would be important to conduct revision studies, as is done routinely in countries comparable to Japan.

4.   Serviceability

4.1.1   Periodicity follows dissemination standards

The periodicity of the national accounts is quarterly (and annual) in accordance with the SDDS requirements.

4.1.2   Timeliness follows dissemination standards

The first preliminary version of the quarterly GDP estimate is released about 6 weeks after the reference quarter, and the second preliminary version about one month later. Both releases are thus well within the SDDS timeliness requirements of three months.

The first annual estimates for the calendar year are disseminated about twelve months after the end of the reference year. Data for the fiscal year (April-March) are disseminated simultaneously. Revised (final) annual data are disseminated one year later, together with the next set of preliminary annual data.

4.2   Consistency

4.2.1   Statistics are consistent within the dataset

With countries' national accounts calculated from different approaches, a statistical discrepancy exists between GDP from the production side and GDP from the expenditure side. In Japan's annual national accounts, the discrepancy is relatively stable over time,

varying between -1 and +1 percent of GDP. The discrepancy is entered on the production side, indicating that the expenditure data are seen as more accurate. The official growth rate is thus the one derived from the growth in GDP(E). Because the quarterly accounts are only disseminated as expenditure data, the question of a statistical discrepancy does not arise with these data.

As in most countries, at the level of institutional sectors, the net lending/borrowing in the capital accounts differs from the financial flows accounts. This is the case in Japan especially for the nonfinancial corporations sector, the household sector, with differences also for the general government sector. The flow of funds is compiled by the BOJ. Though the BOJ uses the same definition of sectors as the *1993 SNA,* the sectoring may deviate from the one used by DNA when compiling the institutional accounts.

GDP estimates at current prices, volume measures, and deflators are consistent within the "value = volume × price" framework, both in the fixed base year volume data and in the chained volume data.

The quarterly data are consistent with the annual data. Concepts, definitions, and classifications are the same, and the quarterly data are benchmarked to the annual data whenever new annual data become available.

4.2.2   *Statistics are consistent or reconcilable over a reasonable period of time*

Consistent annual time series on a *1993 SNA* basis are available from 1980 onwards in current prices and in constant prices with 1995 as the base year. The introduction of chain linking in the volume estimates in 2004 was for the quarterly data, carried only back to 1994. As the quarterly series are more aggregated before 1994, this complicated the calculation of the series further back in time, but it will be done later**.** Comparable time series of national accounts data for 1955–80 are available on a *1968 SNA* basis.

Detailed methodological notes identify and explain the main breaks and discontinuities in time series, their causes, as well as adjustments made to maintain consistency over time, usually in "Notice on Usage" on the ESRI website.

In case unusual changes occur in economic trends, of which users of national accounts data should take notice, they are explained in the publication on the ESRI website. An example is the transfer of debt in connection with the privatization of the national railways. In other cases, economic trends are analyzed and explained by other departments of the CAO or other ministries.

4.2.3   *Statistics are consistent or reconcilable with those obtained through other data sources and/or statistical frameworks*

The national accounts data are reconcilable with the BOP data and the government finance data as compiled by the MOF. Differences between the rest of the world account and the

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BOP are documented in the *System of National Accounts 1993 in Japan (Definitions and Concepts)*. For general government, the national accounts classify some nonfinancial public corporations differently from the classification used in the MOF data in order to follow the *1993 SNA* definitions. These differences are also explained in detail in the above-mentioned publication on definitions and concepts. However, tables of reconciliation are not provided.

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

Except for benchmark revisions and other major changes such as the adoption of chaining, the annual data are final with the second release after about 21 months. In principle, the quarterly data become final with the same delay. However, as the seasonal factors are recalculated every quarter, the seasonally adjusted quarterly data will (back to 1994) therefore show minor changes with each new release.

The reasons underlying the cycle (e.g., the availability of source data, the timing of revisions with related datasets, the timing for preparing important economic policy documents) are well explained.

Documentation of the most important reasons for revisions is included in the publication on the ESRI website of the second preliminary quarterly accounts. A similar procedure is applied for the annual data.

In connection with major revisions, such as the introduction of the *1993 SNA,* the changes are carefully explained; in this case they were explained in the S*ystem of National Accounts 1993 in Japan (Sources and Methods).*

4.3.2 Preliminary and/or revised data are clearly identified

For preliminary quarterly estimates, it is clearly stated at the time of data release that data are preliminary. Preliminary data are not, for example, marked with (*). However, from the relatively stable revision schedule, the users will know the status of the data. The *System of National Accounts 1993 in Japan (Sources and Methods)* provides an overview of the data that are revised in connection with each new release of data.

At the time of data release, it is clearly stated whether released data are first preliminary, second preliminary, or revised annual estimates. When revisions outside the regular cycle are made, they are explained in the published materials and on the ESRI website "Notice on Usage."

4.3.3 Studies and analyses of revisions are made public (see also 3.5.1)

When the second preliminary quarterly estimates are disseminated, a table shows the revisions compared to the first preliminary release. Major reasons for the revisions are given

as a one-page text attached to the published data. For annual estimates, major factors of revisions are explained in the "Notice on Usage." These documents are posted also on the ESRI website.

No analysis of differences between the revised and preliminary data is published.

5. Accessibility

5.1 Data accessibility

5.1.1 Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts)

The presentation of national accounts data is commensurate with users' needs. National accounts data are published clearly, and datasets are published with various levels of detail. Both the quarterly and the annual accounts are released in a summary form and in a more detailed form on the ESRI website.

The *Annual Report on National Accounts* contains sections with varying degrees of detail, as well as an introductory chapter summarizing the development from 1980 to the most recent final year, shown in graphs. A greater use of graphs could be made.

Annual hardcopy publications on input-output tables (the 24 and 87 industry tables consistent with the annual final national accounts) and on regional accounts are released. They include comprehensive explanatory text sections. The latest annual input-output publication includes a CD with the comparable time series of input-output tables for 1995–2002. The five-yearly input-output tables are published as a comprehensive 600-page hardcover publication, with 240 pages containing explanatory text and analytical applications. The data are also available in electronic form from MIC.

In accordance with the policy of the DNA not to comment in writing on the most recent development, the comments and explanations in the quarterly release are limited to a short-text section explaining the main reasons for revisions. (Verbal comments are provided at the press briefing held in connection with the release of the data (see 1.2.2).) However, the annual and five-yearly publications contain analysis of the development in the period covered.

Data are disseminated at a detailed level (although the level for such expenditure categories as household consumption and fixed capital formation is still rather aggregated). Also, the data are disseminated in time series on the Web and in hardcopy publications. The time series are made available in an electronic usable format on the ESRI website.

The quarterly national accounts series are disseminated in seasonally adjusted form. As the adjustment factors are updated each quarter, based on the period since 1994, new time series for this period are also released each quarter.

Practically all annual national accounts data are compiled and disseminated both for the calendar year and for the fiscal year. At the same time, reference series for the volume estimates with a fixed base year (1995) are still compiled and disseminated after the introduction of the chaining methods. Although this vast quantity of data may seem confusing, it was explained that the domestic users in Japan generally use only annual data for fiscal years; thus the data for the calendar year are more for international use and comparison.

5.1.2   *Dissemination media and format are adequate*

Comprehensive and/or detailed statistics are disseminated in both paper and electronic formats (see 5.1.1. above), and current statistics and longer time series can be accessed through an electronic database on the ESRI website. The data are posted in accessible format, and access is free of charge.

On the SNA section on the ESRI website, it is possible to subscribe to an e-mail service to have the requested data e-mailed to the customer as they are released. This service is also free of charge.

Press meetings are held at the time of release of the quarterly accounts (see 1.2.2), although releases that specifically target the press are not part of the dissemination policy. Most of the releases from the DNA are not directly in a form that facilitates redissemination in the media.

5.1.3   *Statistics are released on a pre-announced schedule*

An advance release calendar for the quarterly data is available on the ESRI website. It covers a six-month period (i.e., the releases of data for the following two quarters), showing both the date and the precise timing (8:50 a.m.) of the release. The release calendar is also shown in the detailed web-based publication on quarterly accounts. In connection with the releases, earlier published data may—depending on the circumstances—be revised back for any period between one and ten years. No published release calendar exists for the annual data.

The advance release calendar for the quarterly data contains the footnote, "The above schedule may be changed due to, among other possible reasons, changes in the release dates of source statistics." Nonetheless, it has only happened once that the release date has been postponed one day. According to the DNA, this precaution is taken because of its lack of control over release schedules of the data providers.

5.1.4   *Statistics are made available to all users at the same time*

The public is informed about the release of the statistics and about the procedures to access them. The data are in principle made available to all interested users simultaneously. Only in connection with the release of the first preliminary version of the quarterly accounts, the press is briefed during the 20 minutes period immediately prior to the release. This occurs

under lock-up conditions where any external communication is strictly prohibited (see 1.2.2. for more details).

5.1.5 *Statistics not routinely disseminated are made available upon request*

In addition to the statistics routinely disseminated, more detailed data or related statistics are available upon request. DNA seeks to meet specific requests within the range of possibilities and resources. This service is free.

When more detailed statistical information than is routinely disseminated is requested by external experts, the purpose of their research and the characteristics of the data are checked, and then DNA judges on a case basis whether the requested data can be provided.

5.2.1 *Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is available, and differences from internationally accepted standards, guidelines, or good practices are annotated*

A comprehensive set of sources and methods documents are published and updated regularly. The documentation of the quarterly national accounts, *Estimation Methods of Preliminary Quarterly GDP (QE),* fourth edition, revised January 2005, is revised whenever necessary and made available on the ESRI website. A summary version of this document is also available.

The annual national accounts are documented in detail in the two-volume publication *System of National Accounts 1993 in Japan (Definitions and Concepts)* and *(Sources and Methods)*, respectively. This publication was released in 2001 after the transition of the Japanese national accounts to the *1993 SNA* in 2000. Changes from the *1968 SNA,* as well as departures from the *1993 SNA,* are explained. The various data sources and the relationship to other types of statistics such as the BOP and fiscal data from MOF are described in detail. Presently, the English version of this publication is only available in a hardcopy version, and it would be logical to put it on the website (after deleting outdated sections on the quarterly accounts). Comprehensive documentation of the recent introduction of the chaining method in the volume estimates is also available on the ESRI website.

In addition to these major documents, current information on changes in methods or corrections of data is made available on the ESRI website as "Notice on Usage," "Correction to the Figures on National Accounts," or other documents.

The SDDS metadata, SDDS summary methodologies, and other related descriptions are reviewed and, if needed, updated quarterly, based on a reminder that MIC distributes to all agencies that compile SDDS data.

5.2.2   Levels of detail are adapted to the needs of the intended audience

For general users, explanations of definitions and terminology are included as appendices in the *Annual Report on National Accounts*. A 22-page illustrative booklet on the Japanese national accounts is available as an introduction for users who have no prior knowledge in this field. It is available in hard copy (color print) as well as on the ESRI website.

For more specialized users, documentation is made available on the ESRI website and in hard copy as described above (5.2.1). Summaries in these publications give a quick and easy overview.

5.3   Assistance to users

5.3.1   Contact points for each subject field are publicized

Prompt and knowledgeable service and support are available to users of the national accounts data. The SNA section of the ESRI website contains an e-mail address where users can ask questions about the national accounts data and metadata. All statistical releases contain telephone and/or e-mail contact points to which inquiries can be directed.

All inquiries from the users are monitored, and detailed records are kept about the time, substance, and response given. In total, about 20 substantial questions arrive per week, not counting the simpler inquiries about the data.

5.3.2   Catalogs of publications, documents, and other services, including information on any charges, are widely available

Catalogs of publications (titles, prices, and others) are posted on the ESRI website. They are revised every year.

Table 1. DQAF (July 2003): Summary of Results for National Accounts

Compiling Agency: Economic and Social Research Institute, Cabinet Office

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
0. Prerequisites of quality						
0.1 Legal and institutional environment		X				
0.2 Resources				X		Staffing is relatively low for operational and developmental purposes.
0.3 Relevance		X				
0.4 Other quality management		X				
1. Assurances of integrity						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
2. Methodological soundness						
2.1 Concepts and definitions		X				
2.2 Scope		X				
2.3 Classification/sectorization		X				
2.4 Basis for recording		X				
3. Accuracy and reliability						
3.1 Source data			X			Some source data needs strengthening.
3.2 Assessment of source data			X			Source data are provided in aggregate form and may not be consistent across concepts, coverage, and classification.
3.3 Statistical techniques		X				
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies				X		No formal revision studies are carried out.
4. Serviceability						
4.1 Periodicity and timeliness		X				
4.2 Consistency		X				
4.3 Revision policy and practice		X				
5. Accessibility						
5.1 Data accessibility		X				
5.2 Metadata accessibility		X				
5.3 Assistance to users		X				

Recommendations

- Promote data consistency across the datasets, by systematizing consultation with data-producing agencies. (0.1.2)

- Review the current level of staffing of the national accounts data given that it is somewhat low for operational and developmental purposes. (0.2.1)

- Further develop quarterly accounts from the production side with the view to disseminate these data. (2.2.1) and (3.3.2)

- Treat the consumption tax in valuation according to the net approach as recommended in the *1993 SNA*. (2.4.1)

- Enhance the coverage of source data for service industries, in general, and of short-term statistics for the quarterly accounts and consider the further development of a reliable, up-to-date, sampling frame of establishments (business register). (3.1.1)

- Undertake revision studies for the quarterly expenditure account releases and publish the outcomes. (3.5.1)

- Provide more detail in the quarterly release for household consumption expenditures (COICOP group, durable/nondurable) and on capital investment by type. (5.1.1)

II. CONSUMER PRICE INDEX

0. Prerequisites of quality

0.1 Legal and institutional environment

0.1.1 The responsibility for collecting, processing, and disseminating the statistics is clearly specified

The Cabinet Order on the Organization of the Ministry of Internal Affairs and Communications (MIC)[5] specifies that the Statistics Bureau (SB), which is part of the MIC, is responsible for the Retail Price Survey (RPS), Family Income and Expenditure Survey (FIES), and the compilation of the CPI. Though the SB's responsibility for disseminating the CPI is well established (5.1), no clear legislative obligation stands regarding dissemination.

The Law to Establish the Ministry of Internal Affairs and Communications (MIC) (1999) (LEMIC) has as part of its scope: "To execute and tabulate ...fundamental statistical censuses and surveys..." (Article 4.85). Such "fundamental" surveys are denoted, under the *Statistics Law* (1947) (*SL*), as "designated statistical surveys," which are "those necessary for the formulation of basic government policies and that are important to national life." The main source data for the CPI are weights from the FIES and monthly prices from the RPS. The FIES and RPS are designated statistics numbers 56 and 35, respectively. Although the CPI is not a designated statistic, the survey regulations of the RPS stipulate that retail prices shall be collected for the purpose of calculating the CPI. The CPI is also recognized in other legislation, primarily relating to indexing pensions, including the National Pension Law (1959) (Articles 27.2 and 27.3). The CPI is compiled by the Price Statistics Office (PSO) of the SB Consumer Statistics Division (CSD). The CPI is reported monthly to cabinet meetings of government ministers.

The FIES and RPS, as designated statistical surveys, carry with them obligations under the SL: response to surveys (Article 5), penalties for not doing so (Article 19), maintenance of confidentiality (Articles 14 and 15), and prompt dissemination (Article 16). Designated statistics are not subject to the provisions of other laws (Article 3).

The Japanese Parliament has not ratified the International Labor Office's (ILO's) Labor Statistics Convention, C160, 1985, under which the agency responsibility for the compilation of the CPI is confirmed with the ILO.

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[5] The responsibilities of the divisions and directors are stipulated in Articles 111–119 of the Cabinet Order on the Organization of the MIC.

0.1.2   Data sharing and coordination among data-producing agencies are adequate

The primary data source surveys, the FIES and RPS, and the compilation of the CPI are undertaken within the CSD. The physical proximity of the sections that undertake the surveys and the CPI compilation allows for frequent contact among them.

0.1.3   Individual reporters' data are to be kept confidential and used for statistical purposes only

Adequate legislative backing exists for confidentiality. Article 14 of the SL requires that the confidentiality of individual data for designated statistics is secured, and Article 15 requires that individual questionnaire forms be used only for statistical purposes. Article 15.2 further and usefully allows for the use of anonymized data, though such data are only to be provided for statistical analysis to public (including academic) bodies. The SL (Article 15) stipulates that "No person shall use the individual questionnaire forms collected to produce the designated statistics for purposes other than statistical ones" and that "the preceding paragraph shall not be applicable when the purpose of use is made known to the public with the approval of Minister of the MIC". The SL (Article 19.2) provides legal penalties of penal servitude and fines for breaches of confidentiality. Such penalties have never been applied.

Data collectors for the RPS and FIES are provided with manuals and training that emphasize their responsibility to maintain confidentiality.[6] Confidentiality of data is appropriately guarded during collection, processing, storage, and the destruction of records. The internal network in the SB is separated from the external networks so the individual data are not accessible from outside the SB.

0.1.4   Statistical reporting is ensured through legal mandate and/or measures to encourage response

Under the SL, respondents have obligations to answer questions in the designated surveys (Article 5), and Article 19 stipulates provisions of penal servitude and fines for breaches of these obligations. The penalties have never been applied with regard to the FIES. The sample design of the *FIES* has a provision for substituting households from the same tertiary stratum if nonresponse occurs (3.1.1). Nonresponse is not a problem for the collection of prices from outlets.

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[6] The mission was unable to assess the contents and standards of such documents. This follows a general rule to protect the integrity of the CPI.

0.2 Resources

0.2.1 Staff, facilities, computing resources, and financing are commensurate with statistical programs

The number of staff and their skills are adequate to produce the CPI. There are about ten core staff responsible for the production, analysis, and dissemination of the CPI and a further ten core staff who plan and conduct the monthly RPS. When particularly busy, the CSD has some flexibility to employ an additional two staff. About 50 percent of the core staff have undergraduate degrees. Staff rotate among departments of the MIC or other governmental organizations—statistical and nonstatistical—about every two years; fewer than 50 percent of core staff have been in the PSO for more than two years. Nonetheless, members have high-level exposure and make contributions to cutting-edge price index number methodology (see 1.1.1).

A further 30 staff are responsible for the selection of the item specifications for pricing, and about 50 staff, in the "tabulation" section of the National Statistics Center, for reviewing the adequacy of the price data reported by the enumerators each month. Such staff are also encouraged to engage in other areas. About 130 supervisors and 750 enumerators (who are temporary government employees) conduct the RPS.

Each enumerator uses a personal digital assistant (PDA) for RPS data retrieval and electronic transfer to the mainframe. Each SB staff member has a personal computer. The office equipment and the office environment are suitable. The budget to carry out the work is, on the whole, considered to be satisfactory. However, the annual budget for the CPI has remained relatively stable with only some increases at the time of the weight revisions. Budgetary constraints limit innovations.

0.2.2 Measures to ensure efficient use of resources are implemented

Budgets are revised every five years at the time of the base-period revision to meet, where applicable, new needs. Budgeting is fairly stable during these five-year periods. However, provision exists in the annual budget plans to request funding for special projects, although such projects are expected to lead to, and have to be justified by, efficiency savings.

The PSO considers there would be no efficiency gains from compiling the CPI in the same agency as the corporate good price index (CGPI) because of differences in the data collection process and other statistical operations.

0.3   Relevance

0.3.1   The relevance and practical utility of existing statistics in meeting users' needs are monitored

Opinions are sought from related ministries and agencies and at international meetings and conferences on an ad hoc basis. The Statistics Council (SC) acts as a formal advisory body to the MIC. Methodological issues are discussed in internal workshops held about three times a year, to which academic experts are invited. Users' opinions are mainly sought during the base period revision every five years.

Consideration could be given to establishing a regular user consultation forum that is representative of the user community. In this context, the ILO Labor Convention 160 includes a formal stipulation to consult employer and employee organizations, although as noted in 0.1.1, Japan has not ratified this Convention. The PSO's decision not to ratify the Convention 160 is because it tries to compile the CPI impartially without being influenced by political pressures.

0.4   Other quality management

0.4.1   Processes are in place to focus on quality

The CPI is the subject of some scrutiny, particularly at subcouncil meetings of the SC, at the time of base-weight revisions. Government ministries and agencies, including the Bank of Japan (BOJ), are also consulted on methodological issues at the time of the base-period revision.

Operational manuals provide practical guidelines for CPI data collection, validation, and processing, although, as noted earlier, they were regarded as confidential and were not made available to mission members.

0.4.2   Processes are in place to monitor the quality of the statistical program

No system of formal monthly reports monitors efficiency-related or quality-related indicators, for example, of budgets, expenditure, and permanent and temporary missing values. As noted in 0.2.2, budgets are set and appraisals are undertaken, by and large, every five years.

0.4.3   Processes are in place to deal with quality considerations in planning the statistical program

Processes are in place to deal with quality issues at the micro data level, where data are verified, and at the macro level, at the time weights are revised. Consideration should be given to more regular processes by which quality indicators are monitored, issues discussed,

and decisions made, to maximize the potential for recognizing and adopting quality-related innovations.

1. Assurances of integrity

1.1 Professionalism

1.1.1 Statistics are produced on an impartial basis

The SL has at the start of its statement of its purpose (Article 1), an assurance of integrity: "..to secure the veracity of statistics...." Staff responsible for the CPI have a good knowledge of statistical issues. PSO staff have presented papers at international conferences, including the International Working Group on Price Indices (Ottawa Group), OECD inflation measurement seminars, the ECE/ILO Joint Meeting on Consumer Price Indices, and the IMF review meeting of the *PPI Manual*. In October 2003, they hosted the 18th UN Voorburg Group International Working Group on Service Statistics (Voorburg Group). In February 2004, they hosted a session of the United Nations' (UN) Economic and Social Commission for Asia and the Pacific (ESCAP) Committee on Statistics.

The SB benefits from having its own Statistical Research and Training Institute (SRTI), which provides statistical training for national and local government personnel. The SRTI offers 17 courses each year, ranging from basic statistics to advanced theory, and conducts collaborative research work with guest researchers. The PSO also conducts internal workshops.

Once a month after the release of the CPI, the Minister of the MIC presents the new figures at a cabinet meeting of all ministers. Ministers can comment on the release, and the Minister of the MIC would normally have to respond publicly to any issues raised at such meetings. This high-profile exposure enhances the integrity and reputation of the CPI.

1.1.2 Choices of sources and statistical techniques as well as decisions about dissemination are informed solely by statistical considerations

It is apparent, from the metadata and discussions with members of the PSO, that the choice of data sources and statistical techniques is decided by statistical criteria, subject to resource constraints.

1.1.3 The appropriate statistical entity is entitled to comment on erroneous interpretation and misuse of statistics

The PSO responds to erroneous interpretations or misuse of statistical series. It monitors newspapers for articles on the CPI. Particular newspapers have an earlier release of their Web versions than their print versions, and PSO monitors the Web versions so that it can advise on corrections prior to the print publication.

PSO releases information sheets to journalists to help counter misreporting. A link to "Frequently Asked Questions (FAQs) on the CPI" is available on the website. It contains a quite detailed, proactive response to criticisms and is to be applauded.

1.2.   Transparency

1.2.1   The terms and conditions under which statistics are collected, processed, and disseminated are available to the public

SB appropriately has on its website a précis of the legislation relating to the CPI, including the SB; full versions should be provided.

Japan subscribes to the IMF's Special Data Dissemination Standard (SDDS). The IMF's Dissemination Standards Bulletin Board (DSBB) includes, under the heading of "Integrity," the legislative terms and conditions under which SB's statistics are produced.

1.2.2   Internal governmental access to statistics prior to their release is publicly identified

No government officials have access to the data prior to release except for the Minister of the MIC. The MIC is responsible for a wider range of activities than the SB, including the postal office and local government, and this early access may impose on the perceived impartiality of the statistics.

1.2.3   Products of statistical agencies/units are clearly identified as such

The SB has no logo, mark, or nomenclature to designate its statistics. Each publication has the SB's name, although the questionnaires usually note that the survey is for a designated statistic. Each designated statistic has a number, and this number is included on the questionnaires. Some major surveys, such as the population census, have clearly identifiable logos.

1.2.4   Advance notice is given of major changes in methodology, source data, and statistical techniques

The base-year weights are revised every five years. For the 2000 base-year revision, advance notice was given to the public by way of the SB's website, articles in bulletins, briefings, and news releases. For the 2005 base-year revision, a draft of the principles of the base revision was released in May 2004 and opinions requested. Answers to the opinions were released on the Japanese language website in November 2004.

At the time of the base-weight revision, new items are included and old ones dropped, new data sources (scanner data) and related methods (hedonic models) adopted, the classification revised, and new weights introduced. This five-yearly overhaul is well documented, as discussed in 5.2, in the metadata. The 2000-base index was introduced in August 2001 with

the *2000-Base Explanation of the Consumer Price Index,* SB (2001), published in September 2001.

1.3   Ethical standards

1.3.1   Guidelines for staff behavior are in place and are well known to the staff

All officials receive a civil service training program on ethical issues when they commence work. They are also given copies of the Law for Public Servant Ethics (1999) and the Outline of the National Public Service Ethics Law (1999). Article 3 of the latter notes that employees shall not give unfair, discriminative treatment to the public, such as giving preferential treatment to any party of the public with respect to information gathered in the performance of their duties.

2.   Methodological soundness

2.1   Concepts and definitions

2.1.1   The overall structure in terms of concepts and definitions follows internationally accepted standards, guidelines, or good practices

The concepts and definitions of the source data broadly follow the principles outlined in the *CPI Manual* (2004)[7] and the *1993 SNA*. The SB website includes, under "FAQs for the CPI," that the ILO "establishes the international standards on the CPI." At the Seventeenth International Conference of Labor Statisticians in Geneva in December 2003, the international standards on the CPI were reviewed, and the new standards were adopted as a resolution."[8]

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[7] International Labour Office (ILO), *Consumer Price Index Manual: Theory and Practice*, Geneva: ILO, 2004.

[8] The major review is given as Resolution II of the Seventeenth International Conference of Labour Statisticians and is reprinted in the *CPI Manual* as Annex 3, although the *CPI Manual* is a more comprehensive reference document on methodology.

2.2   Scope

2.2.1   The scope is broadly consistent with internationally accepted standards, guidelines, or good practices

The metadata for the CPI appropriately outline the goods and services included and excluded from the scope of the index. Relatively minor[9] exclusions from the FIES (for CPI purposes) are institutionalized residents (old people's homes, prisons, hospitals, etc.), students living alone, households with four-or-more living-in employees, and foreigner households.[10] Also excluded are households that manage restaurants, hotels, boarding houses (or dormitories) using their dwellings, and households that serve meals to boarders even though not managing boarding houses as business. Under the *1993 SNA*, paragraph 9.47, expenditure in such "unincorporated businesses...for the direct satisfaction of human needs" is to be included in household final consumption, and thus in the weights of the CPI.

Other relatively minor exclusions, common in CPI practice, concern illegal goods and services and own-account final consumption, whose inclusion is required by the *1993 SNA* and the *CPI Manual*. Fees to neighborhood associations, alumni, and labor unions are excluded. Nevertheless, if there is an identifiable service flow associated with such fees, they should in principle be included in the CPI since they form part of household consumption expenditure. Remittances, like those used to provide accommodation for students studying away from home, are also excluded from the CPI on the grounds that it is an "income transfer." Yet such remittances are, as rents paid, part of household consumption expenditure and, as such, should be included. Money gifts, donations, religious contributions, and other such fees are rightfully excluded from consumption expenditure for the CPI weights. They are either transfer payments or contain not very easily identifiable service flows along with the transfers.

The fixed expenditure basket used for Japan's CPI is for two-or-more-person households only, excluding one-person households. The PSO indicated that one-person households purchase items different from those more generally purchased, and a change in the sampling of items is required prior to the introduction of such households. The PSO is also cautious about changing methodologies and has expressed the view that any incorporation of one-person householders will be a gradual process preceded by user consultation. They further note that they calculate a reference all-household CPI and that this may be sufficient to meet user needs. More particularly, they have a need to ensure that the number of

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[9] The SB considers these to be relatively minor, and their exclusion is justified on the grounds they are also difficult to measure.

[10] *1993 SNA* defines the scope of household consumption to include residents; the concept of residence is not based on nationality (paragraph 2.20).

one-person households surveyed is sufficiently large and nonresponse rates not overly problematic.

The restriction of the scope of the index to exclude one-person households is a significant omission, and further omissions, such as students, detract from the credibility of the CPI. About 28 percent of all households in 2000 were estimated[11] to be one-person households— an increase of 14.9 percent since 1995. The compilation of a reference index for all-person households is helpful in that it computes the bias. The index is available on the Japanese language version of the SB's website and in the *Annual Report on the Consumer Price Index*. The difference between the two indices is not large; in 2003 and 2004, with 2000=100.0, the CPI was 98.0 and 98.0 respectively, while the corresponding all-household CPIs were 98.1 and 98.1.[12] Yet (1) such results are not negligible; (2) the CPI is applied as a compensation index to the population at large, and a 0.1 percentage point discrepancy can involve substantial sums; prices fell by 2 percent over this period (the error being 0.1/2=5 percent); (3) for some major groups the discrepancy was much larger; and (4) the all-household reference index suffers from deficiencies in sample size and response rates regarding one-person households.

2.3 *Classification/sectorization*

2.3.1 *Classification/sectorization systems used are broadly consistent with internationally accepted standards, guidelines, or good practices*

Japan's classification broadly follows the Classification of Individual Consumption by Purpose (COICOP), and for the exceptions, a correspondence can be derived. For example, the major group "food" includes, as separate subgroups, "alcoholic beverages" and "nonalcoholic beverages," while COICOP has, as two of its major groups, "food and nonalcoholic beverages" and "alcoholic beverages, tobacco, and narcotics." While the classification used is determined by the Minister of the MIC in collaboration with "learned/experienced persons," it is, nonetheless, publicly available and sufficiently clear and detailed for analytical purposes. The items of the major groups, subgroups, and minor groups are well defined in the metadata (SB, 2001: 23). The division and integration of FIES and CPI items are also well documented, as are the principles that govern them and their modification/updating on rebasing (SB, 2001).

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[11] Estimate from population census:
http://www.stat.go.jp/english/data/kokusei/2000/kihon1/00/06.htm.

[12] These estimates may themselves be unreliable being based on the *Income and Expenditure Survey for One-Person Households*—a survey that SB has acknowledged may have a severe nonresponse bias and, with a sample of 750, high sampling error.

2.4   Basis for recording

2.4.1   Market prices are used to value flows and stocks

Discounts applicable to only limited groupings of households are rightfully excluded. Sales reductions (sales continuing more than seven days) and seasonal price reductions are rightfully included. Sale prices continuing for seven days or less are excluded—a practice that should be reconsidered since it serves to understate price declines. The PSO's response is that the prices on sales for seven days or less may not be prices with the largest sale of the month and that outlets sampled with short-run sales, say only on a Friday, may misrepresent overall price patterns. This exclusion of prices on sale for seven days or less does not accord with that of the *CPI Manual*. The PSO also points out that highly disaggregated price data are published from the RPS each month, which is to be commended, and that the prices would be quite volatile if sales of seven days or less are included. Given that the RPS excludes such prices, the PSO has indicated they should also be excluded from the CPI to avoid confusion if users were to aggregate RPS data and find a different result to CPI price changes. The decision on the scope of the RPS, with regard to excluding sales prices for seven days or less, should be separate from that on the CPI.

The valuation of expenditure used for the weights at purchaser's prices is in accord with *1993 SNA*. List prices are collected from outlets and centralized administrative sources along with tight product specifications—the purpose of which is to enable comparisons of like with like.

2.4.2   Recording is done on an accrual basis

The prices of goods and services are recorded in the period they are purchased. Prices can, of course, vary within a month, and the PSO is aware of the need to ensure the prices recorded are representative of the transactions within the month. Prices are, for the large part, surveyed on the Wednesday, Thursday, and Friday of the week that includes the 12th of each month. A justification for the 12th instead of the 15th is not immediately apparent, as the latter will on average correspond closer to a midmonth survey period. SB has noted that the use of the 12th provides time for an earlier release date, but this may be at the cost of a poorer representation of the prices in the month in which they are held to relate.

Prices for perishable items, including fresh fruit, vegetables, and fish, are surveyed over three successive days, three times a month—that is, during the week including the 5th, 12th, or 22nd of each month, in each case on the Wednesday, Thursday, and Friday. The median price is taken of the item in the three days at each of the start, middle, and end of the month, and the arithmetic mean price of the three medians is used to represent the month's item price. This is a much better representation than the ones normally employed by statistical offices using only midmonth prices.

For some services (for example, airplane flights and package holidays), prices at the time of purchase and consumption are different. In such instances, the prices at the time of

consumption are recorded. While this does not accord with valuation on an accrual basis, as required under the *1993 SNA*, it can be argued to be appropriate for the purpose of a consumption-based CPI. In the FIES, household expenditure is, however, rightfully recorded in the period of purchase.

2.4.3   Grossing/netting procedures are broadly consistent with internationally accepted standards, guidelines, or good practices

The exclusion of the prices of secondhand durable goods, such as cars, can be justified on the grounds that it is the net expenditure (that is, purchases less sales, on such goods) that is required, and sales and purchases by households may more or less cancel on aggregate.

3.   Accuracy and reliability

3.1   Source data

3.1.1   Source data are obtained from comprehensive data collection programs that take into account country-specific conditions

Weights

The primary source for weights for the CPI is the FIES which, for the 2000=100 CPI, was based on responses from about 8,000 households. The sampling is random multistage. The first stage is the selection of 168 municipalities (120 cities and 48 towns and villages) from the 3,219 municipalities that comprise Japan. The selection of municipalities is by a number of criteria, including that each capital city of a prefecture be included. Selected cities are then stratified into four groups according to size: 49 major cities (cities with prefectural government or populations of 1 million or more), 22 middle-sized cities (150,000 to 1 million), 28 small cities A (50,000 to 150, 0000), and 21 small cities B (50,000 or less).

From each sampled municipality, survey areas are selected: 16 (or more) areas are selected from major cities, 6 areas from middle-sized cities, 6 areas from small cities A, 4 areas from small cities B, and 2 areas from towns and villages. The selection of areas is with probability proportionate to population size. Finally, in each selected area, six two-or-more person households are selected and surveyed for six months. The respondent households are rotated every six months. In the event of nonresponse, replacement households are selected randomly from the other households living in the same survey area. The sample allocation and selection of households is based on the population census, and the sample allocation is revised every five years.

FIES data are supplemented by other survey data. The sample size for the FIES is inadequate for expenditure estimates of infrequently purchased goods. Since 2002, such expenditure estimates have been supplemented by the Survey of Household Economy (SHE), which, using a much larger sample size, surveys purchases of 64 infrequently purchased goods. The weights of some items (imputed rent and pocket money) are calculated on the basis of the

National Survey of Family Income and Expenditure (NSFIE). The survey, conducted every five years, is a wider-ranging survey with a similar sample design to the FIES, but much larger sample size of 53,000 households. Some adjustments are made to specific FIES expenditure categories in specific municipalities using administrative sources, as is the case for water and sewerage charges and kindergarten fees. All of this is part of the proper attention to detail necessary for good CPI compilation.

The sample size of 8,000 households is relatively small, especially given that reference indices by types of households are published at the subgroup level. The national accounts expenditure estimates[13] benefit from a benchmark adjustment to the FIES estimates for each of 86 product groups based on the more reliable NSFIE. The weights for the CPI based on the FIES do not benefit from such adjustments. While consideration should be given to the use of the NSFIE in this respect, an increase in the sample size of the FIES would be of more direct benefit, especially if consideration were to be given to increasing the frequency of updating the weights.

