INTERNATIONAL MONETARY FUND

Statistics Department

Data Quality Assessment Framework (DQAF)
for
National Accounts Statistics

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**DATA QUALITY ASSESSMENT FRAMEWORK (DQAF) FOR
NATIONAL ACCOUNTS STATISTICS**

Introduction

A.   Purpose of the Framework

The main purpose of the Framework is to provide a flexible structure for the qualitative assessment of the national accounts statistics (referred to as the statistics throughout the Framework).

The Framework could be used in a variety of contexts, including the following:
- reviews performed in the context of IMF country work, e.g., the data module of the Reports on the Observance of Standards and Codes (ROSCs), technical assistance, and surveillance;
- self-assessments performed by national statistical offices, central banks, and other data producing agencies; and
- assessments by other groups of data users, such as financial market participants.

B.   Structure of the Framework

The DQAF comprehensively covers the various quality aspects of data collection, processing, and dissemination. The Framework is organized in a cascading structure that progresses from the abstract/general to the more concrete/specific details.

The first level covers the **prerequisites** of quality and five **dimensions** of quality; assurances of integrity, methodological soundness, accuracy and reliability, serviceability, and accessibility. For each of these prerequisites and five dimensions, there are **elements** (two-digit level) and **indicators** (three-digit level).[1]

At the next level, **focal issues** that are specific to the compilation of national accounts statistics are addressed. Below each focal issue, **key points** identify quality features that may be considered in addressing the focal issues. The key points are meant to be suggestive, not exhaustive.

Box A provides a view of the cascading structure employed in the Framework.

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[1] The first three levels are common with other Data Quality Assessment Frameworks that have been developed to assess datasets. This design was implemented to ensure a common and systematic assessment across datasets. To date, frameworks have been developed for national accounts statistics, consumer price index, producer price index, government finance statistics, monetary statistics, balance of payments statistics, and income poverty statistics.

C.   Content of the Framework

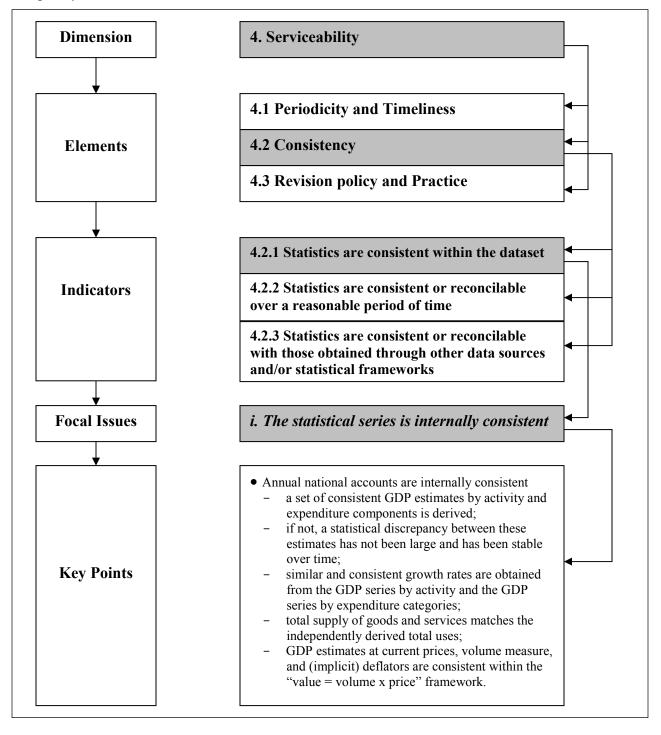The elements and indicators within their respective dimensions are described below.

0.   Prerequisites of quality: Although not itself a dimension of quality, this group of "pointers to quality" includes elements and indicators that have an overarching role as prerequisites, or institutional preconditions, for quality of statistics. Note that the focus is on the agency, such as a national statistical office, central bank, or a ministry/department. These prerequisites cover the following elements:
0.1   legal and institutional environment,
0.2   resources available for the statistical program,
0.3   relevance, and
0.4   other quality management.

1.   Assurances of integrity: This dimension relates to the adherence to the principle of objectivity in the collection, compilation, and dissemination of statistics. The dimension encompasses institutional arrangements that ensure professionalism in statistical policies and practices, transparency, and ethical standards. The three elements for this dimension of quality are the following:
1.1   professionalism,
1.2   transparency, and
1.3   ethical standards.

2.   Methodological soundness: This dimension covers the idea that the methodological basis for the production of statistics should be sound and that this can be attained by following internationally accepted standards, guidelines, or good practices. This dimension is necessarily dataset-specific, reflecting different methodologies for different datasets. This dimension has four elements, namely:
2.1   concepts and definitions,
2.2   scope,
2.3   classification/sectorization, and
2.4   basis for recording.

3.   Accuracy and reliability: This dimension covers the idea that statistical outputs sufficiently portray the reality of the economy. This dimension is also data specific, reflecting the sources used and their processing. The five elements of this dimension cover the following:
3.1   source data,
3.2   assessment of source data,
3.3   statistical techniques,
3.4   assessment and validation of intermediate data and statistical outputs, and
3.5   revision studies.

4.   Serviceability: This dimension relates to the need that statistics are disseminated with an appropriate periodicity in a timely fashion, are consistent internally and with other

major datasets, and follow a regular revision policy. The three elements for this dimension are as follows:

4.1   periodicity and timeliness,

4.2   consistency, and

4.3   revision policy and practice.

5.   **Accessibility**: This dimension relates to the need for data and metadata to be presented in a clear and understandable manner on an easily available and impartial basis, that metadata are up-to-date and pertinent, and that a prompt and knowledgeable support service is available. This dimension has three elements, namely:

5.1   data accessibility,

5.2   metadata accessibility, and

5.3   assistance to users.

