

**IMMEDIATE  
ATTENTION**

SM/02/328  
Supplement 2

October 18, 2002

To: Members of the Executive Board

From: The Secretary

Subject: **Italy—Report on the Observance of Standards and Codes—Data  
Module—Detailed Assessments Using the Data Quality Assessment  
Framework**

The attached supplement to the data module of the report on the observance of standards and codes for Italy (SM/02/328, 10/18/02) relates to detailed assessments using the data quality assessment framework and is circulated for the information of the Executive Directors.

It is expected that this report will be posted on the Fund's external website after **October 25, 2002**.

Questions may be referred to Mr. Cotterell, STA (ext. 36489).

Att: (1)

Other Distribution:  
Department Heads



INTERNATIONAL MONETARY FUND

ITALY

**Detailed Assessments Using the Data Quality Assessment Framework (DQAF)**

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October 18, 2002

This document contains a detailed assessment by dataset of the elements and indicators that underlie the data quality dimensions discussed in Italy's Report on the Observance of Standards and Codes (ROSC)—Data Module. It also includes as appendices a summary of the Special Data Dissemination Standard, the DQAF generic framework, and the results of the users' survey.

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## ACRONYMS

<i>1993 SNA</i>	<i>System of National Accounts 1993</i>
ASIA	Statistical Register of Active Enterprises
ATECO	Attività economica (the Italian classification of economic activity)
BI	Bank of Italy
<i>BPM5</i>	<i>Balance of Payments Manual</i> , fifth edition
CPI	Consumer Price Index
COFOG	Classification of Functions of Government
COICOP	Classification of Individual Consumption by Purpose
DQAF	Data Quality Assessment Framework
DSBB	Dissemination Standards Bulletin Board
ECB	European Central Bank
EMU	Economic and Monetary Union
<i>ESA 95</i>	<i>European System of Accounts 1995</i>
ESCB	European System of Central Banks
EU	European Union
Eurostat	Statistical Office of the European Communities
GDP	Gross Domestic Product
GNP	Gross National Product
<i>GFSM 2001</i>	<i>Government Finance Statistics Manual, 2001</i>
HICP	Harmonized Index of Consumer Prices
HBS	Household Budget Survey
ILO	International Labor Organization
IMF	International Monetary Fund
ISIC	International Standard Industrial Classification of all Economic Activities
Istat	National Institute of Statistics
LFS	Labor Force Survey
MFI	Monetary Financial Institution
<i>MFSM</i>	<i>Monetary and Financial Statistics Manual</i>
MEF	Ministry of Economy and Finance
NACE	Standard Classification of Economic Activities within the European Communities
ODC	Other Depository Corporation
OECD	Organization for Economic Cooperation and Development
PPI	Producer Price Index
PRODCOM	List of Products of the European Communities
ROSC	Report on the Observance of Standards and Codes
SDDS	Special Data Dissemination Standard
SISC	Credit System Information Service
SISTAN	National Statistical System
SITC	Standard International Trade Classification
UIC	Italian Foreign Exchange Office

## **DETAILED ASSESSMENT USING THE DATA QUALITY ASSESSMENT FRAMEWORK (DQAF)**

The following detailed information on indicators of statistical practices in the areas of the national accounts, price, government finance, monetary, and balance of payments statistics was gathered from publicly available documents and information provided by Italy's 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 Italy's Report on the Observance on the 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 statistics is clearly specified***

The Legislative Decree 322/1989 places the National Institute of Statistics (Istat) at the center of the National Statistical System (SISTAN), which covers the statistics offices of all levels of government and the chambers of commerce, industry, crafts industries, and agriculture. The Committee for Directing and Coordinating Statistical Information (Comstat), over which Istat presides, defines and issues binding directives for executing the National Statistical Program. This program details Istat's responsibility for, among other things, the national accounts. Istat is the only official producer of national accounts data and also the agency that reports national accounts data to the European Commission for the purposes of monitoring the Maastricht criteria.

The Commission for Guaranteeing Statistical Information, an independent body set up in the Office of the Premier, has the task of ensuring the impartiality and completeness of the information produced, the quality of the statistical methodologies and information technology systems used, the surveys' compliance with the directives of European Community bodies, and the protection of the confidentiality of personal data.

###### **0.1.2 *Data sharing and coordination among data producing agencies are adequate***

The law creating SISTAN contains provisions on data sharing and coordination within the system. Directives issued by Comstat have further strengthened these provisions. In addition, Istat has developed statistical information systems utilized throughout SISTAN for sharing data. Istat also cooperates closely with agencies that do not belong to SISTAN, such as the BI and the MEF, to establish data sharing protocols and agreements.

Istat is part of the European Statistical System<sup>1</sup> and accordingly coordinates and shares data with Eurostat.

*0.1.3 Respondents' data are to be kept confidential and used for statistical purposes only*

Comprehensive confidentiality rules covering all statistical activities have been put in place. Legislative Decree 322/1989 specifies that dissemination may occur only in an aggregate form and in a manner by which it is not possible to identify data for any individual person or entity. In addition, the Law on the National Statistical Program of December 1994 establishes strict confidentiality rules for data included under the National Statistical Program. In all statistical surveys, respondents are informed in writing of their rights and obligations with

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<sup>1</sup> The European Statistical System comprises Eurostat and the statistical offices, ministries, agencies, and central banks that collect official statistics in the countries of the European Economic Area. These presently comprise the European Union Member States, Iceland, Norway, and Liechtenstein. The System concentrates mainly on European Union policy areas but, with the extension of common policies, harmonization has been extended to nearly all statistical fields.

The System finds its legal basis in three major acts, all adopted in 1997. The constitutional basis derives from the Article 285 of the Treaty of Amsterdam, which stipulates that the Council of the European Union "...shall adopt measures for the production of statistics where necessary for the performance of the activities of the Community." In February 1997, the Council adopted a Regulation defining the division of responsibilities between national and Community statistical authorities. This Regulation also laid down the basic conditions, procedures, and general provisions governing official statistics at European Union level. A Commission Decision of 1997 clarified the role of Eurostat. It also reaffirmed that Community statistics should be scientifically independent, transparent, impartial, reliable, pertinent, and cost-effective.

At the heart of the System is the Statistical Program Committee. This Committee, made up of Eurostat and the heads of the Member States' national statistical offices, agrees a five-year program to be implemented by the national authorities and monitored by Eurostat. The Statistical Program Committee coordinates the following activities:

- Development of common classifications, methodology and definitions
- Implementation of common statistical surveys based on harmonized methods
- Collection, analysis, and dissemination of statistical data for the European Union

A main advisory body closely linked to the European Statistical System is the Committee on Monetary, Financial, and Balance of Payments Statistics. This Committee mainly deals with statistics that are necessary for the European Monetary Union.

regard to the provision of information, and they are assured that the information they provide will be used for statistical purposes only.

Special aggregation rules have been developed to ensure that indirect disclosure of individual data does not occur when aggregations of data are presented. For instance, access to individual data is restricted to staff who require the information in the performance of their duties. Provisions are in place to supervise analysts that require access to disaggregate data.

Approval is required in advance for staff to work outside normal working hours in the building where the national accounts directorate is located. In addition, there is always an (armed) guard in the office if any staff member is working there. No guards are present in the building when no staff are working, but they are posted in the immediate vicinity.

Detailed data from basic statistics are provided by the compiling services on request of the national accounts directorate. Part of the basic statistics are on a Unix system, which provides access either to all staff in the national accounts directorate or nobody. This means that individual information is accessible to a large number of people. Some basic statistics use Oracle, which restricts access to individuals (that is, the persons responsible for their elaboration in the national accounts directorate). It is intended that Oracle will replace the Unix system in the future.

All workstations are password protected.

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

Legislative Decree 322/1989 requires all government agencies, bodies, and administration offices to supply any data and information for surveys that are part of the National Statistical Program. Separate legal provisions acknowledge Istat's power to access administrative, even computerized, files of public administration offices, government agencies, and companies controlled by such administration offices.

The legal decrees approving National Statistical Programs specify which statistical surveys carry the mandatory requirement of private individuals and entities to supply all the data and information that is requested of them.

**0.2 Resources**

*0.2.1 Staff, financial, and computing resources are commensurate with statistical programs*

At the end of 2001, Istat employed a total staff of 2,613, of which 2,240 were permanent and 373 contractual employees. In comparison with 2000, permanent staff increased around 4 percent; the considerable number of contractuels in 2001 can largely be attributed to temporary needs associated with the general censuses. In spite of the increased staff resources, 149 projects (37 of which are the result of the European Community regulations)

planned for execution in 2001 had to be postponed until 2002. The extensive requirements of the EU in the domain of new and timelier statistics are a major contributor to the pressure on Istat's resources.

The national accounts directorate has a staff of 117, of which 23 are temporary with fixed-term (typically 2-3 year) contracts. During the preparations for the introduction of the *European System of Accounts 1995 (ESA 95)*, the number of temporary staff was larger. After the introduction, work has become much more detailed and wider in scope. These aspects have been recognized in the number of staff allocated to the directorate. Still, the directorate has requested that the number of staff grow to 150 by 2005.

The number of staff may be considered too small in comparison with the current workload. Among the causes of the workload should be mentioned (i) the timeliness of the quarterly accounts, which was moved from 80 to 70 days; (ii) the timeliness of the regional accounts, for which the lag is scheduled to be reduced from 18 to 12 months; (iii) the implementation of the recommendations of the Eurostat task force regarding the treatment of working days in the seasonal adjustment of the quarterly series; (iv) the development of quarterly government data that have to be provided to the European institutions by June 2002.

Computing resources are sufficient in the national accounts directorate. For instance, there are 95 workstations for every 100 Istat employees. All staff dedicated to statistical work (about 49 percent of total staff and about 87 percent of staff in the National Accounts Directorate) have access to a workstation.

#### *0.2.2 Measures to ensure efficient use of resources are implemented*

Istat makes use of a wide range of efficacy, efficiency, structural, economic, and financial indicators to provide management with a mechanism to monitor institutional performance from both a quantitative and qualitative perspective. These indicators are published in the Istat's *Annual Report*.

Istat's Governing Board has the task of optimizing available financial resources for the statistical programs, as well as the evaluation of costs against the activities to be carried out.

It would appear, however, that further efficiency gains could be made, in particular in view of the low response rates to the major economic surveys (see further item 3.1.1).

### **0.3 Quality awareness**

#### *0.3.1 Processes are in place to focus on quality*

Istat has put many measures in place to maintain and improve quality. For instance, Istat's Methodological Studies Office focuses on methods and techniques for survey quality control. On a broader level, Comstat, issues binding directives relating to SISTAN agencies on methodological and qualitative aspects of the National Statistical Program.

The focus on quality is also apparent from the Legend of Quality Measures published in the *2001 Italian Statistical Yearbook* and from Istat's leading role in the Eurostat expert group on quality aimed at providing guidance to the national statistical offices of EU member states.

*0.3.2 Processes are in place to monitor the quality of the collection, processing, and dissemination of statistics*

By law, the overall monitoring of the quality of statistics is to be undertaken by the Commission for Guaranteeing Statistical Information, an independent body set up to ensure the impartiality and completeness of the information produced under the National Statistical Program. Quality is also monitored by the SISTAN Quality Circles, which have oversight functions on progress of the National Statistical Program.

An example of the processes that Istat has put in place to monitor the collection of statistics is the Information System for Survey Documentation and Quality Control. This system manages both qualitative information and quality indicators related to each phase of the conduct of statistical surveys.

The quality of the national accounts statistics is also subject to scrutiny from the EU. A special role in this respect is played by the Gross National Product Committee (better known as the GNP Committee), which is made up of statistics experts of all member states, formulates opinions on the quality of the national accounts estimates reported by the national authorities, and may also give recommendations. Furthermore, in view of the importance of the GDP estimates for the financing of the EU, in 1995 the European Court of Auditors gathered the opinions of national accounts experts about the comparability and reliability of the member states' national accounts. This investigation led to a research project of which the final results were presented to the GNP Committee in June 1998.

*0.3.3 Processes are in place to deal with quality considerations, including tradeoffs within quality, and to guide planning for existing and emerging needs*

Quality considerations were a major reason for Istat's institutional reorganization in August 2000, which reflected the philosophy that more emphasis should be placed on pertinence, promptness, and ease of use of the statistical information. In accordance with this philosophy, many changes have been introduced or are planned in the near future. These measures refer in particular to reducing the delay with which statistics are released and improving their accessibility, whether in hard copy or electronic format.