Prices

The monthly RPS is the main source of data on prices for the CPI. Its sample design is akin to that of the FIES. Approximately 750 price collectors visit 30,000 outlets to collect prices of reselected representative items. There are 598 items and 775 item specifications, which are quite detailed—for example, men's summer suits "single-breasted, 2-piece, ordinary style, full lining, [material] worsted, 100 percent wool (summer wool)" or "mixed 70 percent over wool (summer wool and polyester," [lining] polyester, [size] body type A (a4-A6), medium quality. The enumerator is responsible for the selection of the particular variety and monitoring the self-same variety over time. The specifications selected are reviewed about four times a year on the basis of ad hoc surveys.

The items are appropriately selected on the basis of the importance of each item in relation to total consumption expenditures, how representative they are of price movements of the product class, and the feasibility of price data collection. Items are selected only from those accounting for more than 1/10000 of household consumption expenditures—such items accounting for an estimated 85 to 90 percent of total household expenditure (2005 FIES, to date).

In principle, 598 items are to be priced in each of 167 selected municipalities. The number of prices collected and the geographical area in which they are collected, along with the selection of substitute prices if a price is permanently missing, is in part dictated by a six-group classification system, based on priors as to the extent of geographical price dispersion. For some items there is rightfully no need to sample prices in each municipality. For example, products such as movie admission fees, whose prices vary little within a

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[13] *The System of National Accounts 1993 in Japan (Sources and Methods* —The First Edition, January 2002—Economic and Social Research Institute, Japanese Government, chapter 6.

municipality, have prices sampled and collected centrally, at the municipality level. For railway fares, electricity, and tobacco, prices vary little throughout the country and are collected centrally for the whole country. This link of price dispersion to sampling accords with good theory, and use may be made of the extensive National Survey of Prices (NSP) to validate the priors as to price dispersion. About 230,000 prices are collected each month as part of the RPS.

While the selection of shopping district is with probability proportionate to (population) size, the selection of outlets is judgmental, by the enumerators, on the basis of the highest-volume seller, irrespective of outlet type. No sampling frame of outlets is available. No stratification is by outlet type. Estimates of personal consumption by outlet type show quite markedly different trends in Japan; for example, 2004 over 2003 shows falls of 3.2, 4.5, 0.8, and 4.2 percent in department stores, supermarkets, convenience stores, and chain stores respectively.[14] The PSO's view is that outlet type is not a prime determinant of variation in price changes and that, by selecting outlets with the largest sales, some account is taken of changes in the mix of outlets in the sample.

For personal computers and digital cameras, the PSO uses monthly scanner data on the prices, quantities, and characteristics of all products sold in major electronic appliance shops in the whole country. This use of scanner data accords with good practice as advised by the *CPI Manual*.

A House Rents Survey forms part of the "RPS system" and surveys approximately 23,000 private and public rents per month and their floor space. Sampling of the cities, towns, and villages surveyed is with probability proportional to size based on the 2000 population census data.

Estimates of shelter services provided by owner-occupied houses are incorporated into the index by the imputed rent approach. An estimated regression equation relates rent to dwelling characteristics. Data on owner-occupied housing from the 1999 NSFIE are used to impute owner-occupied rents. Appropriate deductions for the cost of repairs and maintenance and land rent are made to avoid double-counting such costs, which are included in rents but excluded from the cost of owner-occupied housing. Approximately 1,000 prices are collected each month from 530 (public and private) hotels by the Hotel Charges Survey, which is also part of the RPS system.

The PSO conducts ad hoc surveys, when necessary, for collecting information to support the main compilation (for example, to identify new products and provide source data for weights and prices).

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[14] From the Bank of Japan's website (real sector/national accounts); original data sources: Ministry of Economy, Trade and Industry and Japan Chain Stores Association.

The PSO undertakes market research four times a year for items considered difficult to monitor. The item replacement discussed in 3.3.2 is based upon the PSO's consideration of market information, to ensure the specifications followed are those of representative, popular items. The use of such data for such purposes is to be applauded.

3.1.2   Source data reasonably approximate the definitions, scope, classifications, valuation, and time of recording required

The source data reasonably approximate the definitions, classification, valuation, time of recording, and scope required. The main concern is the restriction on the scope of the source data for the weights to exclude one-person households.

3.1.3   Source data are timely

Both data on weights and prices are timely. The index for 2000 was first released in August 2001, a seven-month time lag for compilation. The price data are collected at the middle of the month, with the exception of fresh goods. As noted in 2.4.2, prices of fresh goods are surveyed three times a month (at the beginning, the middle, and the end of the month). For the Ku-area of Tokyo, "flash estimates" are released towards the end of the month to which the data relate. The SB's provision of such data is commendable practice.

3.2   Assessment of source data

3.2.1   Source data—including censuses, sample surveys, and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and nonsampling error; the results of the assessments are monitored and made available to guide statistical processes

The sampling error of the FIES, on which the weights of the CPI are based, is officially announced every month; the estimate from the FAQ was 1.4 percent.

Tight specifications are given to price collectors. Price collectors enter data into personal digital assistants (PDAs), which then display the previous month's price and the price change. If the change falls outside specified price bands, the price collector has to give a reason. Excessive price changes and their reasons are checked at the SB and referred back to an official of the prefecture government for further checking to resolve the query. If a specification is found to be generally unavailable, a change is made to the specification used, to the benefit of the index.

3.3 Statistical techniques

3.3.1 Data compilation employs sound statistical techniques to deal with data sources

Aggregation

The first stage of aggregation is for each of 598 items in 168 municipalities, nearly 100,000 strata. The price relative for an item in a municipality is its average (arithmetic mean) price in the current month divided by its average (arithmetic mean) price in the base year 2000. The elementary aggregate index is therefore a ratio of averages or Dutot index. The *CPI Manual* advises that the Dutot index should only be applied to homogeneous items. This is because it fails the commensurability test. It is equivalent to a price relative weighted by its base-period relative price. More expensive items in the base period have a larger weight. Its use is justified by the PSO on the assumption that the specifications used are very tight, along with the fact that the aggregation is only within municipalities for each item. The mission was given sight of a manual of specifications, which appeared very detailed, but could not examine this since it was not a public document.

However, price collectors do not have to monitor the same variety over time, only the same specification, and even if they do so, the restriction to tight specifications constrains the representativeness of the items selected. The geometric mean or Jevons index is preferred for nonhomogeneous goods. With an appropriate sampling scheme the Jevons index is also supported, for items with unitary elasticity, from economic theory—estimates of expenditure elasticity are made and published by the PSO at a detailed level.

Since the results of the RPS are published (by municipality) as arithmetic averages, users can use them to calculate changes in average prices over the previous year. The PSO argue that results from such calculations would conflict with a CPI compiled from a Jevons (geometric mean) index which may then lead to a lack of credibility in, or understanding of, the CPI. Consistency with RPS data was also argued by the PSO in 2.4.1 as the rationale for excluding prices on sale for seven days or less. The CPI is a most important macroeconomic indicator and methodological issues relating to its compilation should be considered on their own merits. The usefulness of publishing detailed source data is acknowledged and considered to be good practice. Yet, the principles of aggregation to a CPI and those of the data sources (RPS) can be readily explained in metadata of these two statistics..

The "elementary aggregate" price relatives are averaged over municipalities using the number of multiperson households in each municipality, as a ratio of the total number of such households, as weights. However, as noted earlier, one-person households are excluded, and such households may be overrepresented in some municipalities and have quite different expenditure patterns. Further, the "number of households" is acting as a proxy for the "expenditure share." Consideration should be given to the use of NSFIE data for this purpose or adjustments to the "number of multiperson households" for municipalities/items for which it is deemed an inappropriate proxy.

A Laspeyres index using relative expenditure shares as weights is used at the higher level of aggregation. The weights are updated every five years. Unusually, the index is a "pure" Laspeyres index and not a Young or Lowe index. This is problematic since the Laspeyres index has to be backdated for the weights in the price reference period to be the same as those from the survey period, given time is required to compile the survey results. For Japan's CPI the weight reference period of 2000 is the same as the price reference period. Yet, there is a seven-month time lag between the survey period and the compilation of the index. The 2000-base index for January 2001 uses, at January 2001, 1995 weights, but by August 2001, changes to the now available 2000 weights. The index for January 2001 is, at August 2001, backdated to January 2001 with revised 2000 weights.

The approach more generally used, and considered in the *CPI Manual*, is the use of weights whose survey period ended seven months prior to 2000, so that the revised index for 2000 could be introduced in real time in January 2001. The weights would not relate to 2000, as would the price reference period, but may be price updated to January 2000. The approach used by Japan has the advantage that the Laspeyres index is well-defined, with a 2000 weight and price reference period. Yet there remains the problem that the index as at January to July 2001 was released as a 2000=100 index, when its weights were in actuality 1995, and then such figures were revised in the historic run of the index.

To their credit the SB publishes "midyear basket" and "chain-weighted" indices as reference indices, as well as "all-household" reference indices. Midyear basket indices were a methodological breakthrough, discussed in the *CPI Manual* as providing close approximations to a superlative index in real time.

Several givens are as follows: (1) the existence of a continuous monthly FIES, as the basis for regular weights; (2) the compilation of a "reference" chained index; (3) the recognized need, especially for such a dynamic economy as Japan's, for the regular updating of the weights; (4) the theoretical and practical advantages of a more frequent updating of weights, and, at least in principle, chaining, as outlined in the *CPI Manual*; and (5) the use of chain-linking in Japan's national accounts volume estimates, as recommended by the *1993 SNA*.

Thus consideration should be given to a more frequent updating of weights (with revised back series). The results from the chained index for Japan are instructive on the need for more frequent weights: it fell over the period 2000 to 2004 by 1.7 percent compared with 2 percent for the official index; the official index overestimated the price decline by 0.3 percentage points, or a $0.3/2 \times 100 = 15$ percent difference, which for compensation purposes can have substantial effects for fiscal planning.[15]

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[15] The estimates provided in the text were provided by the PSO during the mission and differ from published data, though the magnitude of the difference is the same. Estimates from the SB's *Annual Report on Consumer Prices:* http://www.stat.go.jp/data/cpi/2004np/zuhyou/a020.xls, ...a021.xls, and ....a022.xls, for the total household, chained index, and midpoint-year indices respectively.

To justify their use of five yearly revisions the PSO has argued that since the CPI base year is revised every five years in Japan and the revised indexes are released within eight months of the revision, the differences between the fixed weight indexes and updated-weight indexes would be smaller than in countries using chain-indices. It should be noted in this regard that the benefits of more frequent updates of weights arise from both the frequency of the weight update and the timeliness with which the revised weights are adopted. The PSO rightfully give attention to their achievements with regard to the latter. Our concern here is with the former, a more frequent updating of weights. This may not necessarily extend to annual chaining.

As for chain-indexing, the PSO argued that a deficiency of the chained index is that it is not consistent in aggregation (CA) and may lead to user confusion. However, first, any series, once rebased, say every five years, has a problem with consistency in aggregation over its longer, linked, length; second, contribution analysis can be formulated to be CA; and finally, Japan uses annual chain-linking in its national accounts, which is in conformity with the *1993 SNA*.

Of note is that the SB publishes midpoint-year indices which go some way to ameliorate consumer substitution bias; that is the bias that arises from the inability of a fixed base Laspeyres to include the effects of consumers substituting towards goods and services with below (above) average price increases (decreases). The official Laspeyres index understates the price fall between 2000 and 2004 by 0.5 percentage points in this respect.

3.3.2 Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques

For temporarily unavailable, seasonal, perishable items, such as fresh fruit and fish, the overall weight is held fixed at the annual level. The missing prices are excluded from what are long-run price comparisons between the 2000 mean reference price and the price in the current period. There is an implied imputation for the price change of the missing items—one based on the long-run price change of existing items. The *CPI Manual* advocates the use of short-run price imputations for dealing with temporary missing values.

For nonperishable seasonal goods such as apparel and air conditioning units, the weight again remains at the annual average level; however, the average-to-date for the year is carried forward into the months it is unavailable. This may induce undue stability, as argued in the *CPI Manual,* along with undue increases during the first and last period of the season in which the prices are missing.

In justifying their use of the above methods to the mission, with regard to perishable and non-perishable seasonal goods, the PSO has referred to Chapter 22 (para. 22.85) of the *CPI Manual*. The PSO's view is that the above argument against the use of the carry forward method and for the use of short-run, as opposed to long-run, imputations seems to be based on Chapter 7, which considers temporary missing prices and quality adjustments. The PSO considers that the issues of the treatment of seasonal adjustments are covered in Chapter 22.

However, in Chapters 7 and 22, the use of the carry forward method for temporarily missing and (strongly) seasonal goods is not advised; and s*hort-run* imputations are advisable for temporary missing items (Chapter 7) and seasonal goods (Chapter 22, (para. 22.85).

For a permanently missing, or "old," item, a replacement "new" item is found that matches the old item's specification. The replacement item is usually found in the same outlet, but exceptionally a replacement at the same level of specifications in another outlet may be used (except in the case of services). If the price of the new item in the previous period is similar to that of the old one in the previous period, the replacement is considered to be comparable and a direct comparison made.

If the new item is not similar to the old one, the new item's price is compared with the old item's price using the overlap method. The outlet manager is asked for the price of the new item in the previous overlap period, and the price change of the new item is linked to the price of the old item in the overlap period. This method has, as its implicit assumption, that the price difference between the old and new items in the previous period approximates the quality difference, though such assumptions are common in price index number work. In practice, the decision to, and actual replacement of, an item takes place several months before it disappears so that a researcher has time to visit the outlet and decide on an appropriate replacement. The implicit assumption is more likely to be borne out under such circumstances, since new and old items are not having their prices compared at the start and end of their life cycles respectively. This is an admirable practice.

Working rules guide whether items are regarded as "similar" and, thus, whether direct comparisons are made, or the overlap method is used. These rules vary by product group, and appropriately so. The overlap method is not used for fresh foods (because such prices fluctuate) and for products with discounts (because the implicit assumption of the overlap method is unlikely to hold). More generally, if the price difference in the overlap period between the old and new item is less than 50 percent, when prices are increasing, or less than 33 percent, when they are decreasing, a direct comparison is used; the items are judged to be similar. These bands appear to be exceptionably large, especially given Japan's rate of deflation.

The role of the researcher, when visiting outlets, to decide on the replacement, also includes bringing to bear some judgment as to whether the replacement has different specifications to the old item. In such cases, the new specification is accepted and included in the index using the overlap method. The tight specifications used for items give rise to a need for more frequent item rotation, and such visits provide a well informed mechanism for doing so.

Explicit quality adjustments are also made. The option cost method is applied to automobiles, quantity adjustments as applicable, and hedonic indices for digital cameras and personal computers. No summary data are compiled, overall or for particular product groups, as to the number of temporary or permanent missing values that occur in each month and/or the extent to which different methods are used to accommodate them.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Intermediate results are validated against other information where applicable

The CPI is compared to the domestic corporate goods price index, the export price index, and import price index.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

Specified ranges are set for "acceptable" prices, and these appropriately differ by product group. When prices are outside specified ranges, the cause is investigated. Reasons are given by price collectors, and their veracity has to be considered by prefecture government officials, if deemed necessary by the PSO. The PSO staff are specialists in particular product areas and check trade magazines, telephone associations, and manufacturers for contextual information.

3.4.3 Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated

The price data collected in the RPS are published as statistics in their own right at a highly detailed level. Disclosure at this highly detailed level is unusual in index number compilation and is to be commended. Such disclosure in turn requires data verification checks at this micro level, with associated benefits for the CPI compilation.

3.5 Revision studies

3.5.1 Studies and analyses of revisions are carried out routinely and used internally to inform statistical processes (see also 4.3.3)

The effect of base revision is analyzed by the very release of information in January to July 2001 on a 1995 base weight and subsequent backwards revision on a 2000 base (see 3.3.1). The effects of the revision are considered more formally in the metadata on the revised index along with a commentary. For this short period, the CPI is revisable after release.

The release of reference indices provides analytical insights as to what would be the effects of revisions to methodology had they occurred. These include the chained Laspeyres index as a reference index whose weights are revised every year, the all-households index, and the midyear basket index.

A CPI for the Ku-area of Tokyo (preliminary) is released at the end of the corresponding month, and revised figures are released at the end of the subsequent month. The "revisions" for the Ku-area of Tokyo reflect the availability of the end-of-month prices for perishable goods, as opposed to any defect in the data. The PSO have indicated that a revision study exists for the preliminary CPI for the Ku-area of Tokyo.

4. Serviceability

4.1 Periodicity and timeliness

4.1.1 Periodicity follows dissemination standards

The CPI is compiled monthly in line with the SDDS.

4.1.2 Timeliness follows dissemination standards

The CPI is compiled on a monthly basis and is released on the Friday of the week including the 26th of each month. This is within the SDDS timeliness requirement of one month.

A CPI for the Ku-area of Tokyo (preliminary) is released at the end of the corresponding month. It also satisfies the SDDS requirements.

4.2 Consistency

4.2.1 Statistics are consistent within the dataset

Upper-level indices are calculated as successively higher aggregates of lower-level indices. Since a fixed-base arithmetic aggregator is used, as outlined in 3.3.1, the indices are consistent in aggregation.

4.2.2 Statistics are consistent or reconcilable over a reasonable period of time

Annual indices, using the same price reference period of 2000=100, are published for the overall CPI, major groups, and subgroups from 2000. The series is compiled by linking together the indices on each updating of weights using the annual averages of the index in the overlap periods.

For a period of seven months, as explained in 3.3.1, the series published in real time is not consistent with series used for the CPI when backdated for the weight revision.

In cases of major changes in the classification system, retroactive revisions have been carried out to ensure the consistency of definition of the major groups. For example, when the number of major groups was increased from five to ten in January 1981, retroactive adjustments were made back to January 1970.

Series of the overall CPI, major groups, and subgroups are also available on a monthly basis back to January 1970 (2000=100) for both Japan and the Ku-area of Tokyo and, with imputed rent excluded, from August 1946 onwards.

4.2.3   Statistics are consistent or reconcilable with those obtained through other data sources and/or statistical frameworks

The CPI is comparable with the PPI at the final stage of production.

4.3   Revision policy and practice

4.3.1   Revisions follow a regular and transparent schedule

The updating of weights is clearly specified in the metadata as taking place every five years. The SC requires such updating, so that the SB is protected against accusations of manipulative weight changes. Prior to the updates, the opportunity for consultation about the revisions is clearly posted on the website.

4.3.2   Preliminary and/or revised data are clearly identified

The preliminary figures for Ku-area of Tokyo are clearly identified in the heading and noted as such. At the time of release, it was not made clear that the CPI figures released in the first seven months from January 2001, were to be revised on implementing the new weights in 2000. However, this procedure is now documented in the revision plan for 2005.

Seasonally adjusted CPI series are released and are revised when new seasonal factors are estimated. The revised series is clearly signaled as such, on publication.

4.3.3   Studies and analyses of revisions are made public (see also 3.5.1)

At the quinquennial base revision, back data are made available, as is an analysis of the effects of the revision, both on the website and in hardcopy.

The PSO usefully published both preliminary and revised CPIs for the Ku-area of Tokyo and have indicated that users seem satisfied with the revision study carried out on this index.

5.   Accessibility

5.1   Data accessibility

5.1.1   Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts)

The presentation of CPI data is at an unusually highly detailed level and provides breakdowns in many dimensions to support user needs.

The SB provides five data tables for the CPI as part of the monthly website release. The tables are easily accessible on the SB's homepage under the heading "Statistics" and the link

to "Consumer Price Index/Latest Monthly Results." The same data can also be found on the homepage under "Latest Indicators."

The tables are usefully all Excel documents and include breakdowns, by the 10 major product groups and about 60 subgroups, of monthly price changes (month-on-previous-month) and annual price changes (month-on-corresponding-month in the previous year) from 1989, on an annual basis and, for the last two years, on a monthly basis. Also included is an analysis by geographical areas. For ten major groups, 70 areas are included—that is, city groups (8), districts (10), large cities (4), and cities with 3 prefecture governments (excluding Ku-area of Tokyo), Kawasaki-shi, and Kitakyushu-shi (48). Such detailed breakdowns are also available for the CPI for the Ku-area of Tokyo. Seasonally adjusted indices are published for the "overall index " and "overall index excluding fresh food," "overall index excluding imputed rent," "overall index excluding fresh food and imputed rent," "goods," "goods excluding fresh food," and "semidurable goods."

Long-run series for the CPI, groups, and subgroups are to be found for both Japan and the Ku-area of Tokyo under the heading "Statistics" and the link to "Consumer Price Index/Time series" on a monthly basis back to January 1970 and, with imputed rent excluded, from August 1946 onwards.

Under the heading "Statistics" and link to "Consumer Price Index /2004 Yearly Average Results for Japan" are data and text for an analysis of the index up to and including 2004, including graphs and contribution analysis and discussion. The data are updated in December and March to provide an analysis for the fiscal and calendar year.

The Japanese language website contains CPIs for specific household groups including by "yearly income quintile, groups of workers," "age groups of household head," "occupation of household head," "type of tenure of dwelling," "for all-persons households," "by elasticity of expenditure," and "annual purchase frequency." Reference "chain-weighted," "seasonally adjusted," and "midyear basket" indices are also published. All of the above are by major groups and, in many cases, subgroups. The average prices from the RPS are themselves published as statistical series at a highly detailed level.

The *Annual Report on the Consumer Price Index* is an excellent publication of more than 500 pages, with detailed breakdowns of series as described above.

The accessibility and level of detail is exemplary and must serve the user community well.

5.1.2   *Dissemination media and format are adequate*

Most useful is SB's easily accessible website with "Consumer Price Index" clearly designated on the homepage. Data in Excel format are provided with archive files of back releases. In addition to the excellent hardcopy *Annual Report on the Consumer Price Index,* there are also monthly releases in hard copy. Data are selectively released by fax and presentations to the media and are made available to public libraries.

5.1.3   Statistics are released on a preannounced schedule

The homepage of SB's website provides an easily identifiable link to the schedule of release: "Consumer Price Index/Schedule of Release." The schedule provides the release dates for the CPI for Japan and for the Ku-area of Tokyo. The release dates given as of September 2005 were for February 2005 to March 2006 and included the release time of 8:30 a.m. The *Outline of the 2000-Base CPI*, *Annual Report on the Consumer Price Index*, and, on the website, FAQs also note that the release is at 8:30 am on the Friday of the week, including the 26th of each month—a formula that ties up with the release schedule.

5.1.4   Statistics are made available to all users at the same time

According to the announced schedule, CPI data are available at the same time for all users.

5.1.5   Statistics not routinely disseminated are made available upon request

There is no real need for custom-made tables since the breakdowns provided are at a highly detailed level and are according to many classification criteria. Were further breakdowns required, the SB would consider them case-by-case. RPS and FIES data can be released only for statistical purposes, as noted in 0.1.3.

5.2   Metadata accessibility

5.2.1   Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is available, and differences from internationally accepted standards, guidelines, or good practices are annotated

The SB's website contains easily accessible short and full versions of the detailed *Outline of the CPI* on sources and methods used to compile the CPI. The short form is also included in *The Annual Report on the Consumer Price Index*. Highly detailed appendices are provided in both cases. At every base-year revision, a comprehensive account of the changes is released, which again can be readily found on SB's website. Information on the sample designs of the FIES and RPS is also provided.

5.2.2   Levels of detail are adapted to the needs of the intended audience

CPI metadata are available at three levels of detail to meet user's needs: the *Explanation of the CPI* is for experts, *Outline of the CPI* (in a full and summary form), for ordinary users, and an easy-to-read *Mechanism and View of the CPI,* for the lay person. The full version of the outline of the CPI is highly comprehensive with detailed appendices.

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

The *Annual Report on the Consumer Price Index* contains near its end a list of useful telephone numbers but no email address. The monthly reports and website provide a telephone contact number and fax number of the person responsible for the data release. The website has a useful "frequently asked questions" (FAQs) to accommodate usual inquiries. Email queries are transferred directly to CPI staff and dealt with quickly.

5.3.2 Catalogs of publications, documents, and other services, including information on any charges, are widely available

The website has a "Statistical Portal" which, under "Dissemination," includes the release dates of, ministry responsible for, and a hyperlink to, all official statistical series released in Japan in the last two months. The SB also publishes a hardcopy 940-page *Index of Statistical Data Sources: Annual 2005*, which includes all official statistical publications, providing information on the publication's title, agency, release date, contents, classifications, and breakdowns, a URL, if applicable, and more. Together they are most impressive in terms of transparency and detail.

Table 2. DQAF (July 2003): Summary of Results for Price Statistics (Consumer Price Index)
Compiling Agency: Ministry of Internal Affairs and Communications

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
0. Prerequisites of quality						
0.1 Legal and institutional environment		X				
0.2 Resources		X				
0.3 Relevance		X				
0.4 Other quality management		X				
1. Assurances of integrity						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
2. Methodological soundness						
2.1 Concepts and definitions		X				
2.2 Scope			X			The scope of the CPI excludes one-person households.
2.3 Classification/sectorization		X				
2.4 Basis for recording		X				
3. Accuracy and reliability						
3.1 Source data		X				
3.2 Assessment of source data		X				
3.3 Statistical techniques			X			The methods of calculation at both the elementary and aggregate levels require attention as do methods for treating temporarily missing items, seasonal items, and quality adjustment procedures.
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies		X				
4. Serviceability						
4.1 Periodicity and timeliness		X				
4.2 Consistency		X				
4.3 Revision policy and practice		X				
5. Accessibility						
5.1 Data accessibility		X				
5.2 Metadata accessibility		X				
5.3 Assistance to users		X				

Recommendations

- Consider establishing a regular user consultation forum that is representative of the user community. (0.3.1)

- Develop and publicize procedures to formalize the delineation between the statistical and nonstatistical functions within data-producing agencies. (1.2.2)

- Expand the scope of the CPI to include one-person households with concomitant developments in the source data for doing so. (2.2.1)

- Include the price of items "on sale" for seven days or less. (2.4.1)

- Consider increasing the sample size of the FIES, and reviewing the sample design to validate the outlet selection. (3.1.1)

- Review the use of the ratios of the averages as the main formula at the elementary level. Consider a Lowe index as the fixed basket index at the higher level of aggregation; also consider the more frequent updating of weights. (3.3.1)

- Review the treatment of temporarily missing items, seasonal goods and services, and quality adjustment procedures. More particularly, consider the introduction of short-run imputations instead of long-run ones and abolishing the carry-forward method, and review the criteria for adopting direct comparisons. (3.3.2)

III. PRODUCER PRICE INDEX

0.   Prerequisites of quality

0.1   Legal and institutional environment

0.1.1   The responsibility for collecting, processing, and disseminating the statistics is clearly specified

The corporate goods price index (CGPI) is represented as Japan's producer price index (PPI) on the IMF's Dissemination Standards Bulletin Board (DSBB) and is considered as such here. However, the CGPI in Japan refers to a family of indexes. It includes both "basic grouping" indexes and "reference" indexes. Basic grouping indexes classify selected commodities by their attributes and comprise the domestic corporate goods price index (DCGPI), the export price index (XPI), and the import price index (MPI). Reference indexes re-classify selected commodities of the basic grouping index under different criteria for specific purposes, or are compiled using adjusted sample prices of the basic grouping indexes. The PPI concept generally refers to the measurement of output price changes including exports and excluding imports. The DCGPI and XPI thus fulfill the function of an official producer price index (PPI) for Japan. The term "CGPI" is used for the purposes of this document to refer to both DCGPI and XPI, synonymous with an output PPI, though care is taken to refer to the DCGPI and XPI separately where methodological considerations demand.

The BOJ is responsible for compiling the CGPI, which is a "notified statistic" under Article 8 of the *Statistics Law* (1947) (*SL*). Under Article 8 it is necessary for governmental bodies to notify the Minister of the Ministry of Internal Affairs and Communications (MIC), in the event of compiling statistics other than those designated by Article 2. The BOJ accordingly notifies the Minister of the MIC as to its compilation of the CGPI, and the notification names the Research and Statistics Department (RSD) as the compiler. The practice that the BOJ is solely responsible for the CGPI and the underlying price survey is well established, and no conflict as to responsibility for the index exists among data-producing agencies.

The coordination in terms of legal assignments is provided for by the fact that the Minister of MIC may, if he/she deems it necessary, require the Governor of the Bank of Japan to modify or suspend the surveys for notified statistics (Article 8.3). Since the CGPI is a notified statistic under the SL, the provision can be regarded as a useful safeguard for coordination on the CGPI.

No mention is made of the BOJ having any responsibility for producing statistics in the *Bank of Japan Law* (1997, latest amendment, January 2005). However, the BOJ lists the following under its "Missions and Activities of the Bank of Japan":[16] "To ensure appropriate

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[16] http://www.boj.or.jp/en/about/about_f.htm

implementation of monetary policy, the Bank of Japan must have an accurate understanding of the overall economic and financial conditions in Japan. To this end, the Bank compiles various statistics, including the Wholesale Price Index [now the CGPI], the Corporate Service Price Index, and money stock."

0.1.2   Data sharing and coordination among data-producing agencies are adequate

In collecting price data for the CGPI, the BOJ draws on two main surveys as source data for the weights—the Census of Manufacturers (CM) and Japan Exports and Imports. The CM is a designated statistic under the SL (see 0.1.4 below for details) and is published by the Ministry of Economy, Trade, and Industry (METI). Trade statistics are derived from administrative records compiled by the Ministry of Finance and Customs under the provision of the Custom Law and relevant international conventions. The BOJ uses the data supplied by the agencies for weights, and meetings take place between these data-producing agencies both formally and informally. In the present circumstances, these meetings are considered by the BOJ to function sufficiently. The BOJ is prepared to strengthen the relationship with other data-producing agencies, if necessary.

0.1.3   Individual reporters' data are to be kept confidential and used for statistical purposes only

Articles 14 and 15 of the SL provide obligations to maintain confidentiality of information on respondents, and this applies to both notified and designated statistics (see 0.1.4 below for details). Article 15.2 of the SL provides that the responses to individual questionnaires shall be kept confidential and that they not be used for purposes other than statistical.

Furthermore, Article 29 of the *Bank of Japan Law* specifies a duty of confidentiality, and Article 63 specifies penalties for breaches of this duty. These penalties are imprisonment of up to a year or a fine not exceeding five hundred thousand yen—five times that applicable to designated statistics under Article 19-2 of the SL. Two BOJ publications [BOJ (1999)[17] and BOJ (2002)][18] encapsulate the Bank's policy on economic statistics. Also, sections D3 and 2-4, respectively, note that the confidentiality of reporters is guaranteed. As part of the 2002 revision of the CGPI, the BOJ reexamined the level of data access and, for the large part, further restricted it. It introduced clearly written rules on practical procedures relating to handling and managing confidential data to supplement existing ones.

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[17] BOJ, 1999, "*Enhancement of Statistics Provided by the Research and Statistics Department,*" July 28, Bank of Japan, Research and Statistics Department. http://www.boj.or.jp/en/ronbun/ronbun_f.htm.

[18] BOJ, 2002, "*Toward Further Improvement of Financial and Economic Statistics: The Bank's Basic Principles and its Recent Actions,*" BOJ *Quarterly Bulletin*, November, 2002.

The Price Statistics Section (PSS) of the RSD protects the confidentiality of reported information by acting according to an internal code of conduct: "the rule(s) for handling price statistics-related information." This is an admirable provision having tailor-made operating rules for the CGPI that reinforce the statutory provisions.

Under the statistics compilation rule, specific staff have responsibilities for particular data, and access to such data is restricted to them, along with designated senior staff. (BOJ 1999: Appendix 3). The staff member in charge is responsible for locking paper copies of statistics in a safe and securing information in electronic form via access passwords. The computer system is protected by IDs and passwords that limit data access to the staff compiling the index. The whole of the BOJ's headquarters has electronic security to restrict access. The entrance to the area of PSS is limited to the staff of the section.

A policy of not releasing commodity indices is followed in cases in which the number of price data for certain commodities is less than three, and the number of correspondent companies is less than two, unless the correspondent companies agree to the release. There are two unreleased DCGPI and two XPI commodity indices. Consideration should be given to increasing to three the threshold number of companies before data will be released, unless it is apparent that the data supplier cannot be identified from a lower threshold.

Article 15 -2 of the SL allows those responsible for using, or having others use, questionnaire forms or reports to do so, but in a manner that precludes the identification of those who were surveyed or asked to submit reports. This allows, in principle, confidential data in an anonymized form to be used in further analysis of data by other agencies and is a sound provision. However, the BOJ does not release unit records for research purposes, owing to the belief there will be an adverse effect on the response rate of the release of such data. The BOJ further pointed to technical difficulties and resource constraints on the anonymization of the data.

0.1.4 *Statistical reporting is ensured through legal mandate and/or measures to encourage response*

The CGPI is a notified survey for which the legislative procedures are less stringent than for designated surveys. For designated surveys, there are obligations to respond under Article 5; penalties for not doing so, Article 19; and for prompt dissemination, Article 16.

The rationale for the different procedures lies in the Law to Establish the MIC (1999) (LEMIC) that has as part of its scope: "To execute and tabulate .....fundamental statistical censuses and surveys" (Article 4 (85)). Such "fundamental" surveys are denoted, under the SL, as "designated statistical surveys," which are "those necessary for the formulation of basic government policies and that are important to national life." The CGPI serves a valuable role—both as a deflator and an indicator of inflation—and should benefit from the provisions of a designated survey. This is a shortcoming of the legislation for a dataset such as the CGPI, especially with regard to large establishments because if they refuse to respond to the survey it may seriously bias the component indices for particular industries. The PSS

notes, however, that most reporters are cooperative, and they are able to collect enough sample prices to compile price statistics of a high quality.

To encourage response, the PSS strives to mitigate the reporting burden, and this is one of the BOJ's "basic principles on statistics" (see BOJ, 1999, 1 and 2(5), and BOJ 2002 D). Several measures have been implemented, including, for example, making questionnaires more industry specific, monitoring the reporters' actual transactions to ensure the form of the inquiry remains appropriate, and purchasing of data from external research institutes (planned upon the next revision). The PSS provides detailed explanations on how to complete and submit forms, contact information for queries, and a clear statement of respondents' rights with regard to the confidentiality of data provided. Compilers do their best to receive source data on time. They inform respondents of reporting deadlines, and in case of a delay in reporting, they use telephone follow-up procedures. Usually, only a few cases of "nonresponse" occur, because the relationship established over the years with respondents is very good.

0.2   Resources

0.2.1   Staff, facilities, computing resources, and financing are commensurate with statistical programs

The PSS has approximately 40 staff members whose responsibilities extend to the compilation of the XPI, DCGPI, and Import Price Index (IPI). About three-quarters of the staff have university degrees. BOJ salaries are considered to be at an appropriate level. There is no problem with staff recruitment. The PSS does not suffer badly from staff turnover, with about 80 percent having been at the PSS for more than two years. The quality of senior staff is high: research is undertaken in the BOJ on methodological issues related to the index number methodology including hedonic and other quality adjustment methods, and research on errors in the CPI[19] and the GDP deflator. Members of the PSS attend and contribute to international research meetings; examples include a user's meeting on the *PPI Manual*, the Voorburg Group meeting, and the Japan Statistical Society.

The working environment is satisfactory, as are the computing resources. A state-of-the-art Unix-based compilation system is being developed. Adequate protection is provided for computer resources, including provision of emergency back-up systems for retrieval of statistical series and updates in the event of natural or other disasters.