Box A: The Cascading Structure of the Data Quality Assessment Framework, DQAF July 2003, for the National Accounts Statistics: An Example

Using serviceability as the example of a dimension of quality, the box below shows how the framework identifies three elements that point toward quality. Within consistency, one of those elements, the framework next identifies three indicators. Specifically, for each indicator, focal issues are addressed through key points that may be considered in identifying quality.

Dimension	4. Serviceability
Elements	4.1 Periodicity and Timeliness
	4.2 Consistency
	4.3 Revision policy and Practice
Indicators	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
Focal Issues	*i. The statistical series is internally consistent*

Key Points	• Annual national accounts are internally consistent
	  − a set of consistent GDP estimates by activity and expenditure components is derived;
	  − if not, a statistical discrepancy between these estimates has not been large and has been stable over time;
	  − similar and consistent growth rates are obtained from the GDP series by activity and the GDP series by expenditure categories;
	  − total supply of goods and services matches the independently derived total uses;
	  − GDP estimates at current prices, volume measure, and (implicit) deflators are consistent within the "value = volume x price" framework.

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.

i. The primary responsibility for collecting, processing, and disseminating the statistics is clearly established.

- A law, such as a statistical law, or other formal provision (e.g., inter-agency protocol or executive decree, supranational legislation) assigns primary responsibility as well as the authority to an agency (agencies) for the collection, processing, and dissemination of the statistics.

- Working arrangements are consistent with this assignment of responsibility.

- If more than one data producing agency is involved in producing parts of the statistics, arrangements are in place to promote consistency of methods and results.

- Conflicts or potential conflicts between the legal authority to produce the statistics and other laws or provisions (e.g., access to information law or bank secrecy laws) have been successfully resolved or reconciled with no major impairment to the data production.

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

i. Arrangements or procedures exist to facilitate data sharing and coordination between the agency (agencies) with the primary responsibility for compiling the statistics and other data producing agencies.

- Procedures are in place to provide for the effective and timely flow of source data (e.g., administrative data as well as survey data) to the data-producing agency (agencies).

- Contacts (e.g., regular meetings and workshops) are maintained with other data producing agencies to promote a proper understanding of data requirements, to avoid duplication of effort, and to take into account reporting burden (e.g., by discussing changes to administrative processes before they take place.)

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

i.   *The confidentiality of individual reporters' data is guaranteed and that guarantee is widely known.*

- A law or other formal provision clearly states that individual data are to be treated as confidential, and shall not be disclosed or used for other than statistical purposes unless disclosure is agreed to in writing.

- In surveys and other statistical inquiries, respondents are informed of their rights and obligations with regard to the provision of information, and they are informed that the information they provide will be used for the purpose of producing statistics.

ii.   *Procedures are in place to prevent disclosure of individual reporters' data.*

- Rules and regulations to prevent disclosure include penalties against staff who disclose confidential data.

- Access to individual data is restricted to staff who require the information in the performance of their statistical duties.

- Special aggregation rules are used to prevent residual disclosure when aggregations of survey or other confidential data are disseminated.

- 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.

- Where unit records are made available (e.g., for research purposes), the confidentiality of the individual data is protected (e.g., by making all records anonymous, or ensuring that access to data is bound by confidentiality provisions).

- Confidentiality of data is appropriately guarded during storage and during the process of the destruction of records.

- Steps are taken to secure the premises of the data producing agency and its computer systems to prevent unauthorized access to individual data.

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

i.   *A law or other formal provision provides for the reporting of information needed to compile the statistics.*

- The data producing agency has the legal authority to collect data required to compile the statistics.

- Collection activity is consistent with the legal authority.

- If reporting is mandatory, penalties for noncompliance (including misreporting) act as effective deterrent, even if such provisions rarely need to be employed.

ii. ***Other mechanisms are in place to provide for adequate reporting of data for compiling the statistics.***

- The data producing agency considers carefully response burden (e.g., by actively pursuing alternative avenues to obtain data, adapting questions to reporters' terminology and record-keeping systems, carefully designing new surveys, closely monitoring response burden, and periodically evaluating existing surveys).

- The data producing agency provides assistance to respondents in completing and submitting forms (e.g., by providing a point of contact).

- The data producing agency seeks to secure cooperation by creating goodwill (e.g., by registering and dealing with respondents' complaints, indicating the purpose of the data collection, informing of measures to limit response burden, raising awareness of the importance of good quality statistics, and providing respondents with data upon request).

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.

i. ***Staff resources for compiling the statistics are adequate to perform required tasks.***

- Overall, the number of staff is adequate to perform the required tasks.

- The qualifications of the staff are adequate, with their skills maintained and developed to perform the required tasks.

- A core staff with adequate training is maintained and staff turnover is manageable.

- Salary levels are adequate for the nature of the work and competitive with public administration conditions in the country.

ii. ***Computing resources for compiling the statistics are adequate to perform required tasks.***

- Overall, sufficient resources are allocated and best efforts are made to exploit the full potential of effective computing technology for compiling and disseminating the statistical series.

- Software utilized for compiling and analyzing the statistical series is effective, periodically updated, and well adapted to perform existing and emerging tasks.

- Hardware is distributed adequately to facilitate the efficient collection and processing of data, and management of databases.

- Adequate protection is provided for 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.

iii. ***Physical facilities and other resources are adequate to perform required tasks.***

- Office building provide adequate working facilities (e.g., lighting, heat, and cooling).

- Office furniture and equipment (e.g., desks, chairs filing cabinets, telephones, and related equipment) are adequate to perform required tasks.

- Transportation arrangements (e.g., for data collection) are adequate.

iv. ***Funding for compiling the statistics is adequate to perform required tasks.***

- Funding is reasonably secure for the identified needs of the statistical program.

- Budgeting practices provide clear information to financing authorities (e.g., when reviewing priorities for improvements, cutbacks, or increase in certain elements of programs).

- The funding horizon is amendable to planning for statistical developments (e.g., over a two- to three-year period).

0.2.2 Measures to ensure efficient use of resources are implemented.

i. ***Management ensures that resources are used efficiently.***

- Periodic reviews of staff performance are conducted.