## **1. Integrity**

### **1.1 Professionalism**

#### *1.1.1 Statistics are compiled on an impartial basis*

The Commission for Guaranteeing Statistical Information is charged with ensuring the impartiality and completeness of the information produced by Istat. The commission views impartiality as being composed of two elements: first, data should be a truthful description of reality; second, data should be simultaneously disseminated to all users. Impartiality was also one of the cornerstones of Istat's reorganization of August 2000 according to the following official text: "Independence, impartiality, reliability, pertinence of the statistical information, reduction of the burden on respondents, and protection of statistical secrecy and privacy are the fundamental criteria inspiring the documents setting down the rules for implementing the organization decree."

#### *1.1.2 Choices of sources and statistical techniques are informed solely by statistical considerations*

There is no evidence that Istat is subject to outside pressure in its choice of sources and statistical techniques.

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

Istat investigates on a daily basis any erroneous interpretation, particularly in the press, of its statistics and takes appropriate action (for instance, by requesting the publication of a response).

Istat's policy is to avoid any misunderstandings by providing ample information with the releases. The Press Office has instituted a call-in service whereby journalists may obtain explanation of the information disseminated. Senior researchers are present at most press conferences to explain the data, particularly in cases when methodological changes have been introduced. Istat's president may also indirectly comment on erroneous interpretations by giving an interview to the major newspapers.

### **1.2 Transparency**

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

The complete set of documents that articulate the terms and conditions under which Istat executes the statistical program is available to the public on the SISTAN website. Furthermore, the *Carta dei Servizi Esterni della Diffusione* (Charter of Dissemination Services) is available to the public on the Istat website.

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

National government access is not given prior to release, and data releases are not signed off by any outside authority.

Eurostat has access to the preliminary quarterly national accounts (those published 45 days after the reference quarter) in greater detail than is made available to the general public. Whereas only the GDP total at constant prices and seasonally adjusted is published, Eurostat also receives information on final consumption, gross fixed capital formation, exports, imports, and inventories. However, this should not be seen as prior government access because, as was already noted under item 0.1.2, Eurostat and Istat can be regarded as belonging to the same overall statistical system. It is important to note that Eurostat is prohibited from disseminating the nonpublished information to any users, including the other services of the European Commission. Although there is not advance government access or, for that matter, an infringement on the principle that statistics should be made available to all users at the same time, it would nevertheless be useful for Istat to make more widely known what kind of nonpublished information it provides to Eurostat.

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

All Istat publications are identified as being produced by Istat.

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

Advance notification of methodological changes is provided through seminars and papers disseminated throughout the academic community. Changes under consideration are also indicated—in advance—in the text of the *Three Year National Statistical Plan*, in such publications as *Quick Notes*, and *Information Series*.

**1.3 Ethical standards**

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

All public servants take an oath about conduct expected of them before they enter the public service. In addition, by signing the employment contract any new Istat staff member undertakes not to disclose individual data. New employees follow a training program of one week, in which staff ethics is one of the subjects treated. Istat has no involvement in the instructions given to statistical staff employed by other agencies, such as the large number of temporary enumerators that were hired by the municipalities to conduct the 2001 census.



## **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*

Since April 1999, the general framework for compiling the Italian national accounts statistics has been the *ESA 95*. Data according to *ESA 95* are available from 1970 onward, with reduced detail for the period 1970-1991.

### **2.2 Scope**

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

The national accounts statistics cover all tables and accounts that the Intersecretariat Working Group on National Accounts has defined as a minimum requirement for implementation of the *1993 SNA*, as well as those whose compilation the Working Group has recommended.

The minimum set refers to the following:

- 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 world accounts (until net lending).

The recommended set refers to the following:

- quarterly value added and GDP at current and constant prices by activity,
- quarterly expenditures of GDP at current and constant prices.

Beyond these core tables and accounts, Italy compiles several extensions, in particular the following:

- regional accounts and simplified provincial accounts on an annual basis,<sup>2</sup>
- annual satellite accounts for agriculture,

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<sup>2</sup> Regional accounts involve at this moment two levels: regions (20 areas according to the second digit level of the EU Nomenclature of Territorial Units, NUTS) and provinces (103 NUTS3 areas). Work has been undertaken on the compilation of some data for local authorities (784 local labor areas consisting of clusters of municipalities). For the regions, goods and services as well as employment data are published by 25 branches; 10 government functions; 12 private consumption functions; and 2 types of capital goods.

- annual social protection accounts,
- national accounts matrices with environmental extensions (NAMEA) for 1991, 1992, and 1993, to be continued with a biannual periodicity.

The Italian system of accounts has also made progress in further widening its scope by developing Social Accounting Matrices (SAMs) and a satellite account for nonprofit institutions. For the future, satellite accounts are planned for tourism and culture.

The scope of the national accounts published by Istat cover the current transactions and the capital account. The BI compiles financial accounts for institutional sectors. No balance sheets or other changes in asset accounts are being compiled. However, they are considered for development, starting with the general government and financial corporation sectors' balance sheets, which should be published in about two years.

Most notable concerning the scope of the accounts is that Italy has not published input-output tables on a regular basis. The last such table dates back to 1992, even though the annual accounts use the input-output framework during the compilation process. Istat's hesitation to publish annual input-output or supply and use tables relates to uncertainties about the quality of the intermediate consumption matrix. Publication would therefore necessarily involve the availability of a recent survey on cost structures. Two cost structure surveys were carried out for 1996 and 2001, just in time to satisfy the EU regulation that requires supply and use tables for 1995-1999 by the end of 2002 and the supply and use tables for 2000 by the end of 2003.

The Italian national accounts define residence in accordance with the *1993 SNA* and the fifth edition of the *Balance of Payments Manual (BPM5)*. The economic territory is defined as in the pertaining Decision of the European Commission of July 1991. Included are the following in particular:

- territorial enclaves such as Italian embassies in the rest of the world,
- bonded warehouses and free zone activities,
- workers who work only part of the year in another country.

The Vatican state and San Marino are not included.

The production boundary is in accordance with the *1993 SNA*. Thus, the scope of output measurement includes, among other things, the following items:

- 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.

Estimates of illegal output sold to willing buyers are not included, but estimates are made for hidden activities such as smuggling and fiscal fraud.

Although the *1993 SNA* includes own-account production of all goods for own final consumption and the production of all goods for own-account fixed capital formation in productive activities, the Italian national accounts follow the convention of *ESA 95* paragraph 3.08 b, which says that the estimates for own-account production of households should be limited to the production, storage, and processing of agricultural products and to the construction of dwellings.

The asset boundary is defined in accordance with the *1993 SNA*, implying that the following items are in scope for determining the assets boundary:<sup>3</sup>

Among tangible assets:

- defense related assets that could be used for civilian purposes,
- valuables,
- historical monuments when they would be sold (the Italian system of accounts does not include balance sheets)

Among intangible assets:

- mineral exploration (whether successful or not),
- systems and standard applications computer software and data bases (purchased or built in-house),
- entertainment, literary or artistic originals,
- patented entities,
- leases and other transferable contracts.

At variance with *1993 SNA* recommendations, agricultural work-in-progress is not recorded. However, this cannot be held against the Italian accounts, as these recommendations have remained rather controversial among national accounts experts. Istat keeps this deviation under close review.

## **2.3 Classification/sectorization**

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

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

The *1993 SNA* is followed to classify institutional units and transactions. Activities are classified according to the national classification ATECO91, for which the first four digits coincide with the NACE Rev.1. Producing units are further broken down by size and by

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<sup>3</sup> Irrespective of the coverage that is actually achieved.

category, such as private market, government market, and government nonmarket. Products are also classified by the ATECO91, for which the first four digits coincide with the EU Classification of Products by Activity. Capital formation is shown in six categories according to the Pi6 level defined in *ESA 95*. Foreign trade data are classified according to the Harmonized System. Household expenditure is published by COICOP expanded for national purposes. COFOG is used to classify functions of government.

## **2.4 Basis for recording**

### *2.4.1 Market prices are used to value flows and stocks*

The valuation rules used for recording flows are in accordance with the *1993 SNA*. Market output is valued at basic prices and output for own-use at equivalent market prices. However, to accommodate data users, output and value added are also published by industry valued at purchaser's prices and at true basic values. The valuation of intermediate consumption is at purchasers' values, that is, including sales, excise taxes, and nondeductible value added taxes. The deductible part of the value added taxes is excluded from the valuation of final uses.

The mission was not able to ascertain whether corrections are made when transfer prices are detected. If no such corrections are made, this would be at variance with best practices.

Information on insurance and freight for merchandise imports is available from the Italian Foreign Exchange Office (UIC), so that both 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.

### *2.4.2 Recording is done on an accrual basis*

All flows are in principle recorded on an accrual basis. However, in practice the quarterly accounts cannot fully adjust the government source data that are on a cash basis (for instance, local government expenditure).

### *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 recorded on a gross basis. It should be noted that basic statistics for the national accounts always split enterprises into local units, but the additional split on the basis of economic activity (leading to local kind of activity units, or establishments) is only made for enterprises with 250 employees or more. An exception to this rule is that, for the benchmark year 1992, labor data were available with a breakdown by principal and secondary activities for all productive units,

large or small. Deviations from the internationally accepted standards are kept under review (see also 5.2.1).

### **3. Accuracy and reliability**

#### **3.1 Source data**

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

Istat uses the Statistical Register of Active Enterprises (ASIA) as the common sample frame for its enterprise surveys. This register is fed from large administrative registers and surveys carried out by Istat and is updated on a continuous basis (see below). The information collected using ASIA, together with information from administrative sources, will be used to build up a Statistical Information System (SIS) that will integrate a wide range of statistics on enterprises, including government units. Because ASIA was not operative until 1996, it was not ready for the purposes of the national accounts benchmark year 1992. The 1991 census, which was used for the purposes of the benchmark, excluded certain categories of small businesses, especially those operated from the owners' own residences (such as lawyers, dentists, and artists). The benchmark national accounts included estimates for these small units on the basis of the fiscal register, updated for the later years by current information on jobs. Since the basic statistics moved to ASIA, the surveys cover all small units, so that the adjustment was no longer necessary.

Previously, the business register was fed only from the ten-yearly economic censuses, and even then it excluded enterprises with ten or fewer persons employed. In 1994, work started to improve the exhaustiveness and methodology. The present ASIA is built up from the registers kept for tax purposes, the chambers of commerce, and the social security institute, as well as other sources such as the register of the Electric Power Board. The combination of these registers is strongly facilitated by the existence of unique fiscal numbers that all legal persons need to have (natural persons also have a unique number). New enterprises request their fiscal numbers via the chambers of commerce at the time of inscription. These numbers are needed at nearly all occasions; for instance, they appear on invoices and are required for obtaining essential services such as electricity.

The units in ASIA are enterprises and their local units; information on local kind of activity units will only be included after the results of the 2001 census become available. ASIA contains identifiers such as name and address, legal status, activity according to NACE, employment (number of employees and other workers), and turnover. Turnover data are available 16 months after the reference year; for instance, at the end of April 2002, the turnover data for 2000 appear in ASIA. This is two months faster than required by EU regulation.

ASIA has been checked against the findings of the 1996 intermediate census, which has led to a few adaptations. It was found that the intermediate census did not capture all units active

in the provision of services. On the other hand, the economic activities recorded in ASIA for enterprises turned out to be not always correct.

ASIA should contain only active enterprises. Eurostat has defined active as either having turnover in a period of one year (Italy measures this via the tax administration) or employing at least one employee/other dependant (measured in Italy by way of the social security registration).

Two main annual business surveys conducted by Istat are the Enterprise Accounts Survey for enterprises with 100 or more employees and the Survey on Small Enterprises for those with up to 100 employees (until 1997, the dividing criterion was at 20 employees). The two surveys are the main base of information for the economic activities in manufacturing and private services.

- The Enterprise Accounts Survey is an exhaustive survey covering, since 1998, about 8,000 enterprises. The main variables collected are turnover and receipts, cost structure, inventories, compensation of employees, employment, and assets and liabilities. The results are available 18 months after the reference year. The final results of a simplified version of the questionnaire sent to the same 8,000 enterprises are available after 9 months. Although these surveys are compulsory, the response rate is quite low, hovering around 53-55 percent.
- The Survey on Small Enterprises is a sample survey stratified by four-digit ATECO, region, and size class. The sample size differs from year to year; in 1995 it was 1.4 percent, while in 1998 it was 3.1 percent. Grossing up is done on the basis of number of workers and number of enterprises. The main variables collected are the same as by the Enterprise Accounts survey. The survey is also compulsory and has a response rate of about 50 percent, which again is rather disappointing. The final results are available 18 months after the reference year.