Funding is reasonably secure for the identified needs of the statistical program, and the budget for the computer system is planned from a medium-term perspective. The funding

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[19] Shiratsuka, S., 1999, "*Measurement Errors in Japanese Consumer Price Index*," Institute for Monetary and Economic Studies (IMES) Discussion Paper Series, 99-E-23, September.

horizon is flexible to allow for planning for statistical developments over a two- to three-year period. In the PSS's experience, no reasonable funding request has been rejected.

0.2.2   Measures to ensure efficient use of resources are implemented

Regular staff self-assessments and management assessments of staff take place—the latter with regard to performance-related pay and promotion. The efficiency of the work process is reviewed regularly, although major methodological innovations are adopted only every five years, upon revision of the base-year weights of the CGPI. There are no monthly efficiency-related measures; budgets are considered annually. The PSS believes the efficiency of work processes will be improved substantially with the introduction of the new Unix-based system.

0.3   Relevance

0.3.1   The relevance and practical utility of existing statistics in meeting users' needs are monitored

The BOJ obtains expert advice from universities on methodological issues and invites specialists from trade associations to internal workshops. Information on user's needs is sought every five years at the time of the weight revision, as noted in BOJ (1999: 2-5) and BOJ (2002). Consideration could be given to establishing a forum where users are regularly consulted, not just on developments at the time of the weight revisions but as an ongoing process.

0.4   Other quality management

0.4.1   Processes are in place to focus on quality

In Article 1 of the SL, the primary purpose of the Act is "veracity."[20] There is no doubt that the BOJ is concerned with accuracy and confidentiality issues, a matter reflected in its policy documents. The BOJ considers it essential to provide "reliable statistics" and is "constantly seeking for ways to improve the quality of statistics it publishes" (BOJ, 1999 and BOJ, 2002). The *Bank of Japan's Medium-Term Strategic Framework for Fiscal 2005-2009* and the *Bank of Japan's Action Plans for Fiscal 2005* point out the BOJ's intention to constantly examine ways to "improve the quality of statistics it publishes with a view to further strengthening its policy planning capabilities."

Monitoring processes for micro data verification are excellent. The PSS has a team of 15 industry specialists who are responsible for, and have built up knowledge of, their industries, which facilitates the selection of surveyed prices to best reflect market trends.

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[20] The 1991 amended version of the SL has "truthfulness" as its objective, while in the 1999 amended version it was changed to "veracity."

The PSS holds three data quality-related meetings each month—the General Affairs Meeting, Progress Report Meeting, and Price Analysis Meeting. At Price Analysis meetings, industry specialists report on overall price changes for their industry and how they dealt with unusual changes. Individual staff members are given projects, such as to examine the quality of the "averaging of prices" (see 3.3.2) and must report on their progress at bilateral Progress Report meetings. There are no measures of quality summarized on a monthly basis.

0.4.2 Processes are in place to monitor the quality of the statistical program

While there does not appear to be a systematic program, it is apparent from the discussion of issues in their metadata that quality issues are considered. The PSS staff benefit from on-the-job training (OJT). In addition to that, there are general training courses on statistical issues given by MIC, which senior staff attend.

0.4.3 Processes are in place to deal with quality considerations in planning the statistical program

Internal general meetings consider quite specific ongoing issues to enhance the quality of the CGPI. Annual monitoring is budget-related, and major innovations are only realized on the five-yearly weight revisions.

1.   Assurances of integrity

1.1   Professionalism

1.1.1   Statistics are produced on an impartial basis

The BOJ Law mandates the professional independence of the Bank and its activities from external intervention: "In light of the public nature of its business and property, the Bank of Japan shall endeavor to conduct its business in a proper and efficient manner" (Article 5.1) and "In implementing this Law, due consideration shall be given to the autonomy of the Bank's business operations" (Article 5.2). Further, Articles 23 and 24 clearly define "appointment of executives" and "executives' term of office," and Article 25 stipulates that executives of the BOJ shall be protected from dismissal against their will, during their term of office. In addition, Article 2 of the BOJ's *Internal Rule of Staff* states that staff of the BOJ must recognize the public mission of the BOJ and perform their duties fairly and smoothly. Every evidence in discussions with BOJ staff points out a commitment to such principles.

1.1.2   Choices of sources and statistical techniques as well as decisions about dissemination are informed solely by statistical considerations

It is apparent that PSS staff recognize that technical, statistical considerations should be uppermost. Staff development is through OJT, participation in training at the Statistics Training Center of the MIC, and research on methodological issues relating to the CGPI.

The 2000-base CGPI was the result of the largest revision to the (then) WPI for 20 years. A detailed explanation is given in BOJ (2002) for the motivation for such changes, which is phrased in terms of reducing response burden and "an appreciation of the increased diversity and sophistication of user needs." Also motivating the revisions was a partial review of survey methods, increased coverage to reflect progress in IT, the release of a DCGPI-chain, and the change in the conceptualization and scope of the index, and thus name, from WPI to CGPI (BOJ, 2002 and 2003). In these respects, the BOJ has made efforts to meet user needs while taking into account statistical issues. The BOJ also established *Basic Principles on Methods of Release and the Provision of Information about Statistics and its Revisions*, published as Appendix 2 of BOJ (2002). These principles include a provision that statistics will be compiled as speedily as possible and then released promptly.

1.1.3   The appropriate statistical entity is entitled to comment on erroneous interpretation and misuse of statistics

The PSS holds a press conference on the day of release and issues a press release. One of the aforementioned (1.1.2) "Basic Principles" is that the BOJ does not add any policy judgments or interpretations to the statistics it publishes. The person in charge of releasing statistics conducts a review of the media. If there are misuses of statistics in the media, the PSS corrects them through the Secretariat of the Policy Board, which is in charge of contacting the media. Such misuses have in practice been rare, but when they have occurred, this mechanism has proven effective.

1.2   Transparency

1.2.1   The terms and conditions under which statistics are collected, processed, and disseminated are available to the public

A complete set of documents presenting the terms and conditions under which the PSS implements its statistical activities is available to the public from the BOJ website. These include the BOJ Law, but an important omission is the *Statistics Law*. However, the BOJ website has details of the principles governing its economic statistics: "*Missions and Activities of the BOJ*" and "*Functions and Operations of the BOJ.*"

1.2.2   Internal governmental access to statistics prior to their release is publicly identified

Internal government access to the statistics prior to their release is prohibited. Access to price statistics data before their release is strictly restricted to the staff members of the PSS, the section that compiles the statistics.

1.2.3   Products of statistical agencies/units are clearly identified as such

All statistical products are identified as produced by the BOJ's Research and Statistics Department. There is no logo or symbol used by the BOJ to designate whether a published series is an official statistics, or otherwise.

1.2.4   Advance notice is given of major changes in methodology, source data, and statistical techniques

A BOJ "Basic Principle" is that information be released on the website regarding survey questionnaires and methods of compiling the data for their major statistics. Revisions for the most part take place during rebasing every five years, and these, along with accompanying major methodological changes, are discussed with government agencies. Details of the revisions, BOJ (2002a), were published on Monday, December 9, 2002 for the 2000-base year index that was to be released on January 2003.

1.3   Ethical standards

1.3.1   Guidelines for staff behavior are in place and are well known to the staff

The BOJ has a strong ethical culture. It provides clear guidelines for staff behavior in the *Bank of Japan Law*, the *Rules of Ethical Conduct for Executives and Staff of the BOJ*, and the *Code of Conduct for Staff of the BOJ*. The BOJ encourages staff to familiarize themselves with the guidelines, which are on the BOJ's intranet site. As indicated in 0.1.3, the PSS has established the Price Section Rule governing codes of data handling procedures specific to the section, thus strengthening ethical standards. The BOJ conducts a training program for new employees, during which they are taught ethical standards and are given copies of the Price Section Rule and aforementioned guidelines. Staff are periodically reminded of ethical standards at, for example, the General Affairs meetings.

2.   Methodological soundness

2.1   Concepts and definitions

2.1.1   The overall structure in terms of concepts and definitions follows internationally accepted standards, guidelines, or good practices

The CGPI broadly follows internationally accepted standards. An exception is that prices at the primary wholesaling stage are collected at the primary wholesaler level, though this is only when the primary wholesaler is considered to play a critical role in adjusting supply and demand. The price change of industries, as measured by the CGPI, confounds the wholesale and industrial price change, at least at the (arbitrary) primary level of wholesaling used. It does not meet the principles and needs of the *1993 SNA* and the *PPI Manual* in this respect. Output should be valued at producers' prices.

2.2   Scope

2.2.1   The scope is broadly consistent with internationally accepted standards, guidelines, or good practices

The CGPI covers all commodities in "manufacturing industry products," "agriculture, forestry and fishery products," "minerals," "electric power, gas and water," and "scrap and waste." The CGPI does not cover business services, but the BOJ compiles a further index, the Corporate Service Price Index (CSPI), whose scope is the prices of services traded among corporations.[21] A producer price index for service activities is an important indicator for an advanced economy such as Japan, and the mission applauds the PSS's dissemination of the CSPI. To give the CSPI further prominence, the CSPI could be included in Japan's SDDS metadata on the IMF's Dissemination Standards Bulletin Board and on Japan's National Summary Data Page, along with the CGPI.

Although markets, such as free zones, bonded warehouses, and factories operated by offshore enterprises under customs control, are included in the scope of the CGPI, the goods surveyed in the CGPI are not mainly traded in these markets and are thus effectively excluded. This is in the belief that their inclusion is unlikely to affect the CGPI. The PSS should monitor such activities periodically in case this changes.

2.3   Classification/sectorization

2.3.1   Classification/sectorization systems used are broadly consistent with internationally accepted standards, guidelines, or good practices

The classification is at a sufficiently fine level to allow detailed economic analysis. The DCGPI is classified by five major groups—"manufacturing," "agriculture, forestry, and fishery products," "minerals," "electric power, gas and water," and "scrap and waste." Manufacturing is further subdivided into 16 groups, leading to a secondary classification by 20 groups, 88 industry subgroups, and up to 235 commodity classes.

The "major group" and "group" classification follows the Japan Standard Industrial Classification (JISC), whose classification system broadly corresponds to the International Standard Industrial Classification (ISIC). JSIC is revised irregularly and has benefited from an extensive revision in 2002, to better reflect the changes in the structure of industry, especially regarding information and communication technology.

The commodity classification basically follows the JSIC at the four-digit level and the commodity classification in the CM, published by METI. This is sufficiently fine: there are

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[21] BOJ, 2005, "Explanation of the 2000 Base Corporate Service Price Index (CSPI)," Research and Statistics Department, BOJ, March. See also OECD, 2005, *The Statistics Newsletter*, 25, February 2005, pages 2–4.

235 commodity classes and 910 commodities. The aforementioned reference indices, the DCGPI-chain, and the DCGPI excluding consumption tax are classified on the same basis.

As noted below in 3.1.1, the DCGPI has its weights derived at a detailed level by subtracting from the output values from the *Census of Manufacturers* statistics (that uses the JSIC) the export values from trade statistics (that use the Harmonized System (HS)). On occasion, there is no correspondence between these classifications, or the economic activity is inappropriately assigned to an industrial group, resulting in negative estimates of the weights for the DCGPI. In such cases, recourse should be made to other data sources for reconciliation and estimates used.

2.4   Basis for recording

2.4.1   Market prices are used to value flows and stocks

Respondents are requested to supply market prices. Weights are valued at producer prices, and output for own-use at equivalent market prices. The CGPI is compiled including consumption tax, but the BOJ also compiles a reference index that excludes consumption tax—the DCGPI excluding Consumption Tax. For the XPI, the goods are, at least in principle, valued free-on-board (f.o.b.) at the Japanese port of exportation, in accord with the *1993 SNA*, paragraph 14.36.

2.4.2   Recording is done on an accrual basis

For transactions for which the contract period extends over several months, the prices of finished goods are not recorded in the period they are produced. However, intermediate price information is available because of the commercial practice of "ex-post pricing"—the setting of initial "provisional settlement" prices, until the final actual shipment price is subsequently available during or after the contract period. The use of such provisional prices for the CGPI, and subsequent use of the final price in the periodic revision, improves the index. First, it enables the index to quickly reflect price fluctuations and, second, reduces the differentials arising from periodic retroactive revisions of published indices.

Six commodities utilized provisional prices for the 2000-DCGPI—"parts of internal combustion engines for motor vehicles," "ethylene," "propylene," "toluene," "xylene," "para-xylene," and "fuel oil C"—and one commodity used provisional prices for the XPI, "para-xylene."

When, for the XPI, prices are recorded in a foreign currency, they are converted to yen using the monthly average spot exchange rate (middle rate— midpoint between the selling and buying rate), as quoted by banks to customers in each corresponding month. The BOJ's method in this respect is consistent with the conversion principles recommended by the *1993 SNA* and the *BPM5* and has been adopted since January 2005.

*2.4.3   Grossing/netting procedures are broadly consistent with internationally accepted
           standards, guidelines, or good practices*

The weights of the CGPI are the gross value of shipments from producers, which is
consistent with international practices.

3.   Accuracy and reliability

3.1   Source data

*3.1.1   Source data are obtained from comprehensive data collection programs that take into
           account country-specific conditions*

Weights

The annual CM, the primary source data for weights, covers "manufacturing industries" as
defined by JSIC. This includes all establishments for the years ending with 0, 3, 5, and 8 and
establishments with four or more employees in intervening years.

The weights for the DCGPI are derived by subtracting from the value of total producers'
shipments (taken from the 2000 *Census of Manufacturers*) the value of exports (taken from
Japan Exports and Imports).

For nonmanufacturing industries not covered by the CM, that is, "agriculture, forestry and
fishery products," "minerals," electric power, gas and water," and "scrap and waste," the
BOJ uses statistics released by other government agencies or industrial associations. For
"minerals," electric power, gas and water," and "scrap and waste," only data on physical
quantities are available, so the BOJ estimates value weights by multiplying their price data
by these volume measures.

Excluded from the weights, and thus the DCGPI, are (1) commodities for which weights are
considered impossible to calculate, including office buildings, (2) commodities of which
prices are difficult to survey continuously, and for which there is no "similar" group to
impute their weight, including ships, ammunition, and arms, and (3) products for which
excessive seasonality precludes the derivation of continuous series, including fresh foods.
The exclusion of (2) has been estimated to amount to about 6.4 percent and 7.9 percent of the
DCGPI and XPI, respectively.[22] The exclusion of commodities in cases (1), (2), and
(3) above can be justified on pragmatic grounds in the short run, in the initial stages of the
development of a PPI. However, such commodities may exhibit quite different price changes

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[22] Estimate relates to 1995 base as published in the BOJ 2001's "Explanation of the 1995
Base Wholesale Price Index (Revised Version)," May 2001, page 2, BOJ, Research and
Statistics Department, Tokyo: BOJ.

to the included commodities, and methods of measuring such hard-to-measure commodities are considered in the *PPI Manual*, chapter 10, in particular.

The CM has a fifteen-month publication lag. It causes a two-year publication lag in the revision of CGPI base-year every five years. At worst, the fixed-base CGPI uses weights seven years out of date. The *PPI Manual* notes that "there is a wide consensus that regular updating of weights—at least every five years, and more often if there is evidence of rapid changes in production patterns—is a sensible and necessary practice" (p. 236).

Prices

The selection of commodity prices to be used to compile the index follows a number of stages. First, the commodities to be priced are selected. Here a cut-off selection is used. For the DCGPI (XPI), commodities with transaction values no less than 1/10,000 (5/10,000) are used, though there are some sensible exceptions.

In all, 910 commodities were selected for the 2000=100 DCGPI (and 222 for the XPI). These selected commodities covered, for the DCGPI, 78.6 (66.1) percent[23] of all commodities. The coverage for "metal products" and "general machinery and equipment" was much lower at 50.6 and 48.3 percent, respectively, though these contained hard-to-measure goods, such as metal bridges in the case of "metal products."

Second, enterprises/establishments were selected from which to price the commodities. The available census data of enterprises and establishments contains information on the industry to which the establishment belongs but not on the commodities produced. This precludes its use as a sampling frame in this respect, although it is in any event only updated twice every five years, once on a comprehensive and once on a partial basis. The reporting units were selected by a team of industry specialists using information from trade reports and newspapers. Such enterprises were selected on the basis that they were the "major players" in each commodity market.

Finally, interviews were conducted at enterprises to determine the major items for which prices were to be reported. Sometimes major *items* were selected for a surveyed commodity in advance of the selection of respondents. In such cases, the enterprise that is the "major player" in relation to the item is contacted. The selection is thus nonrandom and judgmental, albeit by industry specialists, and has an implicit cut-off form. There is no stratification by geographical region or size of enterprise.

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[23] This is the transaction values of commodities selected for the CGPI (including similar commodities of which the selected ones are representative), as a proportion of the transaction value within the scope of the CGPI.

3.1.2   Source data reasonably approximate the definitions, scope, classifications, valuation, and time of recording required

The source data for the weights for the output of manufacturing industry are, by and large, the CM, which largely satisfies the definitions, scope, classifications, valuation, and time of recording required by a PPI.

Data on the major price-determining characteristics of the product, such as brand and size, and the "conditions of the contract" are appropriately collected along with the price of an item.

The DCGPI is compiled *including* indirect taxes such as consumption taxes. Output PPIs should be valued at *producers'* prices and should exclude any VAT or similarly deductible tax. A "reference" index is published by the BOJ, which excludes consumption tax: the "DCGPI excluding consumption tax." It is a fixed base index. Consumption taxes change irregularly, in Japan in 1989 and 1997, and only affect the index during the period of change.

3.1.3   Source data are timely

The BOJ collects prices by mail from reporting enterprises by the first business day of the month after the surveyed month. Data received after the reporting deadline, or before the deadline, but that require further validation, are used in revised figures.

3.2   Assessment of source data

3.2.1   Source data—including censuses, sample surveys, and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and nonsampling error; the results of the assessments are monitored and made available to guide statistical processes

BOJ staff members assess the accuracy of all sample prices and their changes. Fifteen staff are responsible for such checking, each with specialist knowledge of, and attention to, an allocated industry. PSS staff are given a briefing document on the changes in the economy to provide a context to help appraise the veracity of the price change. Staff examine whether the sample prices are appropriately selected, to match the initial specifications. They query unusual results by phone with the respondents. Data are double-checked prior to compilation. A senior staff member reviews unusual price changes each month at bilateral "price analysis meetings" with the staff responsible for each industry. Any price change above or below 10 percent is automatically reviewed with the respondent.

The selection of prices is nonrandom, and, as such, a reliable estimate of sampling error cannot be derived.

Industry specialists record the outcomes of the collection process in terms of the queries of different types, missing values, temporary or otherwise, and so forth, although no summary reports are compiled on a regular basis.

3.3   Statistical techniques

3.3.1   Data compilation employs sound statistical techniques to deal with data sources

Respondents are contacted when a price is not reported. The respondent is asked to report on the reason for the missing price, and whether the item is still "major," say in terms of its revenue share. If the item is still considered to be a major one, and considered to be **temporarily missing**, the price of the item is treated as unchanged from the last contracted price. Such prices can only be carried forward for a maximum of three months, after which they are reviewed again.

Exceptionally, the carrying forward of the price may be extended to four or five months, say for industrial machinery with custom specifications, on the expectation that a comparable one will soon be produced. However, the use of a carry-forward procedure induces undue stability into the index. In the absence of further information, a targeted imputation would be preferable. Targeted imputations are used in some instances in the CGPI, but they are long-run, and short-run ones should be considered. The PSS have noted that they consider the use of imputations inappropriate due to possible staggered pricing.

Temporarily missing items may be seasonal items. In such cases, annual averages are substituted for the missing seasonal prices. This again induces undue stability along with inappropriate changes at the first and last period of the season in which the prices are missing. The PSS is considering alternative methods, though it recognized that this is a difficult area.

If the missing commodity is found to be **permanently missing,** a replacement is found. The replacement is requested to be of a comparable quality, but if unavailable, a noncomparable replacement is found, and details of the specification change are recorded so that an adjustment can be made to the price for the change in quality.

Quality adjustments are, for many statistical offices, undertaken when a commodity is no longer produced and when a replacement, which is not comparable in quality, is newly produced. The PSS is aware that Japan's economy experiences a rapid turnover in commodities of different qualities that precludes the comparing of like with like, even over relatively short periods. The turnover is not confined to automobiles and electronic goods such as personal computers, cellular phones, and televisions. As an illustration of the size of

the issue, nearly 20,000 new snacks are released on the market annually, of which only about 100 survive a year later (BOJ 2001a: 6).[24]

The PSS has a policy of replacing a sample price when a product ceases to be representative in the market or is in decline. The industry specialist discusses the ascendancy and decline of its representative products with the respondents and follows the trade press. This proactive approach *follows best practice* as advised in the *PPI Manual*. It facilitates the quality adjustment, since obsolete commodities are not compared with very new ones, and makes the index more representative.

For the year 2004, there were 1384 (354) replacements for the DCGPI (XPI), of which 22 percent (14 percent) were direct comparisons, 18 percent (15 percent) used the production cost method, 5 percent (4 percent) used hedonic regressions, 4 percent (2 percent) used the overlap method, and 4 percent (0 percent) used a unit price comparison, for homogeneous items. This left 46 percent (62 percent) that were "unable to compare." The carry-forward method was generally used in such instances, and, as noted, this induces undue stability. A targeted short-term imputation may be more appropriate and should be considered case-by-case, assuming no other method can be utilized.

The BOJ usefully makes estimates of the effects of quality adjustments: for changes during 2004, the index after the quality adjustment (including production cost, hedonic, and overlap) showed an increase of 1.9 percent compared with 2.3 percent before the adjustment—a difference of 0.4 percentage points. For "electrical machinery and equipment" and "transportation equipment," the differences were larger: falls of 4.3 and 1.1 percent, respectively, after the adjustment, but a *fall* of 3.0 percent and *increase* of 0.6 percent before it.

For commodities with a high turnover of models and rapid changes in their quality features, the PSS employs hedonic regressions to estimate the implied price differential due to quality differences between the old model and the noncomparable replacement. Such methods have been applied (as of February 2004) to PC and UNIX servers, personal computers, printers, and digital and video cameras. New data sources have been utilized for such purposes, including point-of-sale scanner data. In such applications, the PSS follows leading-edge methods that accord with the *PPI Manual* for dealing with such difficult areas.

New products are introduced on rebasing for the revision to the 2000 base year index. For the domestic DCGPI (XPI), 58 (36) commodities were newly introduced (including[25]

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[24] BOJ, 2001a, "Quality Adjustment of Price Indexes, Wholesale Price Index and Corporate Service Price Index: The Current Situation and Future Implications," BOJ, Research and Statistics Department, *BOJ Working Paper* 01-6, Tokyo: BOJ.

[25] All examples cited here are for the DCGPI; details for the DCGPI and XPI are in Appendix 2 of the BOJ (2002) *op. cit.*

semiconductor manufacturing equipment, dishwashers and dish dryers, and portable computers); 85 (17) abolished (including word processors and truck cranes); 24 (2) divided (for example, video cameras to video cameras and digital cameras); 58 (8) combined (for example, "cellular phones" and "personal handy-phone system" to "cellular phones and personal handy-phone system;" and 85 (17) expanded to incorporate new commodities (for example, "video tape recorders" to "video recording and/or reproducing apparatus"—to include DVD players). There is clear evidence of a serious appraisal of, and action taken, to include new commodities and remove declining/obsolete ones—both at the time of the weight-revision and by proactive commodity substitution by industry specialists.

3.3.2 *Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques*

Lower level aggregation——elementary aggregate indices

Three problems arise from the BOJ's methodology for aggregating at the elementary level. The first is the use for the aggregation of all price changes at this first, elementary stage, of the unweighted arithmetic mean of price relatives. This is the Carli index, and international recommendations, including the *PPI Manual*, strongly advise against this index. It fails the time reversal test and is biased upwards. The PSS argue in favor of maintaining the Carli index on the basis of statistical continuity and ease of handling for both users and compilers. They point out that a chained CGPI, available as a reference index, is compiled using the Jevons index. The concern remains with regard to the official CGPI.

The second, is the use for some commodity groups of averaged prices (unit values) to define "prices" at the very basic level, from which elementary aggregate indices are formed. At the 2000 revision, "averaged prices", that is, unit values, were introduced alongside sampled prices. These unit values are the sum of sales of several items divided by the total quantity. Of the 5,508 prices sampled each month[26] for the DCGPI, 651, or 12 percent, were averaged prices. Their use was much more restricted for the XPI, amounting to 28 of the 1,151 prices sampled or 2.4 percent. Their incidence was highest for "processed foodstuffs" for the DCGPI—297 averaged prices out of 591 sampled or about 50 percent. Their use was to help cope with the diversification of commodities and prices without imposing an excessive burden on the responding companies. Such averaged prices are the building blocks of some of the price relatives, and PSS's use of the unit value comparison is identified here as a step in the aggregation formula at the elementary level.

Some care and consideration are put into criteria for the selection of commodity prices to be averaged. The selection is according to five different criteria or "types," based on priors

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[26] Figures are as of October 25, 2002 and reflect current practice. Details are from the Revision of the Wholesale Price Index (Switchover to the 2000 Base Corporate Goods Price Index (CGPI)), Research and Statistics Department, Tokyo: BOJ, December 9, 2002.

about their expected pattern of price dispersion. For example, type 1 is where there is substantial price variation for the same commodity sold to different customers. In this case, separate average prices are calculated for each client – undertaken for 47 percent of averaged commodities. The resulting unit values for two periods are compared. Such comparisons are unit value indices and are used as price relatives in the first building block of the PPI, the first step in elementary aggregation. The *PPI Manual* advises that such unit value indices can only be applied to homogeneous products (paragraphs 9.70 and 9.71). The problem is that as the quantity or quality mix of items changes, then the price relative will reflect changes in quantity or quality.

The third, and related, issue of concern with the compilation of elementary aggregates is that even if the same quantity of each (variety of) commodity remained the same, the price relative would be biased. The price relative would then be a Dutot elementary aggregate index which, as a ratio of arithmetic averages, is equivalent to price relatives weighted by their relative prices in the base period. The Dutot index fails the units of measurement or commensurability test. Since the prices of commodities are not those of homogeneous goods, the (price) weighting a good receives depends on the units of measurement. The *PPI Manual* (paragraphs 9.27 to 9.29) considers the use of the Dutot index as conceptually unacceptable when used for different types of products. Even for fairly similar commodities, the index assigns more weight, by its relative price, to more expensive commodities, which may not be justified since such commodities may account for a relatively small proportion of revenue.

The understanding is that the PSS exercises great care to ensure that the commodities averaged are similar. In such cases, the averaging and Dutot index are appropriate. However, given that the description of commodities averaged includes, for example, "machine normally manufactured on a custom-made basis (for example, semiconductor manufacturing equipment, cutting machine tools, and lifting and handling equipment)," the restrictions behind the method require consideration.

The DCGPI-chain is compiled as a reference index and uses the geometric mean as opposed to an arithmetic mean to compile the elementary aggregate indices. The use of such a "Jevons" index accords with international good practice when sampling is with probability proportionate to revenue share and industries are expected to respond to above average price increases with volume decreases. It is an index with good axiomatic properties, unlike the Carli index. Also, unlike Dutot, it can be used to aggregate heterogeneous commodities (it passes the "commensurability test"). Differences between the CGPI and the DCGPI-chain can arise from the use of the elementary aggregator formulas and the chaining.

Upper-level aggregation

The index number formula used at the higher level is a "pure" Laspeyres index, an index whose price reference period is the same as the weight reference period. This is unusual since in Japan it takes over a year to compile the weights. As such, the index must be backdated for the Laspeyres to be used. The weight reference period of 2000 is the same as the price reference period. Yet the weights for the 2000=100 index are not introduced until

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December 2002. The 2000-base index for January 2001 uses, on January 2001, 1995 weights, but on December 2002, the weights change to the now available 2000 weights. The index for January 2001 is, as at December 2002 retroactively revised back to January 2001 using the newly available 2000 weights. This is an unusual procedure in index number compilation.

More usually, in a Lowe or Young index, the weights used would be those relating to a period prior to 2000, so that the revised index for 2000 could be introduced in real time in January 2000. The weights would not relate to 2000, the price reference period, but may be price updated to January 2000. The approach used by the PSS has the advantage that the Laspeyres index is well defined with 2000 weights and a 2000 price reference period. Yet, there remains the problem that the index as of January 2001 to December 2002 will be released as a 1995=100 index using 1995 weights, and then such figures will be revised in the historic run of the index when the 2000 weights are introduced. The recommendation would be to use a Lowe index. A Lowe index would have as its weights those from a period preceding the price reference period, although the weights would be price-updated to the price reference period.

A DCGPI-chain is compiled as a "reference" index. A chained index, and the more frequent updating of weights, is well established to have theoretical and practical advantages over a fixed-base Laspeyres index, as discussed in the *PPI Manual*. The differences between the chain-weighted and fixed-base DCGPI can be substantial. Over the period 2004 compared with 2000, the DCGPI fell by 3.9 percent compared with a fall of 5.4 percent by the DCGPI-chain, while for 2005:06 compared with 2000 the DCGPI fell by 2.7 percent compared with a fall of 5.1 percent by the DCGPI-chain. The difference in methodology matters.

It should be noted that the publication lag in the weights means that an index with more frequently updated weights, or even an annual chained index, will not be computed in real time. According to BOJ (2000: 15 *ff*.22), it will only be in October 2003 that the results of the CM for 2001 will be available for a retroactive incorporation into the index. Thus the weights will be nearly two years out of date. Now it is appreciated that with retroactive incorporation of weights, the CGPI chain actually takes on a chained nature. But for its current real time application, a more detailed explanation is necessary in order to avoid a misunderstanding by users regarding the claim of "using weights updated each year" for the chained index. The PSS is conscious of issues relating to the introduction of a chained index and, in its research, has found some evidence of chained drift, which is held to be due to the price bouncing of commodities like rice and beef.

Consideration should be given to the more frequent updating of weights for the official index.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Intermediate results are validated against other information where applicable

Indices of the final goods of the CGPI are assessed by comparing them with other price indices, as applicable, such as the CPI. Some categories are validated against market spot prices, for example, prices of crude oil and metal.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

The PSS meticulously double-checks the data, refers back to respondents when unusual changes occur, and refers to industry and contextual economic information.

3.4.3 Statistical discrepancies and other potential indicators or problems in statistical outputs are assessed and investigated

If unusual movements in the index arise from large changes in particular sectors, the cause is investigated and explained as much as possible in the commentary without prejudice to the confidentiality of the reporting companies.

3.5 Revision studies

3.5.1 Studies and analyses of revisions are carried out routinely and used internally to inform statistical processes (see also 4.3.3)

The effects of weight revisions are considered by revising the series backwards over time with new weights. This occurs naturally from the upper-level aggregation procedures outlined in 3.3.2 above. Studies are also made on the effect of quality adjustments, as noted in 3.3.1. The DCGPI-chain is compiled to analyze the effects of changes in weights, and the DCGPI excluding consumption tax is compiled to identify the effects of changes in consumption taxes.

Section 2.4.2 noted that, owing to the commercial practice of initially setting "provisional settlement" prices with final shipment prices subsequently fixed, the preliminary figure will be revised when the final figures are available. Revisions also arise because of the late receipt of data, in part because further checking may be required. Preliminary figures are revised the next month. Almost all prices, 95.03 percent, are on time and used in the provisional index; at worst, "pulp, paper, and related products" has 82 percent of prices on time, a not unduly low figure for this worst case (response rates are those of August 2005). Periodic retroactive revisions of published indices are implemented twice a year in April and October, when the March and September preliminary figures are released, but data are final after a year. Thus, a price change may be revised on three occasions: after a month, a further five months, and a further six months. Apart from these periodic retroactive revisions, the CGPI is revised immediately if a large error, such as one resulting in changes at the index level of "all commodities," is found in the published indices.

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The BOJ undertakes ad hoc studies of the effects of revisions, for example for textiles, when there is a particular concern. But there are no studies publicly available of the effect of the revisions. Since the BOJ's website contains prior releases, it is possible to work backwards to ascertain their effect. For example, for June 2005, the revisions to the DCGPI, using the June preliminary results and the published results in the July release for the revisions, had no effect on the 2000=100 index, though there was an effect for subgroups: of the 20 major groups, eight had changes in the subsequent months, though none particularly severe by the standards of such things; for "textiles products" (preliminary 98.2: revised 98.0), "lumber and wood products" (97.9:98.0), "pulp, paper and related products" (99.8:99.7), "chemicals and related products" (106.2:106.0), "petroleum and coal" (148.6:148.5), "general machinery and equipment"(95.0:95.2), "agriculture, forestry and fishery products" (99.6:99.5), and "scrap and waste" 160.4:161.2). In order to improve the accuracy of preliminary figures, an estimation method based on seasonal patterns has been introduced for some missing data (as mentioned above). This is not to say the extent of the revisions always has cancelled on aggregation. For example, for April 2005, the preliminary estimate for the DCGPI was 97.4, while the revised figure for April released in May was 97.5.

4.   Serviceability

4.1   Periodicity and timeliness

4.1.1   Periodicity follows dissemination standards

The CGPI is compiled monthly in line with SDDS requirements.

4.1.2   Timeliness follows dissemination standards

The monthly indices (preliminary figures) are disseminated on the 8th (April and October the 9th) business day of the month following the survey month. Monthly indices (final figures) are disseminated at the time of publication of the next month's "preliminary figures" indices. This is within the SDDS timeliness requirements.

4.2   Consistency

4.2.1   Statistics are consistent within the dataset

Products are classified into component commodity groups that are aggregated up into "nested" higher-level groups. Aggregate figures are compiled as the weighted average of each component. The aggregate and components of CGPIs are consistent in aggregation as a result of the use of the fixed-base arithmetic aggregator formula (see 3.3.2 above).

4.2.2   Statistics are consistent or reconcilable over a reasonable period of time

On revision of the base year, the index of the old base year is linked to that of the new base year to create a long-run time series. The 2000-base CGPI, DCGPI, XPI, and IPI go back as

far as a price reference period of January 1960 (2000 average =100). Such series exist for the 16 major manufacturing industry groups along with "agriculture, forestry and fishery products," "minerals," "electric power, gas and water," and "scrap and waste."

The BOJ's website provides series for two "reference" price indices. The first is the "DCGPI excluding consumption tax," introduced in January 2003. The price reference period is 2000=100, though it is backdated on a monthly basis to January 1985, progressively linking in runs of series with 1985, 1990, 1995, and 2000 weights. Similar back series exist for the DCGPI-chain (2000=100) introduced in 2000 with back series compiled from January 1995. Both indices have back series for the 20 groups noted above.

4.2.3 *Statistics are consistent or reconcilable with those obtained through other data sources and/or statistical frameworks*

The CGPI is generally consistent with other price statistics, including the IPI, the Average Index for Domestic Corporate Goods Exports and Imports (AIDEI), and Index by Stage of Demand and Use (ISDU). But, as noted in 2.1.1, its definition is not fully consistent with its needs as a deflator in the *1993 SNA* when pricing is at the primary wholesaler.

4.3 *Revision policy and practice*

4.3.1 *Revisions follow a regular and transparent schedule*

The release schedule for the preliminary and the final CGPI, along with the revision policy, are provided on the BOJ's website.