- Efficiencies are sought through periodic reviews of work processes, e.g., seeking cost effectiveness of survey design in relation to objectives, and encouraging consistent concepts, classification and other methodologies across datasets.

- When necessary, the data producing agency seeks outside expert assistance to evaluate statistical methodologies and compilation systems.

ii. ***Costing and budgeting practices are in place and provide sufficient information to management to make appropriate decisions.***

- Resources used to compile the statistics are measured periodically (costing) and compared to other statistical programs.

- Budgeting procedures are used to help allocate resources.

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.

i.   ***Specific actions are taken to ensure that current statistics meet needs of data users.***

- Data users are consulted and/or kept informed on specific aspects of current data (e.g., usefulness in terms of detail, periodicity, and timeliness) through surveys, newsletters or seminars, with their feedback actively sought (e.g., e-mail address provided).

ii.   ***Mechanisms are in place to identify new and emerging data requirements.***

- A structured and periodic process of consultation (e.g., users' advisory committee or working groups) takes place with policy departments/ministries and other principal data users, which include academia, the press, and/or other private sector representatives, to review the usefulness of existing statistics and to identify emerging data requirements.

- The data producing agency regularly participates in statistical meetings and seminars organized by international and regional organizations and by professional organizations (e.g., International Statistical Institute (ISI) and International Association for Official Statistics (IAOS)).

- The data producing agency undertakes studies to help identify new and emerging data requirements.

0.4   Other quality management
— Quality is a cornerstone of statistical work

0.4.1   Processes are in place to focus on quality.

*i.   **There is recognition throughout the organization that quality builds trust and thus is a cornerstone of statistical work.***

- Management is sensitive to all dimensions of data quality, and promotes a shared concern for quality throughout the organization (e.g., mission statement emphasizes importance of quality, managers are held accountable for achieving quality).

- Staff training programs emphasize the importance of quality and give staff an understanding as to how quality may be achieved.

- The organization provides an infrastructure for quality by recognizing trade-offs, economies of scale, and interrelations between datasets.

- The organization has implemented externally recognized processes or activities that focus on quality (e.g., Total Quality Management, ISO 9000, quality initiatives within the European Statistical System, and independent evaluations).

- Information is publicly available on the organization's commitment to quality, including information about trade-offs affecting the statistical work program.

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

*i.   **Measures are in place for a systematic monitoring and review of quality.***

- Monitoring processes are in place to inform managers on the quality achieved for ongoing statistical activities (e.g., response rates, editing rates, revisions history, timeliness evaluations).

- Compiling areas have access to expert guidance on the quality of their statistics and on strategies for improving data production.

- Periodic reviews are undertaken to identify steps necessary to maintain quality requirements.

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

*i.   **In planning the statistical program, quality issues (including implicit and explicit trade-offs among the dimensions of quality) are considered.***

- Quality issues, such as the following, are addressed explicitly and taken into account in the work program planning process:
  - quality improvements identified during ongoing monitoring and in periodic reviews;
  - feedback from users on quality standards and on new and emerging data requirements; and
  - trade-offs among the dimensions of quality (e.g., resources availability, timeliness, and accuracy/reliability).

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.

i. ***The terms or conditions under which the statistics are produced are in accordance with professional independence.***

- A law or other formal provision supports professional independence by, for example:
  - addressing the general need for the professional independence of the data-producing agency (e.g., the importance of professional independence in carrying statistical functions is clearly stated and recognized);
  - prohibiting interference from others, including other government agencies, in the compilation and/or dissemination of statistical information; and
  - ensuring that the choice, tenure, and reporting arrangements of the agency's head are supportive of the professional independence of the statistical agency (e.g., tenure does not usually coincide with that of current government; appointment and removal of head result from transparent processes with emphasis on professional qualifications and performance).

- If there is no law or formal provision to support professional independence,
  - traditions or cultures of professionalism are clearly recognized as essential to the credibility of statistical results (e.g., others, including other government agencies, understand the importance or noninterference); and
  - the choice, tenure, and reporting arrangements of the agency's head are supportive of the professional independence of the agency.

ii. ***Professionalism is actively promoted and supported within the organization.***

- Recruitment and promotion are based on relevant aptitude and/or expertise in statistics (e.g., sampling techniques or in the subject matter area).

- Formal (using internal and outside experts) and on-the-job training in the methodology and compilation methods is provided, including participation in seminars, courses, and workshops arranged by regional and international organizations to further knowledge of statistical practices and providing easy access to professional literature.

- Processes and activities in the workplace promote a culture of professionalism (e.g., by professional accreditation of staff, peer review of statistical work, recognition of authors of methodological papers, organization of lectures and conferences, and the institutional support of professional bodies).

- Research and analysis (including rationale for the choice of methodologies) are encouraged and published subject to internal review and other processes to maintain the agency's reputation for professionalism.

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

i. The choices of data sources and statistical techniques are informed solely by statistical considerations.

- The choice of source data (e.g., among surveys, between surveys and administrative records, or between collected data and administrative records) is based on measurement objectives and data requirements.

ii. Decisions about dissemination are informed solely by statistical considerations.

- Decisions to disseminate data are based solely on statistical considerations.

- Decisions about the timing, media, and other aspects of dissemination are based solely on statistical considerations.

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

i. The data producing agency comments when its statistics are misinterpreted or misused.

- The data producing agency seeks to prevent misinterpretation or misuse of statistics by providing explanatory materials and briefings (e.g., to the media).

- There is a formal policy or well-established custom to deal with data misinterpretations or misuse of statistics.

- The data producing agency
  - monitors media coverage of its data ("clipping service"), and
  - comments publicly and in a timely manner on erroneous interpretations or misuse of the statistics in the media and in other fora.

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.

i. Information is available to the public about the terms and conditions under which the statistical series are compiled and disseminated, including the obligation to compile and disseminate the statistics, the confidentiality of individual reporters' data, and other key features.