In addition, the PRODCOM survey should be mentioned. The PRODCOM survey is conducted as a result of a EU regulation dating from 1993 and is directed at units belonging to the extractive and manufacturing industries. Included are all local units of enterprises of 20 workers and over, and a sample of the enterprises with 3 to 19 workers. The two-page questionnaire collects information by type of product on output and energy consumption in volume and, where appropriate, in value. Provisional data are available after 18 months, final data are available 24 months after the reference year. About 63 percent of the enterprises respond on this questionnaire.

With a view to improving the availability of more timely and comprehensive information on the production process, the national accounts department is investigating whether the business accounts that Chambers of Commerce annually receive from 600,000 corporations can be exploited. This source provides 18 economic variables and is available ten months after the reference year (preliminary results). A disadvantage is that the activity breakdown is limited to three-digit NACE.

The table below summarizes for each NACE section the main basic sources for the annual accounts estimates and an assessment of their coverage. In constructing this table, the results of all current exhaustive and sample surveys that directly measure the activity have been considered as positive contributions to coverage. Estimates using indirect methods to improve exhaustivity have been considered as “soft” information, even though these estimates are often based on good-quality sources on employment such as the Social Security Institute and the labor force survey. Taken over the total of all activities, the coverage of the main sources should be considered as good.

MAIN SOURCES FOR THE ANNUAL ACCOUNTS

<b>Production Approach</b>		
<b>NACE Rev 1. section</b>	<b>Main source</b>	<b>Assessment of coverage</b>
Agriculture, hunting, and forestry	<ul style="list-style-type: none"> <li>- Area and output data from Regional Agricultural Departments</li> <li>- Agricultural prices</li> <li>- Livestock sample survey, slaughter statistics</li> <li>- Data on agricultural inputs</li> </ul>	Good
Fishing	<ul style="list-style-type: none"> <li>- Fishermen's cooperatives</li> <li>- Fish markets</li> <li>- Harbor offices</li> <li>- Administrative records from municipalities</li> </ul>	Good
Mining and quarrying	- Enterprise surveys by Istat and the Ministry of Industry	Good
Manufacturing	- Business accounts surveys	Good
Electricity, gas, and water supply	- Detailed data from the Electric Power Board	Good
Construction	<ul style="list-style-type: none"> <li>- Statistical survey of building activity</li> <li>- Public works survey/budget data</li> <li>- Business/household surveys on maintenance</li> <li>- Business surveys on cost</li> </ul>	Good
Wholesale and retail trade, repair of motor vehicles, and personal and household goods	- Business survey	Poor/satisfactory
Hotels and restaurants	- Business survey	Poor
Transport, storage, and communication	<ul style="list-style-type: none"> <li>- Italian State Railways</li> <li>- Volume data from Ministry of Transport and Navigation</li> <li>- Major air transport providers</li> <li>- Business survey for road transport and telecommunication</li> <li>- Postal service</li> </ul>	Satisfactory
Financial intermediation	- Data from supervisory bodies	Good
Real estate, renting, and business activities	- Business accounts survey	Good

<b>Production Approach (continued)</b>		
<b>NACE Rev 1. section</b>	<b>Main source</b>	<b>Assessment of coverage</b>
Public administration and defense; compulsory social security	- Exhaustive budget data from central, state, and local authorities, as well as from other government bodies - Business surveys	Good
Education/ Health and social work	- Budget data (government) - Social Security Funds and budget data of local health units - Business surveys - Small firms survey	Good
Other community, social, and personal service activities	- See above - Domestic service monitoring unit of the National Institute for Social Insurance	Satisfactory (Poor for domestic services)
Net taxes less subsidies on products	- MEF - Treasury records for EU	Good
<b>Expenditure Approach</b>		
<b>Expenditure category</b>	<b>Main source</b>	<b>Assessment of coverage</b>
Household final consumption expenditure	- Household budget survey (HBS) - Commodity flow (SCI and PRODCOM survey) - Multipurpose household survey - Administrative sources	Satisfactory
Final consumption expenditure of nonprofit institutions serving households	- HBS - Multipurpose household survey - Administrative sources	Poor <sup>4</sup>
Government final consumption expenditure	- Budget data - Business surveys	Good
Acquisitions less disposals of tangible fixed assets	- Commodity flow - Business surveys - Administrative records on vehicle licenses	Satisfactory
Acquisitions less disposals of intangible fixed assets	- Business surveys - Italian Society for Authors and Editors	Good
Additions to the value of non-produced non-financial assets	- Budget records - Loans for land improvements	Good
Changes in inventories	- Business surveys	Satisfactory
Acquisitions less disposals of valuables	- Commodity flow approach	Poor

<sup>4</sup> Considerable improvements are expected on the basis of the 1999 census.



Expenditure Approach (concluded)		
Expenditure category	Main source	Assessment of coverage
Exports and imports of goods	- Foreign trade statistics	Good
Exports and imports of services	- Balance of payments	Good

The above sources are supplemented with a complete range of agricultural price indices, industrial producer price indices, the consumer price index, and unit values for foreign merchandise trade.

Whenever sampling takes place, scientific random sampling techniques are used. Istat uses proper imputation methods to handle nonresponse (such as using donors from the same sector of economic activity, size class, and region of the missing firm), and grossing up factors are derived scientifically (often by using a combination of number of workers and type of enterprise).

The surveys, in particular the business accounts surveys, provide sufficient information on turnover and other receipts, cost structure, inventories, personnel costs, employment, and balance sheet information. Sources on government budgets provide sufficient revenue and expenditure items, classified by economic and functional categories.

Both the quarterly Household budget survey (HBS) and the annual Multipurpose household survey are comprehensive (each sampling about 27,000 households) and represent all regions and most socio-economic groups. Still, the national accounts make some adjustments in respect of the reference population (such as for persons living in institutions) and the definitions (for instance, meal vouchers and other income in kind, betting wins, expenditure on major improvements of the dwelling, and the treatment of insurance transactions). Both household surveys use scientific random sampling techniques. Proper imputation methods are used to handle nonresponse, and grossing-up factors are derived scientifically. The HBS collects data on expenditure on nondurable and durable consumption items, housing, and valuables, as well as the value of goods produced on own-account. The Multipurpose household survey generates exclusively qualitative information on, among other things, medical services, leisure, entertainment, and holidays.

The General Accounts Department of the MEF provides on an annual basis revenue and expenditure data by chapter for central government (including defense). These data are available both on approximate accrual (assessment) and cash basis. Government entities outside the budget—social security funds, extrabudgetary funds, regional, provincial, and local government units—are required by law to report to the MEF on a quarterly basis. These data are only on a cash basis. The MEF is the source of data on tax yields for public agencies

at various levels. Finally, Istat collects data on budgetary revenue and expenditure items by economic and functional classification for government agencies, except central government.

Generally, these sources require reclassifications and other adjustments (particularly so in expenditure) to bring them in line with the needs of the national accounts.

In line with EU decisions, Italy records taxes and social security only in so far as they are likely to be collected. This is not the recording preferred by the 1993 SNA, but the EU practice comes within the flexibility allowed by the system.

Detailed structural data about agriculture are collected by ten-yearly censuses prescribed by the EU. The most recent one that is used for national accounts purposes dates from 1990-1991. The data are updated annually by means of the Farm Structure and Production Survey (with a sample size of 87,000 farms).

The General Census of Industry and Services, which collects structural characteristics of enterprises, local units, and institutions, also has a ten-yearly periodicity. The latest one for which data are available was conducted in October 1991. The intermediate Census of Industry and Services of 1996 was a large sample survey (about 15 percent) among enterprises in the ASIA register, updating information on legal form, workforce, economic activity and geographical location. Finally, the General Population and Housing Census should be mentioned. The most recent one for which data are available relates to October 1991. It should be mentioned that the full program of censuses was conducted in 2000/2001.

#### MAIN SOURCES FOR THE QUARTERLY ACCOUNTS

<b>Production Approach</b>		
<b>NACE Rev 1. sections</b>	<b>Main sources</b>	<b>Adequacy for quarterly estimates</b>
Agriculture, hunting, and forestry	- Pre-fixed cycle of production and harvest	Reasonable
Fishing	- Surveys/administrative data on quantities landed	Adequate
Mining and quarrying	- Monthly industrial production index - Input statistics from the coke and refinery industry	Adequate
Manufacturing	- Industrial production index for 15 activities	Adequate
Electricity, gas, and water supply	- Quantity data on electricity and gas	Adequate
Construction	- Indices of residential, nonresidential, and public sector construction - Employment statistics - Index on building materials	Adequate

<b>Production Approach (concluded)</b>		
<b>NACE Rev 1. sections</b>	<b>Main sources</b>	<b>Adequacy for quarterly estimates</b>
Wholesale and retail trade, repair of motor vehicles, and personal and household goods	- Fixed trade margins	Adequate
Hotels and restaurants	- HBS	Adequate
Transport, storage, and communication	- Revenues of air and sea transport enterprises - Goods and passenger rail traffic data - Motorway traffic data - Revenues of communication enterprises	Adequate
Financial intermediation	- Information from BI	Adequate
Real estate, renting, and business services	- Fixed input coefficients - Employment statistics	Adequate
Public administration, Education/Health and social work	- MEF data on assessment basis for central government and cash basis for local government - Employment statistics	Adequate
Other community, social, and personal service activities	- Employment data from LFS and social security	Reasonable
Net taxes less subsidies on products	- MEF data on adjusted cash basis	Adequate
<b>Expenditure Approach</b>		
<b>Expenditure category</b>	<b>Main sources</b>	<b>Adequacy for quarterly estimates</b>
Household final consumption expenditure	- HBS (for 19 of the 24 functions distinguished) - Turnover index - Import statistics	Adequate, but not fully consistent with sources used for annual accounts
Final consumption expenditure by government and nonprofit institutions serving households	- Expenditure data from public agencies	Adequate
Gross fixed capital formation	Commodity flow approach on the basis of: - Construction permits - Production index - Imports - Invoice/turnover statistics	Adequate
Changes in inventories	- None	Not adequate
Exports and imports	- Foreign trade statistics - Balance of payments	Adequate

Regarding prices, extensive use is made from industrial producer price indices, the consumer price indices, and unit values of foreign merchandise trade. Other price information includes sale prices of agricultural products, price indices of purchases by agricultural enterprises, the construction price index for building motorways, and the construction price index for residential buildings.

The industrial production index is available 45 days after the reference month. Monthly retail sales data are available with a time lag of 55 days, which might be considered for improvement. On the whole, the available source information is adequate for compiling the quarterly accounts; an exception is the category changes in inventories, for which a reliable short-term source is lacking.

The seasonal adjustment is performed with the Tramo-Seats program in accordance with the recommendations of Eurostat's *Handbook on Quarterly National Accounts*.

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

Generally, the source statistics provide data that are consistent with the definitions, scope, and classifications of national accounts estimates. This is also true for the time of recording, reference periods, and valuation.

### *3.1.3 Source data are timely*

In several cases, the data collection system does not provide data in time for making national accounts estimates. It should be mentioned that the estimates are published shortly after the end of the reference period: the annual national accounts are published on March 1; the preliminary quarterly national accounts 45 days after the reference quarter; and the first regular quarterly estimate 70 days after the reference quarter. The quarterly accounts have benefited from significant improvements in the speed at which in various short-term indices—in particular those on prices, retail sales, foreign trade as well as information on turnover and labor—become available. An important source of guidance is the Action Plan developed by Eurostat (in close collaboration with the ECB) in 2000 to improve the quality, including promptness, of short-term economic statistics.

For the purposes of the first estimates of the annual accounts, only the data of less than 1,000 large enterprises from a “rapid survey” are available. One year later, the full results of the “rapid survey” are available, along with partial results of the structural business surveys among the large and small enterprises. Normally, for the purposes of the third estimates, the complete data from the structural business surveys can be used.

Regarding the quarterly accounts, a distinction should be made between the preliminary estimates and the first regular estimates. Of course, the first mentioned are based on less

complete data than the latter. For the preliminary estimates (those published 45 days after the reference quarter), the following basic data are usually missing:

- One month of foreign trade data
- Two months of foreign trade unit values
- All indicators for construction, except for the production of materials
- One month for the rail transportation indicator
- About half of the indicators for financial services
- The HBS
- About half of the indicators for nonmarket activities and collective consumption

For the first regular estimates, part of the indicators may still be missing—for instance, an important section of the indicators for construction.