There is a predetermined revision cycle: the final figures are released two months after the index is compiled based on revisions to the preliminary figures. There are also "periodic retroactive revisions of the published indices" that take place in April and October each year, when the March and September preliminary figures are released. The published figures are thus, in principle, revised over a one year period (BOJ, 2005).[27] The PSS is responsive to the need to issue immediate revisions where large discrepancies arise, and such unscheduled revisions take place about twice a year.

There is no information on the "release schedule" as to the revision policy, though it is in the metadata, BOJ (2002: 17). Separate archive data are available to compare the preliminary and revised figures.

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[27] BOJ 2005, "Explanation of Corporate Goods Price Index (CGPI, 2000 base)," Research and Statistics Department, March 2005: Tokyo: BOJ.

4.3.2   Preliminary and/or revised data are clearly identified

The preliminary data for the CGPI are published on the 8th (April and October the 9th) business day of the month following the survey month, and the final data are published two months after the survey month; revised data are marked with the symbol "r."

The website includes, under "Statistics/Prices" files for all monthly releases of the CGPI for the year in question (eight as of September 6, 2005, including the releases for December 2004 to July 2005) and the preliminary nature of the data released is clearly identified. Archived files for all individual monthly releases for 2003 and 2004 on a preliminary *and* revised basis are also included on the website.

4.3.3   Studies and analyses of revisions are made public (see also 3.5.1)

Occasional studies on the extent and direction of revisions to preliminary estimates are conducted by the PSS, but are not made public. The PSS recognizes the importance of doing so, and these studies could be published on the BOJ's prices website, in the future, in the section on "Research Papers on Prices."

Information on, and studies as to the effect of, base weight revisions made when the weights are updated are provided in the metadata on the weight revision (for instance, the 2000 weight revision published in December 2002).

5.   Accessibility

Data and metadata are easily available and assistance to users is adequate.

5.1   Data accessibility

5.1.1   Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts)

The *Monthly Report on the CGPI* provides indices for 16 basic manufacturing groups and four other groups, along with aggregate totals for "manufacturing" and "all commodities" for the DCGPI, Index by Stage of Demand and Use, and the DCGPI-chain. Such data are clearly presented and, to aid the user, include along with the provisional index level, the weights, monthly, annual, and quarterly price changes, and the previous month's index[28] (and whether it was revised or otherwise). There is a helpful graph of the major indices since rebasing in 2000=100.

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[28] This is not provided for the quarterly data.

Monthly Report on the CGPI is easily accessible on the BOJ's website, provided as .pdf files under the BOJ's home page: "Statistics/Prices/ Corporate Goods Price Index" for all monthly releases in 2005. Following from this, under "archives" are monthly reports for 2003 and 2004. A click on the hypertext "Long-term time-series data" provides, for all 16 major manufacturing groups and the four sectors noted above, series from January 1960 on a monthly basis, along with annual averages. Detailed breakdowns are given for the constituent categories of these groups; for example, for the group "processed foodstuffs," data are available on a monthly basis from January 2000 onwards for the about 120 constituent categories. This is an impressive level of detail easily accessible in a user-friendly (Excel) format.

5.1.2 Dissemination media and format are adequate

The data are released on the website and in a hardcopy press release.

5.1.3 Statistics are released on a preannounced schedule

A release schedule is posted on the BOJ website as: (1) "releases scheduled for the next four weeks," (2) "publications scheduled for release over the next four weeks," (3) "statistical releases and publications scheduled for the next six months," and (4) "schedule for updates of the long-term time-series data for the next six months."

Under (3), there is a hypertext link to "kohyos.pdf," the detailed release schedule for the next six months that includes the dates and time for the CGPI releases. As of September 6, 2005, the release schedule for each of the next 6 months was the 12th, 10th, 12th, 14th, 11th, and 12th days of the month after the index is compiled. Under (2) are mentioned the *Price Indexes Monthly* June 2005 and *Price Indexes Monthly* July 2005, as "Recent Publications (August 2–September 2)," released on August 3 and September 1, respectively. These publications are thus released in hard copy about two months after the month to which they relate. The schedule under (4) gives six-month advance release information for the long-run CGPI that follows that of the monthly CGPI, about 10 to 14 days in the following month, as noted in (3) above.

Instead of looking under the "release schedule" of the BOJ's website, users should look under the "Statistics/Prices/Corporate Goods Price Index," which leads to (1), (3), and (4) above under a heading "release schedule."

5.1.4 Statistics are made available to all users at the same time

No user has prior access to the CGPI. There is no advance press briefing.

5.1.5 Statistics not routinely disseminated are made available upon request

The BOJ releases highly detailed information for the CGPI, and, as such, for practical purposes, the release of customized data is not an issue. Anonymized data are not released because of resource constraints and concern as to the effects on response.

5.2 Metadata accessibility

5.2.1 Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is available, and differences from internationally accepted standards, guidelines, or good practices are annotated

The BOJ (2002) provides details of the changes to the 1995 WPI that were implemented in the switchover to the 2000 CGPI. This, along with the preceding paper on methods for the 1995 WPI, provides, at least in English, the most detailed source of metadata on the CGPI. The mission was informed that the Japanese language version is even more detailed. Metadata are also available on the SDDS website of the IMF and are updated in a timely manner.

The website also contains an easily accessible and relatively detailed "Explanation" of the methodology, readily accessible from the BOJ's home page: "Statistics/Prices/Explanation." There is also a link to a 2001 research paper on quality adjustment for the CGPI.

5.2.2 Levels of detail are adapted to the needs of the intended audience

The BOJ website has, in Japanese, a subsite—"the BOJ for beginners"—dedicated to information on the statistics it releases.

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

The *Monthly Report on the CGPI* identifies the RSD as the department issuing the data, although the contact phone number is that of the Public Relations Department. Public inquiries are channeled through this department to the department responsible for the statistics concerned. Responses to inquiries from users are within a week, as an internal rule. The Public Relations Department monitors the queries received, and the PSS has recently revised its FAQs as a result.

The top page of the BOJ's website contains hypertext for "Contacts." However, information on contact points is not available for the relevant statistics in the metadata. The homepage, called Statistics/Prices//Explanation, provides no contact point. Email addresses are not included on the *Monthly Reports*.

5.3.2 *Catalogs of publications, documents, and other services, including information on any charges, are widely available*

The BOJ's website contains much information on documents and publications, most of which can be downloaded. First, a listing of all statistics is clearly given on their homepage under "Statistics" by subject area, as well as details of the related statistical publications. Second, under "Research Papers" there is a listing of research papers and reports available back to 1996 in .pdf form. This is an excellent resource for users. Third, under "Publications and Services" is a listing of all publications and releases and their charges, along with subscription information. Much of what is available is free and can be downloaded.

The Statistical Bureau publishes, in hard copy only, a 940-page *Index of Statistical Data Sources: Annual 2005*, which includes all official statistical publications, providing information on the publication's title, agency, release date, contents, classifications and breakdown, a URL, if applicable, and more.

Table 3. DQAF (July 2003): Summary of Results for Price Statistics (Producer Price Index)

Compiling Agency: Bank of Japan

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
0. Prerequisites of quality						
0.1 Legal and institutional environment		X				
0.2 Resources		X				
0.3 Relevance		X				
0.4 Other quality management		X				
1. Assurances of integrity						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
2. Methodological soundness						
2.1 Concepts and definitions			X			Output is priced at the primary wholesaler, when such wholesalers play an active role, as opposed to ex-factory.
2.2 Scope		X				
2.3 Classification/sectorization		X				
2.4 Basis for recording		X				
3. Accuracy and reliability						
3.1 Source data			X			The selection of respondent establishments should be more systematic.
3.2 Assessment of source data		X				
3.3 Statistical techniques				X		The methods of calculation at both the elementary and aggregate levels require attention as do the methods for treating temporarily missing items, seasonal items, and quality adjustment procedures.
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies		X				
4. Serviceability						
4.1 Periodicity and timeliness		X				
4.2 Consistency		X				
4.3 Revision policy and practice		X				
5. Accessibility						
5.1 Data accessibility		X				
5.2 Metadata accessibility		X				
5.3 Assistance to users		X				

Recommendations

- Consider establishing a forum where users are regularly consulted (0.3.1)

- Replace output priced at the primary wholesaler with ex-factory prices. (2.1.1)

- Reduce the time lag between the survey period for the weights and their adoption in the index and consider the use of a more systematic approach for the sampling of establishments. (3.1.1)

- Review the treatment of temporarily missing items, seasonal goods and services, and quality adjustment procedures and the composition of commodities for which the averaging of prices is used. (3.3.1)

- Replace at the elementary level the average of relatives with a geometric mean, or for strictly homogeneous commodities, a ratio of averages. Consider a Lowe index as the fixed basket index at the higher level of aggregation; also consider the more frequent updating of weights. (3.3.2).

- To give the Corporate Services Price Index further prominence, consider identifying it in Japan's SDDS metadata on the IMF's Dissemination Standards Bulleting Board and on Japan's National Summary Data Page, along with the Corporate Goods Prince Index. (2.2.1)

IV. GOVERNMENT FINANCE STATISTICS

The general government data for Japan are disseminated only as sectoral accounts in the national accounts, which are produced by the ESRI. The MOF compiles and disseminates data on the settlement accounts of central government on a monthly and annual basis, as well as central government debt data.

The two DQAF dimensions that relate to institutional arrangements for the compilation of general government accounts, that is prerequisites and integrity, are covered under the DQAF of the national accounts, whereas these two dimensions with regards to the compilation of central government operations and debt by MOF are covered in this DQAF. Dimensions 2 to 5 of this DQAF primarily considered the comprehensive framework data in the assessments, but also reviewed compilation practices of the other statistics in the descriptive DQAF.

0. Prerequisites of quality

0.1 Legal and institutional environment

0.1.1 The responsibility for collecting, processing, and disseminating the statistics is clearly specified

The responsibility for collecting, processing, and disseminating government finance statistics (GFS) for general government operations (GGO) is not specified in Japan's statistical system. GFS are not compiled as a distinct statistical output. However, general government statistics are derived from the sectoral accounts of the national accounts; data on the national accounts of Japan are compiled and disseminated by the Economic and Social Research Institute (ESRI) of the Cabinet Office (CAO). For a full description of the legal and institutional environment of this entity, please refer to the national accounts DQAF (section I of this volume).

Although the responsibility for collecting, processing, and disseminating GFS is not specified, the responsibility to compile central and local government accounts of government is clearly assigned. These latter datasets are used for fiscal analysis. The *Constitution of Japan* (Article 90) determined that final individual accounts of the expenditure and revenues of the State should be audited annually by a Board of Audit and should be submitted by the Cabinet to the Diet, together with the statement of audit. In addition, the *Constitution of Japan* (Article 91) also indicates that, at regular intervals, but at least, annually, the Cabinet shall report to the Diet and the people on the state of national finances. The *Public Finance Law* assigns the responsibility to disseminate information on the status of the budget of central government to the Ministry of Finance (MOF). Article 46 of the law indicates that the Cabinet should annually report to the Diet and the general public on the budget, revenue, and expenditure accounts of the previous year, outstanding borrowings, and other general matters on the finances of the State. In addition, the article requires that at least every quarter, the status of the budget, the use of national treasury funds and matters related to fiscal administration should be reported to the Diet as well as to the general public.

In addition to these regular reporting requirements, the *Public Finance Law* also requires that the head of each ministry or government agency annually compiles a statement of revenue and expenditure for each jurisdiction, as well as a statement of liabilities, after final settlement of the accounts. These statements are submitted to the MOF, which compiles annual accounts, using the same formats as those used in the budget. The final settlement accounts are prepared and submitted to the Board of Audit by November 30 following the end of the fiscal year. Subsequent to the audit, these statements are submitted to the Diet for consideration. A MOF governance ordinance assigns the responsibility for reporting on the settlement accounts of central government to the Budget Bureau of the MOF. In terms of this ordinance, the Budget Bureau prepares a monthly consolidated statement of all receipts and payments of the treasury accounts. These accounts include the general account of central government as well as 31 special accounts.

For local governments, the arrangements with regards to the conduct and financial reporting are contained in the *Local Government Law* and the *Local Public Finance Law*. Together with the national laws, these laws provide for the financial relations between the central government and local governments and govern the recording and audit of local government finances in local government settlement accounts for the local government general accounts, special accounts and local government enterprises (these entities provide services on behalf of local governments at non-market related prices). The Ministry of Internal Affairs and Communication conducts an annual survey on local governments. The survey, amongst other things, draws on the results in these individual accounting records for financial information on local public finances.

The responsibility for compiling central government debt data is clearly identified. All matters related to the management of Japanese government bonds and other borrowings are assigned to the MOF according to the *Ministry of Finance Establishment Law* (Article 4.32). This law also assigns the responsibility for all contracts related to government guarantees to the MOF (Article 4.33). In terms of government ordinance, the Financial Bureau of the MOF is assigned the responsibility to manage central government debt. The responsibility for the management of the issuance and redemptions of all central government debt is clearly assigned—including the responsibility to collect, process, and disseminate data on central government debt. Data on central government debt are produced from the administrative records of the Financial Bureau. According to the *Law Concerning Government Bonds* the MOF decides the terms and amounts of issuance/redemptions and any other matters related to the principal, interest payments, certificates, and registration of transactions. The BOJ is entrusted with all administrative tasks related to Japanese government bonds (JGBs). Working arrangements were established to facilitate this assignment of responsibilities.

0.1.2   Data sharing and coordination among data-producing agencies are adequate

The flow of administrative budget data to the MOF from other ministries and government agencies is well established and vested in the reporting requirements and controls specified in the *Public Finance Law* and related government ordinances. Similarly, data sharing between the MOF and the BOJ as administrator of central government debt transactions is vested in

underlying working arrangements. Overall, data sharing that relates to the administration of these arrangements is quite well established and comprise primarily personal contacts at the technical level.

However, for the use of data outside the MOF, much scope exists for improving data-sharing practices with agencies that use these data as major sources for compiling the SNA, the BOP, and monetary statistics. Although the ESRI's Department of National Accounts (DNA) indicated it could request additional information on an ad hoc basis, no regular contact exists. The data are used as and when published, with DNA adjusting them according to their own needs. In fact, there does not appear to be a venue for regular structured discussion on coordination, and implementation of new developments across entities involved in government data.

The availability of local government data is limited to the flows related to the budget process of local governments and the comprehensive survey of local governments conducted by MIC at the end of the fiscal year. As part of the budget process, the Cabinet annually formulates an official estimation of the total revenues and expenditures of all local governments. This estimation is presented as the *Local Public Finance Program* and indicates all the flows of money from the central government to local governments and sets the background for policy decisions on measures to improve the finances of local governments.

The MIC compiles and disseminates the survey results of all local governments in the *White Paper on Local Public Finances*.

0.1.3 *Individual reporters' data are to be kept confidential and used for statistical purposes only*

Data to compile the annual general government sector of the national accounts are largely derived from published administrative data. The ESRI also conducts a survey of a sample of local governments under the *Statistics Law* (*SL*). The latter clearly states that individual data should be treated as confidential and provides against the use of data for other than statistical purposes (for more details on the *SL* confidentiality provisions, refer to the DQAF on national accounts).

The administrative data of ministries and other government agencies are published taking into account confidentiality requirements. Central government operations and central government debt are compiled from administrative records. Appropriate measures are in place to protect the data of MOF. Security guards restrict access to the premises of MOF, and access to individual data is restricted to staff who require the information to perform their duties. All electronic systems are password protected, and access to hardcopy information is restricted to individuals that work with the records. The electronic records are regularly backed-up and stored at a location other than the MOF offices. Staff review all data prepared for dissemination for possible indirect disclosure of confidential data, and they design tables and outputs in a way that prevents disclosure.

0.1.4   Statistical reporting is ensured through legal mandate and/or measures to encourage response

The majority of statistical source data for national accounts statistics is collected by other agencies, under the *Statistics Law*. The DQAF for national accounts presents a full description of the legal mandate of the ESRI.

The legal mandate of MOF to encourage response to budgetary reporting requirements is embedded in the *Public Finance Law*, which requires each ministry and government agency to report the status of the budget execution to the MOF. No specific penalties for noncompliance are provided for, and compliance is primarily obtained through the statutory mandate of the MOF. The response burden is reduced by primarily relying on the electronic accounting system of government—the Government Accounting Affairs Data Communications Management System (ADAMS-system)—to provide the data required for compiling the central government settlement accounts.

Central government debt is primarily compiled from administrative records held in a debt database of the MOF. Government bond transactions are also recorded in the BOJ Financial Network System (BOJ-NET)—an online computer network system that connects the central bank and other financial institutions. These systems facilitate automatic reporting on government debt, with no need to collect additional data. However, data for the compilation of the monthly report on debt guarantees provided by the government relies on reports collected from government agencies that have issued guaranteed debt. Central government guarantees certain debt issues by government-affiliated agencies or local municipal entities. The establishment laws for each entity together with the *MOF Establishment Law* (Article 4.33) provide guarantees to specified entities' debts by the central government.

These guarantees are provided for under the general provisions for each entity's budget, and are approved by the Diet. Each government agency that has received guarantees is obliged to report to the MOF on a monthly basis the status of outstanding guarantees as of the end of the month. In accordance with the MOF legal authority, the director of the Market Finance Division of MOF sends a letter to request the report. The terms and conditions of guarantees issued determine that these data are provided with the seals (signs) of approval of persons who are responsible for the relevant debt issues in the reporting institutions. Regarding data on debt guaranteed by the government, the Financial Bureau requests the minimum data that are regarded as essential, taking into account the reporting burden for the responding institutions. Efficient working relationships exist between the reporting institutions and the Financial Bureau, which ensures cooperation with the completion of the requested surveys on government guarantees.

0.2   Resources

0.2.1   Staff, facilities, computing resources, and financing are commensurate with statistical programs

Staffing

The Department of National Accounts (DNA) of ESRI produces the general government sector as part of the national accounts. The DNA resources, including those related to the 45 staff involved in national accounts, are described in the DQAF of national accounts.

The number of staff in MOF is enough to maintain scheduled dissemination of the central government operations and central government debt. The Budget Bureau of MOF comprises approximately 400 staff, of which 19 staff members are directly involved with the compilation and dissemination of central government settlement accounts. The Financial Bureau comprises 360 staff, of which 12 are directly involved with the recording and dissemination of central government debt data. MOF staff are rotated on about a two-year cycle. Working standards are maintained primarily through on-the-job training. Succession planning is facilitated by ensuring that staff allocated to specific sections in divisions can stand in for each other; complete and extensive documentation of working procedures and work manuals is maintained; and experienced section chiefs oversee the work of staff. Staff turnover, outside the rotations program, is low, and staff in both bureaus had to be increased in recent years owing to added responsibilities. The salary levels are the same as those of other central government employees.

Physical facilities and computing resources

Working facilities are adequate for staff involved in fiscal data compilation. Compilation of fiscal data is conducted with the use of PCs provided to each member of staff. MOF uses computers effectively, and computing facilities are updated regularly. Electronic systems, such as the ADAMS-system, debt database, and BOJ-NET, greatly facilitate the recording and dissemination of central government budget execution and debt data. Every year, necessary system developments are conducted, and systems are adapted to perform existing and emerging tasks. Hardware is distributed adequately. Officials assigned to prepare and maintain hardware are different from compilers, but they are fully aware of the needs of the compilers and communication with them is well established. An electronic network connection with all local governments allows the MIC to survey all local governments electronically and facilitate the electronic processing of local government data.

Funding

Funding for all government departments is allocated through the normal budget procedure. Funding for special projects such as system developments, etc. is secured through submissions to the budget authorities. Budget allocations are made in accordance with the

annual budget guidelines and priorities set at a national level. The funding horizon is annual and coincides with the budget-planning horizon.

0.2.2   *Measures to ensure efficient use of resources are implemented*

Periodic review of individual staff performance is not formally conducted in the civil service. Although such periodic reviews are not formally conducted, it is clear to all MOF staff that efficiencies are required from them and all processes within government. Occasional reviews are conducted on efficiency, serviceability, and reliability of the current compilation system, including computing resources and work processes. The appropriateness of software is one of the subjects of regular reviews, and the composition and distribution of hardware resources is also under ongoing review.

0.3   **Relevance**

0.3.1   *The relevance and practical utility of existing statistics in meeting users' needs are monitored*

The relevance of national accounts data is mainly determined through the meetings of the *Advisory Committee for National Accounts*. The activities of this committee are fully described in the DQAF of the national accounts.

The Diet, investors, and the public are considered the primary users of MOF data on CGO and central government debt. The budget and budget execution reports are primarily compiled in compliance with reporting requirements laid down in the *Public Finance Law*. The Fiscal System Council (the Council), comprising scholars, journalists, and business executives, was established to research and discuss important topics related to the budget, settlement accounts, and accounting systems of national government. This Council serves as an external organ that deliberates the next year's budget requests. Since the reorganization of the Japanese government in 2001, the Council on Economic and Fiscal Policy (CEFP) was established to deliberate on key issues regarding fiscal policy. The CEFP, composed of senior ministers, the governor of the BOJ, university professors, and business executives, meets regularly to discuss economic policy, fiscal management, and guidelines for budget formulation.

However, apart from the political process, the MOF does not have a structure and periodic process of consultation with the public and other users of these data to determine the usefulness of the fiscal data. Feedback on data is not actively sought, and although the opinions of data users are always welcomed, no special opportunities are created to seek responses and views of the public on the budget data of the MOF. However, the MOF website indicates a contact point that users could use to lodge comments or questions.

The Financial Bureau of the MOF, responsible for central government debt management, regards dialogue with market participants and market experts as a very important aspect of its job. The MOF has established the *Advisory Council on Government Debt Management*.

The Council comprises experts in the private sector with a high degree of insight into the capital markets. The Council meets four times a year, and its discussions focus on debt management over the medium to long term, as well as on debt management policies. Since the introduction of a "primary dealer system" in Japan during 2004, the Financial Bureau also introduced a quarterly meeting of JGB Market Special Participants to enable an exchange of opinions between members and the MOF. Since April 2002, the MOF also hosts about four times a year the Meeting of JGB Investors, to exchange opinions directly with JGB investors, such as banks and life insurance companies as well as prominent academics.

In January 2005, the MOF began to hold seminars on the *Japanese Economy and JGB*. The target audience of these seminars is large investors, market participants, and economists with the purpose of enhancing the accurate understanding of the Japanese economy, explaining trends in fiscal reforms, and providing detail on central government debt management to promote JGB with foreign investors. These meetings actively involve participants in discussions on policy issues, economic climate, fiscal reforms, diversifications of debt instruments, etc. A first round of seminars were held during January 2005 in London and New York, with a second round in Hong Kong and Singapore during May 2005; the MOF indicated its intention to continue to hold such seminars regularly.

0.4   Other quality management

0.4.1   Processes are in place to focus on quality

The ESRI has various processes in place to focus on the quality of the national accounts data. These are described in the DQAF for national accounts.

Quality control in the MOF is mainly vested in the administrative responsibility and accountability that the *Public Finance Law* assigns to the MOF and the head of each ministry or government agency. According to the Law, the head of each ministry and government agency is responsible for preparing the budget and settlement accounts according to appropriate guidelines provided to them, and these officials are held responsible for the quality of these accounts. The MOF was assigned the responsibility to submit these individual accounts and the consolidated account of central government to the Board of Audit. Subsequent to the audit performed by the Board, the Cabinet submits the audit report and individual accounts and statements to the ordinary session of the Diet. The MOF, other ministries, and government organizations fully recognize the importance of quality of the data, which is evidenced by audit reports that are rarely qualified by the Board of Audit.

0.4.2   Processes are in place to monitor the quality of the statistical program

The MOF does not have a statistical program because fiscal data are compiled from administrative records. Administrative procedures in place in the MOF are designed to automatically warrant the accuracy of data on the status of fiscal affairs. The automated accounting system allows only transactions that have been approved in the budget to be recorded. All transactions recorded in ADAMS-system and debt database are subject to

several layers of internal controls in each spending agency, involving a hierarchy of reviews before transactions are actually executed. Once entered into the accounting system of spending agencies, transactions are subject to a secondary review by the MOF when settlement accounts of spending agencies are compiled and reported.

In addition to the annual audit of final settlement accounts, the *Board of Audit Law* also provides the Board with the authority to constantly audit and supervise government accounting. To this effect, the Board reviews the monthly statements of revenue and expenditure, receipts of cash and other nonfinancial assets, the creation and liquidation of receivables, JGBs and other liabilities, financial assets, and accounts of corporate bodies in which the state invests half or more of the capital. To examine the correctness and adequacy of State tax collections, the Board is entitled to audit tax files of individual taxpayers or juridical persons. In addition to the audit of accuracy, accountability is also promoted by investigating all deviations of actual outcomes with budgeted amounts. The audit law also provides for appropriate measures to be taken when the correct procedures were not followed or when mistakes are discovered.

0.4.3 Processes are in place to deal with quality considerations in planning the statistical program

As documented in the DQAF on the national accounts, the DNA has several processes in place to deal with quality considerations.

In the MOF, quality considerations are incorporated in planned improvements in the administrative systems. Systems to plan, record, and report the status of fiscal affairs incorporate measures to improve accuracy and reliability. The MOF considers trade-offs between timeliness and accuracy, as is evidenced by the monthly settlement account data (that are published with less detail than the annual final settlement account detail). Accuracy is not negatively affected by the consideration of timeliness—the accuracy is ensured because of reliance on the online accounting system for capturing the transactions of the central government.

1. Assurances of integrity

1.1 Professionalism

1.1.1 Statistics are produced on an impartial basis

The independence and impartiality of the national accounts statisticians are vested in several measures that are described in the DQAF of national accounts.

Central government data are compiled from actual administrative data, and the independence of the compilers of the accounts is embedded in the accounting and recording systems in use. No estimations are employed. Staff members with extensive professional experience are deployed at the level of directors and deputy directors. Although staff are not necessarily

recruited for their statistical skills, on-the-job training and mentoring enhance the cultivation of expertise in the respective fields of fiscal data compilation. As staff are subject to civil servant rotation policies, efforts to maintain professionalism are facilitated through succession planning and extensive working guidelines to guide new staff in mastering the necessary skills to ensure continuance of activities. However, the rotation policy has an adverse impact on the depth of expertise, which generally takes time to acquire.

Staff are actively encouraged to participate in national and international activities to promote professionalism. Members actively participate in relevant meetings of the OECD and other international seminars and discussion groups.

1.1.2 Choices of sources and statistical techniques as well as decisions about dissemination are informed solely by statistical considerations

The ESRI's choices of sources of data for compiling the general government sector accounts are determined by the availability of basic statistics and data from administrative records. The choice of source data and statistical techniques is primarily based on consideration of the accuracy of data. Decisions to disseminate data are based solely on statistical considerations, and decisions about the timing, media, and other aspects of dissemination are based on statistical considerations. (Please refer to the DQAF on national accounts for more details.)

Source data for central government operations and debt data are derived from the administrative records of government. The data are disseminated periodically in accordance with fiscal reporting requirements laid down in the laws. Dissemination formats are primarily determined by the needs of the policymakers, who are the primary users of the data. Although basic reporting requirements are maintained in the same way, attempts are made to facilitate evolving user needs that require the adjustment of dissemination formats. An example of such evolving needs that led to change is the release of the *Guide to Japanese Government Bonds, 2005* that was necessitated by the need to more fully explain the financing requirement and debt management policies of central government of Japan to the international investors community.

1.1.3 The appropriate statistical entity is entitled to comment on erroneous interpretation and misuse of statistics

The ESRI provides explanatory materials to the public and fully briefs the media on new data releases (for more details on these and related matters, refer to the DQAF on national accounts).

The MOF staff, especially the Public Relations Office, monitor the use of fiscal information. Media reports on the MOF are daily reviewed with the purpose of assessing accurate reporting. Data releases are usually accompanied by a press release, which explains the data. A regular biweekly meeting with the press provides the opportunity to communicate with the press. Members of the press usually interact with MOF staff prior to publications to verify data used in the media, which minimizes the misuse or erroneous interpretation of statistics.

Questions and concerns about fiscal data of central government could also be addressed to the Public Relations Office of the MOF, which conveys such questions to the relevant officials. The website of MOF invites comments and queries and provides for a section on frequently asked questions.

1.2   Transparency

1.2.1   The terms and conditions under which statistics are collected, processed, and disseminated are available to the public

For the terms and conditions under which the general government sector of the national accounts are compiled and disseminated by the ESRI, refer to the DQAF on national accounts.

For central government, the terms and conditions for recording the revenue and expenditure of the account of central government are prescribed in the *MOF Establishment Law* and the *Public Finance Law*. These data are published as a service to the public. For central government debt, the data are compiled under the terms and conditions of the *Public Finance Law*. Article 28 of the Law calls for the introduction before the Diet of the total amounts of government bonds and government borrowings when the budget for the new fiscal year is under consideration in the Diet. Article 46 of the Law requires the annual publication of data on central government debt in printed and other formats after approval of the budget for the new fiscal year.

Copies of the laws are available at the government publications service center. Detailed explanations of processes, methodologies, definitions, and classifications for central government settlement accounts are published in the document *Understanding the Japanese Budget* that is available in hard copy and from the website of the MOF. Regarding the debt of central government, the MOF disseminates annually a *Guide to Japanese Government Bonds,* a *Quarterly Newsletter of the Ministry of Finance of Japan,* and a *Debt Management Report*. All the documents include information on contact details for further enquiries.

1.2.2   Internal governmental access to statistics prior to their release is publicly identified

For the terms and conditions under which the general government sector of the national accounts are compiled and disseminated, refer to the DQAF on national accounts.

For central government operations, no officials outside the staff of the MOF have access to the data before their release to the public. No ministerial commentary is attached to the release of the data. Officials other than those in the MOF and the BOJ, who are in charge of the administration of the central government debt, do not have access to the data before their release to the public. The names of individuals who had access to statistics prior to release are documented so that when necessary, these records could be reviewed.

1.2.3   Products of statistical agencies/units are clearly identified as such

The ESRI clearly identifies the name and logo of the agency on all publications and requires attribution when its statistics are used or reproduced (please refer to the DQAF on national accounts for more details)

The MOF is clearly identified in all publications by indicating the name of the ministry and contact details. The MOF website indicates that copyrights are reserved on all the information provided on the website. The website indicates that it may be quoted, copied or reproduced in whole or in part, provided that the MOF is explicitly credited. However, some publications such as the *Guide to Japanese Government Bonds 2005* do not specifically require attribution.

1.2.4   Advanced notice is given of major changes in methodology, source data, and statistical technique

The ESRI usually consults with the Advisory Committee on National Accounts, when major changes in methodology occur. These discussions are open to the public. In addition, the ESRI would publish a revised version of the compilation manual or a "Notice on Usage" in advance. When major changes in methodology are made, advance notice is given on the ESRI website. For a full description on advance notice by the ESRI, please refer to the DQAF on national accounts.

Changes in the methodology for compiling central government settlement accounts or central government debt are dependent on the revision of the *Public Finance Law* or the regulations pertaining to the *Budget, Settlement of Accounts,* or *Accounting System*. Politicians debate such changes before the change is introduced, which results in changing the relevant law or ordinance. Such changes are introduced by disseminating the relevant changed law, ordinance, or regulation in the *Japanese Government Gazette*. Changes in policies and administration of central government debt are also dependent on the approval of the budget, which will announce changes in systems and processes concerning the following fiscal year.

1.3   Ethical standards

1.3.1   Guidelines for staff behavior are in place and are well known to the staff

All civil servants are subject to the *National Public Service Ethics Law*, which provides for the establishment of the *National Public Service Officials Ethics Code*. The purpose of the law is to ensure trust of civil servants, to deter them from activities that could create suspicion or distrust about the fairness of their duties and bestow on them the recognition that they are servants of the whole nation. The ethics code has the purpose of requiring that employees always distinguish between public and private affairs and that their positions are never used for individual gain for themselves or any organization that they belong to. In terms of this code, heads of ministries and government agencies could develop their own ethics instructions applicable specifically to their agency.

Staff at the MOF are subject to the same ethics laws as any other civil servants. All civil servants join training sessions on civil servants' ethics when they are recruited as civil servants. There is no specific additional ethical standard placed on MOF staff, but staff are fully aware of their duties as civil servants. In addition, the staff is subject to several ordinances that regulate the duties and responsibilities of MOF staff.

2. Methodological soundness

2.1 Concepts and definitions

2.1.1 The overall structure in terms of concepts and definitions follows internationally accepted standards, guidelines, or good practices

General government data are compiled as the sector accounts of the national accounts. The compilation of the national accounts broadly follows the analytical framework of the *System of National Accounts, 1993 (1993 SNA)*. More details on the framework used to compile the national accounts can be found in the DQAF for the national accounts. The general government statistics are not produced according to the methodology of government finance statistics (GFS) as found in *A Manual on Government Finance Statistics,* 1986 *(GFSM 1986)* or the *Government Finance Statistics Manual 2001 (GFSM 2001)*.

The ESRI derives the general government statistics that are presented in compliance with SDDS requirements and that are posted on the NSDP. To do so, it has to aggregate and recalculate the balancing items from the general government data contained in respectively the Income and Outlay, Capital, and Financial Account of the national accounts. The general government statistics for the main aggregates are derived as follows:

Revenue = Total receipts minus current transfers within general government; plus capital transfers received; plus net savings.

Expenditure = Total payments minus current transfers within general government; minus net savings; plus gross fixed capital formation less compensation of fixed capital; plus net purchases of land; plus change in inventories.

Deficit (-)/Surplus (+) = Balance of saving and investment.

Discrepancy = Difference between the calculated deficit/surplus and the financing as calculated from the financial account.

Financing = The breakdown of financing is by type of debt instrument and is derived from the national accounts data as follows:

   A.   Bonds, Long-term (net) = securities other than shares (except financing bills), net.

   B.   Bills and Bonds. Short-term (net) = financing bills, net.

C. Loans by the public sector = Loans by the public sector, net.

D. Net other financing = the sum of the net changes in (1) loans by the private sector, (2) monetary gold and SDR, net, (3) currency and deposits, (4) shares and other equities, (5) financial derivatives, (6) insurance and pension reserves, and (7) other financial assets and liabilities.

The MOF compiles monthly settlement accounts for central government according the national budget framework. These accounts present all the inflows and outflows of funds into the central government accounts. The budget framework differs from the GFS in a significant aspect, since revenue includes the funds raised from issuing debt, and expenditure also includes the repayment of debt principal. The budget framework prescribes that the total amount of revenue in the budget will always be equal to the total amount of expenditures, which lacks the concept of a deficit usually common to public accounts.

The analytical framework used to present central government debt is similar to that used in the *GFSM 1986*. Monthly debt data are presented according to instruments; JGBs are presented at face value (i.e., the amount that the government is obligated to pay when the debt matures) according to remaining maturity to redemption and also according to original maturity at time of issuance. Ownership distribution of JGBs is available, including a distinction between resident and nonresident ownership. The domestic JGB ownership is presented with a breakdown between the central bank, depository corporations, insurance and pension funds, other financial intermediaries, financial auxiliaries, nonfinancial corporations, other general government agencies, households, and private nonprofit institutions.

Although the government's accounting system is reviewed and discussed by several study groups, and some pilot studies on introducing accrual accounting have been conducted, no decision on this has been made. The Japanese authorities have not yet adopted a plan for reform and a migration path to *GFSM 2001*.