- Agency publications and/or websites reproduce material from the statistical law and other relevant documents about the terms and conditions under which official statistics are compiled and disseminated. These terms and conditions may refer to the obligation to compile and disseminate the statistics, the confidentiality of individual reporters' data, and other key features (e.g., the codes of conduct under which official statistics are compiled and disseminated, the approval process for data dissemination, the procedures to hire and remove the head of the data producing agency).

- In public speeches and other gatherings, the agency makes an active and ongoing effort to inform about the terms and conditions under which it operates.

- Statistical publications identify where more information about the data producing agency and its products can be found.

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

i. The public is made aware of internal government access to statistics prior to their release to the public.

- Internal government access to statistics prior to release is made public in terms of who has access, and how long before the dissemination access is given.

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

i.   Statistical products are clearly identified so that the public is aware of what the data producing agency takes responsibility for.

- Data released to the public are clearly identified as the data producing agency's product (e.g., by name, logo, and insignia).

- In the case of joint publications, the part attributable to the data producing agency is identified (e.g., statistics are clearly distinguished from policy interpretation).

- The data producing agency requests attribution when its statistics are used for reproduced.

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

i.   Users of statistics are made aware in advance of major changes in methodology, source data, and statistical techniques.

- Advance notice is given to the public (e.g., articles in bulletins, briefings, or news releases) when major changes are introduced in methodology, sources, 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.

i.   A clear set of ethical standards has been prepared.

- There are clear guidelines outlining correct behavior when the agency or its staff are confronted with potential conflict of interest situations.

- There are clear guidelines that make the connection between ethics and staff work (e.g., with respect to guarding against misuse and misrepresentation of statistics (see also 1.1.3)).

- A strong culture for maintaining ethical standards discourages political interference.

ii.   Staff are made aware of the ethical standards.

- Management acknowledges its status as a role model and is vigilant in following the standards.

- New staff are made aware of the standards when they join the organization.

- Staff are reminded periodically of the standards (e.g., in staff training, announcements to staff, or by requiring staff to periodically reaffirm ethical practices or adhere to conflict of interest policy).

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 *System of National Accounts 1993* (*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
— Concepts and definitions used are in accord with internationally accepted statistical frameworks.

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

i.   Concepts and definitions used to compile the statistical series are in broad conformity with guidelines outlined in the 1993 SNA.

- The *1993 SNA* is followed as a general framework for compiling the national accounts statistics.

- Deviations from the above concepts and definitions are kept under review (see also 5.2.1).

2.2   Scope
— The scope is in accord with internationally accepted standards, guidelines, or good practices.

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

i.   The scope of the national accounts statistics cover 1993 SNA accounts/aggregates.

- The *1993 SNA* tables and accounts that the ISWGNA[2] determined as *minimum requirement* for its implementation, as listed below, are compiled on a regular basis.

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

- 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;
- annual rest of the world accounts (until net lending).

- The *1993 SNA* tables and accounts that the ISWGNA determined as *recommended* for its implementation, as listed below, are compiled on a regular basis.
  - quarterly value added and GDP at current and constant prices by activity;
  - quarterly expenditures of GDP at current and constant prices;
  - annual supply and use tables.

ii. *The delimitation of the constituent units of the economy is in accordance with the 1993 SNA.*

- In particular, the following are included as part of the economy:
  - territorial enclaves in the rest of the world,
  - free zones/bonded warehouses/factories operated by offshore enterprises under customs control,
  - workers who work part of the year in another country.

iii. *The production boundary is in accordance with the 1993 SNA.*

- In particular, the following items are in scope for output measurement:[3]
  - own-account production of all goods for own final consumption;
  - research and development on own account;
  - output of goods for own-account fixed capital formation;
  - mineral exploration;
  - production of entertainment, literary, or artistic originals;
  - production of computer software;
  - illegal output sold to willing buyers.

iv. *The assets boundary is in accordance with the 1993 SNA.*

- In particular, the following items are in scope for determining the assets boundary:[4]

  Among tangible assets:
  - defense related assets that could be used for civilian purposes;
  - valuables and historical monuments;

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[3] Irrespective of the coverage that is actually achieved.

[4] Irrespective of the coverage that is actually achieved.

    - agricultural work-in-progress.

Among intangible assets:
- mineral exploration (whether successful or not);
- systems and standard applications computer software and databases (purchased or built in-house);
- entertainment, literary or artistic originals;
- patented entities;
- leases and other transferable contracts (such as purchased goodwill).

- Deviations from the above scope are kept under review (see also 5.2.1).

2.3 Classification/sectorization
— *Classification and sectorization systems are in accord 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.

i. The classification and sectorization used in the compilation of national accounts are in broad conformity with internationally recommended systems.

- The *1993 SNA* is followed to classify:
  - institutional units;
  - transactions;
  - other flows.

- ISIC,[5] NACE,[6] or a compatible (e.g., derived or related) national industry classification is used to classify the principal economic activity (industry) of establishments and enterprises.

- CPC,[7] CPA,[8] or a compatible (e.g., derived or related) national product classification is used to classify products.

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[5] International Standard Industrial Classification of All Economic Activities.

[6] Nomenclature Génerale des Activités Économiques dans les Communautés Européennes (In English: Statistical Classification of Economic Activities in the European Communities).

[7] Central Product Classification.

[8] Classification of Products by Activity.

- COICOP[9] is used to classify household consumption.

- COFOG[10] is used to classify functions of government.

- Deviations from the above classifications/sectorizations are kept under review (see also 5.2.1)

2.4 Basis for recording
— Flows and stocks are valued and recorded according to internationally accepted standards, guidelines, or good practices.

2.4.1 Market prices are used to value flows and stocks.

i. The valuation rules used for recording flows and stocks are in accordance with the 1993 SNA.

- Market output is valued preferably at basic prices.

- If not, market output is valued at producer prices.

- Output for own use is valued at equivalent market prices.

- If levied, sales and excise taxes are included in the valuation of intermediate consumption.

- If value added taxes are in place, they are included in the valuation of intermediate consumption, excluding the deductible part of the value added taxes.