The paucity of source data for the preliminary estimates may make the estimates subject to fluctuation when gradually more information becomes available. The importance of missing short-term indicators depends considerably on the character of the variable to be measured. For instance, value added in nonmarket services shows a very gradual change, whereas the dynamics in construction make the lack of information a bigger concern. Fortunately, a quarterly source from a branch organization in construction promises to generate quarterly volume indicators. Istat estimates any missing data using Arima models or other time series techniques, sometimes introducing additional explanatory variables such as exchange rates or prices for raw materials.

It would appear that Istat is usually successful in filling the gaps, as the revisions in GDP quarter-to-quarter growth rates, if they occur at all, are mostly limited to one-tenth of a percentage point. However, an occasional big change of half a percentage point may occur, warranting further investigation. Istat has made a comparative study of revision of GDP quarterly growth rates in the United States and other countries that shows, according to the authorities, that the reliability of Italy's quarterly accounts estimates compares favorably.

### **3.2     *Statistical techniques***

#### **3.2.1 *Data compilation employs sound statistical techniques***

Although some elements of the income approach are worked out, the annual accounts are mainly compiled according to the production and the expenditure approaches. The largely independent estimates of the two approaches are balanced in a final integration process. Discrepancies between the approaches are mitigated because the estimates are only in part level estimates that are exclusively based on current sources (examples of such direct level estimates are foreign trade taxes, and capital formation). Many estimates start out from the balanced accounts of the benchmark year (1992), on which the rate of change is applied by comparing current year and previous year data in the source statistics. An example is the section of household final consumption expenditure based on the HBS.

The techniques to estimate quarterly accounts are also varied. They include elements of the annual compilation techniques and quarterly disaggregation methods. The choice of the techniques depends on available information. When the same information is available for annual and quarterly data, the quarterly estimates mimic the annual ones. When the sources used for the annual accounts are not available on a quarterly basis, an indicator is used to determine a quarterly pattern in the given annual data and to make quarterly estimates for the year for which annual estimates do not yet exist. Annually, statistical tests are carried out to test the indicator model and dummies may be introduced in case the model does not yield accurate forecasts. Istat uses an Italian version of the Chow-Lin method.

#### PRODUCTION APPROACH PROCEDURES

The output estimates are made in sufficient detail. The estimations for the annual accounts are made for 101 categories of economic activity, which represents an intermediate level between the two- and three-digit levels of NACE Rev.1. The publications show 92 categories in the 1992 input-output table and 50 categories in the later years.<sup>5</sup> The quarterly accounts are compiled for 32 categories of economic activity and published for 18 categories.

Intermediate consumption estimates are compiled at the same level of detail as output, that is, between the two- and three-digit levels of NACE Rev.1. This detail is not particularly fine, as usually the three or four digit level is considered good practice. Improvements in this respect would require the availability of more current source data on the breakdown of intermediate consumption, such as frequent cost structure surveys among enterprises.

As indicated above, the national accounts are benchmarked on 1992, and so the estimates for several variables are influenced by the levels and ratios used for that particular year. However, the authorities do not view the estimates of the later years as being based on any fixed ratios because, in the process of balancing the data for each year, adaptations in the ratios may be introduced. As the estimation process of each new year starts out from the balanced data for the previous year, a chaining effect is introduced that causes ratios (as far as they are used) to change gradually over time. Accordingly, it would seem that the accounts partially rely on semi-fixed ratios, warranting a very regular, say five-yearly, update of the benchmark.

The output of owner-occupied dwellings is valued as the estimated rentals that tenants would pay for similar accommodation. Formerly, the owner-occupiers were asked to make a self-assessment of such rentals, but since 1994 the more refined methodology laid down in a Eurostat decision is followed. Census data made it possible to define categories of houses defined by clusters of quality characteristics. By means of the HBS, actual prices that tenants pay for these categories are collected and applied to the stock of dwellings in the different categories.

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<sup>5</sup> For the period 1970-1992, the A31 level of breakdown of the NACE Rev.1 was used.

The Italian national accounts treat work-in-progress only partially in conformity with international guidelines. Crops, maturing trees, livestock reared for purposes of food (except calves), and fish are not recorded as output when they grow, but rather when harvested or sold.

In accordance with the international guidelines, progress in large construction projects is only recorded as work-in-progress if the producer and not the eventual user is the owner of the output produced. In Italy, this rule is approximated by recording fixed capital formation in proportion to the payments received by the producer or, if the construction project takes place on own account and for own use, as the work progresses. Continuing work on large equipment, such as ships, is recorded in the Italian national accounts as work-in-progress followed by a transformation into gross fixed capital formation on finalization of the equipment. This is not in accordance with *1993 SNA* paragraph 10.10 that recommends the same treatment as for structures. However, it is in accordance with the *ESA 95* paragraph 3.119 (4).

Inventory data are used in the estimates of output in the annual accounts, but according to the authorities no valuation adjustments are needed. In the period up until 1995, when inflation was considerable, the questionnaires requested respondents to value opening and closing stocks of inventories at average prices of the year. If the respondents indeed reported according to these instructions, holding gains or losses on inventories would not enter the valuation of value added. After 1995, revaluations have been presumed to be negligible in view of the low inflation rate, and the questionnaires no longer request the valuation of inventories at average period prices. In spite of these considerations, the authorities could give more attention to possible distortions of recorded value added as a result of the inclusion of holding gains and losses.

The estimates of consumption of fixed capital are based on the perpetual inventory method.

The deflators/price indices used for compiling volume measures of GDP are compiled at a detailed level and mostly they are appropriate for use on the categories of flow on which they are applied in terms of price concept, coverage, and reference period. Output prices have been constructed by weighting the PPI and export unit values, input prices by combining the PPI with import unit values. Prices for internationally traded services are calculated on the price change in the major partner countries, corrected for changes in the exchange rates.

The base year for the constant price data is 1995, for which a number of improvements were introduced. The annual accounts use the double deflator method with, since the 1995 base year, a breakdown comprising 101 categories both for output and intermediate consumption. However, as the double deflation method can generate unacceptable results, limits of usually between 1 and 2 percent have been set on the extent to which the ratio value added/output may change from year to year.

For health and education, specific volume indices have been constructed, whereas previously (as for most other services) labor input was used. Collective services are deflated by a weighted average of wage change by category of worker to correct for quality change in labor inputs. The 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. Trade data have been deflated by applying fixed margins on the volume of traded goods.

A simplified balancing exercise takes place at the end of the constant price calculations, whereby the constructed prices for intermediate consumption and the changes in inventories are among the categories where adaptations are considered acceptable. The implicit prices for changes in inventories may show wild movements as a result, but this is preferable over making adjustments in the other categories.

A system based on annual chained indices will be implemented during the course of 2003.

#### EXPENDITURE APPROACH PROCEDURES

In the annual accounts, no expenditure components are simply derived as a residual, even though the commodity flow method is extensively used for estimating gross fixed capital formation and parts of household final consumption expenditure. Currently, there are no sources for changes in inventories on a short-term basis and thus their value has to be estimated residually in the quarterly national accounts. Istat considers the qualitative data on inventories compiled by the Institute for Economic Studies and Analysis as less adequate for the purposes of the quarterly national accounts. The only solution would therefore be that Istat collects itself the necessary data from major holders of inventories. Such information would not only serve the quarterly national accounts, but also be a very useful indicator of the business cycle in its own right.

The classification detail in GDP by expenditure is reasonably adequate. In the annual accounts, the publication breakdown of household final consumption expenditure is into 54 purpose categories and 101 products; in the quarterly accounts, the breakdown is into 12 categories. Government final consumption expenditure is published in the annual tables at the one-digit COFOG level. In the annual accounts, published capital formation distinguishes Eurostat Pi6 categories of assets (Pi4 if crossclassified with the activities) and by 31 groups of owning industries. The quarterly accounts have a breakdown of fixed capital formation according to the Pi6 level. The annual publications contain information about changes in inventories by the type (industry of origin) of goods in the same detail as output; no information is published about the owning industries.<sup>6</sup>

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<sup>6</sup> Eurostat receives on a confidential basis information on changes in inventories by type of good.



The reliance on fixed ratios derived from benchmarks is very limited if one takes into account that the 1992 benchmark ratios are gradually adjusted as a result of the balancing exercise. However, as these semi-flexible ratios originally stem from a fairly old benchmark year, it would have been prudent to update the benchmark more frequently.

Istat uses proper techniques to address specific issues of GDP compilation, such as the following:

- Government final expenditure is exclusive of incidental sales.
- Although for national purposes mainly the domestic final expenditure of households is used, the national concept (that is, including expenses of resident households abroad and excluding expenditure by nonresident households on the economic territory) is also calculated.
- Expenditures on items that are considered stores of wealth (such as jewelry, works of art) are included in the estimates of valuables.

Dedicated price indices/deflators are used to deflate GDP components at the appropriate level of detail. The household consumption implicit deflator is consistent with the CPI.

Government final consumption expenditure is derived by deflating cost components of output for final use. The prices to deflate fixed capital formation are a weighted average of import unit values and elements of the PPI. Changes in inventories, which are expressed in average prices of the period in the basic statistics, are correctly deflated.

#### SPECIFIC QUARTERLY COMPILATION TECHNIQUES

The preliminary estimate of quarterly GDP, which is published 45 days after the end of the reference quarter, uses the same methodology as the regular quarterly national accounts, but more extensive use is made of forecasting. The forecasts are generally made using autoregressive distributed lag regressions with explanatory variables, Arima models, or the Tramo-Seats program with or without intervention variables.

Current calculations are made from the production side, the expenditure side, and the income side. Data are available both seasonally adjusted and not seasonally adjusted at current and constant prices from the first quarter of 1970 onward. The preliminary estimates are exclusively available in seasonally adjusted format and at constant prices.

The calculations are carried out for 32 industries, 24 categories of consumption, and 14 capital formation items. Quarterly output is derived on the basis of specific indicators (see Main Sources for the Quarterly accounts Table in 3.1.1), and value added at constant prices is obtained using output at constant prices as an indicator (Istat advised that the analysis of the historical series showed that the change in the ratio value added/output at constant prices shows a very smooth path). Intermediate consumption at constant prices is derived as the difference between the output and value added estimates. Output prices are a combination of appropriate producer and export prices. Similarly, input prices are constructed by weighing relevant producer and import prices; the weights are derived from the data for 1995. Capital

formation is mainly estimated using the commodity-flow method. Inventories are obtained as a balance between the estimates from the supply and expenditure approaches.

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

Istat uses a large number of procedures to adjust data sources to improve the coverage, definitions, classifications, and valuation in conformity to international guidelines.

Istat works to ensure the exhaustiveness of the GDP estimates. In order that all components of the nonobserved economy are included, use is made, in particular, of information on employment from different sources. In addition, corrections are made for underreporting that may influence the estimates of value added per person employed.

The longstanding method used by Istat to improve the exhaustiveness of the production estimates is to expand the per capita values derived from enterprise surveys to the universe by means of labor data. Almost 70 percent of Italian GDP is subject to this method. The labor input estimates are made by comparing, at a very detailed level, labor demand from enterprises and labor supply by households, both expressed in number of jobs.<sup>7</sup>

For reasons of the availability of census data, the estimates of labor are benchmarked on 1991 (the benchmark year for other sections of the national accounts is 1992, for which an input-output table was compiled). The benchmark integrates the independent information on demand and supply of labor, after due adjustment for the correct reference period, territory, definitions, and classifications.

For labor demand, the estimation used all information on employment by enterprises. The main sources were the 1991 Industrial and Services Census and the 1990 Agricultural Census. The results of the Industrial and Services Census was compared and completed with information from the Social Security Institute (for employees and quasi-subordinate workers<sup>8</sup>), the VAT register (for self-employed), and Istat surveys. The adjusted data have been compared with the first ASIA information from 1996.

For labor supply, sources included the population census of October 1991 and the Labor Force Survey (LFS) over the fourth quarter of 1991. Again, correction proved necessary, for instance, for errors in the classification by economic activity. A comparison between the two

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<sup>7</sup> In the original sources, labor demand from enterprises refers to registered jobs, and labor supply by households refers to persons employed.