2.2   Scope

2.2.1   The scope is broadly consistent with internationally accepted standards, guidelines, or good practices

No comprehensive statement of general government that presents all the operations of government according to categories of revenue, expenditure, deficit, and financing is compiled and disseminated. These data are not presented in accordance with the scope of tables of the GFS framework. As explained in 2.1.1, a summary table of only the major components of GFS is derived from the national accounts data and presented only on the national summary data page (NSDP) for SDDS purposes. The presentation lacks sufficient details to facilitate a comprehensive overview of the financial position of the general government sector. The scope of tables presented on general government in national accounts includes the income and outlay account, the capital account and the financial account, and a balance sheet. However, these are not considered to be sufficient for GFS purposes.

The general government sector accounts, compiled as part of the national accounts, cover all general government activities in accordance with the guidelines of the *1993 SNA*. Data are presented for the total general government sector as well as for the subsectors comprising central government, local government, and social security funds. All government-controlled nonprofit institutions engaged in nonmarket production are included in the general government data, while market activities are excluded; this is conforming to *1993 SNA*.

The central government, as defined in the budgetary system of Japan, comprises the general account and 31 special accounts. The general account is regarded as the basic account of government from which the majority of payments are defrayed. Almost all national taxes are treated as revenue of the general account, except in cases where taxes were introduced to specifically fund a special account. Special accounts are established by legislation under specific conditions. These accounts are normally designated for a specific purpose, have sources of revenue that include designated taxes, property income, or transfers received, and, in some instances, have limited borrowing powers. Complex financial arrangements between the general account and the special accounts exist, which require consolidation when the central or general government position is compiled.

These special accounts are reclassified in the national accounts according to the *1993 SNA* principles, which leads to a difference in the coverage of central government in the national accounts and the budgetary accounts. The special accounts of central government include some social security funds of the State, which include among others, the public pension fund and the employment insurance fund. In addition, they also include the medical benefits and long-term care service accounts of the national health insurance society and public employee mutual aid associations. While the national accounts present these accounts as a separate subsector (in conformity with the *1993 SNA*), the budget framework includes these funds as part of central government.

Local government data in the national accounts cover all prefectures and municipalities and comprise the ordinary accounts and the business accounts of local governments. Although called business accounts in Japan, these accounts comprise the accounts of entities that perform activities as part of local governments at nonmarket prices. These activities include services such as water supply, transport, electricity, and sewerage. Local governments are also responsible for certain social services related to national health, elderly medical care, and nursing insurance. These accounts are also covered as part of the business accounts of local governments, and they are reclassified according to the guidelines of the *1993 SNA* when used in the national accounts. As already mentioned, the national accounts reclassify these accounts to present the social security funds in a separate subsector.

Central government debt data cover all the debt of the central government (as defined in the budgetary accounts). The debt data include all the general bonds issued by Japan, the bonds issued under the Fiscal Investment and Loan Program, other borrowing of the special accounts, and all the short-term borrowing through financing bills. Supplementary data are also provided on the outstanding balance of debt guaranteed by the government.

2.3   *Classification/sectorization*

2.3.1   *Classification/sectorization systems used are broadly consistent with internationally accepted standards, guidelines, or good practices*

In Japan's national accounts, institutional units in the general government sector are broadly sectorized according to the *1993 SNA* guidelines. Data are disseminated on the general government sector and its subsectors comprising central government, local governments, and social security funds. Annual settlement account data for units of general government are manually reclassified according to the classifications used in the *1993 SNA*. Revenues are classified into broad categories comprising (1) taxes on production and imports; (2) property income received; (3) current taxes on income, wealth; etc.; (4) social contributions; and (5) other current transfers received. Outlays are classified into (1) property income paid; (2) social benefits other than social transfers in kind; and (3) other current transfers paid, etc. Transactions in the capital account are classified into (1) gross fixed capital formation; (2) consumption of fixed capital; (3) changes in inventories; (4) net purchase of land; and (5) capital transfers, etc. General government data are also classified by purpose according to the classifications of functions of government (COFOG).

The annual national accounts also include, in addition to the data on flows of government, a balance sheet for the general government. The categories of assets and liabilities are recorded according to the guidelines of the *1993 SNA*. The data present the main categories of nonfinancial and financial assets and liabilities that were reclassified from data available in the settlement accounts of the individual entities. The net worth of government is also presented as a balancing item.

For the central government, annual data on revenue, expenditure, the deficit/surplus, and financing (according to debt instruments) are disseminated by the MOF on their website and on the NSDP. Financing data are further disaggregated to indicate bank and nonbank financing, separately. All the Japanese central government debt instruments are domestically issued in local currency. No foreign issued debt exists. The ownership of JGBs by nonresidents is recorded and reported in terms of a special tax exemption scheme for nonresident owners of JGBs (4.3 percent of JGBs were held by nonresidents as of March 2005). Supplemental data on government guaranteed debts are presented and include debt denominated in yen and foreign-denominated obligations.

Marketable government bonds are presented according to original and remaining maturities into short-term (less than one year), medium-term (from two to six years), and long-term (more than 10 years). A breakdown of Fiscal Loan Fund Special Account bonds is presented by original and remaining maturity into medium term (from two to five years) and long term (10 years and more). Financing bills are short-term instruments with, usually, a maturity of 13 weeks. Three types of bonds are not included in the classification by maturity, namely, the subsidy bonds, which are redeemable on an installment plan, as well as subscription bonds and contribution bonds, which are redeemable on demand. These three types of bonds are

nonmarketable government bonds and together account for only about 1 percent of all outstanding central government bonds.

2.4 Basis for recording

2.4.1 Prices used to value flows and stocks reflect actual or expected cash payments

The prices used to value flows reflect the value of the actual cash flows. As noted in 2.1.1, the stock of debt of government is reported at face value (i.e., the amount that the government is obligated to pay when the debt matures). When compiling government guaranteed debt, staff convert foreign-currency debt guaranteed by the government to yen, using the average exchange rate that prevailed on the reporting date — in line with international statistical standards.

2.4.2 Recording is done on a cash basis

Transactions in the settlement accounts of central government are recorded at the time of issuing the payment order or receiving deposits in the bank account of government, and are therefore on a cash basis. However, when the ESRI uses the cash settlement data to compile the national accounts, adjustments are made for some noncash transactions such as consumption of fixed capital. Although the accrual basis for recording is used in the *1993 SNA*, the majority of transactions of the general government sector are currently presented on a cash basis. Moving to an accrual basis of recording for the settlement accounts of government is not being considered at this time.

2.4.3 Grossing/netting procedures are broadly consistent with internationally accepted standards, guidelines, or good practices

All the transactions of government are generally recorded on a gross basis in the settlement accounts of government. However, when deriving general government accounts from the national accounts data, some transactions are recorded only on a net basis (i.e., net acquisition of land). The settlement accounts record the acquisition and disposal of financial assets and liabilities on a gross basis owing to the flow of funds approach followed in these accounts. The necessary netting is done when these flows are presented in the general government statistics.

3. Accuracy and reliability

3.1 Source data

3.1.1 Source data are obtained from comprehensive data collection programs that take into account country-specific conditions

The data for the central government and the social securities funds are derived from the actual accounting records of these entities. Data for local governments are obtained from a

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survey conducted by MIC. The comprehensive annual survey is based on the settlement accounts of local governments. These accounts are subject to similar stringent controls and audits as those of the central government. The results of the survey are presented in, respectively, the *Statistical Annual Report on Local Public Finance*, the *Yearbook of Local Public Enterprise*s, and the *White Paper on Local Public Finance,* published by MIC. These data are also published as part of the national accounts.

Data sources for compiling the annual central government subsector are comprehensive, which eliminates the need to employ estimations in data compilation. However, annual data for local governments are not timely for the first estimate of the annual national accounts. The ESRI therefore has to rely on a quarterly sample survey of local governments in the first round of compiling the annual national accounts.

ESRI derives government debt data from administrative records held respectively by the Financial Bureau of MOF and BOJ. This source of data is complete, which eliminates the need to employ any other data collection techniques.

3.1.2   Source data reasonably approximate the definitions, scope, classifications, valuation, and time of recording required

The individual settlement accounts data for central government require reclassifications before they can be used in the compilation of the national accounts. For the convenience of data users, including CAO, compiler of the national accounts, MOF identifies each accounting item by an 11-digit code. Two digits of these codes identify its category in the SNA, such as compensation of employees, intermediate input, social benefits in kind, gross fixed capital formation, etc. MIC reports aggregates of local government data that are appropriately reclassified in the SNA framework. (For more details, see the DQAF for national accounts.)

The MOF disseminates monthly central government data in accordance with the budgetary framework and administrative arrangements of government. The framework for the central government general account differs significantly from international public sector standards, given that revenue is defined as all inflows of resources (including debt issued) and expenditure includes all outflow of resources (including debt repayments). The general account presents all major revenue categories as defined by the law, while expenditure is presented according to the spending unit (departments). The monthly report also indicates the total revenue and expenditure for each special account. Owing to the complex financial arrangements between the general account and the special accounts, the presentation does not facilitate a comprehensive overview of the position of central government. Similarly, payments to and from the local government accounts are not identified, further complicating the analysis of the data.

The central government debt data are compiled from data held by the Financial Bureau of MOF, and the source data reasonably approximate internationally accepted good practices as presented in the *GFSM 1986*. The data source contains sufficient details to facilitate analysis

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according to the international statistical guidelines. Since the debt data are compiled from administrative data held by the Financial Bureau of MOF, there is no need to collect supplementary data.

3.1.3   *Source data are timely*

Japan employed a flexibility option on general government sector data, owing to a lack of timely source data. Final central government settlement accounts data are only released after the final settlement and audit of the settlement accounts, which could be 6–8 months after the end of a reference period. These accounts are manually reclassified to the framework of the *1993 SNA*, which allows annual general government sector data to be released only after eight months.

The timeliness of local government data is even less,[29] which results in the preliminary annual national accounts having to rely on estimates for the compilation of the financial position of the general government. Local governments are required to do the final settlement of their accounts before the end of May following the end of the fiscal year in March. These accounts are then audited and, according to law, submitted to the local assembly by August. Once approved by the respective local assemblies, the accounts of each local government are released to the public by each entity. The time it takes to approve the accounts varies according to the work program of each local assembly and could take two to four months. The survey conducted by MIC is publicly released after the presentation of the White Paper on Local Public Finance to the national Diet, and is an independent procedure from that undertaken by each local government. Preliminary estimates of local government data for fiscal 2003/04 were first disseminated by October 2004, while the White Paper was disseminated by MIC in March 2005.

3.2   **Assessment of source data**

3.2.1   *Source data—including censuses, sample surveys and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and nonsampling error; the results of the assessments are monitored and made available to guide statistical processes*

Source data comprise mainly administrative records. As indicated in section 0.4, the quality controls embedded in the accounting and reporting system of government ensure the accuracy of the source data. Data are assessed routinely to ensure the accuracy of the accounting records. However, these assessments are primarily conducted to improve the administrative system and not the statistical processes. To ensure the correct classification of transactions, the MOF annually reviews the classifications codes used in the settlement

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[29] Shortly after the mission, the MIC communicated the improvement in timeliness in regards to the 2005 release of local government data.

accounts so as to ensure that the accounting transactions are linked to the correct SNA classification.

3.3 Statistical techniques

3.3.1 Data compilation employs sound statistical techniques to deal with data sources

Since general government data are primarily compiled based on administrative records, the statistical techniques employed are limited. Sample surveys of local governments are conducted quarterly and appropriately used by ESRI to estimate local government data. Transactions between various units of general government are appropriately consolidated when the general government sector data are derived for national accounts purposes. The compilation of central government data does not employ any statistical techniques since these data are derived from comprehensive administrative records, which eliminates the need to do estimations of any missing data. Compilation procedures are well documented to guide staff, and these are updated periodically

3.3.2 Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques

Data adjustments and transformations are not applicable to government data.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Intermediate results are validated against other information where applicable

For general government accounts, intermediate data such as the consolidated central government accounts and local government reports are not subject to detailed assessment and validation. These data, derived from administrative records, are regarded as accurate and properly validated before their use in the national accounts.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

For a review of the process to deal with statistical discrepancies in the national accounts data, please refer to the DQAF for national accounts. Data sources for the central government accounts are comprehensive and validated through the quality controls employed in the administrative system and there are, thus, no discrepancies.

3.4.3 Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated

For the investigation of statistical discrepancies in national accounts data, please refer to the national accounts DQAF.

The MOF does not investigate statistical discrepancies and inconsistencies with other datasets, given that their data are based on administrative records that are subject to stringent quality controls. Regular consultation and cross-checking of government debt data between the records of the BOJ and the MOF occur. No other bilateral comparisons/reconciliations of datasets are conducted.

3.5 Revision studies

3.5.1 Studies and analyses of revisions are carried out routinely and used internally to inform statistical processes (see also 4.3.3)

Revision studies of the national accounts are not routinely performed, as indicated in the DQAF of the national accounts. No revisions are made to the administrative data of the central government.

4. Serviceability

4.1 Periodicity and timeliness

4.1.1 Periodicity follows dissemination standards

The SDDS specifications require general government data to be disseminated with an annual periodicity—Japan disseminates statistics on the general government sector account (compiled according to SNA methodology) in adherence with this specification.

The SDDS specification for periodicity of central government operations is monthly. The authorities in Japan currently employ a flexibility option on the periodicity of data on central government operations, as these data are disseminated with an annual periodicity. However, it should be noted that a consolidated central government settlement account is disseminated on a monthly basis, albeit compiled on the basis of the budget framework.

The SDDS dissemination standards for central government debt require data to be disseminated with a quarterly periodicity—Japan fully adheres to the SDDS requirement with regards to central government debt. In fact, central government debt data are compiled on a monthly basis, which exceeds the requirement of the standard.

4.1.2 Timeliness follows dissemination standards

The SDDS specifies a timeliness of two quarters for the annual general government data. As the general government data are disseminated with a timeliness of eight to nine months as an integral part of the national accounts, Japan avails itself of a flexibility option on the timeliness of the general government operations data.

The SDDS specification for timeliness of monthly central government operations is one month. Actual data for Japan central government operations are derived from the annual

national accounts statistics, which are released eight to nine months after the end of the reference period. Japan therefore employs a timeliness flexibility for this data category. It should nevertheless be noted that the monthly settlement accounts are disseminated with a timeliness of approximately one month.

For central government debt, the timeliness requirement is one quarter, and Japan exceeds that requirement by disseminating these data earlier than one quarter after the reference period.

4.2   Consistency

4.2.1   Statistics are consistent within the dataset

For a discussion on the consistency within the national accounts, please refer to the DQAF of national accounts.

The annual general government data for national accounts, disseminated on the NSDP and the IMF's Data Standards Bulletin Board (DSBB), are consistent within the dataset. Although major aggregates are the sum of the components, some discrepancies exist with regards to the deficit/surplus, which are balanced with the financing, using a discrepancy line. (As explained in the DQAF on national accounts, the sectoral breakdown of national accounts differs somewhat from the government accounts.) Data on the central government debt are fully consistent within the dataset because all components add to the aggregates. Debt data are recorded at face value and could therefore not be consistent with the financing data of government, which are reported on a cash basis. Reconciliation of this inconsistency in the data is not routinely done.

4.2.2   Statistics are consistent or reconcilable over a reasonable period of time

For a description of the consistency over time of the general government sector account, please see the DQAF for the national accounts.

The central government settlement account data and the central government debt data are not presented as electronic time series. However, the individual monthly and quarterly reports are available for an adequate period: on the website of MOF, the monthly settlement accounts are available from 1999, while the quarterly debt reports are available from June 1996. Breaks and discontinuities have never occurred. In addition, an annual publication of the MOF called the *Zaisei toukei* contains time-series data of the central government settlement on total revenue and expenditure since 1867. Other publications such as the *Guide to Japanese Government Bonds 2005* present longer time series of data (Appendix V, Table 3 presents the annual changes in issues and outstanding balance of government bonds since the introduction of JGBs in 1965.)

*4.2.3   Statistics are consistent or reconcilable with those obtained through other data
         sources and/or statistical frameworks*

Data for the central government as disseminated in the national accounts are not consistent
with the data of central government as disseminated in the consolidated settlement account of
government, mainly because of differences in classification and sectorization. Although a
bridge table that links the items in the accounting records with the national accounts items
are disseminated, the consistency of the aggregates in these two datasets is not monitored or
reconciled.

The central government debt data are fully consistent with the debt data contained in
Financial and Economic Statistics Monthly published by the BOJ from its administrative
records.

4.3   Revision policy and practice

4.3.1   Revisions follow a regular and transparent schedule

Preliminary and revised annual data on the national accounts are published in the *Annual
Report on National Accounts*. The data are preliminary when first released and are revised at
the time of publication of data for the following year, when data sources are revised. The
revised data are noted in the official published materials. For more comprehensive
information on the revision policy of national accounts, please see the DQAF on national
accounts.

With regards to central government settlement accounts and central government debt, the
data are based on administrative records and are final when first released. Corrections to the
accounts are made through journal entries in subsequent periods. However, because of the
internal checks and controls embedded in the accounting system of government, the need for
such corrections is rare.

4.3.2   Preliminary and/or revised data are clearly identified

Preliminary and revised data are clearly identified in the national accounts. Central
government operations and central government debt are regarded as final when disseminated.
No revisions are made to the data, and the data are therefore not indicated as preliminary or
revised. Similarly, the data on the central government debt are not revised because they are
derived from administrative records that are considered final by the time of dissemination.

4.3.3   Studies and analyses of revisions are made public (see also 3.5.1)

No formal revision studies are conducted on the national accounts data. Since revisions are
not done of the central government settlement accounts or the central government debt,
revisions studies do not apply to these data.

5. Accessibility

5.1 Data accessibility

5.1.1 Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts)

The data for the prescribed components of the general government are not disseminated directly, but they are derived from the income and outlay account, the capital, and finance account of the national accounts data for SDDS purposes only (as disseminated in the DSBB). Although the way in which the data on national accounts are presented facilitates analysis of the national economy, it does not facilitate analysis of the financial position of the general government sector. The data disseminated according to the general government need some aggregation and recalculation before the data for main aggregates of the GFS could be derived. Although the GFS metadata on the DSBB describe the formulas that could be used to derive the aggregates and balancing items for GFS, this way of presenting hampers the analyses of the financial position of the general government sector in Japan.

Central government data are only presented as individual reports on the settlement accounts for specific periods. No time series data are released, although the reports for individual months are available for an extended period. The data are presented in a table that presents data for the current period, data for the corresponding period of the previous fiscal year, as well as data on the corresponding items of the budget for the current full fiscal year. No commentaries are included in the data, but biweekly press meetings provide the opportunity for verbal comments on relevant matters.

Publications on central government debt present the data in several formats to facilitate the understanding of the data. Various tables present a wide range of information, and commentary on recent trends are provided. In addition, the nature and history of various debt instruments are described. These publications use various graphs and schematic presentations to illustrate and explain the central government debt.

5.1.2 Dissemination media and format are adequate

The national accounts data are disseminated both in hard copy and electronically on the website of the ESRI. For more detail on the dissemination formats of the national accounts, please refer to the DQAF for national accounts.

The MOF releases data on central government operations and debt in hard copy and on their website. All publications can be obtained from the Government Publications Service Center[30]

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[30] Government Publications Service Center, 2-1, 1-chome Kasumigaseki, Chiyoda-ku, Tokyo, 100-0013, Japan, Phone: 81 3 3504 3885, Fax: 81 3 35043889.

as well as from the Public Relations Office at the MOF. In addition, the data provided in compliance with the SDDS are disseminated on Japan's NSDP and on the IMF's DSBB. The release of data is usually conducted through a press release, which is announced well in advance.

5.1.3   Statistics are released on a preannounced schedule

General government data are released, as part of the annual national accounts release, according to a two-quarter-ahead calendar, which presents approximate release dates. The advance release calendar is disseminated on the ESRI website and in the DSBB advance release calendar. The ESRI also disseminates a weekly schedule of the exact time of releases on its website, one week prior to the release of the data.

An advance release calendar for central government operations and debt is given in a quarter-ahead advance release calendar disseminated by the MOF issuing a news release and publishing it on its website. In addition, an advance release calendar that gives one-quarter-ahead notice of the precise release date is disseminated on the Internet on the IMF's DSBB. The MOF website also indicates on a weekly basis the exact timing of releases and provides a facility according to which subscribers are notified by e-mail of new data as the data become available.

5.1.4   Statistics are made available to all users at the same time

Data on the national accounts are released simultaneously to all interested parties by issuing a press release to the news agencies and by releasing the data on the website of ESRI.

The annual central government operations data are released on the Statistics Bureau's website by November 30. A notice to this effect is published in the *Understanding the Japanese Budget 2000,* which is issued by the Budget Bureau of the MOF. A link to these data is also provided at the time of publication through the *What's New* section of the MOF website. The monthly central government accounts are released approximately 20 working days after the end of the month. Advance notice of the release is provided through the *Week Ahead* schedule posted on the website of the MOF. Dissemination dates for the debt data are also listed in this calendar.

Monthly settlement accounts of central government and central government debt data are released by the MOF and are made available to all users at the same time. The data are released through a press release and simultaneously released on the MOF website. The MOF links such newly released data with its "What's new" section on the website. Hard copies are made available through the Public Relations Office or the Government Publications Service Center.

5.1.5   Statistics not routinely disseminated are made available upon request

Data that are not routinely disseminated are made available upon request, pending the nature of the request and the availability of the requested information. Each request is evaluated on its own merits.

5.2   Metadata accessibility

5.2.1   Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is available, and differences from internationally accepted standards, guidelines, or good practices are annotated

The compilation of the general government sector account is described as part of the details provided on the methodology used to compile the national accounts. The concepts, definitions, and methodology are primarily described in the *System of National Accounts 1993 in Japan – Definitions and Concepts* and *System of National Accounts 1993 in Japan—Sources and Methods*. A summary of metadata is also presented on the DSBB and updated regularly. For a more comprehensive description on the availability of metadata on the national accounts, please refer to the DQAF for national accounts.

The metadata for the compilation of the central government data, presented in accordance with the SDDS requirements, are primarily available from the summary methodology described on the DSBB.

For central government accounts, the definitions and some concepts are prescribed in the Public Finance Law and the Budget, Settlement of Accounts, and Accounting Regulations. Copies of these laws, available in Japanese, are available from the Government Publications Service Center. Detailed data on the settlement procedures are also published in the guidelines on *Settlement of Revenue and Expenditures* and the *Explanation of the Settlement*. These publications contain details on each administrative unit, managing organization, and revenue and expenditure category and are prepared mainly to inform the members of staff and the Diet. The document, *Understanding the Japanese Budget,* describes the concepts, definition, and operations of the central government in Japan.

Metadata on the debt of the central government are presented on the IMF's DSBB and in several other publications. The *Guide to the Japanese Budget*, *Guide to Japanese Government Bonds,* and the *Quarterly Newsletter of MOF* contain metadata on the government debt instruments in use in Japan.

5.2.2   Levels of detail are adapted to the needs of the intended audience

The level of detail in various sources of metadata varies according to the intended audience. Summary methodologies are available for users that only need an overview of compilation practices, while detailed information is provided for investors, and detailed information on administration is provided for those users who review the policy execution processes.

5.3   *Assistance to users*

5.3.1   *Contact points for each subject field are publicized*

Contact persons are provided by MOF and ESRI in all publications. Attention to detail is evidenced as follows: In wanting to serve the international community, the MOF gives only a general contact point in the Public Relations Office on English publications because all the staff members are not fluent in English and would not be able to service non-Japanese inquiries. The MOF staff use inquiries to inform them of user needs, although these requests are not formally monitored.

5.3.2   *Catalogs of publications, documents, and other services, including information on any charges, are widely available*

The Public Relations Office has a list of all publications of the MOF. Most of these publications are provided free of charge as a service to the public.

Table 4. DQAF (July 2003): Summary of Results for Government Finance Statistics

Compiling Agency: Ministry of Finance and Economic and Social Research Institute, Cabinet Office

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria

Element	NA	O	LO	LNO	NO	Comments
0. Prerequisites of quality						
0.1 Legal and institutional environment			X			Although government accounting responsibilities are clearly defined, the responsibility for compiling GFS as a distinct statistical output is not assigned.
0.2 Resources		X				
0.3 Relevance		X				
0.4 Other quality management		X				
1. Assurances of integrity						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
2. Methodological soundness						
2.1 Concepts and definitions		X				
2.2 Scope				X		No comprehensive statement of general government with regards to revenues, expenditures, deficit, and financing.
2.3 Classification/sectorization		X				
2.4 Basis for recording		X				
3. Accuracy and reliability						
3.1 Source data			X			For general government, source data do not approximate the *1993 SNA* and lack timeliness.
3.2 Assessment of source data		X				
3.3 Statistical techniques		X				
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies			X			There are no revision studies for general government data.
4. Serviceability						
4.1 Periodicity and timeliness				X		Japan uses SDDS flexibility options on general government and central government operations.
4.2 Consistency			X			The consistency of the central government data disseminated in the budgetary accounts and in the national accounts is not monitored/reconciled.
4.3 Revision policy and practice		X				
5. Accessibility						
5.1 Data accessibility		X				
5.2 Metadata accessibility		X				
5.3 Assistance to users		X				

Recommendations

- Specify the responsibility for collecting, processing and disseminating GFS and develop working arrangements for data sharing and coordination among the relevant data producing agencies. (0.1.1 and 0.1.2)

- Compile an integrated set of statements (operating statements, statement of other flows, and balance sheet) for the general government according to international statistical guidelines, and disseminate widely. (2.2.1)

- Compile a monthly statement of sources and uses of cash for budgetary central government, and disseminate in accordance with SDDS requirements. (2.2.1)

- Develop source data to reasonably approximate the statistical output of the *1993 SNA* and *GFSM 2001*. (3.1.2)

- Improve the timeliness of source data for local government statistics. (3.1.3)

- Bring the timeliness of general government sector accounts and the periodicity and timeliness for central government operations into line with SDDS requirements. (4.1.1 and 4.1.2)

- Improve the consistency of data by ensuring consistent sectorization of budgetary accounts, and reconcile with national accounts where differences are unavoidable. (4.2.3)

V. MONETARY STATISTICS

0. Prerequisites of quality

0.1 Legal and institutional environment

0.1.1 The responsibility for collecting, processing, and disseminating the statistics is clearly specified

The *Bank of Japan Law* does not mandate collection, processing, and dissemination of monetary statistics. At the same time, as stipulated by Article 1 of the *Bank of Japan Law*, BOJ has the responsibility for conducting monetary policy, which requires monetary statistics. Consequently, BOJ derives its authority for compiling monetary statistics from its responsibility for conducting monetary policy. BOJ has a tradition of disseminating financial statistics as a public service. Working arrangements that exist within the various work units of the BOJ are consistent with the BOJ's monetary statistics function. As the monetary statistics are compiled exclusively by the BOJ, no conflict exists between the BOJ and other data-producing agencies.

0.1.2 Data sharing and coordination among data-producing agencies are adequate

The Financial Statistics Section of the BOJ's Research and Statistics Department compiles monetary statistics by integrating the data on deposits and loans that are directly reported by commercial banks with the data available from the rest of the BOJ. Thus, it takes balance sheet data on the BOJ from the Administration Department, the balance sheet data on the commercial banks from the Financial Systems and Bank Examination Department, and the consolidated data on the commercial banks' foreign assets and liabilities from the International Department. While cooperation between the Financial Statistics Section and these other BOJ departments is adequate, the Financial Statistics Section does not coordinate its work with either the BOJ's Balance of Payments Division or the Ministry of Finance (for central government statistics).

Cooperation between the Financial Statistics Section and the Financial Systems and Bank Examination Department takes the form of mutual consultation on the source data. Thus, when updates to the chart of accounts for commercial banks are planned, the Financial Systems and Bank Examination Department consults with the Financial Statistics Section on changes that may affect the monetary statistics. Likewise, when the Financial Statistics Section notices large movements in the balance sheet items of particular financial institutions, it consults with the Financial Systems and Bank Examination Department.

The Financial Statistics Section collaborates also with the Cabinet Office. For the compilation of the Flow of Funds Accounts, it receives central government data from the Cabinet Office. The latter, in turn, receives the Flow of Funds Accounts from the Financial Statistics Section for its compilation of national accounts.

0.1.3   Individual reporters' data are to be kept confidential and used for statistical purposes only

The *Bank of Japan Law* mandates the confidentiality of data of individual reporters. Thus, Article 29 of the *Bank of Japan Law* specifies the obligation of the BOJ staff to maintain the confidentiality of data: "The Bank of Japan's executives and staff shall not leak secrets which they have learned in performing their duties, or use such secrets for their own interest. These requirements are equally applicable after they leave the Bank." Moreover, Article 63 states the penalties that are applicable for breaches of confidentiality: "Those who leak secrets or use such secrets for their own interest, in violation of the provisions of Article 29, shall be liable to a term of penal servitude not exceeding a year or a fine not exceeding five hundred thousand yen." The two BOJ publications, *Enhancement of Statistics Provided by the Research and Statistics Department* (July 28, 1999) and *Toward Further Improvement of Financial and Economic Statistics*: *The Bank's Basic Principles and its Recent Actions* in the *Bank of Japan Quarterly Bulletin* (November 2002) emphasize the need for safeguarding the confidentiality in this area. The legal provisions, coupled with the BOJ's emphasis, ensure that the confidentiality of the individual bank data is safeguarded.

These legal provisions work as a strong incentive for individual banks to submit their financial data to the BOJ. Whenever a new bank is established, the Financial Statistics Section circulates to the bank's management a letter that, while requesting its cooperation, reminds the bank of its rights and obligations with regard to the provision of data and assures the bank that the data would be used "to understand financial activities inside the country." Consistent with the letter, the report form "Deposits, Vault Cash and Loans" of the Research and Statistics Department provides an assurance to the commercial banks that the data reported would be used exclusively for "money stock statistics and related statistics." While there is no legal assurance that these data would be used for statistical purposes only, these assurances thus compensate, at least partially, for the lack of legal assurance.

A range of at least six BOJ procedures complement its legal provisions in preventing the disclosure of individual bank data. First, access to individual bank data is restricted to the staff who require those data in the performance of their statistical duties. Second, the computer system is protected by IDs and passwords that deny access to these data to all other staff. Third, special aggregation rules are used to prevent residual disclosure when aggregations of confidential data are disseminated, and the staff review all data prepared for dissemination for possible indirect disclosure of individual data and design tables and outputs in a way that prevents disclosure. An example of this is that whenever the number of individual data reporters is two or less, the aggregated data are not disseminated. Fourth, nobody is allowed to access unit records for research or other purposes. Fifth, the internal code of conduct adopted by the Financial Statistics Section protects the confidentiality of data during all stages—including the storage and destruction stages. Thus, according to the rule for dealing with monetary statistics-related information (the Financial Statistics Section Rule), the entrance to the area of the section that handles such data is limited to the staff of the section. Finally, as the BOJ headquarters is equipped with an electronic security door

system, only the Research and Statistics Department staff are allowed to enter their workplace.

0.1.4   Statistical reporting is ensured through legal mandate and/or measures to encourage response

The *Bank of Japan Law* does not require individual banks to provide data to the BOJ. Consequently, BOJ has no authority to impose penalties on banks for not reporting data that have been requested. At the same time, individual banks are cooperative with the BOJ, effectively providing the data that are necessary for compiling monetary statistics. The rate of response from the banks is 100 percent. BOJ indicated that providing sufficient clarification of the need for and the importance of monetary statistics is critical for maintaining this cooperation from banks.

To reduce the reporting burden on individual banks, BOJ recently reexamined the need for collecting financial information from commercial banks, identified certain types of information that were no longer needed, and curtailed the total amount of data reported to the BOJ's head office by more than 10 percent. See BOJ's paper "Toward Further Improvement of Financial and Economic Statistics: The Bank's Basic Principles and its Recent Actions," published in the *Bank of Japan Quarterly Bulletin* (November 2002), Appendix 4, for a list of categories of data that were eliminated to reduce the reporting burden on individual banks.

The data report form used by the BOJ's Research and Statistics Department is accompanied by compiling instructions. These provide guidance on completion and submission of the form, as well as information on the contact point in its Financial Statistics Section. Commercial banks use this contact point whenever they have a need for clarification. BOJ has introduced an electronic (online) reporting system, which has reduced the banks' reporting burden and made the reporting process easier for them. In this connection, BOJ also provides the software to the online reporting banks to assist them with completing report forms. This software is an Excel-based program with a capability to check the internal consistency of financial data. BOJ thus maintains a strong cooperative relationship with banks—which facilitates data collection for monetary statistics.

0.2   Resources

0.2.1   Staff, facilities, computing resources, and financing are commensurate with statistical programs

The present level of staffing in the BOJ's Financial Statistics Section is adequate to perform the required data-related tasks. At present, about 10 staff members are in charge of compiling financial statistics. Their skills are maintained and developed to perform the assigned tasks. A core staff with adequate training is maintained, and staff turnover is manageable. The BOJ's salary levels are adequate for the nature of the work and are competitive with public administration conditions in Japan.

The available computing resources are adequate for performing the required data-related tasks in financial statistics. Three database systems are maintained for money stock, flow of funds, and deposit and loan statistics, and every staff member involved in the compilation of financial statistics uses one or two personal computers (PCs). BOJ provides adequate protection to its computer resources, including through provision of emergency back-up systems for retrieval of statistical series and updates in the event of natural disasters, accidents, and other unusual events. BOJ ensures that the software used for compiling and analyzing the statistical series is effective, periodically updated, and well adapted to the performance of the existing and emerging tasks.

The BOJ office building provides adequate working facilities to its staff.

BOJ provides funding for the identified needs of the statistical program, and its budget for the computer system is planned from a medium-term perspective. The BOJ's budgeting practices provide clear information to financing authorities when reviewing priorities for improvements, cutbacks, or increases in certain elements of programs. Planning for projects is developed through three stages—proposing new projects runs from April to September; reviewing the availability of resources runs from October to January; and finalizing the allocation of resources for the next fiscal year runs from February to March. A recent example of the way in which the BOJ uses its planning process to execute a new project is provided by the new electronic data collection system, which was developed over the period September 2003 to February 2005 for monetary statistics compilation. A description of the BOJ's medium-term perspective and its planning for statistical, computer, and other programs is contained in *The Bank of Japan's Medium-Term Strategic Framework of Fiscal 2005-2009* and *The Bank of Japan's Action Plans for Fiscal 2005*.

0.2.2   Measures to ensure efficient use of resources are implemented

BOJ seeks efficiency through a variety of channels (at least four). First, staff members establish individual goals, and self-assess their achievements every year. Managers evaluate the performance of staff members at the end of the year. They also review staff performance twice a year (March and September) to determine bonus levels. Second, BOJ conducts periodic reviews of work processes to reprioritize work priorities by eliminating superfluous work and focusing effort on urgent work—for example, some staff were temporarily relocated in May–June 2002 from financial statistics to price statistics, where there was a temporary surge in work owing to the rebasing of the Corporate Goods Price Index. Third, whenever necessary, the Financial Statistics Section consults outside experts for advice— thus, a University of Tokyo academic was employed in 2000 as a consultant on the BOJ's project on the revision of the broadly defined liquidity data. Finally, although the BOJ has so far not requested an external examination of the quality of its monetary statistics, its Internal Auditor's Office audits the Research and Statistics Department—as it does every other department—on a two-year cycle.