- If applicable, the deductible part of the value added taxes is excluded from the valuation of final uses.

- Corrections are made when transfer prices are detected.

- Information on insurance and freight for merchandise imports is available.

- Total imports and exports are valued on an f.o.b. basis.

- Transactions in foreign currency are converted using the mid-point exchange rate prevailing in the market at the moment they take place.

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[9] Classification of Individual Consumption by Purpose

[10] Classification of the Functions of Government.

- Proper adjustments are made if a system of multiple official exchange rates exists.

- Deviations from the above valuation are kept under review (see also 5.2.1).

2.4.2   Recording is done on an accrual basis.

i.   The timing rules used for recording flows are in accordance with the 1993 SNA.

- Transactions and flows are recorded on an accrual basis.

- Work-in-progress is recorded in the period it is produced.

- Government-related transactions are recorded on an accrual basis, in particular
  - taxes and subsidies on products;
  - expenditures;
  - revenues.

- Deviations from the above accrual accounting are kept under review (see also 5.2.1).

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

i.   The grossing/netting procedures are in accordance with the 1993 SNA.

- Transactions between establishments within the same enterprise are recorded on a gross basis.

- Deviations from the above recording are kept under review (see also 5.2.1).

3.   Accuracy and Reliability
Source data and statistical techniques are sound and statistical outputs sufficiently portray reality.

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
— Source data available provide an adequate basis to compile statistics.

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

i.   The data collection programs employed to compile the national accounts statistics are adequate.

- The data sources are kept under continuous review to ensure that the data collection program is comprehensive.

- The data sources of the data collection program are broadly sufficient to compile the national accounts statistics.

ii. ***Annual enterprise/establishment statistics are collected through a regular survey program.***

- A comprehensive and up-to-date register provides the basis for sample surveys of enterprises/establishments.

- Register maintenance procedures are adequate (including adding new units, deleting dead units and accounting for mergers and changeovers).

- In the absence of a business register, comprehensive and up-to-date sample frames are available (for example, census list updated with new registrations).

- An up-to-date statistical area sample frame is available.

- Sample design ensures that the population in scope is represented properly. The population in scope is stratified using variables that increase the efficiency of principal estimates and allow subsidiary estimates to be compiled (e.g., by industry, by area).

- Sample selections are assessed regularly, especially in relation to maintaining acceptable levels of sample error. Estimation methods for probability-based sample surveys are routinely assessed.

- Population benchmarks and weights used in the estimation process are reviewed and updated periodically.

- Survey questionnaires are constructed according to sound design principles (e.g., questionnaires are subject to field/pilot testing; observation studies are conducted during the design of survey questionnaires). They are reviewed periodically to take account of changed circumstances, and proposed changes are pretested to ensure effectiveness.

- Survey instruments are designed for efficient data capturing/processing that minimizes nonsampling errors.

- Benchmark collections are conducted, or other framework information is collected, with sufficient frequency, to ensure that the survey methodology is effective.

- The survey framework supports supplementary collections to allow the irregular collection of information to support the main compilation.

- Data collected are sufficiently detailed to derive national accounts aggregates (particularly output, intermediate consumption, fixed capital formation, and changes in inventories).

iii.   *Household surveys are conducted on a regular basis.*

- Household income and expenditure surveys are conducted on a regular basis and at least once every five years.

- Household surveys are based on an up-to-date register, or an area sample frame that is current.

- Scientific sampling techniques are used, and the probability of selection of household/persons is known.

- Where used, multi-stage samples, stratification, and for repeated surveys, planned rotation of sample units are effective.

- The sample selections are refreshed regularly, especially in relation to acceptable levels of sample error, and upgraded where necessary.

- The timing of the household survey takes account of seasonal variations in the household expenditure patterns.

- The survey framework supports supplementary collections to allow the irregular collection of information to extend the main compilation.

- Residential unit coverage is comprehensive. All residents are covered, or if not, exclusions are based on criteria that do not lessen the representativeness and usefulness of survey outcomes (e.g., the surveys is restricted to the civilian noninstitutionalized population).

- Geographic coverage is comprehensive. The entire country is covered, or if not, exclusions are clearly identified and do not lessen the representativeness and usefulness of survey outcomes.

- Survey questionnaires are constructed according to sound design principles (e.g., questionnaires are subject to field/pilot testing; observation studies are conducted during the design of survey questionnaires). They are reviewed periodically to take account of changed circumstances, and proposed changes are pretested to ensure effectiveness.

- Survey instruments are designed for efficient data capturing/processing that minimizes nonsampling errors.

iv. ***Comprehensive government finance statistics are available regularly.***

- The data include, in particular:
  - operation of extra-budgetary funds,
  - all defense related expenditures,
  - local government operations,
  - data on capital stocks.

- Detailed data are available to measure output, intermediate consumption, fixed capital formation, and final consumption expenditure of government services.

v. ***Data collections based on administrative data sources are adequate.***

- Data from administrative records are adequate, and their gaps in terms of detail and coverage are known and accounted for.

vi. ***When annual surveys do not exist, periodic (two to five years) surveys/censuses are conducted.***

- Proper survey techniques are followed (See 3.1.1.ii).

vii. ***Price statistics used to derive constant price estimates are adequate.***

- Price statistics are available at a sufficient level of detail.

- Price statistics are consistent with the variables being deflated in terms of price concept, coverage, and reference period.

viii. ***Monthly/quarterly data are adequate for compiling reliable quarterly GDP.***

- Subannual surveys of establishments/enterprises are conducted to obtain detailed quarterly/monthly indicators, consistent with annual data, for most important industrial groups (e.g., at the ISIC one-digit level).

- Monthly/quarterly data and indicators provide a good basis for compiling expenditure components of GDP.

ix. ***Ad hoc surveys are conducted when needed to fill data gaps.***

- Ad-hoc surveys are conducted, when necessary, to supplement regular surveys.

x. ***The data collection programs are sufficiently open and allow for versatility to new developments in sources.***

- Periodic meetings are held with the business community to identify new developments that need to be taken into account in the national accounts compilation system.