<sup>8</sup> Quasi-subordinate workers are self-employed persons that have continued links with enterprises and in many respects act no differently than employees. However, legally and also in the national accounts, these workers are included in the self-employed category.

sources on supply was made, detailed by five-digit ATECO, region, and category of worker (employee, self-employed, unpaid family worker). Overall, the LFS indicated slightly higher data for labor than the census did. Both sources gathered information on persons employed, but only the information on first jobs was considered reliable in the LFS. The software program RIDA (Reconstruction of Information with Automatic Donation) was used to solve, by means of a probabilistic model, the problem of incoherence between the two sources.

The next step involved the comparison of the adjusted labor demand and supply data. Further adjustments were made for employment categories that could not be directly observed in the above information sources. Estimates were added regarding nonregistered foreign workers, nonregistered multiple jobs, unemployment fraud, persons employed by private households, and informal jobs in agriculture and construction.

The very detailed analysis that was conducted for end-1991 was not possible for later periods. Using a large number of data sources, the benchmark data on employment have been updated for later years. Care was thereby taken to include any information on lay-offs, persons employed by temporary employment agencies, and part-time workers.

The method described above yields the number of labor units actually employed which is multiplied by the value added per labor unit that emerges from the basic sources for each category of enterprise (one recalls that enterprises are classified both by activity and by size). However, particularly for small enterprises, value added may be understated due to underreporting of sales or overreporting of costs. Istat computes coefficients of possible understated value added when, analyzing micro data from business surveys, the compensation that reportedly remains for the owner of a small enterprise (operating surplus/mixed income minus compensation of employees and other costs) is lower than the typical compensation of an employee in the same type of enterprise.

The total influence on GDP of the two methods described above was to raise it in 1992 by about 11 percent, and in 1995 by 13.7 percent. As the sectors agriculture, construction, and general government are estimated using different methods, the influence of the additions made to the value added estimates for manufacturing and nonpublic services are much higher than the percentages mentioned here for GDP as a whole.

The estimates according to the production and the expenditure approaches are balanced in an input-output framework at current prices. It is advisable that the analysis be expanded by also taking the (implicit) prices and constant price data into account (see further item 4.3.1.).

### **3.3    *Assessment and validation of source data***

#### **3.3.1    *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 planning***

Information is available about sampling errors for all surveys, which are regularly reviewed. No systematically kept information is available about nonsampling errors apart from nonresponse. However, the specialists in the national accounts directorate keep archives for internal purposes on problems met on misclassifications, measurement problems, etc., to avoid similar problems in the future. Information is available about imputation methods for nonresponse in the basic statistics as well as imputations made, if any. Outliers in basic statistics occur in the provisional figures, but they are mostly removed from the final results. Unexpected values in the responses are confirmed with respondents. Surveys/censuses that require direct contact with the respondents, mostly household surveys, are audited<sup>9</sup> to verify the accuracy of the individual survey data. Such procedures are not normally followed for surveys conducted by post.

Accuracy of budgetary data, international trade, price statistics, and other secondary sources used to compile national accounts statistics is routinely assessed by the national accounts specialists.

These specialists analyze the source data to correct for underreporting/misreporting, in particular to check for temporal consistency and for consistency with other related data sources. In addition, the consistency of the source data with the national accounts is checked with respect to definitions, valuation, reference periods, and classifications.

If the sampling errors become large, the directorate takes action to ensure that the sample selection is adjusted. Revisions in the sources receive special attention.

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

#### **3.4.1    *Main intermediate data are validated against other information where applicable***

The data compiled from the main sources used to compile national accounts statistics are checked with other primary/secondary sources.

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<sup>9</sup> For example, in accompanying filed collections/random post-enumeration checks.

### *3.4.2 Statistical discrepancies in intermediate data are assessed and investigated*

Systematic procedures exist to assess routinely the potential discrepancies in intermediate data, leading to adjustments to remove them.

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

The national accounts directorate investigates any statistical discrepancies and other potential indicators of problems. Regarding the final estimates, such investigations are done in the framework of an input-output table (see further item 4.3.1 below).

Istat does not undertake an evaluation of data against unofficial estimates (e.g., from government units, universities, nongovernmental organizations, or international organizations) that employ plausible assumptions and methods. Istat considers it inappropriate to be possibly influenced by the results of outside agencies.

## **3.5 Revision studies**

### *3.5.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes*

The direction and magnitude of revisions between preliminary and final data are investigated, including the explanations for the sources of errors, omissions, and fluctuations in the data.

The results of investigations and adjustments made in the statistical processes are taken into account in compiling the data for the subsequent periods to ensure that bias in the GDP estimate is negligible.

## **4. Serviceability**

### **4.1 Relevance**

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

Collegiate bodies of SISTAN help to ensure that the statistical series address issues of concern to users. The Commission for Guaranteeing Statistical Information and the Committee for Directing and Coordinating Statistical Information (Comstat) are central in this respect. The latter focuses on SISTAN's rolling statistical program.

The Quality Circles established by Istat serve as point of contact between producers and users of statistical information and provide inputs in the definition of sectoral programs. The one on the national accounts meets about three times a year. The national accounts directorate participates in all quality circles.

Istat does not collect information on data users' needs and views by means of specific surveys, although customers accessing Istat's central and regional data-shops, subscribers to hardcopy publications, and website visitors are surveyed at least annually, and specific users' views are collected within the "Circoli di qualità." However, main users (such as the BI, the Institute for Economic Studies and Analysis, the MEF, and the Center for Economic Forecasts) are frequently met in working groups where they can voice their concerns. The seminars that Istat organizes on new themes, such as the regional accounts and the government accounts, are an occasion to receive feedback from other users. In addition, the bi-annual Conference on Statistics, which includes a session on the national accounts, also plays a role.

Istat participates in many international statistical meetings and seminars, in particular, in the working groups of Eurostat, the OECD, and the Conference of European Statisticians.

## **4.2 *Timeliness and periodicity***

### **4.2.1 *Timeliness follows dissemination standards***

The Italian national accounts estimates are disseminated within the timeliness limit of 3 months after the reference quarter prescribed under the SDDS. Since the end of 2000, Istat has published preliminary quarterly GDP figures at constant prices and seasonally adjusted after 45 days. This first release does not provide further details, except for the contribution of agriculture, manufacturing, and services to the rate of growth. A more extensive publication follows at 70 days after the reference quarter.

The annual national accounts are published on March 1, only two months after the reference year. Further details follow gradually, for instance, the institutional sector accounts 13 months after the reference year (which is not particularly fast), regional accounts 22 months after the reference year, and provincial employment and value added 25 months after the reference year. Starting 2002, the publication delays will be shortened, to 10 months for the institutional sector accounts, and 12 months for the regional accounts.

### **4.2.2 *Periodicity follows dissemination standards***

The Italian national accounts estimates are disseminated with quarterly periodicity as prescribed under the SDDS.

## **4.3 *Consistency***

### **4.3.1 *Statistics are consistent within the dataset***

The national accounts are internally consistent. The estimates for GDP by activity and expenditure components are made consistent in a detailed balancing process. The estimates at current prices are consistent with the matching series at constant prices and the deflators. The quarterly GDP estimates add up to the annual estimates except for a period of ten days

between publication of the annual accounts and the release of quarterly accounts that fit the new annual estimates.

In order to make the estimates according to the production and the expenditure approaches consistent, a detailed comparison is made in an input-output framework expressed at purchasers' prices. Efforts are undertaken to reconcile any discrepancies in cases (except for the smallest activities) where the difference is more than 1 percent. Developments from year to year are among the types of analysis followed, but the analysis is limited to values at current prices. Concurrent analysis of the (implicit) prices and constant price data could enrich the balancing procedure. Remaining small discrepancies are removed by applying the method proposed by Stone, Champenowne, and Meade in 1942. A degree of reliability of the different basic data are thereby defined, causing basic data such as foreign merchandise trade and taxes not to be changed, but allowing relative large changes to be made in the original data for valuables as well as the transport and trade margins by product. For value added, intermediate consumption, households final consumption expenditure, and total trade and transport margin, only small changes are allowed.

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

Consistent national accounts series according to *ESA 95* are available from 1970 onward (with reduced detail for the period 1970-1991), evidence of Istat's efforts to reconstruct historical series as far back as data permit. Any breaks in the series are explained to users of statistics. The release of national accounts data is always accompanied by explanatory texts, including on any unusual changes in economic trends.

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

The national accounts statistics are reconcilable with data on general government produced by the MEF. The national accounts are also consistent with the balance of payments, with the following exceptions:

- (1) There is a definitional difference between *ESA 95* and the *BPM5* regarding the treatment of construction activity by residents of one country on the economic territory of another country. If the construction is classified as fixed capital formation, *ESA 95* prescribes that the producing enterprise should always be a resident of the economy where the construction takes place, whereas *BPM5* sticks to the general definition of residence (activity for more than one year).
- (2) The national accounts, in accordance with European agreements, treat the property income received by mutual investment funds as accruing to the shareholders, who reinvest these earnings in the funds. *BPM5* does not make this imputation.
- (3) In 1998, a very large change in the receipts and expenditures for transportation was made in the balance of payments. As the correction could not be accommodated directly in a

major revision, the correction could not be worked back more than a few years. In addition, there is a strong wish to have the national accounts and the balance of payments show the same data. Thus, it was decided, in consultation with the BI, to introduce the change gradually and spread it out over a number of years.

(4) The balance of payments revises its data in May, just after the publication of the annual national accounts. For this reason, the close consistency between the two macroeconomic statistics exists only for a few weeks.

The exceptions under 1) and 2) can be considered unavoidable. Concerning the handling of the unexpected large corrections in the balance of payments mentioned under 3), it is clear that, whatever the good intentions, spreading out a break in the series over a number of years cannot be regarded as a good practice. The situation under 4) is regrettable, and can only be addressed by an improvement of the timeliness of the balance of payments.

The BI compiles financial accounts (Istat is responsible for the reporting of these data to the international organizations) that show statistical discrepancies with the balancing item Net lending/borrowing in Istat's sector accounts. The reasons for these discrepancies, as far as the general government institutional sector is concerned, are subject to studies by a high level Commission (chaired by the President of Istat).

#### **4.4 Revision policy and practice**

##### **4.4.1 Revisions follow a regular, well-established and transparent schedule**

The first, provisional, annual estimates of year  $t$  are released on March 1 of the year  $t+1$ . Italy has a longstanding tradition of such very timely release, as the data are an input in the important *General Report on the Country's Economic Situation* that in early April is presented in Parliament. More recently, early provisional estimates serve, among other things, to calculate the deficit/GDP ratio as required by the Maastricht protocol. The provisional annual estimates may be revised three times, all published on March 1: the provisional estimate in year  $t+2$ ; the semi-final estimates in year  $t+3$ ; and the fourth and final estimates in year  $t+4$ .

The preliminary estimate of quarterly GDP at constant prices and seasonally adjusted is published with lag of 45 days, except for the one that contains the very first estimate of the four quarters of a year. In order not to confuse the public with a rapid succession of revised estimates for the most recent year, this release is delayed to March 1, the same day that the annual accounts are published. The preliminary quarterly estimate is revised 70 days after the reference quarter. In the course of a year, the data of each quarter of the current year as well as those of the two previous years may be revised. In the March release, the revisions in the quarterly accounts can extend back to the year  $t-4$  in line with the new annual accounts.



The full historical series of the annual and quarterly accounts may be subject to changes when major revisions are introduced. The latter happens at irregular times, about every five to ten years, but is widely publicized in advance.

The recurrent revisions in both the annual and quarterly national accounts follow a strictly predetermined and constant cycle. On the other hand, there is no regularity in the major revisions although the authorities feel that they should take place between every five to ten years. The timing of the most recent major revision was decreed by EU requirements and it may be expected that future major revisions will take place with a five-yearly periodicity, in accordance with agreements reached between the agencies belonging to the EU statistical system.

Revised data are disseminated with the same or greater level of detail as previously published for the data being revised.

Istat provides extensive documentation on its major revisions in hard copy, on the Internet, in press releases, and in dedicated seminars.

On the whole, major new source data are not incorporated immediately in the accounts to avoid frequent breaks in the series or distortion of the growth rates. Rather, these new sources are introduced on occasion of a major revision, which should be considered good practice. An exception to this rule was mentioned under item 4.3.3.

#### *4.4.2 Preliminary data are clearly identified*

Istat's publications do not always alert users that the initially published data are preliminary and subject to revision. Neither are the data presented in tables flagged as subject to later revision.

#### *4.4.3 Studies and analyses of revisions are made public (see also 3.5.1)*

Revisions are assessed and explained in the publication of the statistical series.