0.3   *Relevance*

0.3.1   *The relevance and practical utility of existing statistics in meeting users' need are monitored*

The BOJ seeks to monitor the relevance of monetary statistics in meeting user needs in at least five ways. First, the BOJ's Financial Statistics Section provides detailed explanations on the various aspects of its monetary statistics by making appropriate materials available on its website: http://www.boj.or.jp/en/index.htm. Second, BOJ provides answers on its website (http://www.boj.or.jp) to the frequently asked questions (FAQs) and expands on a regular basis the list of FAQs as its monetary statistics are revised—see the BOJ's paper "Toward Further Improvement of Financial and Economic Statistics: The Bank's Basic Principles and its Recent Actions," published in the *Bank of Japan Quarterly Bulletin* (November 2002). Third, BOJ provides a contact list (e-mail addresses), which encourages users to ask questions about its monetary statistics. While most questions received are on the flow of funds accounts, some relate to money stock statistics (for example, "What are the factors underlying a change in M2+CDs?"). Fourth, BOJ holds consultations with data users—such as experts in the Cabinet Office (Department of National Accounts, Economic and Social Research Institute)—and results of these consultations are occasionally reflected in the revisions to monetary statistics. Examples of such revisions are those made, in 2004, to broadly-defined liquidity, as observed in Section 1.2.4 below, to (1) improve their accuracy, (2) reflect changes in Japan's financial structure caused by the emergence of new financial products, and (3) take account of new data sources that had become available with progress in financial disclosure and development of statistics. Finally, the BOJ's Financial Statistics Section participates in international seminars and meetings, such as those held by the IMF and the OECD working party on financial statistics, and conducts studies and contacts other sections of the BOJ that engage in financial and economic research to identify new and emerging data requirements.

0.4   *Other quality management*

0.4.1   *Processes are in place to focus on quality*

BOJ considers it essential to provide reliable monetary statistics and seeks ways to improve the quality of its monetary statistics. First, BOJ implements for its staff an on-the-job training (OJT) program that aims at enhancing their understanding of the importance of quality of statistics and how it can be achieved. Second, the BOJ's budgetary allocation for statistical programs—as noted in 0.2.1—provides an infrastructure for quality by recognizing trade-offs, economies of scale, and interrelations between datasets. Third, BOJ strives to improve statistical accuracy and, to this end, follows a set of rules for revising statistics. For example, the data on broadly defined liquidity in the BOJ's money stock statistics are revised whenever the list of potential improvements in accuracy has become sufficiently long to justify the additional work. The need for data revision is examined every three years, and other revisions take place when new source data become available—see 4.3.1 below. In this context, see the BOJ's paper "Toward Further Improvement of Financial and Economic

Statistics: The Bank's Basic Principles and its Recent Actions," published in the *Bank of Japan Quarterly Bulletin* (November 2002), for a description of the recent improvements made in the accuracy of monetary statistics.

0.4.2   Processes are in place to monitor the quality of the statistical program

The BOJ's management conducts a prerelease data check and releases records of past revisions of data to the public. Also, the Financial Statistics Section has access to expert guidance on the quality of monetary statistics and on strategies for improving data production. Thus, whenever monetary statistics need revision, it, if necessary, uses services provided by outside consultants.

0.4.3   Processes are in place to deal with quality considerations in planning the statistical program

The BOJ considers quality issues (including implicit and explicit trade-offs among the dimensions of quality) in planning its statistical program. As said in 0.4.1 above, a detailed account of recent improvements in the accuracy of monetary statistics is available in the BOJ's paper "Toward Further Improvement of Financial and Economic Statistics: The Bank's Basic Principles and its Recent Actions," published in the *Bank of Japan Quarterly Bulletin* (November 2002). Prior to major revision to the methodology, the BOJ considers opinions from the public and experts and explicitly explains the revision policy in publications.

1.   Assurances of integrity

1.1   Professionalism

1.1.1   Statistics are produced on an impartial basis

The *Bank of Japan Law* mandates the professional independence of the BOJ. It stipulates the independence of the BOJ as follows: "In light of the public nature of its business and property, the Bank of Japan shall endeavor to conduct its business in a proper and efficient manner (Article 5, clause 1)"; and "In implementing this Law, due consideration shall be given to the autonomy of the Bank's business operations (Article 5, clause 2)." Furthermore, its Articles 23 and 24 define "appointment of executives" and "executives' term of office," and its Article 25 stipulates that during their term of office, BOJ executives shall be protected from dismissal against their will. In addition, Article 2 of the *Bank of Japan Internal Rule of Staff* states that the BOJ staff must recognize the public mission of the BOJ and perform their duties fairly.

Professionalism is actively promoted and supported within the BOJ through a number of channels. First, recruitment and promotion are based, among other factors, on expertise in appropriate subjects (economics, information technology, statistics, etc.). Second, the BOJ conducts OJT training to help staff members acquire adequate knowledge. In addition, some

of them participate in training seminars on statistics conducted by the IMF. Third, the BOJ provides its staff with the opportunities to participate in the meetings of experts—for example, IMF and OECD working group meetings on financial statistics. Finally, the BOJ encourages research work, publishes selected research papers on its website, and acknowledges the authorship of individual staff members.

1.1.2 *Choices of sources and statistical techniques as well as decisions about dissemination are informed solely by statistical considerations*

The BOJ chooses data sources and statistical techniques solely on statistical considerations and also makes decisions on dissemination solely on the same basis. Thus, after a thorough review of all its monetary (and other) statistics and formulation of fundamental policies on statistical issues, the BOJ published a paper explaining these policies. (See "Toward Further Improvement of Financial and Economic Statistics: The Bank's Basic Principles and its Recent Actions," in *Bank of Japan Quarterly Bulletin* (November 2002).) One of the BOJ's policies is to disseminate statistics as soon as possible. The BOJ's decisions about the timing, media, and other aspects of dissemination are also based solely on statistical considerations.

1.1.3 *The appropriate statistical entity is entitled to comment on erroneous interpretation and misuse of statistics*

The Financial Statistics Section holds a press conference on the day of release of monetary statistics and issues a press release to explain the monetary statistics, thereby helping to prevent their misuse. It monitors media coverage of its data. In the event of misuse of monetary statistics by the media, the Financial Statistics Section seeks to correct the misuse through the Secretariat of the Policy Board—the media liaison of the BOJ. There have been numerous such instances.

1.2   Transparency

1.2.1 *The terms and conditions under which statistics are collected, processed, and disseminated are available to the public*

The BOJ's website (http://www.boj.or.jp) makes available a complete set of documents that present the terms and conditions under which its Financial Statistics Section compiles monetary statistics. The staff of the Financial Statistics Section strive to enhance the public's understanding of monetary and financial statistics, for example, by delivering lectures on their significance at the graduate schools of universities—the most recent of such lectures was delivered in 2004 at the University of Saitama. The BOJ's statistical publications identify where users can find more information about the BOJ and its statistical products.

1.2.2 *Internal governmental access to statistics prior to their release is publicly identified*

Internal government access to the monetary statistics prior to their release is strictly prohibited and does not exist. BOJ has published a list of staff positions—all from the

Financial Statistics Section—who have access to monetary statistics prior to release. Even the highest echelons of management are not allowed to have access to monetary statistics prior to their release.

1.2.3 Products of statistical agencies/units are clearly identified as such

Financial statistics are identified as produced by the BOJ's Financial Statistics Section. The BOJ is the exclusive disseminator of its financial statistics, and it requests attribution when the financial statistics are reproduced by some other agency. Thus, the BOJ's copyright notice disseminated through its website states, "When (information included in this Site is) copied or reproduced, the source, the BOJ, should explicitly be cited"; and "When creating a link, provide explicit credit that the link is connected to the Bank of Japan Website."

1.2.4 Advance notice is given of major changes in methodology, source data, and statistical techniques

When the major changes in methodology, source data, and statistical techniques are planned for introduction in monetary statistics, BOJ gives users an advance notice through the website. For example, when the BOJ revised its broadly defined liquidity data, it gave users a notice on March 8, 2004 that changes to its data were scheduled for release on June 8, 2004.

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are in place and are well known to the staff

BOJ has set clear guidelines for staff behavior such as the *Bank of Japan Law*, the *Rule of Ethical Conduct for Executives and Staff of the BOJ*, and the *Code of Conduct for Staff of the BOJ*. These guidelines, disseminated on the internal site, are easily available and well-known to staff. BOJ management acknowledges its status as a role model, follows the standards vigilantly, and reminds the staff of the ethical standards to enhance their awareness (e.g., at the opportunity presented by a General Affairs Meeting) of what is expected of them in this area. Within the framework of these guidelines, the Financial Statistics Section has established a section-specific Financial Statistics Section Rule, which strengthens ethical standards and discourages political interference, and new staff are made familiar with the BOJ guidelines, as well as the Financial Statistics Section Rule, during the training programs.

2. Methodological soundness

2.1 Concepts and definitions

2.1.1 The overall structure in terms of concepts and definitions follows internationally accepted standards, guidelines, or good practices

The *MFSM* methodology requires compilation of monetary statistics within the framework of a Depository Corporations Survey. This survey is an analytical presentation of the

consolidated accounts of the resident financial corporations and financial quasi-corporations that are mainly engaged in financial intermediation and that issue liabilities included in the national definition of broad money. It presents stock and flow data on those corporations' liabilities to—as well as on those corporations' claims on (i.e., credit to)—other sectors of the economy. It also presents data on the depository corporations' liabilities to and claims on nonresidents. The BOJ does not compile the Depository Corporations Survey as recommended in the *MFSM*. Instead, it compiles (and disseminates) a Monetary Survey that provides consolidated and adjusted balance sheets of the central bank (which issues cash in circulation) and of the deposit money banks (which issue deposit money and quasimoney). This Monetary Survey provides an input to Japan's Flow of Funds Accounts—which are also compiled by the BOJ and to which the Financial Statistics Section attaches a high degree of importance. In addition to the monetary aggregates based on the Monetary Survey, BOJ also compiles monetary aggregates of a broader institutional coverage. The Financial Statistics Section, which is aware of the deviations from the *MFSM* concepts and definitions (see 2.2.1, 2.3.1 and 2.4.1 below), keeps them under review, taking into account the users' needs in the area of financial statistics and the reporting burden on the financial institutions.

2.2   *Scope*

2.2.1   *The scope is broadly consistent with internationally accepted standards, guidelines, or good practices*

Japan has several categories of depository corporations. These include (1) the BOJ—the central bank; (2) various types of commercial banks—domestically-licensed banks, foreign banks in Japan, Shinkin Banks, Shinkin Central Bank, Norinchukin Bank, and Shoko Chukin Bank; (3) cooperative financial institutions like agricultural and fisheries cooperatives; and (4) Japan Post—the world's largest deposit-taker, which collects about one-fifth of Japan's total deposits. The domestically licensed banks include City Banks, Regional Banks, Regional Banks II, Trust Banks, Long-term Credit Banks, Resolution and Collection Corporation, and Other Banks. Although the Depository Corporations Survey, as recommended in the *MFSM*, should cover all these categories of depository corporations, the BOJ's Monetary Survey, as observed below, covers only some of these categories, although the Flow of Funds Accounts cover them all.

Furthermore, the monetary aggregates as described in the BOJ's *Guide to Japan's Money Stock Statistics* (June 2004) are derived, using the broader scope than the Monetary Survey.

M1   = Cash currency in circulation + Deposit Money

M2+ CDs   = M1 + Quasimoney + CDs

M3 + CDs   = M2+ CDs + Deposits of Post Offices + Other savings and deposits with
                     financial institutions+ Money Trusts

Broadly-defined Liquidity = M3 + CDs + Pecuniary Trusts other than Money Trusts + Investment Trusts + Bank Debentures + Commercial Paper issued by financial institutions + Repurchase agreements and securities lending with cash collateral + Government bonds + Foreign bonds

Cash currency in circulation = Bank notes and coins in circulation

Deposit money = Demand deposits (Current deposits, Ordinary deposits, Saving deposits, Deposits at notice, Special deposits and deposits for tax payments) *less* Checks and notes held by the surveyed financial institutions

Quasimoney = Time deposits + Deferred savings + Installment savings + Nonresident Yen deposits + Foreign currency deposits

The two monetary aggregates, M1 and M2 + CDs, are derived from the Monetary Survey, which is based on balance sheet data with a coverage limited to the BOJ and commercial banks—that is, categories (1) and (2) listed above. The third monetary aggregate, M3 + CDs, which has a broader coverage, is compiled outside the Monetary Survey by adding to M2 + CDs the deposit liabilities of cooperative financial institutions and Japan Post— categories (3) and (4) listed above. Finally, the fourth monetary aggregate, Broadly Defined Liquidity, is also compiled outside the Monetary Survey by adding certain other categories of liabilities to M3 + CDs. Thus, the BOJ compiles four monetary aggregates of progressively wider coverage, although two are compiled within the balance sheet-based framework of its Monetary Survey, and the remaining two are compiled outside—a practice that does not conform to the *MFSM* methodology.

The balance sheets of the depository corporations that are included in the BOJ's Monetary Survey cover, appropriately, not only the activities of domestic branches but also of their domestic headquarters. There are three problems, however, with the BOJ's monetary aggregates.

As noted above, the more important problem is posed by the lack of completeness in the institutional coverage of the Monetary Survey. Although the *MFSM* methodology recommends that all resident depository corporations be included in the coverage, BOJ excludes the Japan Post and cooperative financial institutions. The BOJ does not at present include these institutions in its Monetary Survey because it believes that there is no demand in Japan, and in the case of Japan Post, it is a unique financial institution: Japan Post used to deposit all Postal Savings to the Fiscal Investment and Loan Program (FILP), as required by the program. However, in April 2001, the deposit requirement was eliminated, and Japan Post switched to discretionary investment on the financial markets. The Japan Post's main investment method has been securities investment and loans account for only one or two percent of all the investment methods; the investment methods of Postal Savings are released

by the Japan Post on a monthly basis. Similarly, assets and liabilities of cooperative financial institutions, as compiled by the central agency, can be found on the BOJ website. Finally, the BOJ noted that Japan Post and cooperative financial institutions are taken into account in broad-money aggregates and in the flow of funds accounts.

A second problem is the inclusion of the so-called nonresident yen deposits in quasimoney and, therefore, in monetary aggregates. Given the small balances outstanding on these accounts, BOJ has not undertaken the research effort to determine their correct residency status. If the center of economic interest of depositors lies abroad, these deposits should continue to be described as nonresident deposits but reclassified from quasimoney to foreign liabilities. Or, if it lies in the domestic economy, these deposits should be described as resident deposits and continue to be included in quasimoney. To describe them as nonresident *and* include them in quasimoney and monetary aggregates, however, is contrary to the *MFSM* methodology, which recommends classification of monetary data on the basis of residency.

A third problem is that foreign currency deposits included in quasimoney comprise foreign currency deposits of residents as well as nonresidents. While it is consistent with the *MFSM* methodology to include in monetary aggregates foreign currency deposits of residents, it is contrary to the *MFSM* methodology to include those of nonresidents. The latter should be reclassified to foreign liabilities.

Rightfully, the BOJ's Monetary Survey does not cover the foreign assets and liabilities of the central government. Though the central government holds a major portion of Japan's foreign assets and liabilities, its exclusion from the Monetary Survey is consistent with the *MFSM* methodology, which does not require a rerouting of the central government's foreign assets and liabilities to the Monetary Survey. At the same time, *MFSM* recommends that consideration could be given to compiling a monetary authorities account with foreign assets and liabilities of the central government.

2.3 Classification/sectorization

2.3.1 Classification/ sectorization systems used are broadly consistent with the internationally accepted standards, guidelines, or good practices

The *MFSM* methodology requires that claims and liabilities be divided by sectors into which all institutional units with similar characteristics be grouped; that sectorization first distinguishes between residents and nonresidents and then delineate the various domestic sectors and subsectors; and that the resident units of the economy be grouped into the following mutually exclusive sectors:

● Financial corporations (central bank, other depository corporations, other financial corporations);

●   Nonfinancial corporations (public nonfinancial corporations, other nonfinancial corporations);

●   General government (central government, state government, local government, social security funds);

●   Households; and

●   Nonprofit institutions serving households.

The sectorization scheme used by the BOJ for its Monetary Survey divides institutional units between resident and nonresident sectors and subdivides resident sector data by four subsectors—namely, (1) central government, (2) local government, (3) public nonfinancial corporations, and (4) private sector, which comprises other (private) nonfinancial corporations, households, and nonprofit institutions serving households. There are two problems with this scheme.

First, the definition of residency used by the BOJ, taken from Japan's *Foreign Exchange and Foreign Trade Law*, deviates from the *BPM5-MFSM* recommendation for individuals although not for corporations. Japanese natural persons residing abroad are considered as nonresident two years (instead of one year) after their departure, while the non-Japanese natural persons residing in Japan are considered as resident only six months (not one year) after their arrival. (The residency status of corporations—say, of foreign-owned corporations in Japan or the Japanese-owned corporations abroad is rightfully determined on the basis of center of economic interest.)

Second, the division of the resident sector by subsectors is less detailed than is required by the *MFSM* methodology. The BOJ's sectorization is not able to distinguish between the banks' claims on other banks and their claims on other (nonbank) financial corporations, nor between the banks' claims on other (private) nonfinancial corporations and their claims on nonprofit institutions serving households. Consequently, claims on other banks and other (nonbank) financial corporations are indistinguishably included in unclassified assets, and claims on other (private) nonfinancial corporations, households, and nonprofit institutions serving households are indistinguishably included in claims on private sector. (Banks' deposit liabilities to other banks are, however, separately identified from their deposit liabilities to other (nonbank) financial corporations: the latter are included, appropriately, in money supply, and the former are included, appropriately, in unclassified liabilities.)

To align the BOJ's sectorization scheme with the *MFSM* scheme, (1) the residency criterion in households needs to be changed to the one-year rule; (2) claims on other banks need to be separately identified from claims on other (nonbank) financial corporations; and (3) claims on other (private) nonfinancial corporations, claims on households, and claims on nonprofit institutions serving households need to be separately identified from each other. (The more detailed *MFSM* sectorization scheme, however, is used for the BOJ's flow of funds accounts—see BOJ's *Guide to Japan's Flow of Funds Accounts* (October 2002)).

The *MFSM* recommends the following classification of financial instruments:

- Monetary gold and SDRs;
- Currency and deposits;
- Securities other than shares;
- Loans;
- Shares and other equity;
- Insurance technical reserves;
- Financial derivatives; and
- Other accounts receivable/payable.

The financial instrument classification used for the BOJ's Monetary Survey broadly follows the *MFSM* classification. For instance, consistent with the international guidelines, repurchase agreements (repos) are treated as collateralized loans rather than as outright sales of securities—see BOJ's *Guide to Japan's Flow of Funds Accounts* (October 2002), Chapter 2. The Financial Statistics Section keeps the deviations from the above *MFSM* classification under review, taking into account the users' needs in the area of financial statistics and the reporting burden on the financial institutions.

2.4 *Basis for recording*

2.4.1 *Market prices are used to value flows and stocks*

The *MFSM* methodology recommends market-based valuation of assets and liabilities for monetary statistics. The Financial Statistics Section of the BOJ, however, does not follow this methodology in the valuation of various positions in the data used for the Monetary Survey. Thus, the section uses the values as they are recorded in the accounts of BOJ and commercial banks data, such as governments bonds, corporate bonds, and stocks. For valuation of its monetary gold, BOJ uses a fixed historic price. While the BOJ provides detailed explanations for other aspects of its monetary statistics, primarily through its website, these divergences from the *MFSM* methodology are not adequately described in the explanatory notes. (Most of the positions that are valued at book values in the Monetary Survey, however, are estimated at market prices when deriving the flow of funds accounts— see BOJ's *Guide to Japan's Flow of Funds Accounts* (October 2002)).

The BOJ basically uses the market exchange rate prevailing on the reference date of the balance sheet for converting its foreign currency positions (foreign deposits, and foreign securities), and commercial banks do the same for converting foreign currency positions (loans and deposits) into domestic currency. This practice conforms to the *MFSM* methodology.

2.4.2   Recording is done on an accrual basis

Accounting data used for monetary statistics are based on accrual accounting, and interest on financial assets or liabilities, classified with the underlying instruments, is treated as accruing continuously during the accounting period.

2.4.3   Grossing/netting procedures are broadly consistent with internationally accepted standards, guidelines, or good practices

Accounting data used for monetary statistics are collected on a gross basis, and claims on a particular transactor or group of transactions are not netted against the liabilities to that transactor or group of transactions. In the BOJ's Monetary Survey, however, certain statistical aggregates are presented on a "net" basis owing to the analytical usefulness of the net concepts involved. It thus shows Net Foreign Assets, Net Claims on Central Government, and Other Items (Net). At the same time, the underlying data are also shown on a gross basis—credit to various sectors is shown in gross terms, and provisions against bad and doubtful debt are not netted against credit—a practice that conforms to the *MFSM* methodology.

3.   Accuracy and reliability

3.1   Source data

3.1.1   Source data are obtained from comprehensive data collection programs that take into account country-specific conditions

The BOJ maintains a comprehensive and current register of financial sector institutions, including depository corporations and other financial intermediaries. This register is updated to reflect changes arising out of the entry of new units and liquidation and merger of existing ones. The institutional coverage is complete, and the procedures adopted to maintain the register are adequate, and the source data cover all the units listed in the register.

The Financial Statistics Section uses mainly the following source data sets for its Monetary Survey: (1) the BOJ balance sheet data provided by the Administration Department; (2) data on deposits and loans reported by the commercial banks to the BOJ's Research and Statistics Department on the form *Deposits, Vault Cash and Loans* (Tables 1-1,1-2, and 1-3); (3) complete balance sheet data reported by the commercial banks to the BOJ's Financial Systems and Bank Examination Department; (4) consolidated data on external assets and liabilities of commercial banks, which are provided by the International Department; and, finally, (5) data on the Japan Off-shore Market (JOM) account (which exclusively records banks' nonresident sector transactions) that are also provided by the International Department. For the reasons stated in 3.1.2 below, the BOJ's reporting format for the banks does not deliver the source data for compiling a Depository Corporations Survey as recommended by the *MFSM* methodology.

To compile the Monetary Survey, the Financial Statistics Section integrates the above data sources. The Central Bank's Survey is compiled from the BOJ balance sheet data provided by the Administration Department. As noted in 2.2.1, no rerouting is carried out of the foreign assets and liabilities that are held by the central government, with the result that the Central Bank's Survey covers only the foreign assets and liabilities that are held by the BOJ—a practice that conforms to the *MFSM* methodology. The Commercial Banks' Survey is compiled by integrating three source data sets—namely, data on deposits, cash in vaults, and loans collected by the Research and Statistics Department; consolidated data on external assets and liabilities collected by the International Department; and total assets and total liabilities data, together with some other elements, taken from the complete balance sheet data collected by the Financial Systems and Bank Examination Department. From the total assets and liabilities are subtracted JOM account data. When these different data sets are integrated, small discrepancies usually arise—which are included in Other Items (Net). The two surveys, Central Bank's Survey and Commercial Banks' Survey, are finally consolidated into a Monetary Survey.

When the BOJ determines there is a need for modifying the report form, it consults the reporting financial institutions before putting the modifications into effect. Japan Post and various credit cooperatives use different report forms, such as *The Money Stock Preliminary Data Inquiry Table*, to report financial data to the BOJ's Research and Statistics Department.

The data sources are kept under continuous review to ensure that the data collection system remains comprehensive. In particular, new banks are promptly added to the source data coverage.

3.1.2   *Source data reasonably approximate the definitions, scope, classifications, valuation, and the time of recording required*

The BOJ's reporting format does not fully reflect the data requirements of compiling a Depository Corporations Survey recommended by the *MFSM* methodology. First, no sectoral breakdown is available of credit extended by the Japan Post and cooperative financial institutions. Second, within the resident sector data, the subdivision provided in the source data is less detailed than what is required by the *MFSM* methodology. Third, the definition of residency used for claims and liabilities to individuals does not correspond to the *BPM5-MFSM* definition. Finally, the source data on the BOJ and commercial banks are based on the use of book values rather than market prices.

As observed in 2.2.1, Japan Post and cooperative financial institutions do not provide a sectoral breakdown of credit as they do not report data on a form developed to meet statistical requirements. These depository corporations invest their resources in a variety of ways—Japan Post invests in bonds issued by the central government, local government, and Japanese corporate sector and nonresidents; while the cooperative financial institutions not only invest in the same range of bonds but also provide loans to other financial corporations and to individuals and households. Absence of sectoral breakdown of credit extended by these corporations is thus a serious limitation on the BOJ's source data.

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As for the subdivision of resident sector data for the other institutions, elaboration of the .
Research and Statistics Department's report form, *Deposits, Vault Cash and Loans*
(Table 1-3), collects data on (1) total credit (overdrafts and loans) extended by a reporting
institution, as well as on credit extended to (2) financial corporations, (3) local government,
(4) individuals, and (5) nonresidents. Based on this information, credit extended to
nonfinancial corporations and nonprofit institutions serving households is derived as a
residual amount (total credit less combined credit extended to financial corporations, local
government, individuals, and nonresidents). Because no separate identification is thus
possible from the data collected by the Research and Statistics Department of the credit
extended to public nonfinancial corporations, to other (private) nonfinancial corporations,
and to nonprofit institutions serving households, the Financial Statistics Section uses the
balance sheet data collected by the Financial Systems and Bank Examination Department to
identify credit extended to the public nonfinancial corporations. At the same time, it is not
able to distinguish credit extended to other (private) nonfinancial corporations from that
extended to the nonprofit institutions serving households, nor credit extended to other banks
from that extended to other (nonbank) financial corporations. Given these source data
limitations, the BOJ's Monetary Survey cannot show the full range of sectors required by the
MFSM methodology.

Given the extent of shortfall in meeting the *MFSM* requirements, BOJ neither performs
adjustments to bring the source data in line with the latter nor uses supplementary data
sources that might complement source data. Some supplementary data—information from
sources outside the regular reporting schedule—are collected from an appropriate ministry or
financial institution. These supplementary data, however, are not sufficiently detailed and
comprehensive to support core data sources of the Monetary Survey.

3.1.3 Source data are timely

The BOJ collects source data on a timely basis. Its balance sheet data are compiled after
every 10 days with a lag of only 2-5 business days. Commercial banks report source data to
the BOJ online by the 19th and paper-based by the 20th of the month after the reference date.
To promote timely data reporting by the commercial banks, the BOJ employs follow-up
procedures. For example, it maintains regular contacts with banks. Consequently, whenever
the banks anticipate delays, they alert the BOJ to their inability to meet the reporting
deadline. Moreover, whenever the reporting delays extend beyond a reasonable target date,
the BOJ contacts the late reporter and persuades it to minimize further delays. Because most
banks' accounting records are accessible in a timely manner, instances of reporting delays
have not been significant.

3.2   Assessment of source data

3.2.1   Source data—including censuses, sample surveys, and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and nonsampling error; the results of the assessments are monitored and made available to guide statistical processes

The BOJ assesses the accuracy of the source data from the reporting commercial banks routinely, especially by resorting to the procedures established with the reporting commercial banks for addressing its source data inquiries. It enters all reported data into an automated spreadsheet for cross-checking, and should it identify out-of-trend movements (for example, in comparison with the previous month or year) or high-value transactions, it seeks a prompt confirmation from the reporting bank. It also checks the difference between preliminary and revised data for each bank and, when the gap turns out to be exceptionally large, contacts the reporting bank for explanation.

3.3   Statistical techniques

3.3.1   Data compilation employs sound statistical techniques to deal with data sources

The BOJ does not use statistical techniques to deal with source data of the Monetary Survey and, in particular, does not use estimated data to supplement the source data.

3.3.2   Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques

The BOJ derives the seasonally adjusted monetary aggregates. For this purpose, since 1996 it has been using the X-12 ARIMA—an internationally accepted technique. The latter applies "ex ante adjustments" to estimate and exclude the outlier and calendar factors existing in the data prior to the actual seasonal adjustments. After the seasonal adjustments have been carried out, it conducts an "ex post diagnosis," which checks whether the seasonal factors have been excluded. A series that has been seasonally adjusted by X-12 ARIMA is more stable than a series that has been seasonally adjusted by X-11 ARIMA (see BOJ, *Enhancement of Statistics Provided by the Research and Statistics Department,* July 28, 1999, p.4).

3.4   Assessment and validation of intermediate data and statistical outputs

3.4.1   Intermediate results are validated against other information where applicable

The BOJ uses, although not regularly, other information to validate balance sheet data collected from commercial banks. An example of this is the use of financial market data for cross-checking the accuracy of balance sheet data. The Financial Statistics Section holds meetings, if necessary, with the Financial Systems and Bank Examination Department,

International Department, and Financial Markets Department to validate financial information that would be used for monetary statistics.

3.4.2 *Statistical discrepancies in intermediate data are assessed and investigated*

Discrepancies exist in the BOJ's data on its credit to commercial banks and the latter's data on their borrowing from the BOJ, as well as between the BOJ's data on the commercial banks' deposits with the BOJ and the latter's data on their deposits with the BOJ. These discrepancies, however, are too small (less than one percent) to require further investigation. Given that no financial transactions data are reported, no reconciliation is attempted with changes in the corresponding stock data collected through balance sheets.

3.4.3 *Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated*

The BOJ investigates classification/sectorization errors or omissions as a possible source of fluctuations or discrepancies in monetary statistics, especially by calling the reporting commercial banks for explanation. No attempt is made to reconcile the implied flows in monetary statistics with the flows in the government budget data and balance of payments statistics (see 4.2.3 below).

3.5 *Revision studies*

3.5.1 *Studies and analyses of revisions are carried out routinely and used internally to inform statistical processes (see also 4.3.3)*

The BOJ prepares studies on revisions made to its monetary statistics periodically. These studies assess the initial estimates against revised or final estimates over a given period of time; cover the scale (frequency of revision and number of time series revised)—as well as the direction and magnitude—of revisions; investigate the sources of errors, omissions, and fluctuations in the data; and, finally, explain the methods of revising the data. A good example of revision studies can be found in the BOJ's *Guide to Japan's Money Stock Estimates* (June 2004), Chapter 3. The BOJ uses findings from revision studies to define the optimal revision cycle, which is largely driven by the availability of major data sources, and maintains records of new sources of data, updated statistical techniques, and improved methodology.

4. Serviceability

4.1 *Periodicity and timeliness*

4.1.1 *Periodicity follows dissemination standards*

Data on the Central Bank's Survey are disseminated three times per month, exceeding the monthly periodicity required under the SDDS, and those on the Other Depository

Corporations Survey are disseminated every month in conformity with the monthly periodicity required under the SDDS.

4.1.2   Timeliness follows dissemination standards

Data on the Central Bank's Survey are disseminated on the second business day after the reference period of ten days, and every six months on the fifth business day after the reference period (thus meeting the two-weeks lag allowed under the SDDS). Data on the Other Depository Corporations Survey, however, are disseminated six weeks after the reference month (exceeding the one-month lag allowed under the SDDS). Owing to this delay in dissemination, attributable to the domestic banking system's extensive branch network, Japan makes use of the "as relevant" provision of the SDDS.

4.2   Consistency

4.2.1   Statistics are consistent within the dataset

As observed in 3.4.2 above, small discrepancies exist between the BOJ and commercial banks on the interbank positions reported in the source data. Because the BOJ substitutes its data on the BOJ's credit to the banks, as well as on the banks' deposits with the BOJ, for the commercial banks' data in the Monetary Survey, no discrepancies exist in the disseminated (published) statistics. Moreover, as the Monetary Survey data are compiled from the accounting data that are collected only in stock terms, no independent flow data exist with which to reconcile the stock data.

4.2.2   Statistics are consistent or reconcilable over a reasonable period of time

The BOJ disseminates more than five years of time-series monetary and related data. As a result, the BOJ has made the following data series available over sufficiently long periods: Monetary Survey (old base: from January 1970, new base: from April 1998), Monetary Base (from January 1970), Bank of Japan Accounts (old base: from January 1945, new base: from April 1998), Money Stock (old base: from January 1955, new base: from April 1998), and Principal Figures of Financial Institutions (preliminary figures, from July 1991). While most of the old base data series are available only paper-based, all new base data series are available on the Internet.[31] When changes in the source data, methodology, or techniques are introduced, the BOJ reconstructs the historical series as far back as reasonably possible. In the event of a discontinuity in data, the BOJ identifies and explains the main breaks in the component time series, their causes, and adjustments made to maintain consistency over time. Moreover, were a cause of the discontinuity identified as a change in the statistical system, the BOJ provides adjusted data on its website (see, for example, BOJ's *Guide to Japan's Money Stock Statistics* (June 2004), Appendix).

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[31] New base data series represent data series that were revised starting from a new base.

*4.2.3   Statistics are consistent or reconcilable with those obtained through other data
          sources and/or statistical frameworks*

Both the Financial Statistics Section and the Balance of Payments Section of the BOJ use the data on foreign assets and liabilities of commercial banks collected by the International Department for compiling, respectively, the financial and balance of payments statistics. At the same time, since the foreign assets and liabilities that are held by the central government are not reflected in monetary statistics (see 2.2.1 above), the latter are not comparable with the balance of payments statistics on changes in total reserve assets. Consistency exists between monetary statistics and government budget data, because the Ministry of Finance uses the BOJ's data on government deposits with—and government borrowing from—the depository corporations.

4.3   Revision policy and practice

4.3.1   Revisions follow a regular and transparent schedule

The BOJ undertakes revisions to monetary statistics on a predetermined and reasonably stable cycle—normally, once every three years, in June—the last revisions were undertaken to the broadly-defined liquidity data in June 2004 (see 1.2.4). The BOJ publicizes the revision cycle and revision rules on its website and explains the reasons underlying the cycle (e.g., the availability of source data, as well as the timing of revisions on related datasets and of preparation of key policy documents). The BOJ also performs revisions outside the regular cycle (owing, for example, to the discovery of new source data).

4.3.2   Preliminary and/or revised data are clearly identified

At the time of data dissemination, users are informed of the preliminary nature, as well as of the revised nature, of the monetary data, and the revised data are indicated by the symbol "r."

4.3.3   Studies and analyses of revisions are made public (see also 3.5.1)

The BOJ informs the users of the results and studies of the revisions to the monetary statistics. It measures, assesses, and explains the revisions in the monetary statistics publication and in the database accessible by users—see, for example, BOJ's *Guide to Japan's Money Stock Estimates* (June 2004), Chapter 3 and Appendix, and *Introduction of Periodical Revision of Broadly Defined Liquidity*. The BOJ also publishes the analysis of differences between the revised and preliminary data for major aggregates to allow an assessment of the reliability of the preliminary data.

5. Accessibility

5.1 Data accessibility

5.1.1 Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts)

The BOJ makes its presentation of the monetary data commensurate with the users' needs by adopting a variety of ways. First, it disseminates monetary statistics in the form of time-series data. Second, it disseminates monetary statistics and its key components to meet a range of users' needs with various levels of detail. For example, data are disseminated on deposits by the type of deposit and the type of institution, as well as by prefecture. Likewise, data are disseminated on loans outstanding by the type of loan and the type of institution, as well as by prefecture. Third, the BOJ's dissemination of monetary data, in particular those in terms of percentage changes from the previous year/ month, is frequently accompanied by a summary on recent economic and financial developments. Finally, it also disseminates the seasonally adjusted data on Monetary Base and Money Stock.

5.1.2 Dissemination media and format are adequate

The BOJ disseminates monetary statistics in formats that suit the users' needs. Thus, it uses press releases (timed at 8:50 a.m. on the day of release), which facilitate redissemination in the media, for disseminating monetary data. Simultaneously with the press releases is the publication of monetary data on the BOJ website (http://www.boj.or.jp). The latter also provides access to the longer time series. Finally, the BOJ disseminates monetary statistics in its publications, especially *Monthly Financial and Economic Statistics* and *Bank of Japan Statistics*.