- The press and research papers are monitored for information on activities that need to be taken into account in the national accounts compilation system.

- International standards, guidelines, and practices are monitored for changes that need to be taken into account in the national accounts compilation system.

- The compiling agency consults with the supplying agencies to ascertain changes in administrative processes that may affect the statistics.

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

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

- Source data are consistent with the definitions, scope, and classifications of the national accounts statistics. Pilot tests have been conducted to ensure that data collected will allow compilation of estimates according to international guidelines.

- Source data are consistent with the time of recording, reference periods, and valuation of national accounts statistics.

- Administrative records used to compile the national accounts statistics provide reasonable approximations of the methodological requirements of the national accounts statistics.

ii. ***The data collection program provides adequate coverage of economic activities.***

- The coverage of total economic activities (in terms of value added) by all data sources is good. At least 80 percent of economic activities are covered.

- The coverage of activities (in terms of value added) within the most important industrial groups (e.g., ISIC one-digit level) is good.

3.1.3   Source data are timely.

i. ***The data collection programs provide for the timely receipt of data.***

- Data collection and processing timetables are adequate to meet timeliness and periodicity for disseminating the national accounts statistics.

- Respondents are made aware of the deadlines set for reporting.

- The data producing agency employs rigorous follow-up procedures to ensure the timely receipt of source data.

3.2   Assessment of source data
— *Source data are regularly assessed.*

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.

i.   Accuracy of the data from surveys is routinely assessed.

- Information about sampling errors for each of the surveys conducted is monitored on a regular basis. Information is available about nonsampling errors: survey operations, biases, over/under-coverage, misclassification, processing, and nonresponse.

- Source data are analyzed in the context of revisions. All material changes from available up-to-date data are incorporated into the national accounts statistics according to a revision cycle that prevents the accumulation of revisions over long periods of time.

- Editing procedures identify outliers and other atypical differences in periodic responses by individual survey units. Extreme values are confirmed with respondents, and records maintained on the confirmation.

- The effects of changes to questionnaires on survey estimates are assessed.

- Surveys/censuses are audited to verify the accuracy of the individual survey data.

- The source data are analyzed to correct for underreporting/misreporting, in particular to check for:
    - temporal consistency;
    - consistency with other related source data.

ii. ***Accuracy of the information from administrative data and other supplementary sources is routinely assessed.***

- Accuracy of government finance statistics, merchandise trade statistics, volume and price statistics, and other secondary sources used to compile national accounts statistics is routinely assessed.

3.3 Statistical techniques
— Statistical techniques employed conform to sound statistical procedures.

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

i. ***Data compilation procedures are sound.***

- Compilation procedures minimize processing errors such as coding, editing, and tabulation errors.

- Adjustments to unit records are made only when clearly warranted (e.g., outliers are not replaced or modified unless clearly required).

- Procedures for imputation and adjustment for nonresponse are soundly based.

- Appropriate use is made of ancillary, and benchmark information in compiling population estimates.

ii. ***Appropriate measures are taken to validate the source data.***

- Sound estimation techniques are employed to adjust data for missing observations in statistical collections.

- Adjustments for undercoverage and/or population units out of scope follow appropriate guidelines. Grossing-up factors are derived scientifically, based on sample design.

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

i. ***Sound adjustments are employed to make source data consistent with national accounts requirements.***

- Statistical procedures used to incorporate unobserved activities (including informal, hidden, and illegal activities) follow a detailed, case-by-case, approach using specific sources that are most closely related to the estimated variables and pertinent to the reference period.

Production approach procedures

ii. ***Output estimates are compiled at a sufficient level of industrial detail.***

- Output estimates are compiled at least at the level of all divisions of the classification (e.g., two-digit ISIC), preferably at the group (three-digit) or class (four-digit) level.

iii. ***Intermediate consumption estimates are compiled at a sufficient level of detail.***

- Intermediate consumption estimates are compiled at least at the level of all divisions of the classification (e.g., two-digit ISIC), preferably at the group (three-digit) or class (four-digit) level.

iv. ***The reliance on fixed ratios derived from benchmarks or other sources is monitored.***

- In the total estimate of value added, the use of fixed ratios that are more than five years is viewed as limited (less than 20 percent).

- In the estimates of value added for the most important industrial groups (e.g., ISIC one-digit level), the use of fixed ratios that are more than five years old is limited.

v. ***Proper techniques are used to address specific issues of GDP compilation.***

- **Owner-occupied dwellings**: output is valued as the estimated rentals that tenants would pay for similar accommodation.

- **Work in progress**: the following are treated as work-in-progress:
    - growing crops;
    - standing timber;
    - stocks of fish;
    - livestock reared for purposes of food;
    - large construction projects;
    - output of large equipment, such as ships.

- **Inventory valuation adjustment**:
    - if inventories data are used in the estimates of output, output is adjusted for holding gains/losses accruing on inventories;
    - If inventories data are used in the estimates of intermediate consumption, intermediate consumption is adjusted for holding gains/losses on inventories.

- **Consumption of fixed capital:** the perpetual inventory method is used as the conceptual basis for estimating consumption of fixed capital.

- **Cash vs. accrual:** the cash data are converted to accrual by allocating them to the period to which they relate, in particular for the data on:
    - taxes and subsidies on products;
    - government revenue data;
    - government expenditure data.

vi. ***Proper procedures are followed for compiling volume measures of GDP.***

- **Double indicator method:** suitable deflators/price indices are used to deflate:
    - output at least at the two-digit level of classification of activities;
    - intermediate consumption at least at the two-digit level of classification.

- **Single indicator methods**:
    - if production indices/volume data are used to extrapolate value added, the volume extrapolators are representative;
    - value added at current prices is not deflated directly by output or input prices.