### **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)*

National Accounts data are published in a clear manner; charts are disseminated with the data to facilitate the analysis.

Datasets are published with various levels of detail. Each publication contains an analysis of current-period developments. The estimates are disseminated at a detailed level and with time-series.

#### 5.1.2 Dissemination media and formats are adequate

Istat's data are first released via a press release. The institute has many channels by which it disseminates information. It maintains an Internet site (<http://www.istat.it>) that contains a very extensive collection of statistical data, supplemented by explanatory documents, background information, studies, etc. ConIstat, Istat's short-term indicators database, provides interactive and constantly updated data access.

Hard copy is available for most series, including the following:

- *Yearbooks* (Annuari) containing the documentation of an entire year on a domain of statistics—for example, *National accounts* (in Italian) appearing in three volumes: *I National economic accounts*; *II Economic and financial accounts of the institutional sectors*; and *III Regional economic accounts*. In view of the current work pressures, the publication of these series is subject to delays.
- *Information* (Informazioni) offering rapid information on main economic phenomena—for example, number 22/2000: *Intersectoral tables of the Italian economy* (in Italian);
- *Topics* (Argomenti), which examine mainly themes of a social nature in depth.
- *Methods and Norms* (Metodi e norme) dealing with methodologies and classifications—for instance, number 9/2001: *The construction sector in the national accounts* (in Italian);
- *Essays*, in the English language focusing on comparative studies and research—for example, number 10/2001: *Evaluation and Analysis of the Quality of the National Accounts Aggregates*, containing the report of a research project financed by Eurostat;
- *Statistical Annals* (Annali di statistica) containing scientific discussions and historic reflections on statistics;
- *Research Papers* (Quaderni di ricerca)<sup>10</sup> for scientific work under the authors' own responsibility—for instance, number 1/1993: *The revision of the historic quarterly national accounts series*.

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<sup>10</sup> These series have been combined in a periodical under the title *Review of Official Statistics* (Revista di Statistica Ufficiale).

Not included in the publication calendar, but equally important are the following quick releases:

- *Rapid notes* (Note Rapide), a four-page publication with close resemblance to a press release—for instance, *Revision of the national accounts and adoption of ESA 95* (in Italian) of April 30, 1999;
- *Statistics in short* (Statistiche in breve), similar to the Rapid notes but for a more specialized public—for instance, *Territorial economic accounts, year 1999* (in Italian) of October 15, 2001.
- *Studies in depth* (Approfondimenti), containing a larger amount of data than the two other quick releases—for instance, *National economic accounts by institutional sector, years 1980-2000* (in Italian) of January 23, 2002.

Publications of a more general nature that contain national accounts information include the *Italian Statistical Yearbook* and the *Monthly Bulletin of Statistics*. Under the offline electronic dissemination outlet, the CD-ROM with ConIstat information is important.

In general, Istat's dissemination media and formats should be considered excellent. In addition, mention should be made that most data, including extensive detailed data, are published free of charge on the Istat website.

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

In December of each year Istat publishes a release calendar giving the precise release dates for the coming year for all datasets under its supervision, including the national accounts. The same schedule is also available on the DSBB on a quarter-ahead basis.

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

Istat provides data, on an embargo basis, to the media at a press conference held 30 minutes prior to general release. In conformity with the Electronic First dissemination policy adopted in 2000, the data are available about one hour later on the Internet. Several users of the statistics consider this time gap too large.

#### *5.1.5 Nonpublished (but nonconfidential) sub-aggregates are made available upon request*

Unpublished (but nonconfidential data) specialized tabulations are made available at request (as a rule for a fee). The Elementary Data Analysis Laboratory is available for specialized users. It makes many of the elementary data archives maintained by Istat available to scholars and researchers, who can directly apply the statistical aggregations for the analyses of interest. The laboratory is monitored by Istat's experts, who ensure that the privacy of personal data is protected. These services are publicized.

## **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***

Metadata providing users with information about what the data mean and about the methodology used to collect and process them are, among other things, available from the Istat website. The press releases include a short methodological description and glossary, and quick releases often indicate where a more extensive discussion can be found (“per saperne di più”). The glossaries are also included in the national accounts section of the *Italian Statistical Yearbook*. In the series *Methods and Norms*, the methodologies of the estimates for construction and household consumption have been published; the draft text for a publication on gross fixed capital formation has been finalized. Extensive information is also contained in the published proceedings of the seminar on the introduction of *ESA 95* that was held in 2000. Finally, the booklet *The accounts about the Italians* (I conti degli italiani) should be mentioned; this publication serves teaching purposes. The availability of these metadata is well publicized.

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

Documentation (in the form of brochures, booklets, and publications, see above) has been prepared to inform general users about the statistical series. An exhaustive description of the sources and methods of the annual accounts has not yet been published, but Istat is considering publication of the methodological description made in the framework of the Eurostat GNP Committee, after consultation with some major users.

## **5.3 Assistance to users**

### **5.3.1 *Contact person for each subject field is publicized***

Prompt and knowledgeable service and support is available to users of statistics. All statistical releases make mention of Istat’s Communications Office, and many also identify specific individuals in the national accounts directorate from which further information can be obtained. The publications include details on mail, telephone, facsimile, or website addresses.

Within the national accounts directorate a separate service exists that is involved with preparation of publications, press releases, website updates, response to questionnaires from international organizations, etc.

In the national accounts directorate, the assistance to users is not monitored through periodic surveys of users. The dissemination directorate keeps track of telephone calls and the number of visitors at Istat’s website and surveys customers accessing Istat’s central and regional data-shops, subscribers to hardcopy publications, and website visitors at least annually.

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

A catalogue of publications, documents, and other services to users is available and updated each year. The publications catalogue and a presentation of the institute's products and services—with particular reference to data dissemination—can also be accessed on its Internet site.

The catalogue clearly indicates the prices charged. Assistance in placing orders is available through the Istat's data shops located in Rome and Milan, as well as through the statistical information centers located in each of Istat's regional offices.

Table 1. Italy: Data Quality Assessment Framework: Summary Presentation of National Accounts

Elements	NA	Assessments				Comments
		O	LO	LNO	NO	
<b>Prerequisites of quality</b>						
0.1 Legal and institutional environment		X				Number of staff is not commensurate with strongly expanded tasks.
0.2 Resources			X			
0.3 Quality awareness		X				
<b>1. Integrity</b>						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
<b>2. Methodological soundness</b>						
2.1 Concepts and definitions		X				
2.2 Scope		X				
2.3 Classification/sectorization		X				
2.4 Basis for recording		X				
<b>3. Accuracy and Reliability</b>						
3.1 Source data			X			Low response rates in major source statistics. Too little current information on enterprise cost structure. No short-term data on changes in inventories are available.  Benchmark year (1992) is old. Detailed balancing of the accounts is exclusively done at current prices.
3.2 Statistical techniques			X			
3.3 Assessment and validation of source data		X				
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies		X				
<b>4. Serviceability</b>						
4.1 Relevance		X				Preliminary data are not clearly identified. No regular schedule exists for conducting major revisions.
4.2 Timeliness and periodicity		X				
4.3 Consistency		X				
4.4 Revision policy and practice			X			
<b>5. Accessibility</b>						
5.1 Data accessibility		X				
5.2 Metadata accessibility		X				
5.3 Assistance to users		X				

Note: NA= Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed

## II. PRICE STATISTICS (CONSUMER PRICE INDEX)

### 0. Prerequisites of quality

#### 0.1 *Legal and institutional environment*

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

The Legislative Decree 322/1989 places the National Statistical Institute (Istat) at the center of the National Statistical System (SISTAN), which covers the statistics offices of all levels of government and the chambers of commerce, industry, crafts industries, and agriculture. The Committee for Directing and Coordinating Statistical Information (Comstat), over which Istat presides, defines and issues binding directives for executing the National Statistical Program. This program details Istat's responsibility for national accounts, the accounts of the public administration, and price statistics.

The Commission for Guaranteeing Statistical Information, an independent body set up in the Office of the Premier, has the task of ensuring the impartiality and completeness of the information produced, the quality of the statistical methodologies and information technology systems used, the surveys' compliance with the directives of European Community bodies, and the protection of the confidentiality of personal data.

##### 0.1.2 *Data sharing and coordination among data producing agencies are adequate*

The law creating SISTAN contains provisions on data sharing and coordination within the system. Directives issued by Comstat have further strengthened these provisions. In addition, Istat has developed statistical information systems utilized throughout SISTAN for sharing data. Istat also cooperates closely with agencies that do not belong to SISTAN, such as the BI and the MEF, to establish data sharing protocols and agreements.

Nevertheless, for a few important surveys, such as the HBS, CPI, and labor force surveys, Istat traditionally relies for its data collection effort on municipal statistical offices, which are independent of Istat. Although the collaboration from these offices in general is satisfactory, the reporting from a number of them is slow due primarily to understaffing and the use of oversized samples.

Istat is part of the European Statistical System and accordingly coordinates and shares data with Eurostat. (See the corresponding indicators in the National Accounts Section.)

##### 0.1.3 *Respondents' data are to be kept confidential and used for statistical purposes only*

Comprehensive confidentiality rules covering all statistical activities have been put in place. Legislative Decree 322/1989 specifies that dissemination may occur only in an aggregate

form and in a manner by which it is not possible to identify data for any individual person or entity. In addition, the Law on the National Statistical Program of December 1994 establishes strict confidentiality rules for data included under the National Statistical Program. In accordance with the Law 675/1996, respondents are informed in writing on all statistical surveys of their rights and obligations with regard to the provision of information, and they are assured that the information they provide will be used for statistical purposes only.

Special aggregation rules have been developed to ensure that indirect disclosure of individual data does not occur when aggregations of data are presented. For instance, access to individual data is restricted to staff who require the information in the performance of their duties. Provisions are in place to supervise analysts that require access to disaggregated data.

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

Legislative Decree 322/1989 requires all government agencies, bodies, and administration offices to supply any data and information for surveys that are part of the National Statistical Program. Separate legal provisions acknowledge Istat's power to access administrative, even computerized, files of public administration offices, government agencies, and companies controlled by such administration offices.

The legal decrees approving National Statistical Programs specify which statistical surveys carry the mandatory requirement of private individuals and entities to supply all the data and information that is requested of them. Also, in most surveys, measures are used to encourage voluntary response. However, in this respect, substantial improvements are needed for some surveys, such as the PRODCOM Survey and the Survey on Economic and Financial Accounts of Enterprises, for which the response rates have been very low.

**0.2 Resources**

*0.2.1 Staff, financial, and computing resources are commensurate with statistical programs*

At the end of 2001, Istat employed a total staff of 2,613, of which 2,240 were permanent and 373 contractual employees. In comparison with 2000, permanent staff increased around 4 percent; the considerable number of contractuels in 2001 can largely be attributed to temporary needs associated with the general censuses. Despite the increased staff resources, 149 projects (37 of which are the result of Community regulations) planned for execution in 2001 had to be postponed until 2002. The extensive requirements of the EU in the domain of new and timelier statistics are major contributors to the pressure on Istat's resources.

There are 95 workstations for every 100 Istat employees. All staff involved in statistical work have a workstation. However, additional resources to automate price collection is a key factor in improving the CPI.



### *0.2.2 Measures to ensure efficient use of resources are implemented*

Istat makes use of a wide range of efficacy, efficiency, structural, economic, and financial indicators to provide management with a mechanism to monitor institutional performance from both a quantitative and qualitative perspective. These indicators are published in Istat's *Annual Report*.

Istat's Governing Board has the task of optimizing available financial resources for the statistical programs, as well as the evaluation of costs against the activities to be carried out.

It would appear, however, that further efficiency gains could be made in various monthly and annual surveys, such as the CPI, and the PRODCOM and enterprise surveys by close monitoring of the implementation of improved sampling techniques and data collection procedures.

## **0.3 Quality awareness**

### *0.3.1 Processes are in place to focus on quality*

Istat has put many measures in place to maintain and improve quality. For instance, Istat's Methodological Studies Office focuses on methods and techniques for survey quality control. On a broader level, Comstat, issues binding directives relating to SISTAN agencies on methodological and qualitative aspects of the National Statistical Program.

The focus on quality is also apparent from the Legend of Quality Measures published in the *2001 Italian Statistical Yearbook* and from Istat's leading role in the Eurostat expert group on quality aimed at providing guidance to the national statistical offices of EU member states.