5.1.3 Statistics are released on a preannounced schedule

The BOJ announces a release schedule for monetary data on its website (http://www.boj.or.jp). A release schedule for the next six months is thus published at the end of every quarter. Monetary statistics are released according to this preannounced schedule.

5.1.4 Statistics are made available to all users at the same time

The BOJ informs the public that the monetary statistics are being released, as well as of the procedures to access them. It makes monetary statistics available to all users simultaneously on its website (http://www.boj.or.jp). It does not brief the press in advance, and the press receives monetary statistics simultaneously with other users.

5.1.5   Statistics not routinely disseminated are made available upon request

As the BOJ routinely disseminates most aspects of monetary statistics, it does not make available upon request those aspects that are not so disseminated. Nor does it provide customized tabulations to meet specific requests.

5.2   Metadata accessibility

5.2.1   Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is available, and differences from internationally accepted standards, guidelines, or good practices are annotated

First, BOJ's *Guide to Japan's Money Stock Statistics* (June 2004), available on its website (http://www.boj.or.jp), provides detailed explanations on the data source and compilation method of monetary statistics. Second, the BOJ publishes highly informative notes in various publications—for example, *Monthly Financial and Economic Statistics* and *Bank of Japan Statistics*—which also provide metadata on monetary statistics. These sources of metadata are updated on a timely basis. Finally, the IMF website established for disseminating SDDS data and metadata, the Dissemination Standards Bulletin Board (DSBB), also provides a document of comprehensive sources and methods on the BOJ's monetary statistics. It includes information on concepts, scope, classifications, basis of recording, data sources, and statistical techniques, as well as on differences from internationally accepted standards. The SDDS metadata, which are not hyperlinked to the BOJ website, are reviewed and updated on a quarterly basis—the most recent update was posted on July 8, 2005**.**

5.2.2   Levels of detail are adapted to the needs of the intended audience

The sources listed in 5.2.1 above provide metadata on monetary statistics with alternative levels of detail that are developed to meet different users' requirements. Thus, whereas the SDDS and notes provide metadata to a general user, BOJ's *Guide to Japan's Money Stock Statistics* (June 2004) is developed to provide metadata to a more specialized user. Moreover, the BOJ has prepared background papers and working documents on monetary statistics that are made available to the public.

5.3   Assistance to users

5.3.1   Contact points for each subject field are publicized

The BOJ provides adequate assistance to monetary statistics users. Whereas its Public Relations Department acts as a general contact point, its Financial Statistics Section acts as a contact point specifically for monetary statistics. The BOJ's press releases of monetary statistics identify the Financial Statistics Section as a contact point, and its website (http://www.boj.or.jp) also provides information on contact points for monetary statistics. As a matter of an internal rule, replies to the inquiries from monetary statistics users are sent within a week. The BOJ's website (http://www.boj.or.jp) has a subsite (*The Bank of Japan*

for Beginners), which provides information on monetary statistics, including explanations on Money Stock Statistics and Flow of Funds Accounts. Finally, the BOJ conducts monthly reviews of its assistance to users and, whenever necessary, improves assistance to monetary statistics users.

5.3.2   Catalogs of publications, documents, and other services, including information on any charges, are widely available

The BOJ provides a regularly updated list of its statistical publications on the website (http://www.boj.or.jp). This list also provides prices of statistical publications. In addition, it gives contact telephone numbers for obtaining information on steps that need to be followed for placing orders.

Table 5. DQAF (July 2003): Summary of Results for Monetary Statistics
Compiling Agency: Bank of Japan

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria

Element	NA	Assessment O	LO	LNO	NO	Comments
0. Prerequisites of quality						
0.1 Legal and institutional environment		X				
0.2 Resources		X				
0.3 Relevance		X				
0.4 Other quality management		X				
1. Assurances of integrity						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
2. Methodological soundness						
2.1 Concepts and definitions			X			While it compiles a Monetary Survey, the BOJ does not compile a Depository Corporations Survey.
2.2 Scope			X			Important categories of depository corporations—including Japan Post—are excluded from the scope of the monetary survey, but Japan Post is taken into account in broad-money aggregates and in the flow of funds accounts.
2.3 Classification/sectorization			X			The sectorization scheme used is less detailed than in *MFSM*, and the definition of residence for individuals deviates from *MFSM*.
2.4 Basis for recording			X			Book values are used for valuations of various positions.
3. Accuracy and reliability						
3.1 Source data		X				
3.2 Assessment of source data		X				
3.3 Statistical techniques		X				
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies		X				
4. Serviceability						
4.1 Periodicity and timeliness		X				
4.2 Consistency		X				
4.3 Revision policy and practice		X				
5. Accessibility						
5.1 Data accessibility		X				
5.2 Metadata accessibility		X				
5.3 Assistance to users		X				

Recommendations

- Promote data consistency across the datasets, by systematizing consultation with data-producing agencies. (0.1.2)

- Develop a Depository Corporations Survey by expanding the coverage of the Monetary Survey to include Japan Post and cooperative financial institutions (2.2.1).

- Reclassify foreign currency deposits of nonresidents from quasimoney to foreign liabilities (2.2.1).

- Review the definition of residency for individuals to further conform to *BPM5* in classifying resident and nonresident accounts, and subdivide resident sector data according to the *MFSM* scheme of sectorization (2.3.1).

- Use market prices for valuation of all positions (2.4.1).

- Collect source data on commercial banks and other deposit-taking institutions in a format that fully meets international statistical guidelines (3.1.2).

- Disseminate monetary statistics within a one-month period from the end of the reference month (4.1.2).

VI. BALANCE OF PAYMENTS STATISTICS

0.   Prerequisites of quality

0.1   Legal and institutional environment

0.1.1   The responsibility for collecting, processing, and disseminating the statistics is clearly specified

The Ministry of Finance (MOF) is responsible for compiling the balance of payments statistics and reporting it to the Cabinet periodically (Article 55.9(1) of the *Foreign Exchange and Foreign Trade Law, No. 228, of 1949,* most recently amended in *2005* (*FEFTL*)).[32] Further deliberation is given in Article 18.9 (1) of the *Foreign Exchange Order, No. 260, of 1980, Final Amendment in 2004* (FEO) that states that the MOF should compile monthly and annual statistics on the balance of payments and report it to the Cabinet (excluding statistics on monthly balance of payments) by May 31 of the following year (FEO, Article 18-9 (2)). The MOF may require the relevant administrative entities and other institutional units to submit the necessary data (Article 55.9(2) of the *FEFTL* and Article 18.9 (3) of the FEO).

At the same time, the MOF may entrust the Bank of Japan (BOJ) with a part of the affairs concerning the enforcement of this Law (Article 69, paragraph 1 of the *FEFTL*). When a part of the affairs is entrusted to the BOJ, the provisions of Article 43, paragraph 1 of the *Law of the Bank of Japan,* No.89 of 1997 (*BOJL*) that states that the BOJ may not conduct any business other than those prescribed by the *BOJL* shall not apply to the said part of the affairs (Article 69, paragraph 2 of the *FEFTL*). Consequently, Article 26 (7-8) of the FEO stipulates that the MOF entrusts to the BOJ acceptance of the relevant reports and making the balance of payments statistics. Expenses needed for management of the affairs may be borne by the BOJ (Article 69, paragraph 3 of the *FEFTL*).

While entrusted to compile the balance of payments statistics, the BOJ has to seek an approval for new/revised forms from the MOF. The report forms must be submitted according to the procedure provided by the *Ministerial Ordinance Concerning Reports on Foreign Exchange Transactions*, MOF, No. 29, of 1998, final amendment of 2005 (MOCRFET). For the International Transactions Reporting System (ITRS), the main data source, the MOF specifies the materials to be submitted (Article 55 of the *FEFTL)*. For the survey type data (stipulated by Article 55.9 of the *FEFTL* and Article 33 of the MOCRFET), the procedures also involve the MOF, which has in those cases, however, more flexibility in designing the forms for data collections, including requesting administrative data.

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[32] The references to legal documents concerning foreign exchange regulation are given based on the English translation of the *Law, Cabinet Orders, Ordinances and Regulations Concerning Foreign Exchange and Foreign Trade* (2005) published by the Foreign Exchange Study Association.

Although the data are effectively published, no legal documents explicitly mention the responsibility of the MOF or the BOJ to disseminate the balance of payments statistics. The dissemination of the balance of payments statistics has traditionally been regarded as being the responsibility of the MOF, with the BOJ communicating balance of payments statistics to the MOF for the official release. The MOF disseminates balance of payments data, which are co-signed by the BOJ, through a press release and on its website, while the historical time series are released by the MOF and the BOJ.

Most data sources to compile the balance of payments data are requested within the framework of the *FEFTL* for administrative rather than statistical purposes and are therefore not subject to the Statistical Law. Differences between the legal authority to produce the statistics and other laws or provisions are resolved with no major impairment to the data production.

0.1.2   Data sharing and coordination among data-producing agencies are adequate

Most balance of payments collections are administrative data requested through the reporting requirements prescribed under the *FEFTL*. The MOF provides the BOJ with the data for international trade in goods statistics compiled by the Customs and Tariff Bureau, and international reserves data prepared by the International Bureau of the MOF. In addition, data from the following data-producing agencies are also used: (1) Immigration Bureau, Ministry of Justice for travel data; (2) Japan National Tourist Organization (JNTO) for travel data; (3) Ministry of Foreign Affairs and Japan International Cooperation Agency for their data on ordinary and capital expenditures with nonresidents; (4) Ministry of Land, Infrastructure and Transportation (MLIT) for freight; and (5) Japan Travel Bureau for travel data.

While the BOJ conducts the compilation of the statistics, the MOF is involved in various stages, such as design of the forms, access to the reported data, dissemination of the statistics, and report of the statistics to the Cabinet. This implies daily contacts between the BOJ and the MOF. Though these arrangements do not provide for streamlined processes, the BOJ indicated that working arrangements between the BOJ and the MOF are consistent with assignments of responsibility.

The data from the Customs and Tariff Bureau, which are of major importance for Japan's balance of payments, are mainly obtained in their published forms with occasional exchanges to explain data needs and data contents. With other data providers, technical meetings are held. An example is the forum created by the MLIT to provide regular discussions on improving travel data. Overall, however, no systematic fora are held with data providers to promote harmonization of methodology and consistency of results.

The coordination at the level of statistical outputs with the national accounts would need to be strengthened and systematized. An inconsistency exists between goods and services data for the balance of payments and the net export in the national accounts.

0.1.3   Individual reporters' data are to be kept confidential and used for statistical purposes only

Legal provisions protect the confidentiality of the individual data that are shared by the MOF and the BOJ. As public servants, MOF staff are liable to a strict confidentiality rule based on the *Government Officials Act*. The act indicates that civil servants "shall not leak secrets which they have learned in performing their duties" (Article 100), and this applies even after staff leave their jobs. As for the BOJ staff, Article 29 of the *BOJL* imposes secrecy requirements on the executives and staff, specifying that staff should not leak secrets entrusted to them while performing their duties (these requirements are also applied after they leave the BOJ). Article 63 of the *BOJL* stipulates that those who leak secrets or use such secrets in their own interest shall be liable to imprisonment of up to a year or a fine not exceeding five hundred thousand yen. The report forms under the auspices of the *FEFTL* are obtained mostly for administrative purposes, and, as such, no written communication is provided to reporters that the information is confidential.

The purpose of each report form, whether administrative or statistical, is not specified in the report forms but clearly stated in the *FEFTL*, FEO and MOCRFET.

At the BOJ, the working procedures implemented for collecting, processing, and storing individual data observe strict confidential rules. The IT application used to collect, process, and store individual data is isolated from other applications of the BOJ; the new application that relies on data transmission through the Internet includes several security devices: server authentication, data encryption, multilayer firewalls, and access login for nonrepudiation. The BOJ has also ensured that the physical premises of the Balance of Payments Statistics Section (BOPS) are safeguarded and accessible only to staff responsible for compiling balance of payments statistics. There is, however, room for improvement for the special aggregation rules applied by the BOJ to prevent residual disclosure of the individual data.

0.1.4   Statistical reporting is ensured through legal mandate and/or measures to encourage response

The legal authority to collect data required to compile the balance of payments statistics is provided by the *FEFTL*, which stipulates that when (1) a resident or a nonresident makes a payment from Japan to a foreign country or receives a payment from a foreign country to Japan, or a resident makes or receives a payment to or from a nonresident in Japan or in a foreign country (Article 55), or (2) when a resident or a nonresident becomes a party of the specified capital transactions (Article 55.3), the said resident or nonresident shall inform the competent minister of the particulars and date of the transaction and other particulars thereof prescribed by a cabinet order.

In addition, the *FEFTL* state that the MOF, as prescribed by a cabinet order, may require a person conducting foreign exchange business (which means conducting any foreign exchange transactions or other transactions closely related to Japan's balance of payments or international investment position) to report on the matters concerning such foreign exchange

business (Articles 55.7 and 55.8). Also, the *Law* allows the MOF to require residents to submit data necessary for compiling balance of payments and international investment position (Article 55.9).

To ensure accuracy of reporting, the competent minister may, within the limit of necessity for the enforcement of the *FEFTL*, have a competent official enter the places of a party engaged in the foreign exchange business, or other party who performs any one of those transactions governed by the *FEFTL* for inspection of books, records, others, or for interrogation of the personnel concerned (*FEFTL*, Article 68).

Penalties for noncompliance (penal servitude not exceeding six months or a fine not exceeding two hundred thousand yen) are stipulated in Article 71 of the *FEFTL* for any person, who failed to report or gave a false report in contravention of the provisions of an order provided by Article 55–55.8 or who refused, obstructed, or evaded the inspection or made no response or a false response to the interrogation provided for in Article 68.

To create goodwill among reporters, the MOF and BOJ has decided to establish a system that provides an overview of the data collection procedures to the reporting entities. In addition, to reduce the burden on the reporters, the MOF in coordination with the BOJ increased the reporting threshold of the ITRS in April 2003. Reporters are consulted when forms or reporting requirements are reviewed. Also, the BOJ and the MOF seek cooperation with reporters on implementing the new online reporting system, providing the software free of charge and assistance in implementing the reporting. A wide range of support services is also provided to reporters in the form of written instructions and answers to queries by phone.

While source data are currently largely obtained under the *FEFTL* auspices, it is not clear how effective current arrangements will be for international activities that will increasingly need to be reported for statistical purposes solely. Current arrangements do not provide a mechanism such as penalties to ensure proper reporting of survey type data.

0.2   Resources

0.2.1   Staff, facilities, computing resources, and financing are commensurate with statistical programs

Within the BOJ, the BOPS of the International Department is responsible for compiling the balance of payments statistics. Overall, staffing for balance of payments statistics is adequate. In the BOJ's headquarters, approximately 50 staff are in charge of the balance of payments statistics, of which 30 BOPS staff perform compilation (including collection of data and primary check with reporters), methodological, and analytical work. Two other sections participate in compilation: (1) the Foreign Exchange Reporting Section of approximately 10 staff is responsible for the administrative notifications or reports and (2) the BOP System Section of approximately 10 staff is assigned the preparation and implementation of the Internet reporting system and is responsible for maintaining the computerized compilation system. Until July 2004, all three sections formed the Balance of

Payments Division of the International Department. In addition, staff of the 32 BOJ branches participate in collecting and confirming data obtained from the ITRS and administrative notifications or reports, using the manual for the foreign exchange transactions and reports. The average years of experience within the BOPS is seven, which is evidence of stability and ensures a solid work experience and a rapid integration of junior staff.

In the MOF, approximately 10 staff are assigned to the matters concerning balance of payments data.

The BOJ has allocated resources in IT to produce high-quality statistics with fewer reporting and calculation burdens. The BOJ Open Network for Electronic Procedures (BOP System)—the first web-based online reporting system and automated processing system in Japan—was launched in January 2005. For maintaining good performance, the BOJ conducts occasional reviews to address users' needs. Such reviews could consider, for instance, incorporating a function in the BOP system that would accommodate a more flexible approach to revision.

Working facilities of the BOPS are adequate.

As provided by the *FEFTL* (Article 69(3)), the MOF can enjoin the BOJ to assume the expenses of collecting and compiling balance of payments statistics, as well as those of establishing the Internet reporting system. In fact, the BOJ assumes most of the pertinent expenses. Resources are ensured through the BOJ's annual budget allocation. The Budget Section of the Secretariat of the Policy Board assigns the budget along the provisional department plans that are revised every year. Conversely, the MOF assumes the costs of dissemination for the balance of payments data.

0.2.2   *Measures to ensure efficient use of resources are implemented*

In applying the legal prescriptions (*BOJL*, Article 5), the BOJ implements adequate measures to ensure efficient use of resources (see also 0.4.2). The *BOJ Medium-Term Strategic Framework for Fiscal 2005-2009* calls for among others (1) reengineering business processes; (2) utilizing IT, (3) promoting information sharing and outsourcing; (4) strengthening planning capabilities; (5) enhancing human capital through career development programs; and (6) examining thoroughly all possible reduction and streamlining of overall expenses. Accordingly, a *BOJ Action Plan* for each fiscal year is prepared. It comprises concrete actions of the BOJ during the coming fiscal year to achieve the goals of the strategic framework. The implementation of the action plans is reviewed and results disseminated in the *BOJ Annual Review* at the end of the fiscal year.

The BOJ reviews and evaluates staff performance periodically during the year. Also, staff of the BOPS receive advice and instructions, including in daily morning meetings and weekly meetings. Those interactions between the managers and staff enhance the efficient compilation of statistics.

However, to make changes in compilation system (i.e., to introduce new or revised report forms), the BOJ has to seek approval from the MOF, and, for some forms, there is a need to amend ministerial ordinance (*Ministerial Ordinance Concerning Reports on Foreign Exchange Transactions*, MOF, No. 29, of 1998, final amendment of 2005 (MOCRFET)). This reduces the flexibility of the compilation system with regard to accommodating emerging data requirements and changes in methodology and to efficiently managing resources.

0.3   Relevance

0.3.1   The relevance and practical utility of existing statistics in meeting users' needs are monitored

Several groups of statistics users are consulted: academic groups, private research institutes, government agencies (MOF, METI, and CAO), financial corporations, and other market participants, such as the Japan Foreign Trade Council. One of compilers of national accounts participates in the users' quarterly meeting.

A member of the BOJ Policy Board attends users' quarterly meetings, which include discussions on analyses of data and methodology applications. Handouts for the meetings are posted on the BOJ website. Other comments are encouraged, for example, on the occasion of the balance of payments and IIP annual releases. The views expressed are integrated in planning.

The BOJ and/or MOF are represented at various experts' meetings that gather in international fora such as the IMF Committee on Balance of Payments Statistics (BOPCOM), the IMF Balance of Payments Technical Expert Group, the IMF/OECD Direct Investment Technical Expert Group, the OECD Workshop on International Investment Statistics, and the UN Interagency Task Force on Statistics of International Trade in Services. From these international meetings and seminars, new and emerging data requirements form the backbone of the regular methodological work for compiling balance of payments statistics.

0.4   Other quality management

0.4.1   Processes are in place to focus on quality

The BOJ's management and staff are sensitive to the quality of statistics. In the published *BOJ Basic Principles and Its Recent Actions Toward Further Improvement of Financial and Economic Statistics,* provided on the BOJ website, the following basic principles are applied to the current statistics review process: (1) enhance transparency of the BOJ statistical data, (2) provide accurate statistics; (3) respond in greater measure to users' needs, and; (4) reduce burden on the reporters by streamlining the process of compiling statistics. Based on these principles, the BOJ has taken measures to improve the quality, inclusive of the compilation process of its financial and economic statistics.

These development tasks were reflected in the *BOJ Medium-Term Strategic Framework for Fiscal 2005-2009,* where the improvement of statistics and research are one of the core in the strategic goals in the framework. Within such planning, the recent introduction of the new IT application to enable electronic reporting and the extensive training of in-house experts for its maintenance demonstrate BOJ's commitment to high quality.

Also, in January 2005, the BOPS adopted revised forms and instructions to allow for more detailed balance of payments data. The *BOJ Action Plan for Fiscal 2005* states that the BOJ staff will take part in the international initiatives to revise the BOP methodology. Promoting better understanding of its policies and business operations, the BOJ is working toward timely publication of the progress of measures listed in the *BOJ Action Plan*.

0.4.2 *Processes are in place to monitor the quality of the statistical program*

The BOJ has set up numerous mechanisms to monitor data quality. It communicates the results of verifications to the BOPS management every month. At the end of each fiscal year, the BOJ evaluates its progress toward the strategic goals of assuring quality of statistics by reviewing results of the planned actions.

0.4.3 *Processes are in place to deal with quality considerations in planning the statistical program*

Trade-offs are discussed during the budget process; the BOJ consults with data suppliers, the main statistics users of balance of payments statistics, and the international community at international forums, such as the BOPCOM. Feedback from users on quality standards and on new and emerging data requirements is taken into account in the work program planning process. A recent increase of the ITRS threshold is one of the results of such a consultation on the trade-off between resource availability and accuracy. In the cases of delay of source data or of other problems in data collection, management is consulted on the trade-off between accuracy and timeliness.

1. Assurances of integrity

1.1 *Professionalism*

1.1.1 *Statistics are produced on an impartial basis*

As indicated in the section 0.3.1, the BOJ staff are encouraged to enhance their professionalism by participating in international meetings (e.g., of the UN, IMF, OECD, International Statistical Institute). The BOPS also provides technical assistance to balance of payments compilers from foreign central banks (mostly those from Asia-Pacific region), hosting study visits and conducting technical meetings with balance of payments compilers. Furthermore, the BOJ participates in regional and national meetings, such as SEACEN and EMEAP (the next Balance of Payments Statistics Seminar is scheduled for February 2006).

In addition, staff are encouraged and produce papers on improvement to statistics, as well as research papers (including working papers) that are published in the BOJ publications and on its website (http://www.boj.or.jp/en/stat/bop/bop.htm). The *BOJ Action Plan for Fiscal 2005* emphasizes the importance of building staff skills through promoting strategic job rotation and active personnel exchange between the BOJ and other organizations, including overseas organizations.

1.1.2   *Choices of sources and statistical techniques as well as decisions about dissemination are informed solely by statistical considerations*

Under the BOJ *Policy on Author Credit*, individuals are acknowledged who contribute to working papers, such as studies of an interpretative, analytical, or methodological nature. These studies may guide data planning and may also result in review of the current compilation practices. Within the BOPS, for each component of balance of payments statistics, internal compilation guides are prepared and updated, as necessary.

1.1.3   *The appropriate statistical entity is entitled to comment on erroneous interpretation and misuse of statistics*

The MOF and the BOJ are entitled to interpret and comment on balance of payments statistics. The BOJ has adequate policy to deal with erroneous statements and misuse of data. When the BOPS finds erroneous statements and misuse of data, it takes appropriate action, consulting with the Secretariat of the Policy Board, which is in charge of contacting the media.

1.2   *Transparency*

1.2.1   *The terms and conditions under which statistics are collected, processed, and disseminated are available to the public*

The explanations of terms and conditions under which statistics are compiled, methodologies, and major data sources are disseminated on the BOJ website and on the IMF's Dissemination Statistics Bulletin Board (DSBB) (for the BOJ website: http://www.boj.or.jp/en/stat/stat_f.htm, and for the IMF's DSBB: http://dsbb.imf.org/Applications/web/sddscountrylist/); in the *Bank of Japan (International Department) Balance of Payments Monthly,* and in the *Bank of Japan (Research and Statistics Department) Financial and Economic Statistics Monthly*. Statistical publications identify where the public can find more information about the data-producing agency and its products.

1.2.2   *Internal governmental access to statistics prior to their release is publicly identified*

The BOJ provides the data to the MOF for the release. While this is not clearly indicated in the BOJ or the MOF publications, the IMF's DSBB states that there is no internal governmental access to statistics prior to their release. The MOF, in cooperation with the

Balance of Payments Statistics

BOJ, may want to consider procedures to further formalize the delineation between the statistical and non statistical functions to maintain the strong tradition of impartiality.

1.2.3 Products of statistical agencies/units are clearly identified as such

The press release of the MOF is published under the double stamp of the MOF and the BOJ. However, the part attributable to each data-producing agency is not identified as such. The BOJ is effectively the compiler, and the MOF disseminates the results without changing them. It may be useful to clarify these roles to the public to avoid leaving the impression of MOF involvement in the statistics compilation.

The guidance on reproducing data is not identified on the MOF and the BOJ websites. This is based on the understanding that statistics are public goods, and the MOF and the BOJ do not have specific copyright. However, it is clearly stated that a separate copyright protects the text, the graphics, and other elements posted, as well as the whole website.

1.2.4 Advanced notice is given of major changes in methodology, source data, and statistical techniques

Major changes in the methodology were introduced in January 1996 with the implementation of the recommendations of the fifth edition of the IMF's *Balance of Payments Manual* (*BPM5*). These changes were announced 17 months prior to the revision.

Occasionally, when the methodological changes may affect reporting burden, the BOJ alerts the reporters collectively in the meetings or individually by mail, sufficiently in advance, to facilitate the transitory steps. In addition, programmed methodological changes are discussed with statistics users during the quarterly meetings and described in public notices available on the MOF and the BOJ websites (for the MOF website: http://www.mof.go.jp/english/files.htm, and the BOJ website: http://www.boj.or.jp/en/stat/stat_f.htm), and in forms and instructions on the BOJ website (in Japanese only).

In 2004, to inform users, the MOF and the BOJ announced the forthcoming major revisions mainly of the direct investment and portfolio investment components, which were going to take affect in transactions starting from January 2005. The MOF and the BOJ are making all efforts to announce methodological changes before they occur and have been successful since January 2005. Previously, some cases occurred when methodological changes were explained after they took place in the relevant publications or websites of the MOF and the BOJ.

1.3 *Ethical standards*

1.3.1 *Guidelines for staff behavior are in place and are well known to the staff*

Based on Article 32 of the *BOJL*, the *Rules of Ethical Conduct for Executives and Staff of the BOJ*, and the *Code of Conduct for Staff of the BOJ* establish rules regarding ethical discipline of the BOJ executives and staff. Such rules were made public and took effect in 1998. In addition, the *Code of Conduct for Staff of the BOJ* includes a principle governing BOJ staff in terms of business relationships with counterparts outside the BOJ. New staff are made aware of the standards when they join the organization. In addition, the BOPS has developed rules, notably on data confidentiality.

2. **Methodological soundness**

2.1 *Concepts and definitions*

2.1.1 *The overall structure in terms of concepts and definitions follows internationally accepted standards, guidelines, or good practices*

The balance of payments statistics are compiled in broad conformity with the guidelines of the *BPM5*, implemented in 1996 in Japan's BOP statistics. Current, capital, and financial transactions are separately identified, with the latter distinguishing those in assets and in liabilities. However, in the national presentation, the sequence of the accounts is as follows: current account, financial account, capital account, and reserve assets, which deviates from that recommended in the *BPM5*.

Definition of economic territory is in conformity with the *BPM5* and is supported by Article 6 (1) of the *FEFTL*, where economic territory covers Honshu, Hokkaido, Shikoku, Kyushu, and dependent islands thereof designated by an Ordinance of the MOF or the METI.

The criteria for defining resident institutional units are based on the definition contained in the *FEFTL*, which defines a resident institutional unit as a juridical person having its main office in Japan, or a natural person having his/her place of domicile or residence in Japan (Article 6 (5)). Irrespective of whether a branch, agency, or other office in Japan of a nonresident is legally authorized to represent its principal or not, it shall be deemed to be a resident even if its main office is in a foreign country, which is in conformity with the *BPM5*. For natural persons, the one year *BPM5* concept of residence is not strictly applied, though the deviation is not considered to be materially significant. Japanese persons overseas are considered to be nonresidents after two years of the persons' departure, while foreigners in Japan are considered to be residents after six months of the persons' arrival (Article 6-1 (5) and (6) of the *FEFTL*, and MOF Directive No.4672 of 1980: *Regarding the Interpretation and Application of the Foreign Exchange Law and Ordinances*). This treatment is applied in the balance of payments for foreign students in Japan who are considered to be residents six months after their arrival. As all personnel working in offices located in Japan are considered residents, no entry for the compensation of employees is made in the balance of payments

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statistics. However, crew members and employees at the embassies in Japan are appropriately treated as nonresidents.

International organizations, such as the International Bank for Reconstruction and Development, are rightfully defined as nonresidents, and categorized under other regions.

In conformity with the *BPM5* guideline, foreign direct investment (FDI) is defined with the 10 percent criterion ownership in the reporting requirements stipulated by Article 12 (4) of the FEO for outward direct investments, article 26(2) of the *FEFTL* for inward direct investments. However, the 10 percent includes not only the ordinary shares or voting power, but also the preferred shares or nonparticipating shares. Investments in corporate-type investment trusts are recorded as direct investment in the BOP statistics when the equity ratio is 10 percent or more. The consolidated system of recording the foreign direct investment transactions is yet to be applied.

The report forms used for the balance of payments statistics are designed in a way that permits attributing properly the residency of the issuer of securities, in conformity with *BPM5*. The source data, which are reported a currency rather than a residency basis (Article 6 (12) of the *FEFTL*), are adjusted accordingly. Corporate-type investment trust securities and close-ended contract-type investment trust securities are included under equities. Open-ended contract-type investment trust securities are included under bonds and notes.

Investment in foreign bonds and notes by residents (assets) is defined as the sum of sales and purchases by residents, with additional breakdown for bonds and notes issued in Japan by nonresidents. Correspondingly, inward investment in bonds and notes (liabilities) is defined as the sum of sales and purchases by nonresidents, with additional breakdown for bonds and notes issued overseas by residents.

Credit in insurance services is calculated by deducting insurance claims paid to nonresidents from insurance premiums received from nonresidents. Reinsurance claims paid to nonresidents are thus recorded as negative figures in credit in insurance services. Commissions paid to insurance agents are included.

Transactions in nonmonetary gold associated with gold investment/savings accounts are recorded in the financial account under other investment and not in the current account as part of goods transactions. These transactions are regarded as financial transactions, because they earn a fixed rate of interest and do not involve a physical movement of gold across Japan's customs frontier. On the other hand, transactions related to trading in gold where the gold is purchased and sold abroad within a short period and where the gold does not cross the Japanese customs frontier are recorded, on a net basis, under services (merchanting and other trade-related services), which conforms to the *BPM5* recommendations.

Definitions should be reviewed that are used in borderline cases between direct investment and portfolio investment (e.g., mutual funds and (limited) partnerships and between services

and direct investment, such as construction work and exploration of natural resources). For instance, long-term construction activities are not defined as direct investment under the current treatment.

2.2 *Scope*

2.2.1 *The scope is broadly consistent with internationally accepted standards, guidelines, or good practices*

Geographic coverage: The balance of payments data cover the whole territory of Japan, as defined by the *FEFTL*, and the embassies and consulates abroad.

Unit coverage: Basically, all resident institutional units engaged in transactions with nonresidents that are above the threshold defined by the *FEFTL* are covered.

*Transaction coverage***:** In principle, all transactions with nonresidents are covered. FDI transactions include outward (inward) investment by Japanese (foreign) companies in their foreign (Japanese) subsidiaries (with a paid-in capital ratio of 10 percent or more), such as initial capitalization, capital increase, loan capital (excluding loans between financial companies), and reinvested earnings.

The outward portfolio investment includes equity securities, bonds and notes, and money market instruments. In response to the growing needs expressed by users, a new issuer category of "sovereign bonds" has been recently added. This category is an aggregate of foreign government bonds, government agency bonds, and local government bonds. Data on sovereign bonds are broken down into 12 countries/regions and others.

The dissemination of the business and personal travel subcomponents, abolished after eliminating the embarkation cards for travelers in 2001, was recently resumed (public notice of the MOF and the BOJ of April 12, 2004 and explanatory paper of the BOJ of July 27, 2004).

2.3 *Classification/sectorization*

2.3.1 *Classification/sectorization systems used are broadly consistent with internationally accepted standards, guidelines, or good practices*

The sectorization used to compile Japan's balance of payments does not entirely conform to the methodology recommended in the *BPM5*. The following modifications are made to accommodate Japan's domestic practices. Three sectors are defined in the balance of payments: public sector, banks, and other sectors. The public sector includes general government, monetary authorities (excluding reserves that are separately classified), and government financial institutions (including Japan Post, up to March 2003).

The bank sector includes banks and other depository corporations, such as cooperative-type financial institutions, including financial institutions for small businesses (e.g., *shinkin* banks), financial institutions for agriculture, forestry, and fisheries (e.g., agricultural cooperatives), and bank accounts of trust banks. From April 2003 onward, the postal savings accounts of the Japan Post are included in this sector.

Other sectors include trust accounts of the banks and the trust banks, life and nonlife insurance companies, securities companies, nonfinancial corporations, and households. Postal life insurance accounts of the Japan Post are included in this sector. With regard to banks' trust accounts, it should be noted that the majority of outward portfolio investment by public pension funds is made by entrusting funds to investment management companies and banks' trust accounts, which are recorded in the banks' trust accounts in other sectors. As for the corporate pension funds, some funds are also entrusted to life insurance companies.

Balance of payments transactions are largely recorded in line with the classification recommended by *BPM5*. Short- and long-term transactions in the financial account are correctly registered on the basis of original maturity (assets and liabilities with original maturities of more than 12 months are classified as long-term). Cross-border real estate transactions of individuals are also included in FDI. Loans include repurchase agreements transactions and securities lending transactions. However, deviations from the *BPM5* classification, most of which are of minor importance in terms of value, are as follows:

- In some cases, operational and financial lease transactions are not classified appropriately (e.g., lease data from customs are not obtained and used for this purpose);
- certain goods imported to Japan under construction service contracts are classified in goods instead of construction services;
- goods purchased by credit cards (above the reporting threshold) are included in travel with no attribution for one use and for resale (to be classified in goods);
- direct subscriptions to newspapers and periodicals paid by credit cards are included in travel instead of computer and information services;
- investment income transactions are geographically allocated according to the nationality of the settlement partner;
- when the nationality is different from residence, outward portfolio investment is allocated according to the nationality (and not residence) of the issuer of securities, except in some cases; and
- intercompany trade credits between direct investors and direct investment enterprises are recorded under trade credits in other investment and not under FDI.

Some changes in classification have recently been made to align with the methodology recommended in *BPM5 Supplement on Financial Derivatives*. These changes relate to classification of financial derivatives that have been reclassified to a separate item in the financial account, rather than as a part of portfolio investment. Data on interest rate swaps

and forward rate agreements (FRAs) have been correctly reclassified to the financial account from the portfolio investment income.

2.4   *Basis for recording*

2.4.1   *Market prices are used to value flows and stocks*

Transactions are valued at market prices. FDI and portfolio investment transactions are valued at the market price. Other investment transactions are valued at nominal value. In January 2001, an adjustment to the valuation of loans between residents and nonresidents was made in the balance of payments statistics to record market price of the loans sold at discount.

The balance of payments is compiled in Japanese yen. Transactions reported in foreign currencies are converted to yen using the average market exchange rate applicable to the period when the transaction was conducted. Some transactions are converted using the exchange rate specified in the MOCRFET (Article 35(1)). Data on merchandise trade are converted using the exchange rate officially announced by the Directors General of Customs. The rate applied is the weekly average of the most traded interbank rate on the Tokyo Foreign Exchange Market two weeks prior to the reporting date.