- **Volume measures of taxes/subsidies on products** are estimated by applying base-year-tax rates to the volume of transactions subject to a specific tax/subsidy or by extrapolating the base-year tax/subsidy using a volume extrapolator of transactions subject to a specific tax/subsidy.

- **Output volume of trade margins** are estimated by applying the base-year-margin rates to the corresponding volume of sales or by extrapolating the base-year-trade margins using volume extrapolators of sales.

- **Measurement of volume change:**
    - GDP volume change is measured using annual chain indices;
    - if not, the base year is changed at least on a five-year basis.

Expenditure approach procedures

vii. ***The GDP estimates by expenditure components are derived independently.***

- In particular, the following are derived independently (i.e., not as a residual):
    - household final consumption expenditure;
    - gross-fixed capital formation;
    - changes in inventories.

viii. ***Expenditure estimates are compiled using detailed classifications.***

- Household final consumption expenditure is compiled at least at the one-digit level of the appropriate classification (such as COICOP).

- Government final consumption expenditure is compiled at least at the one-digit level of the appropriate classification (such as COFOG).

- Gross-fixed capital formation is compiled by activities and by type of assets.

- Changes in inventories are compiled by activities and type of inventories.

ix. ***The reliance on fixed ratios derived from benchmarks or other sources is monitored.***

- In the total estimates of each of the main expenditure categories (final expenditure of households, final expenditure of nonprofit institutions serving households (NPISHs), fixed-capital formation, changes in inventories, and exports and imports of goods and services), the use of fixed ratios that are more than five years old is limited (less than 20 percent).

x. ***Proper techniques are used to address specific issues of GDP compilation.***

- Government final expenditure excludes incidental sales.

- Expenses of residents abroad are included in household final consumption expenditure and in imports.

- Expenses of nonresidents in the economy are excluded from household final consumption expenditure and included in exports.

- Expenditures on items that are considered stores of wealth (such as jewelry, works of art) are included in the estimates of valuables.

xi. ***Adequate procedures are followed to compile volume measures of the expenditure components of GDP.***

- Dedicated price indices/deflators are used to deflate GDP components at least at the one-digit level of the corresponding classifications.

- Household consumption implicit deflator is consistent with the CPI.

- Government final consumption expenditure is derived by deflating cost components of output for final use.

- Correct methods are used to derive volume measures of changes in inventories (for example, changes at current prices are not deflated).

Specific quarterly compilation techniques

xii.   *Specific quarterly compilation techniques are in accordance with internationally accepted good practices.*

- An appropriate benchmarking technique (such as the Denton technique) is followed to combine annual estimates with the quarterly indicators.

- The quarterly compilation system derives quarterly series from seasonally unadjusted source data, thus providing unadjusted quarterly estimates.

- Seasonal adjustment of quarterly national accounts estimates uses internationally accepted procedures (X-12, TRAMO/SEATS, or other software using similar techniques).

3.4   Assessment and validation of intermediate data and statistical outputs
— Intermediate results and statistical outputs are regularly assessed and validated.

3.4.1   Intermediate results are validated against other information where applicable.

i.   *Intermediate results are validated against other independent data.*

- The data compiled from the main sources used to compile national accounts statistics are checked against other independent data sources.

3.4.2   Statistical discrepancies in intermediate data are assessed and investigated.

i.   *The discrepancies in intermediate data are routinely investigated and measures taken to remove them.*

- A systemic procedure exists to routinely assess the potential discrepancies in intermediate data.

- Appropriate adjustments are made to remove the discrepancies

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

i.   *The statistical discrepancies, if any, between GDP by activity and GDP by expenditure components are investigated.*

- Supply and use framework is used to investigate discrepancies and make the statistical outputs consistent.

- If not, a statistical discrepancy between GDP by production activities and GDP by expenditure components is shown explicitly.

ii. *Other indicators of problems are investigated.*

- Data are validated against unofficial estimates (e.g., from government units, universities, nongovernmental organizations, or international organizations) that employ plausible assumptions and methods, and differ significantly from the official GDP estimate.

- Studies are performed to ensure that bias in the GDP estimate is negligible and stable over time.

3.5 Revision studies
— *Revisions, as a gauge of reliability, are tracked and mined for the information they may provide.*

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

i. *Revision studies are undertaken on a regular basis.*

- Studies assess the initial estimates against revised or final estimates over a given period of time and comprise:
  - studies of scale (frequency of revision and number of time series revised)
  - studies of direction and magnitude of revisions.

- Studies of long-term trends in the revision pattern are conducted periodically to identify systematic biased revisions.

- Studies investigate the sources of errors, omissions, and fluctuations in the data and explain the methods of revising the data.

ii. *Measures are undertaken to incorporate the findings from revision studies in data compilation.*

- Findings from revision studies are used to define the optimal revision cycle that is largely driven by the availability of major data sources.

- Findings from revision studies are used to refine preliminary data and data collection programs for the subsequent periods (e.g., findings of persistent misreporting from enterprises are routinely analyzed and used in an internal quality control exercise).

- Time-series of revisions to output data are examined to identify the long-term trends in the revision patterns. Appropriate adjustments that reflect a predicted revision pattern are made at the time of initial estimates to enhance the accuracy of data.

- Adequate documentation on revisions is well maintained and includes description of causes of revisions, methods used to incorporate new data sources, and the way data are adjusted.

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.

i.   The periodicity of the statistics follows the IMF data dissemination standards (Special Data Dissemination Standard (SDDS) or General Data Dissemination System (GDDS)).

- GDP estimates are compiled quarterly (SDDS).

- GDP estimates are compiled annually (GDDS).

4.1.2   Timeliness follows dissemination standards.

i.   The timeliness of the statistical series follows the IMF data dissemination standards (SDDS or GDDS).

- The quarterly GDP estimates are disseminated within three months after the end of reference quarter (SDDS).

- The annual GDP estimates are disseminated within six-nine months after the end of reference year (GDDS).

4.2   Consistency
— Statistics are consistent within the dataset, over time, and with major datasets.

4.2.1   Statistics are consistent within the dataset.

i.   The statistical series is internally consistent.