### *0.3.2 Processes are in place to monitor the quality of the collection, processing, and dissemination of statistics*

By law, the overall monitoring of the quality of statistics is attributed to the Commission for Guaranteeing Statistical Information, an independent body set up to ensure the impartiality and completeness of the information produced under the National Statistical Program. Quality is also monitored by the SISTAN Quality Circles, which have oversight functions on progress of the National Statistics Program.

An example of the processes that Istat has put in place to monitor the collection of statistics is the Information System for Survey Documentation and Quality Control. This system manages both qualitative information and quality indicators related to each phase of the conducting of statistical surveys.

*0.3.3 Processes are in place to deal with quality considerations, including tradeoffs within quality, and to guide planning for existing and emerging needs*

Quality considerations were a major reason for Istat's institutional reorganization in August 2000, which reflected the philosophy that more emphasis should be placed on pertinence, promptness and ease of use of the statistical information. In accordance with this philosophy, many changes have been introduced or are planned in the near future. These measures refer in particular to reducing the delay at which statistics are released and improving their accessibility, whether in hard copy or electronic format.

**1. Integrity**

***1.1 Professionalism***

*1.1.1 Statistics are compiled on an impartial basis*

The Commission for Guaranteeing Statistical Information is charged with ensuring the impartiality and completeness of the information produced by Istat. The commission views impartiality as being composed of two elements: first, data should be a truthful description of reality; second, data should be simultaneously disseminated to all users. Impartiality was also one of the cornerstones of Istat's reorganization of August 2000 according to the following official text: "Independence, impartiality, reliability, pertinence of the statistical information, reduction of the burden on respondents, and protection of statistical secrecy and privacy are the fundamental criteria inspiring the documents setting down the rules for implementing the organization decree."

*1.1.2 Choices of sources and statistical techniques are informed solely by statistical considerations*

There is no evidence that Istat is subject to outside pressure in its choice of sources and statistical techniques.

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

Although Istat's independence and the functions of Istat's President in SISTAN guarantee the right to comment in cases of erroneous interpretation or misuse, such is rarely done in practice with respect to the CPI.

Istat's policy is to avoid any misunderstandings by providing ample information with the releases. The Press Office has instituted a call-in service whereby journalists may obtain explanation of the information disseminated. Senior researchers are present at most press conferences to explain the data, particularly in cases when methodological changes have been introduced. Istat's president may also indirectly comment on erroneous interpretations by giving an interview to one of the major newspapers.

## **1.2 Transparency**

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

The complete set of documents that articulate the terms and conditions under which Istat executes the statistical program is available to the public on the SISTAN website.

Furthermore, the *Carta dei Servizi Esterni della Diffusione* (Charter of Dissemination Services) is available to the public on the Istat website.

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

National government access is not given prior to release, and data releases are not signed off by any outside authority.

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

All Istat publications are identified as being produced by Istat.

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

Advance notification of methodological changes is provided through seminars and papers disseminated throughout the academic community. Changes under consideration are also indicated—in advance—in the text of the *Three Year National Statistical Plan*, in such publications as *Quick Notes*, and *Information Series*.

## **1.3 Ethical standards**

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

All public servants take an oath about conduct expected of them before they enter the public service. In addition, by signing the employment contract any new Istat staff member undertakes not to disclose individual data. New employees follow a training program of one week, in which staff ethics is one of the subjects treated. Istat has no involvement in the instructions given to statistical staff employed by other agencies, such as the large number of temporary enumerators that were hired by the municipalities to conduct the 2001 census.

## **2. Methodological soundness**

The CPI was thoroughly revised in 1999 to comply with EU standards and recommendations. Geometric means were introduced to calculate the elementary series, and since then the aggregates are computed using the chain version of the Laspeyres formula (with annual links), which requires revisions early each year of the market basket and its weights.

## **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 national CPI are generally in line with specifications recommended in the *ESA 95* and EU regulations. The main departures from *ESA 95* are the exclusion of imputed expenditures, in particular imputed rent, and the recording of service prices in the month for which consumption at the observed price can commence (and not the month when the delivery of the service is completed). In these departures, the Istat practice is, however, in agreement with the specific EU regulations for price statistics. EU regulations also are followed regarding the definition and specification used for the individual goods and services to be priced each month. About three times a year, meetings are held at Eurostat to review the implementation of concepts and definitions.

## **2.2 Scope**

Istat compiles the national CPI and its two sub indices, the CPI for the households of blue and white collar workers (FOI) and the Harmonized Index of Consumer Prices (HICP) produced for Eurostat. A Eurostat mission will visit Rome in mid-2002 to check the HICP compilations. The three indices are derived from the same source data, which have been compiled according to EU standards. The national CPI and the HICP are mainly used for economic analysis, while the main purpose for the FOI is to provide an instrument for pension, rent, and other contract indexation. In addition, 12 regional capitals (out of 20) and 10 other cities compile their own CPIs, which are released around the 22<sup>nd</sup> of the month under investigation and are therefore used by some analysts to calculate an unofficial and very provisional national CPI. The CPI described below is the national CPI of Istat.

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

The CPI covers the expenditures of all resident households, including net expenditures by tourists. The CPI refers to market purchases of consumer goods and services (the final consumption expenditure of the *ESA 95*) by resident households. However, excluded are own-account production of goods and services for own final consumption and illegally sold goods and services. Life insurance services and gambling are included.

## **2.3 Classification/sectorization**

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

ESA 95 is used to classify institutional units and transactions. COICOP is followed in the classification of household expenditure on individual products.

## **2.4 Basis for recording**

### **2.4.1** *Market prices are used to value flows and stocks*

The goods and services in the basket are valued at market prices, including VAT. Sales prices (seasonal price reductions) are excluded. However, since the beginning of 2001, these data are recorded for use in the compilation of the HICP in order to comply with EU standards and Istat is considering the inclusion of sales prices in the CPI. In addition, as far as HICP is concerned, prices for medicines are net of any subsidy element, while this element is included in CPI. Where required, product specifications are provided in detail for the basket items and their varieties so that price-determining characteristics for transactions at market prices can be defined (for example, mineral water with gas, plastic bottle, half liter).

### **2.4.2** *Recording is done on an accrual basis*

Prices are recorded at the visit of the price collectors. The price collection starts at the 16<sup>th</sup> of the month preceding the reference month and ends at the 15<sup>th</sup> of the reference month. Fresh food items are collected twice during this period. Prices for some durable and semi-durable goods and for rent are collected on a quarterly basis. Some services that are paid in advance (for example, theater subscriptions) are recorded when actually consumed.

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

Not applicable.

## **3. Accuracy and reliability**

### **3.1** *Source data*

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

Comprehensive population and business registers are available for sampling frames. The population register is maintained by the municipalities and updated continuously. Every ten years, it is revised on the basis of population census results. This register provides the sampling base for the Household Budget Surveys (HBS). However, the business register,

maintained by Istat, has not been used to select the outlet sample for CPI price collection. Here, Istat has relied on the judgment of the municipal office staff involved in the selection of outlets.

The CPI consumer basket and weights are derived each year from the national accounts data, which in turn are based on HBS results. The HBS became a continuous survey beginning in 1997. The two-stage stratified random sample covers each year about 482 municipalities (out of 8,100) and about 27,000 households (out of 21 million). Data for 107 large municipalities (major urban centers) are collected each month, while the smaller municipalities are included every three months. Each month about 1/12 of the households report their daily expenditures in a diary and in the beginning of the following month the diaries are collected by Istat staff and the households interviewed to record their purchases of durable goods and other major items. However, to improve the response rate, each household now is surveyed for only one week a year, down from two weeks in the past. The response rate is relatively high, about 87 percent of the original sample (after inclusion of substitute households for nonrespondents), and the population estimates derived from the sample are corrected for the nonresponse. The sample error for monthly expenditures is on average 0.69 percent. Annual expenditure data for the national accounts data and the CPI are provided by region for about 270 goods and services. Details are missing for a few groups such as vegetables and cheese products. The data become available in June of the following year. For example, in the CPI revision of early 2002, national accounts expenditures based on the HBS for the year 2000 were used to update the expenditure weights (requiring an adjustment for price change through December 2001).

Prices are collected monthly by personal visits for 930 items (of which about 530 by the local offices and the remainder by Istat) and additional varieties. In compliance with the European regulation, the coverage of the index is defined as those goods and services included in household monetary consumption expenditure accounting for more than 0.001 percent of the total household expenditure. The outlet types included are department stores, supermarkets, discount stores, large supermarkets (ipermercati), specialized stores, and service establishments.<sup>11</sup> Prices for perishable goods and fuels are collected twice a month. The price collection period falls between the 16<sup>th</sup> of the preceding month and the 15<sup>th</sup> of the month under investigation so that Istat can provide provisional results around the 30<sup>th</sup> of the same month. Judgmental sampling techniques are used for items, varieties, and outlets. The selection criteria used by the staff of the municipal offices is to include the outlets that record the largest turnover and at least five varieties for staple goods and three varieties for other items. However, many offices tend to select more outlets and varieties than are needed, particularly among specialized stores. Prices are collected each month from 25,000 outlets

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<sup>11</sup> This is reflected in the large number of outlets and price series (particularly for garments and household goods) included in the Italian CPI compared to the CPIs of other EU countries (see pages 64 and 65 of the Eurostat *Compendium of HICP*, 2001 edition, and the SDDS descriptions for EU countries).

and 11,000 housing units located in 76 municipalities (including 20 regional capitals and other urban centers). As a result, 300,000 price quotations are obtained each month.<sup>12</sup> The data collected for the items and their varieties are sufficiently detailed to ensure consistent pricing from month-to-month. Istat provides the software used by the municipal offices to record the price data for outlets, items and varieties, and for the processing of the data. About 85 percent of the data are received at headquarters by the end of the reference month, while the data from some small municipalities may arrive 10 days later. Price data are mostly transmitted through the Internet and, as a result, the delays in data transmissions in terms of the number of reports received each month have been reduced by about 5 percent a year since 1999. However, in order to gain tighter control over the outlet samples and the possible bias from the inclusion of an excessive number of specialized stores, the Istat staff are considering the use of random sampling techniques in the selection of outlets (as is done in six other EU countries) or, if that is not feasible, the elimination of redundant specialized stores from the current sample.

Istat conducts special experiments to enhance data capturing. For example, in some municipalities, price data from large outlets are being collected using handheld computers; price files also have been extracted using bar codes. Also, together with Eurostat, Istat continuously explores the markets for the new products and services that need to be included each year in the market basket. At the municipal level, statistical commissions continuously monitor CPI compilations and advise on the selection of outlets and varieties. However, in many municipalities, the commissions lack the necessary statistical expertise.

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

The Istat national accounts, HBS, and CPI data are closely coordinated so that definitions, scope, and classifications are the same. This also applies to the time of recording, reference periods, and the valuation of CPI estimates. For a few expenditure items (for example, vegetables), special procedures have been developed to adjust data to conform to CPI requirements. For fish and fruits, agricultural statistics are used as a source and for telecommunication items, details are obtained from the respective producers. The quality of the price data obtained from municipalities varies. Problems arise especially in municipalities where the statistical office is understaffed. However, Istat is in frequent contact with the municipal offices.

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<sup>12</sup> This is an unusually large number of price quotations. For example, the CPI of the United Kingdom, which has a more heterogeneous population than Italy, manages with 650 basket items and 20,000 outlets, resulting in 130,000 price quotations per month.

### *3.1.3 Source data are timely*

The expenditure estimates derived from HBS and national accounts data are available with a lag of one year and need to be updated to provide the new weights for each coming year. About 85 percent of the price data are received on time for the publication of a provisional CPI by the end of the month under investigation. More detailed final data are released about two weeks later. However, as there are practically no differences between the movements in the provisional and final CPI, most users tend to rely on the provisional CPI.

## **3.2 Statistical techniques**

### *3.2.1 Data compilation employs sound statistical techniques*

HBS expenditure data are provided in detail, including items, subgroups, and major groups according to COICOP (two-, three- and four-digit level). The CPI provides monthly data for 107 expenditure categories and 209 subcategories. For main users, such as the BI, the MEF and the Institute for Economic Studies and Analysis, a special detail of 500 indices is provided. The *ESA 95* is used to define household consumption expenditure from which the weights are established. Goods and services purchased are valued at actual prices paid by households regardless of method of payment. Interest on purchases on credit is not included. Weights for goods and services where no market transactions are involved are excluded; this particularly applies to owner-occupied dwellings and goods and services produced for own final consumption.