2.4.2   *Recording is done on an accrual basis*

In general, Japan's balance of payments statistics are compiled on an accrual basis with the application of the change of ownership criteria as specified in the *BPM5*. Goods are valued at the border of the exporting economy at the transaction value, including transportation costs to the border. Data are compiled by deducting the amounts of the exports/imports that do not involve transfer of ownership and making other adjustments to the data compiled on the customs-clearance basis (recorded when goods cross the customs frontier).

Most transactions in the rest of the current account (e.g., services, income, and transfers) are recorded at the time of settlements. For instance, dividends and interest on bonds and notes are recorded as of the date of settlement based on information derived from the ITRS and from financial institutions reporting directly. However, interest on holdings of zero-coupon bonds is recorded on an accrual basis. Reinvested earnings are calculated based on annual stocks of retained earnings of direct investment enterprises.

In January 2005, the compilation of portfolio investment transactions was brought in line with *BPM5* recommendations with the introduction of contract-based transactions. Receivable and payable amounts resulting from adjustments made for timing differences in contract and settlement are recorded in corresponding entries under other investment assets/liabilities in the financial account.

2.4.3   Grossing/netting procedures are broadly consistent with internationally accepted standards, guidelines, or good practices

In conformity with *BPM5*, the current and capital account transactions are recorded on a gross basis, while financial account transactions are recorded on a net basis, separately for the individual asset and liability components. In principle, in the balance of payments statement, dividends are recorded gross of taxes withheld. Direct investment is recorded on a directional basis. Transactions in financial derivatives are recorded separately for assets and liabilities.

3.   Accuracy and reliability

3.1   Source data

3.1.1   Source data are obtained from comprehensive data collection programs that take into account country-specific conditions

The source data for the balance of payments are obtained from comprehensive data programs based on an open ITRS, augmented by data from direct reporting of enterprises, surveys, and administrative data.

ITRS

The ITRS consists of daily or monthly reports from the financial institutions, providing data on their own transactions and those conducted on behalf of their customers. Aggregated monthly ITRS forms are usually provided to the banks, which check the coding of transactions and submit the forms to the BOJ. When payments are made bypassing the domestic banking system, the reports are submitted directly by enterprises to the BOJ. The reporting requirements are based on the MOCRFET that sets (1) a reporting threshold of 30,000,000 yen for reporting payments made by a resident from Japan to a foreign country or the receipt of payment from a foreign country to Japan, (2) 100,000,000 yen for receipts and payments for the cost of construction work (Article 1), and (3) a reporting threshold of 100 million yen for most financial account transactions, excluding FDI transactions, for which a reporting threshold is 1,000 million yen (Article 5).

For portfolio investment, large investors whose gross trading exceeds 1 trillion yen per year are requested by *FEFTL* to report their daily portfolio trading. Currently, major players including big security companies, banks, and other institutional investors provide daily reports to the BOPS. ITRS report forms are designed in a way that makes them easy to complete and appropriate for computer processing.

Data obtained from the ITRS are not entirely adequate. The reporting threshold has been raised four times since 1980 to reduce the reporting burden. In April 2003, the ITRS reporting threshold reached 30 million yen. However, as the threshold was progressively

increased, no supplementary source data have been implemented to collect the missing information, except for workers' remittances, where a supplementary report was introduced.

Surveys/direct reporting

The following, though not exhaustive, is a list of surveys/direct reports that are used to compile balance of payments statistics:

(1)   direct reports from airline and shipping companies for the c.i.f. breakdown; transportation services, including transportation between third countries; data on wages, salaries, and other benefits received by crews, and goods procured in ports by carriers. Data are verified with those obtained through the ITRS;

(2)   monthly reports from insurance companies for c.i.f. breakdown;

(3)   surveys on travel services on international travelers from/to Japan, conducted in 2002 and 2005;

(4)   MLIT statistics on tourists for estimating travel after dismissal of disembarkation cards, which causes problems with the outbound travel;

(5)   reports on international payments/transactions related to communications satellites;

(6)   reports on the salaries for the staff working for the U.S. military bases;

(7)   monthly reports from banks, providing transactions on workers' remittances (above 2 million yen, but below 30 million yen). This report was introduced to receive missing data because of raising the ITRS reporting threshold. Reports are submitted by major financial institutions;

(8)   reports on international aid operations;

(9)   reports on oversees properties of Japanese government;

(10)   annual reports on retained earnings submitted by the direct investment investors (introduced in January 1996);

(11)   reports on derivatives transactions submitted by securities companies, banks, and major institutional investors;

(12)   quarterly reports of the trade credits to adjust data from the settlement basis to the accrual basis. Report covers major trading and manufacturing companies in Japan; and

(13)   reports from individuals and corporations, providing deposit account data abroad.

Generally, the survey compilation is sound. Some of the surveys currently used are to be improved in terms of proper benchmarking and maintaining updated registers. Although surveys on travel services for international travelers from/to Japan are conducted, they are still ad hoc. The introduction of annual surveys would contribute to the accuracy of travel data.

Administrative data sources

Data from administrative records used to derive balance of payments components are adequate and comprise the following sources:

(1)   Customs data. General merchandise data are compiled largely based on the Customs data. The customs data are compiled and published by the Customs and Tariff Bureau of the MOF, based on Article 102 of the Customs Law (No.61 of 1954, final amendment of 2005) and MOF Directive No. 10485 of 1984 (final amendment of 2005): Regarding the Statistics of Foreign Trade. The directive stipulates that goods with values of 200,000 yen or less are excluded from trade statistics. Customs data include data on goods for processing;

(2)   reports or administrative data from government ministries and agencies, providing their own transactions, such as reports from the Ministry of Foreign Affairs and Japan International Cooperation Agency on their ordinary and capital expenditures with nonresidents;

(3)   data from the International Bureau of the MOF on reserve assets; and

(4)   balance sheets data from the banks for loans and deposits.

The data collection program is sufficiently open and flexible to provide for new developments in sources. Data sources are under constant improvement, including revisions of estimations methods and data adjustments, to reflect the continually changing economic situation.

3.1.2   *Source data reasonably approximate the definitions, scope, classifications, valuation, and time of recording required*

The source data are largely consistent with the concepts, scope, and classification required for balance of payments statistics. The forms and instructions that serve to collect data sources are consistent with the concepts and definitions of *BPM5* and provide for detailed classification of transactions. Data from the ITRS are aggregated to achieve conformity with principles of *BPM5*. The transactions coding system in the ITRS makes it possible to compile the balance of payments statistics with a sufficient breakdown.

For the purpose of compiling balance of payments statistics, a number of adjustments are made to the merchandise trade statistics that are compiled on a customs clearance basis.

The banking sector transactions derived from stock data, including reserves, are adjusted to remove valuation changes, covering exchange rate fluctuations, price changes, and other changes. The adjustments are carried down to the level of the type of instrument and currency. Price changes are derived based on the yield analysis that is conducted for each type of instrument.

However, existing source data for reinvested earnings are yet to be a satisfactory approximation of the relevant item. Reinvested earnings are compiled based on annual reports submitted by corporations. Considering insufficient timeliness and periodicity of the data source, as well as the existing revision practice, the transactions on reinvested earnings

reported for the previous year are considered to be a proxy for the results in the current year and, therefore, included in the balance of payments statement for the reference year. To derive monthly balance of payments data, the annual results of the survey are spread evenly across the months.

3.1.3 Source data are timely

Overall, the source data for compiling the monthly balance of payments are timely. For the ITRS data, according to Article 14 of the MOCRFET, the relevant banks, securities companies, insurance companies, securities investment trust consignment corporations, financial futures trading corporations, etc. should submit their reports by the 15th of the following month. For the ITRS data, reports should be submitted to the BOJ by the 20th of the following month (Articles 2–3). Specific daily reports from main financial institutions are submitted within two working days. Data on noncash transactions are submitted to the BOJ on the 20th day following the reference month. Most data obtained through direct reporting by corporations are submitted to the BOJ the 20th day following the reference month. The authorized foreign exchange banks shall provide a report under the Annexed Form No. 44 concerning the purchase of foreign currencies and travelers' checks during one business day on the 10th of every January, April, July, and October (Article 25 of the MOCRFET). Reports may be sent by mail and electronically. In the case of delays, the BOJ applies specific and structured follow-up procedures to ensure a timely receipt.

Customs data are available within three to four weeks after the reference month. Data for December are final for exports and provisional for imports.

Aviation and shipping companies, which perform transportation services between Japan and foreign countries, and non-life insurance companies have to submit their reports by the 20th of the following month (Articles 26–28 of the MOCRFET).

Annual reports on foreign direct investment (above the reporting threshold) that serve as a source for compiling reinvested earnings are to be submitted to the BOJ within four months (for outward investments) and three months (for inward investments) after the commencement of the following financial year of each individual reporter. Therefore, the actual time lag for reinvested earning data is as long as 18 months.

Surveys on travel services on international travelers from/to Japan were conducted in 2002 and 2005.

3.2   *Assessment of source data*

3.2.1   Source data—including censuses, sample surveys and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and nonsampling error; the results of the assessments are monitored and made available to guide statistical processes

Source data are assessed and merged in the balance of payments statistics application database as they are received from reporters. The ITRS electronic data verification and processing are being developed. Source data received by reporters are automatically checked by the IT system for consistency, compared to formerly submitted data, and cross-checked between reporters having identical activities. BOPS staff interact with reporters and gain adequate knowledge of their routine operations and encourage reporters to consult frequently. Monthly aggregates are checked, and procedures to identify outliers and other atypical differences in responses are developed. Extreme values are confirmed with respondents, and large value transactions are verified. BOPS produces monthly reports on the editing and checking procedure results and communicates them to managers at the monthly meetings.

Where applicable, data sources are checked against other available sources: for example, the comparison between transportation services and the trade in goods inspired a correction of the c.i.f/f.o.b correction.

For data on FDI, temporal consistency is sought by checking reports over corresponding periods of time for transactions done via domestic banks and accounts held abroad. For transactions in FDI flows, verification of data may involve comparison with the notification forms related to FDI, register of loans, reported to the MOF via the BOJ, and other sources such as Bloomberg, and specialized media on mergers and acquisitions. Stock data on Japanese direct investment abroad are consistently reconciled by matching stock at the beginning of the period and transactions data.

3.3   *Statistical techniques*

3.3.1   Data compilation employs sound statistical techniques to deal with data sources

In general, incorporation of the ITRS data, implementations of statistical surveys, statistics data creation, and processing are skillfully integrated into the whole process. The BOPS staff has a good data processing ability, adequate knowledge, and experience. A comprehensive electronic reporting system has been implemented since January 2005. Major respondents submit daily electronic reports. Data also are compiled in hard copy and electronic reports from banks and other financial institutions. New reporting software allows for electronic reporting and automated computerized checks that reduce processing errors.

Compilation procedures take into account the need to minimize processing errors owing to coding, editing, and tabulation. The editing procedures include manual or computerized checks of the logical consistency, including consistency with data from the previous month,

and completeness of the reports, exchange rate conversion, and completeness in recording entries. The data editing procedures are followed by source data analysis at the various levels of data categorization. When confirmed by the respondent, corrections are made to individual reports. In addition, data undergo consistency checks before they are merged into the database.

3.3.2 Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques

Adjustments made for compiling balance of payments statistics employ sound statistical techniques.

A number of adjustments are made to the merchandise trade statistics that are compiled on a customs clearance basis. The most important of these adjustments relates to recording import data f.o.b. Timing adjustments to correspond with changes in ownership are also made, mainly in respect of aircraft imports, where the month of custom clearance differs from the month when change of ownership has taken place. The information for these adjustments is obtained from the monthly reports of transport companies and insurance companies, other customs statistics, and payments reports.

The methodology of estimating import of sea freight has been currently revised. It has changed from computation based on the share of freight in c.i.f. value of import to calculations based on freight fares received by Japanese shipping companies (received from the report on revenue and expenditure) and the volume of imported goods transported by Japanese shipping companies, calculated based on data published in the *Maritime Affairs Report* by the MLIT.

Also, the adjustments to freight insurance have been changed based on the reports submitted by non-life insurance companies.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Intermediate results are validated against other information where applicable

In the case of revenue investment income flows, data are reviewed by type of revenue. Staff cross-check against the revenue anticipated on the basis of estimated positions for main securities (e.g., anticipated interest falling due on Japanese government bonds). FDI operations are followed through the financial and specialized press. A log of main FDI operations is kept updated.

Japan's freight ratios, computed from the monthly reports of transport companies and insurance companies, are compared to a freight ratios computed using U.S. data provided by the U.S. Department of Commerce Bureau of Economic Analysis. A comparison of the two ratios showed that Japan's current freight ratio overestimates freight fares, resulting in revising the estimation method.

3.4.2   Statistical discrepancies in intermediate data are assessed and investigated

The discrepancies between merchandise trade and the associated financial flows from the ITRS are routinely reviewed. The reported financial flow data are routinely reconciled with changes in the corresponding stock data collected for all components of the international investment position. Data on the reserve position in the IMF are verified through the published IMF accounting data.

3.4.3   Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated

The BOJ monitors merchandise trade data for major trade partners and investigates fluctuations in the merchandise trade data. Bilateral data reconciliation is conducted by the Customs and Tariff Bureau. Also, the BOP data are checked with the information available from the BIS banking statistics and the results of the Coordinated Portfolio Investment Survey.

3.5   Revision studies

3.5.1   Studies and analyses of revisions are carried out routinely and used internally to inform statistical processes (see also 4.3.3)

The new software allows staff to maintain the preliminary and final data in a time-series format that can be used as a basis for revision studies. However, fuller-scale studies could be conducted if the revision cycle would allow for a longer open period to make changes to the data.

Causes of nonroutine revisions (e.g., revisions due to changes to methodology) are also identified by the BOJ staff and used to inform the statistical process, with results communicated to the management of the BOPS of the BOJ and to the MOF.

4.   Serviceability

4.1   Periodicity and timeliness

4.1.1   Periodicity follows dissemination standards

The balance of payments data are compiled and disseminated monthly, which exceeds the quarterly prescription of the SDDS. The quarterly data are also published.

4.1.2   Timeliness follows dissemination standards

The quarterly balance of payments data are disseminated in two months and one week following the reference period, which exceeds the quarterly SDDS requirement. The preliminary monthly balance of payments data are disseminated by the MOF basically one

month and eight working days after the end of the reference month; and the final monthly data three months and eight working days after the end of the reference quarter.

4.2 Consistency

4.2.1 Statistics are consistent within the dataset

Internal data consistency is assured by applying the same concepts, definitions, and classifications for producing the monthly, quarterly, and annual balance of payments statistics. The quarterly data are derived by summing the monthly information, and the annual by summing the four quarters. In the recent two years, the quarterly errors and omissions item has been large and has shown a negative bias, which has prompted compilers to undertake research on the possible causes and to strengthen verification procedure. However, comprehensive research is yet to be performed.

Transactions data are consistent with stock data, and subitems are consistent with the aggregate data.

4.2.2 Statistics are consistent or reconcilable over a reasonable period of time

Monthly and annual data, compiled in accordance with the *BPM5,* are available from 1991 for the full scope of standard components and from 1985 for main items. Occasionally, when major methodological changes are introduced, historical time series are reconstructed. For example, a backward revision for the period 1991–96 was conducted to produce historical time series in the *BPM5* format, and the retroactive revision was conducted in 2002 for implementing methodology of the *BPM5 Supplement* on financial derivatives.

While the short revision policy may hamper consistency of time series, efforts are made where feasible to construct historical time series outside the interlocking program (e.g., recent backward revision of transportation component given in the BOJ explanatory note of August 12, 2005). The methodology for compiling the workers' remittances component was changed in April 2003, but no retroactive revisions were made, and there is no continuity of time series between data for 2003 and 2004.

4.2.3 Statistics are consistent or reconcilable with those obtained through other data sources and/or statistical frameworks

Balance of payments statistics are reconcilable with national accounts compiled by the Economic and Social Research Institute of the Cabinet Office, as well as other monetary and financial statistics compiled by the Research and Statistics Department of the BOJ. In Japan's national and flow of funds accounts, balance of payments statistics are used as the main data source for the rest of the world sector. Limited differences exist, owing to the different classification of certain current account transactions.

Financial transactions are reconcilable with changes in the external debt and IIP statistics. Tables for reconciliation of changes in outstanding stocks between two periods (annual) are published in the MOF publication *Report on External Assets and Liabilities as of Year-End 2004 (in Japanese)*, on the MOF website, and in the BOJ annual IIP publications (in aggregated form).

Certain balance of payments components (i.e., loan and deposits) are derived from the balance sheets of the banks; therefore, the corresponding transactions data are generally consistent with the stock data. The foreign assets of the central bank in the monetary and financial statistics and reserve transactions are reconcilable.

Major differences with the customs data are explained to users (*Japan's Balance of Payments for 2004*, Reference to Chart 6).

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

Monthly balance of payments data are provisional when first released. The final data are disseminated as monthly and quarterly data about three months after the end of the reference quarter. According to current practice of the MOF and the BOJ, final data are not revised in consideration that frequent revisions may affect credibility of statistics, although major methodological changes at times govern retroactive revisions (see also 4.2.2). The extension of the period opened for revisions would enhance the accuracy and time series consistency of the data.

The revisions policy is not clearly indicated on the BOJ and/or MOF websites. A paper discussing the revision policy for Japan's balance of payments statistics is posted on the IMF website (http//:www.imf.org/external/pubs/ft/bop/2003/16.htm).

Some documentation on revisions is included in the publication; however, no documentation exists on the regular revisions, and no statistical series that contain preliminary and revised data in the database are accessible to users.

Occasionally, when revisions outside the regular cycle are called for (e.g., by the discovery of new source data, errors), they are made known to the public. For example, in the current year, a mistake was found in aggregation of the OECD countries, data were revised, and the BOJ and the MOF announced corrections on the website.

4.3.2 Preliminary and/or revised data are clearly identified

Preliminary data are clearly identified with symbols in the publications. A footnote in the annual publication also states that data are preliminary unless otherwise specified. Revised data are disseminated with the same level of detail as preliminary data.

4.3.3   Studies and analyses of revisions are made public (see also 3.5.1)

No specific studies or analyses of routine revisions are made public. No detailed information on the causes of routine revisions and the magnitude of these revisions is included in the publications.

5.   Accessibility

5.1   Data accessibility

5.1.1   Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts)

The balance of payments statistics are disseminated according to the standard components of the *BPM5* by the MOF under the signature of the BOJ and the MOF through a press release and on their respective websites. Historical time series are disseminated by both the BOJ and the MOF. The MOF monthly press release contains a table with major balance of payments aggregates, accompanied by a short commentary on current-period developments. The MOF publication *Fiscal and Monetary Statistics Monthly* features the balance of payments statistics in its September issue every year.

Also, the BOJ provides a more detailed breakdown approximately three weeks after the data are released in the *Bank of Japan (International Department) Balance of Payments Monthly* and the *Bank of Japan (Research and Statistics Department) Financial and Economic Statistics Monthly*. The BOJ also publishes these statistics on the BOJ website (http://www.boj.or.jp/en/stat/stat_f.htm). The annual report on the balance of payments *Japan's Balance of Payments for__Year* provides charts, graphics, explanatory notes, and commentaries on current-period developments. The annual report is available on the BOJ website, as well as in the list of the BOJ publications. However, as data on direct investment, portfolio investment, financial derivatives, other investment, and financial account are not available on Japan's National Statistics Dissemination Page (NSDP) in the IMF DSBB, it would be useful to specify that the breakdown of the capital and financial accounts is available through the hyperlink from the NSDP.

In response to recent requests from users, in addition to the BOJ, the MOF started to disseminate longer time series from the beginning of 2005. The wide range of data collected is made available, including geographical detail (subject to confidentiality constraints). A regional breakdown of the balance of payments is also prepared and released to the press quarterly. A country and regional breakdown is provided for 32 major countries and 10 regions. A geographic breakdown of the merchandise trade transactions is given based on data prepared by the MOF. Recently, the MOF and the BOJ have introduced additional detail that include monthly dissemination of the regional breakdown for FDI; quarterly dissemination of the regional and industrial breakdown for FDI; and regional, sectoral (both debtor and creditor sectors), and currency breakdown monthly for portfolio investment data.

The BOJ runs seasonal adjustments with the Bureau of Census ARIMA X-12 software. Seasonally adjusted data are disseminated in monthly and annual publications with explanatory notes, as well as given on the website. However, because these data are not disseminated on the NSDP, a need exists to indicate, in the SDDS metadata, the list of publications, in which seasonally adjusted data are available to the public.

5.1.2 Dissemination media and format are adequate

The balance of payments statistics are disseminated in hard copy and are available on the MOF and BOJ's websites in a user-friendly format. The MOF and BOJ websites contain cross-references to each other through a hypertext link and are updated soon after the balance of payments statistics monthly communiqué is released with free downloadable material and metadata. The BOJ website provides time-series data for the balance of payments statistics with supplementary information in regional tables. The BOJ's time series descriptions in the Internet-accessible database are currently provided in Japanese and English and can be easily downloaded.

5.1.3 Statistics are released on a preannounced schedule

In observation of the prescriptions to the SDDS, Japan is announcing in advance the dates on which balance of payments data are released. Advance release dates are provided on the IMF's DSBB. Also, the balance of payments advance release calendar is also directly accessible on the http://www.mof.go.jp/e1c004.htm#bm2 and http://www.boj.or.jp/en/stat/stat_f.htm. The MOF and the BOJ release a quarterly dissemination schedule for the balance of payments statistics. The schedule is released during the last month of each quarter for the following six months on both the MOF and the BOJ websites. Data are released as scheduled.

5.1.4 Statistics are made available to all users at the same time

The data are released to all statistics users at the same time, first through the MOF and BOJ press release disseminated on the MOF website and to press agencies. The MOF holds a press conference at 8:50 a.m. on the day the data are released and disseminates a communiqué. Those materials are simultaneously distributed to the public at the BOJ. Also, data are disseminated simultaneously on the MOF and BOJ websites and, lastly, in the publication *Bank of Japan (International Department) Balance of Payments Monthly* and the *Bank of Japan (Research and Statistics Department) Financial and Economic Statistics Monthly.*

5.1.5 Statistics not routinely disseminated are made available upon request

The decision on the disclosure of requested information is made considering the confidentiality of individual data. Therefore, requests for data not routinely disseminated are considered by the MOF case-by-case and depend on confidentiality considerations. In addition, the *Law Concerning Access to Information Held by Administrative Organs* and the

Law Concerning Access to Information Held by Incorporated Administrative Agencies, etc., provide that any person could request the disclosure of administrative documents (including statistics not routinely disseminated) that were prepared or obtained by Japanese administrative organs or agencies.

A large range of detailed data is disseminated in addition to the balance of payments standard components. Examples are distribution of affiliated direct investment enterprises by number of years in business; contribution to overall export growth by regions; other services encouraged items, etc.

The BOJ publications refer to BOPS contacts responsible for providing any additional information; however, the way to obtain specific tabulations is not indicated.

5.2   Metadata accessibility

5.2.1   Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is available, and differences from internationally accepted standards, guidelines, or good practices are annotated

Documentation on balance of payments sources and methods is available in the following publications:

(1)   The BOJ website posts a methodological note on the compilation methods of balance of payments statistics, both in Japanese and in English;

(2)   This note is reproduced in the *Bank of Japan (International Department) Balance of Payments Monthly* and in the *Bank of Japan (Research and Statistics Department) Financial and Economic Statistics Monthly* both in Japanese and in English;

(3)   Analytical elements are developed in the *Bank of Japan Quarterly Bulletin* (in Japanese and in English) that elaborates on methodologies and specific compilation issues, analysis, and comments on balance of payments statistics;

(4)   The BOJ annual publication *Japan's Balance of Payments for__Year* contains comprehensive methodological notes;

(5)   *BOJ Working Papers* and other explanatory documents as prepared by staff describe new balance of payments compilation systems, specific revisions to balance of payments, and specific issues regarding data sources and methods (e.g., new methodology for FDI);

(6)   The BOJ participates in the IMF's annual Coordinated Portfolio Investment Survey and also in the Survey of Implementation of Methodological Standards for Direct Investment. Detailed methodological information on these initiatives is available on the IMF's website; and

(7)   An additional document on the methodological compilation can be found in the IMF's *Balance of Payments Yearbook–Part III*.

5.2.2   *Levels of detail are adapted to the needs of the intended audience*

The available documentation given in 5.2.1 meets the needs of specific users. Other explanatory materials are customized for wider groups of users. For example, the BOJ published a book explaining the compilation of the balance of payments statistics in a popularized manner for the general public. Where needed, more specialized information is also disseminated through the BOJ Working Papers.

5.3   **Assistance to users**

5.3.1   *Contact points for each subject field are publicized*

Statistics users are informed about the contact number and e-mail address mentioned on the MOF and the BOJ websites. On the BOJ website, the Public Relations Department and the BOPS are introduced as the points of inquiry. In the BOJ's balance of payments publications, users are advised to contact directly the BOPS, using a phone number and the e-mail address. Arrangements (including follow-up procedures for the questions received via e-mail) have been established within the BOJ to ensure that any queries received by that contact are directed to the relevant person in the BOPS.

5.3.2   *Catalogs of publications, documents, and other services, including information on any charges, are widely available*

The BOJ provides a catalog of publications to users, which includes the International Department's *Balance of Payments Monthly* and the Bank of Japan Research and Statistics Department's *Financial and Economic Statistics Monthly*, posted on the BOJ website (http://www.boj.or.jp/en/service/service.htm). Hardcopy publications are sent to subscribers and publicly released data are sent to other statistics users upon request. A wide range of data can be downloaded from the BOJ website free of charge.

Table 6. DQAF (July 2003): Summary of Results for Balance of Payments Statistics
Compiling Agency: *Bank of Japan*

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
0. Prerequisites of quality						
0.1 Legal and institutional environment			X			There is generally no formal mechanism to secure adequate coordination with other data-producing agencies.
0.2 Resources		X				
0.3 Relevance		X				
0.4 Other quality management		X				
1. Assurances of integrity						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
2. Methodological soundness						
2.1 Concepts and definitions		X				
2.2 Scope		X				
2.3 Classification/sectorization			X			The three-sector sectorization (public sector, banks, and other) is less detailed than is required by *BPM5*.
2.4 Basis for recording		X				
3. Accuracy and reliability						
3.1 Source data			X			There is a need to develop data sources for the data lost with the introduction of the new ITRS threshold.
3.2 Assessment of source data		X				
3.3 Statistical techniques		X				
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies		X				
4. Serviceability						
4.1 Periodicity and timeliness		X				
4.2 Consistency		X				
4.3 Revision policy and practice				X		Data are not revised after about three months after the end of the reference quarter.
5. Accessibility						
5.1 Data accessibility		X				
5.2 Metadata accessibility		X				
5.3 Assistance to users		X				

Recommendations

- While the MOF is responsible for the balance of payments data, identify the BOJ as the compiler of data to avoid the impression of MOF involvement in data compilation. (0.1.1)

- Promote data consistency across the datasets, by systematizing consultation with data-producing agencies. (0.1.2)

- Promote measures to streamline the procedures related to data collection including implementation of new or revised report forms. (0.2.2)

- To further conform to *BPM5,* adopt more detailed sectorization, and review the residency definition for individuals. (2.3.1)

- Develop additional sources for the data lost with the introduction of the new ITRS threshold, for example for trade in services. (3.1.1)

- Improve data sources and estimations for reinvested earnings component. (3.1.2)

- Develop documentation on the verification procedures, disaggregated by type of problem, and followed by relevant modifications in the statistical processes. (3.4.1)

- Review the revision policy that currently does not permit changes to the data once they are finalized; and publish revision studies. (4.3.1)

Summary of the Special Data Dissemination Standard (SDDS)

The SDDS prescribes the following practices under each of the identified dimensions:

Data dimension (coverage, periodicity, and timeliness)

The dissemination of 18 data categories, including component detail, covering the four main sectors (real, fiscal, financial, and external) of the economy, with prescribed periodicity and timeliness.

Access dimension

The dissemination of advance release calendars providing at least one-quarter advance notice of approximate release dates, and at least a one-week advance notice of the precise release dates; and

the simultaneous release of data to all users.

Integrity dimension

The dissemination of the terms and conditions under which official statistics are produced and disseminated;

The identification of internal government access to data before release;

The identification of ministerial commentary on the occasion of statistical release; and

The provision of information about revision and advance notice of major changes in methodology.

Quality dimension

The dissemination of documentation on statistical methodology and sources used in preparing statistics; and

Dissemination of component detail and/or additional data series that make possible cross-checks and checks of reasonableness.

SDDS subscribers are required to:

Post descriptions of their data dissemination practices (metadata) on the IMF's Dissemination Standards Bulletin Board (DSBB). Summary methodologies, which describe data compilation practices in some detail, are also disseminated on the DSBB; and

maintain an Internet website, referred to as the National Summary Data Page (NSDP), which contains the actual data described in the metadata and to which the DSBB is electronically linked.

The IMF staff is monitoring observance of the standard through NSDPs maintained on the Internet. Monitoring is limited to the coverage, periodicity, and timeliness of the data and to the dissemination of advance release calendars.

Source: http://dsbb.imf.org

DATA QUALITY ASSESSMENT FRAMEWORK—GENERIC FRAMEWORK
(JULY 2003 FRAMEWORK)

Quality Dimensions	Elements	Indicators
0. Prerequisites of quality	**0.1 Legal and institutional environment**—*The environment is supportive of statistics*	0.1.1 The responsibility for collecting, processing, and disseminating the statistics is clearly specified. 0.1.2 Data sharing and coordination among data-producing agencies are adequate. 0.1.3 Individual reporters' data are to be kept confidential and used for statistical purposes only. 0.1.4 Statistical reporting is ensured through legal mandate and/or measures to encourage response.
	0.2 Resources—*Resources are commensurate with needs of statistical programs.*	0.2.1 Staff, facilities, computing resources, and financing are commensurate with statistical programs. 0.2.2 Measures to ensure efficient use of resources are implemented.
	0.3 Relevance—*Statistics cover relevant information on the subject field.*	0.3.1 The relevance and practical utility of existing statistics in meeting users' needs are monitored.
	0.4 Other quality management—*Quality is a cornerstone of statistical work.*	0.4.1 Processes are in place to focus on quality. 0.4.2 Processes are in place to monitor the quality of the statistical program. 0.4.3 Processes are in place to deal with quality considerations in planning the statistical program.
1. Assurances of integrity *The principle of objectivity in the collection, processing, and dissemination of statistics is firmly adhered to.*	**1.1 Professionalism**—*Statistical policies and practices are guided by professional principles.*	1.1.1 Statistics are produced on an impartial basis. 1.1.2 Choices of sources and statistical techniques as well as decisions about dissemination are informed solely by statistical considerations. 1.1.3 The appropriate statistical entity is entitled to comment on erroneous interpretation and misuse of statistics.
	1.2 Transparency—*Statistical policies and practices are transparent.*	1.2.1 The terms and conditions under which statistics are collected, processed, and disseminated are available to the public. 1.2.2 Internal governmental access to statistics prior to their release is publicly identified. 1.2.3 Products of statistical agencies/units are clearly identified as such. 1.2.4 Advance notice is given of major changes in methodology, source data, and statistical techniques.
	1.3 Ethical standards—*Policies and practices are guided by ethical standards.*	1.3.1 Guidelines for staff behavior are in place and are well known to the staff.

Quality Dimensions	Elements	Indicators
2. Methodological soundness *The methodological basis for the statistics follows internationally accepted standards, guidelines, or good practices.*	**2.1 Concepts and definitions**—*Concepts and definitions used are in accord with internationally accepted statistical frameworks.* **2.2 Scope**—*The scope is in accord with internationally accepted standards, guidelines, or good practices.* **2.3 Classification/ sectorization**—*Classification and sectorization systems are in accord with internationally accepted standards, guidelines, or good practices.* **2.4 Basis for recording**—*Flows and stocks are valued and recorded according to internationally accepted standards, guidelines, or good practices*	2.1.1 The overall structure in terms of concepts and definitions follows internationally accepted standards, guidelines, or good practices. 2.2.1 The scope is broadly consistent with internationally accepted standards, guidelines, or good practices. 2.3.1 Classification/sectorization systems used are broadly consistent with internationally accepted standards, guidelines, or good practices. 2.4.1 Market prices are used to value flows and stocks. 2.4.2 Recording is done on an accrual basis. 2.4.3 Grossing/netting procedures are broadly consistent with internationally accepted standards, guidelines, or good practices.
3. Accuracy and reliability *Source data and statistical techniques are sound and statistical outputs sufficiently portray reality*	**3.1 Source data** – *Source data available provide an adequate basis to compile statistics.* **3.2 Assessment of source data**—*Source data are regularly assessed.* **3.3 Statistical techniques**—*Statistical techniques employed conform to sound statistical procedures* **3.4 Assessment and validation of intermediate data and statistical outputs**—*Intermediate results and statistical outputs are regularly assessed and validated.* **3.5 Revision studies**—*Revisions, as a gauge of reliability, are tracked and mined for the information they may provide.*	3.1.1 Source data are obtained from comprehensive data collection programs that take into account country-specific conditions. 3.1.2 Source data reasonably approximate the definitions, scope, classifications, valuation, and time of recording required. 3.1.3 Source data are timely. 3.2.1 Source data—including censuses, sample surveys, and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and nonsampling error; the results of the assessments are monitored and made available to guide statistical processes. 3.3.1 Data compilation employs sound statistical techniques to deal with data sources. 3.3.2 Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques. 3.4.1 Intermediate results are validated against other information where applicable. 3.4.2 Statistical discrepancies in intermediate data are assessed and investigated. 3.4.3 Statistical discrepancies and other potential indicators or problems in statistical outputs are investigated. 3.5.1 Studies and analyses of revisions are carried out routinely and used internally to inform statistical processes (see also 4.3.3).

Quality Dimensions	Elements	Indicators
4. Serviceability *Statistics, with adequate periodicity and timeliness, are consistent and follow a predictable revisions policy.*	**4.1 Periodicity and timeliness—** *Periodicity and timeliness follow internationally accepted dissemination standards.*	4.1.1 Periodicity follows dissemination standards. 4.1.2 Timeliness follows dissemination standards.
	4.2 Consistency— *Statistics are consistent within the dataset, over time, and with major datasets.*	4.2.1 Statistics are consistent within the dataset. 4.2.2 Statistics are consistent or reconcilable over a reasonable period of time. 4.2.3 Statistics are consistent or reconcilable with those obtained through other data sources and/or statistical frameworks.
	4.3 Revision policy and practice— *Data revisions follow a regular and publicized procedure.*	4.3.1 Revisions follow a regular and transparent schedule. 4.3.2 Preliminary and/or revised data are clearly identified. 4.3.3 Studies and analyses of revisions are made public (see also 3.5.1).
5. Accessibility *Data and metadata are easily available and assistance to users is adequate.*	**5.1 Data accessibility—** *Statistics are presented in a clear and understandable manner, forms of dissemination are adequate, and statistics are made available on an impartial basis.*	5.1.1 Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts). 5.1.2 Dissemination media and format are adequate. 5.1.3 Statistics are released on a preannounced schedule. 5.1.4 Statistics are made available to all users at the same time. 5.1.5 Statistics not routinely disseminated are made available upon request.
	5.2 Metadata accessibility— *Up-to-date and pertinent metadata are made available.*	5.2.1 Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is available, and differences from internationally accepted standards, guidelines, or good practices are annotated. 5.2.2 Levels of detail are adapted to the needs of the intended audience.
	5.3 Assistance to users— *Prompt and knowledgeable support service is available.*	5.3.1 Contact points for each subject field are publicized. 5.3.2 Catalogs of publications, documents, and other services, including information on any charges, are widely available.