- Annual national accounts are internally consistent.

- a set of consistent GDP estimates by activity and expenditure components is derived;
- if not, a statistical discrepancy between these estimates has not been large and has been stable over time;
- similar and consistent growth rates are obtained from the GDP series by activity and the GDP series by expenditure categories;
- total supply of goods and services matches the independently derived total uses;
- GDP estimates at current prices, volume measures, and (implicit) deflators are consistent within the "value = volume × price" framework.

- Quarterly GDP estimates are consistent with annual estimates.
  - concepts, definition, and classification for compiling quarterly GDP estimates are the same as those used to compile annual estimates;
  - the quarterly GDP estimates are consistent with the annual estimates.

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

i.   The statistical series is consistent over time.

- Consistent time series data are available for an adequate period of time (at least five years).

- When changes in source data, methodology, and statistical techniques are introduced, historical series are reconstructed as far back as reasonably possible.

- 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.

- Unusual changes in economic trends are explained in the analytical text included in the publication and in the database accessible to users.

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

i.   The statistics are consistent or reconcilable with other statistical frameworks.

- The national accounts statistics are largely consistent with balance of payments, government finance statistics, and other statistical frameworks, as relevant.

4.3   Revision policy and practice
— Data revisions follow a regular and publicized procedure.

4.3.1   Revisions follow a regular and transparent schedule.

i. ***The practice of revisions (e.g., from provisional estimates, for weight updates, for changes in methodology) follows a predictable pattern of which users of statistics are informed.***

- The revision cycle is predetermined and reasonably stable from year to year.

- The revision cycle is made known to the public.

- 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 explained.

- Adequate documentation of revisions is included in the publication of the statistical series and in the database accessible to users.

- 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.

4.3.2 Preliminary and/or revised data are clearly identified.

i. ***Users are informed about the preliminary nature of the data.***

- At the time of data dissemination, users are informed whenever data are preliminary.

ii. ***Users are informed about the revised nature of the data.***

- At the time of data dissemination, users are informed whenever data are revised.

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

i. ***Users are informed of results and studies of the revisions to the statistics.***

- Revisions are measured, assessed, and explained in the statistical publication and in the database accessible by users.

- Analysis of differences between the revised and preliminary data is published for major aggregates to allow an assessment of the reliability of the preliminary data.

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).

i.   The presentation of the statistics data is commensurate with users' needs.

- National accounts data are published in a clear manner; charts and tables are disseminated with the data to facilitate the analysis.

- Datasets are published with various levels of detail (disaggregation).

- Analysis of current-period developments is included with dissemination.

- Estimates are disseminated at a detailed level and with time series.

- Relevant national accounts series are disseminated in a seasonally adjusted form.

5.1.2 Dissemination media and format are adequate.

i.   Statistics are disseminated in formats to suit users' needs.

- Statistics are disseminated in ways that facilitate redissemination in the media (e.g., information releases).

- More comprehensive and/or detailed statistics are also disseminated in paper and/or electronic formats.

- Current statistics and longer time series can be accessed (perhaps for a fee) through an electronic database maintained by, or on behalf of, the data producing agency.

5.1.3 Statistics are released on a preannounced schedule.

i.   Statistics are released on the preannounced schedule.

- A schedule announces in advance the dates the statistics are to be released.

- The statistics are released punctually, that is according to the preannounced schedule.

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

i.   The statistics are made available to all users at the same time.

- The public is informed of the statistics being released and of the procedures to access them (e.g., Internet, publications).

- The statistics are made available to all interested users simultaneously.

- If the press is briefed in advance, embargos are imposed to prevent early public disclosure.

5.1.5 Statistics not routinely disseminated are made available upon request.

i.   *Statistics not routinely disseminated are made available to users upon request.*

- In addition to the statistics routinely disseminated, other general statistics are made available upon request.

- Customized tabulations can be provided (perhaps for a fee) to meet specific requests.

- The availability of additional statistics and of the procedures for obtaining them are made known.

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.

i.   *The metadata give adequate information about the meaning of the data and about the methodology used to collect and process them.*

- A comprehensive sources and methods document is published and updated regularly, and it includes the following:
    - information on concepts, definitions, classifications, data sources, compilation methods, statistical techniques, and other relevant methodological aspects and procedures;
    - departures from internationally accepted standards, guidelines, or good practices;
    - information on survey sources, such as survey characteristics (response rates, survey monitoring and studies of nonsampling errors) and other survey features (method, sample frame, sample design and selection, estimation and imputation techniques, etc.), and on the nature of administrative data sources and main linkages with related major data systems.

- The SDDS/GDDS metadata, SDDS summary methodologies, and other related descriptions are reviewed and updated regularly.

- The metadata are readily accessible (e.g., websites, statistical publications) and their availability is cross-referenced in data releases, and otherwise well publicized (e.g., in catalogs).

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

i. ***Different levels of metadata detail are made available to meet users' requirements.***

- General use information (e.g., a brochure) about the balance of payments and other external sector statistics (e.g., how to locate the data) is available and made public.

- More specialized use information (e.g., background papers, working documents) is available and made public.

5.3   Assistance to users
— *Prompt and knowledgeable support service is available.*

5.3.1   Contact points for each subject field are publicized.

i. ***Adequate assistance is given to users of statistics.***

- Prompt and knowledgeable service and support are available to users of statistics.

- All statistical releases identify contact points for enquiries by mail, telephone, facsimile, or by e-mail.

- Material to raise awareness on the use of statistics is available (e.g., for schools and research).

- Access points for clients to obtain statistical information are well advertised.

- Assistance to users is monitored and reviewed periodically (e.g., time of response to e-mail requests).

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

i. ***Catalogs of publications and other services are available to users of statistics.***

- Catalogs of publications, documents, and other services to users are available and updated regularly (e.g., each year if needed).

- The prices of the statistical products and services are clearly disclosed and assistance is provided in placing orders.