Since 1999, geometric means have been used to calculate the elementary series for the CPI. The item indices are then aggregated to subgroup, group, and all item indices applying the Laspeyres chain formula with annual links. All these procedures are part of the software provided to the selected municipalities. For the calculation of the overall CPI for Italy, a weight matrix is used listing both item and regional/urban center weights. The indices for all the municipalities of the sample are provided separately. Both the weight and the price reference period refer to the month of December of the preceding year, which, as mentioned before, requires an updating of the weights. Each year, the new December-based index is then linked to the old 1995=100 index. This base year will be moved as soon as the EU decides to move the HICP base year.

Temporarily missing prices are carried forward no more than two months, as regulated by EU. If the product continues to be missing, a substitute of similar character is introduced. If there are quality differences between the products, an adjustment is made using the overlap pricing method (where the price difference in the overlap period is used as a proxy for the quality difference). EU permits the use of this method, but encourages work to develop more precise solutions, based, for example, on hedonic regression or other methods that estimate the value of the quality change. For seasonal items, particularly fruits and vegetables, the products included each month must be available in at least 50 percent of the sample outlets and for these products, the prices for the first 75<sup>th</sup> percentile are considered, mainly in order to avoid the recording of extreme price quotations at the beginning or the end of the season.



The group indices then are calculated as un-weighted means from the changing product sample using a 13 month moving average.

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

Detailed CPI components are provided to the National Accounts Division of Istat for deflation of consumer expenditures. As the CPI covers over 90 percent of the resident households' expenditures, there is little need to resort to micro-surveys of activities that are not covered by the regular CPI compilation. However, adjustments are needed to account for owner-occupied housing and illegal transactions.

**3.3 Assessment and validation of source data**

*3.3.1 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 planning*

For the HBS, nonresponse is not an issue as substitute households are used. Sampling errors for the survey are acceptable and made available. Problems of misclassification and under-coverage are identified and solved internally. Post-enumeration surveys help to eliminate reporting errors. For the price survey, sampling errors are not available due to the judgmental nature of the selection of outlets and products. An EU regulation on the introduction of sampling techniques and the provision of sampling errors is pending. Also, the Istat staff have not yet made an attempt to assess in detail how representative the samples of outlets, items, and varieties are. Administrative prices received from government agencies are crosschecked in the markets. Other price data are thoroughly checked and edited by computer programs and by supervisors at municipal offices and at headquarters. Price collectors are instructed to report any unusual change to their supervisors. In general, source data tend to be analyzed frequently as the CPI is revised early each year.

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

*3.4.1 Main intermediate data are validated against other information where applicable*

For analytical and checking purposes, the CPI data are regularly compared with comparable series from the PPI and the import price index.

*3.4.2 Statistical discrepancies in intermediate data are assessed and investigated*

Unusual movements in certain items and regions are thoroughly investigated. For example, because of the growing difference between regions in the movements of car insurance prices and the users' strong reaction to these data, Istat embarked upon a study of the matter. It

concluded that the insurance companies tend to apply different rates among the regions largely in proportion to the occurrence of damage risks in the cities of each region.

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

As the overall CPI for Italy is calculated product by product from municipal and regional indices, there are no inconsistencies in this aggregation procedure.

**3.5 Revision studies**

*3.5.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes*

The CPI estimates are revised every year. At that time a revision study is provided to describe what the revision involved: weight updates, new and dropped items, changes in coverage and classification and changes in methodology. Regarding the provisional and final monthly CPI, studies have not been undertaken as these two data sets agree at the national level.

**4. Serviceability**

**4.1 Relevance**

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

Users' needs in the area of price statistics are periodically monitored by the Commission for Guaranteeing Statistical Information in connection with the annual review of the three-year statistical program for Italy. The program then becomes law. Advisory committees for the development of the CPI, PPI, and HBS are regularly established. Also at the municipal level, users' views are represented in the recommendations of the local statistical commissions. Every two months, Istat staff participate in the Prices Monitoring Group, which also includes representatives of trade unions, retailers and wholesalers. In the regular meetings of the Quality Circles, arranged by Istat, discussions this year concerned an experiment in Milan to collect prices on goods sold through the Internet, the need to start collecting producer prices for exported goods, (as recommended by Eurostat), and the possibility of producing measures of core inflation. Meetings also are held at least once a year with representatives of the Association of Industry. High priority is given to addressing the concerns of international users. Istat price statistics staff regularly participate in meetings and seminars organized by Eurostat, the UN, the ILO, and the OECD, and it contributes to the development of best practices in EU price compilations.

## **4.2 *Timeliness and periodicity***

### **4.2.1 *Timeliness follows dissemination standards***

The provisional CPI is published at the end of the reference month. Final and more detailed data become available around the 15<sup>th</sup> of each month. The CPI therefore, complies with SDDS requirements.

### **4.2.2 *Periodicity follows dissemination standards***

The CPI is published monthly according to the SDDS.

## **4.3 *Consistency***

### **4.3.1 *Statistics are consistent within the dataset***

The all items CPI and the aggregate of the regional CPIs are the same.

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

As a result of linking the new CPI time series to previous versions, consistent time series are available for more than five years. Methodological notes explain the main breaks and discontinuities in the series.

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

Following *ESA 95* and other EU regulations, CPI data are broadly in line with national accounts deflators of household consumption. The large differences observed in 1995-97 in the movements between the consumption deflator of the national accounts and the CPI was due to the different treatment of owner-occupied housing following EU recommendations.

## **4.4 *Revision policy and practice***

### **4.4.1 *Revisions follow a regular, well-established and transparent schedule***

The Istat advance calendar for the data releases during the year provides the dates for the release of both the provisional and the final CPI. The users are also well informed about the regular annual revision of the CPI as adequate documentation (such as *Note Rapide*) is provided to users.

### **4.4.2 *Preliminary data are clearly identified***

The preliminary CPI data provided at the end of each month are clearly identified in the title of the release paper as provisional data. However, preliminary data are published with less detail than final data.

#### *4.4.3 Studies and analyses of revisions are made public (see also 3.5.1)*

As the revision of the final CPI data is negligible, there has been no need to analyze and publicize any discrepancies.

### **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)*

National CPI data are presented through monthly press releases for the 12 major expenditure groups of COICOP with overall indices including and excluding tobacco. In addition, indices are provided for all the municipalities of the sample. Both index numbers and percent changes are provided. Back data are available on the Istat website, in the annual *Price Statistics Bulletin*, and now also in the press releases (for the overall indices). The CPI presentations provide charts and comments, which repeat the percent changes already appearing in the tables. In general, table outlays are easily readable. A printed catalogue listing Istat publications is available to users.

##### *5.1.2 Dissemination media and formats are adequate*

The CPI is first provided as a press release and about an hour later entered on the Istat website. The data are later published in the *Monthly Bulletin of Statistics* of Istat and provided in detail on a diskette and in an annual publication.

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

The CPI data release procedures referred to above are strictly adhered to. The release date and hour are well known among the public. The final data are submitted to the President of Istat on the day before the day of the release. At 8:30 a.m. the following morning, the data are given in a locked room to the representatives of the press. The doors are opened at 9:00 a.m.

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

The CPI is released simultaneously to all users. No advance information is provided to any users.

##### *5.1.5 Nonpublished (but nonconfidential) sub-aggregates are made available upon request*

With Istat's President's permission, tabulations (as a rule for a fee) of more detailed data than normally published can be obtained by users.

## **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***

In connection with CPI revisions, Istat publishes comprehensive papers on the new methods and techniques introduced. The descriptions are provided in Italian. Summaries in English are occasionally available. The SDDS summary methodologies are updated quarterly, as necessary. The latest revision was made in March 2002.

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

Istat publishes documentation on various levels of detail according to users' needs. Comprehensive methodologies are provided to inform analysts in the series *Note Rapide*, while less elaborate descriptions and glossaries are available to general users in the *Monthly Bulletin of Statistics* and the annual publication on price statistics.

## **5.3    *Assistance to users***

### **5.3.1    *Contact person for each subject field is publicized***

The CPI press releases list the contact person, including the telephone number, to whom users can turn with their queries and requests. However, the e-mail address of this official has not yet been provided.

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

A catalogue for publications is available and updated each year. In addition, each Istat publication lists the most recent publications issued and discloses information on the prices of statistical publications. Assistance in placing orders also is provided.

Table 2. Italy: Data Quality Assessment Framework: Summary Presentation of Consumer Price Statistics

Elements	NA	Assessments				Comments
		O	LO	LNO	NO	
<b>Prerequisites of quality</b>						
0.1 Legal and institutional environment		X				More automated equipment needed for price collections.
0.2 Resources			X			
0.3 Quality awareness		X				
<b>1. Integrity</b>						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
<b>2. Methodological soundness</b>						
2.1 Concepts and definitions		X				
2.2 Scope		X				
2.3 Classification/sectorization		X				
2.4 Basis for recording		X				
<b>3. Accuracy and Reliability</b>						
3.1 Source data			X			<p>The number of price quotations collected each month is unusually large and the outlet samples used may be biased in some municipalities toward traditional stores. About half of prices are from outside the reference period.</p> <p>Assessment and validation of source data: Redundancy and possible bias in outlets.</p>
3.2 Statistical techniques		X				
3.3 Assessment and validation of source data			X			
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies		X				
<b>4. Serviceability</b>						
4.1 Relevance		X				
4.2 Timeliness and periodicity		X				
4.3 Consistency		X				
4.4 Revision policy and practice		X				
<b>5. Accessibility</b>						
5.1 Data accessibility		X				
5.2 Metadata accessibility		X				
5.3 Assistance to users		X				

Note: NA= Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed

### III. PRICE STATISTICS (PRODUCER PRICE INDEX)

#### 0. Prerequisites of quality

##### 0.1 *Legal and institutional environment*

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

The Legislative Decree 322/1989 places the National Statistical Institute (Istat) at the center of the National Statistical System (SISTAN), which covers the statistics offices of all levels of government and the chambers of commerce, industry, crafts industries, and agriculture. The Committee for Directing and Coordinating Statistical Information (Comstat), over which Istat presides, defines and issues binding directives for executing the National Statistical Program. This program details Istat's responsibility for national accounts, the accounts of the public administration, and price statistics.

The Commission for Guaranteeing Statistical Information, an independent body set up in the Office of the Premier, has the task of ensuring the impartiality and completeness of the information produced, the quality of the statistical methodologies and information technology systems used, the surveys' compliance with the directives of European Community bodies, and the protection of the confidentiality of personal data.

###### 0.1.2 *Data sharing and coordination among data producing agencies are adequate*

The law creating SISTAN contains provisions on data sharing and coordination within the system. Directives issued by Comstat have further strengthened these provisions. In addition, Istat has developed statistical information systems utilized throughout SISTAN for sharing data. Istat also cooperates closely with agencies that do not belong to SISTAN, such as the BI and the MEF, to establish data sharing protocols and agreements.

Istat is part of the European Statistical System and accordingly coordinates and shares data with Eurostat. (See the corresponding indicators in the National Accounts Section.)

###### 0.1.3 *Respondents' data are to be kept confidential and used for statistical purposes only*

Comprehensive confidentiality rules covering all statistical activities have been put in place. Legislative Decree 322/1989 specifies that dissemination may occur only in an aggregate form and in a manner by which it is not possible to identify data for any individual person or entity. In addition, the Law on the National Statistical Program of December 1994 establishes strict confidentiality rules for data included under the National Statistical Program. In accordance with the Law 675/1996, respondents are informed in writing on all statistical surveys of their rights and obligations with regard to the provision of information, and they are assured that the information they provide will be used for statistical purposes only.

Special aggregation rules have been developed to ensure that indirect disclosure of individual data does not occur when aggregations of data are presented. For instance, access to individual data is restricted to staff who require the information in the performance of their duties. Provisions are in place to supervise analysts that require access to disaggregated data.

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

Legislative Decree 322/1989 requires all government agencies, bodies, and administration offices to supply any data and information for surveys that are part of the National Statistical Program. Separate legal provisions acknowledge Istat's power to access administrative, even computerized, files of public administration offices, government agencies, and companies controlled by such administration offices.

The legal decrees approving National Statistical Programs specify which statistical surveys carry the mandatory requirement of private individuals and entities to supply all the data and information that is requested of them. Also, in most surveys measures are used to encourage voluntary response. However, in this respect, substantial improvements are needed for some surveys, such as the PRODCOM Survey and the Survey on Economic and Financial Accounts of Enterprises, for which the response rates have been very low.

**0.2 Resources**

*0.2.1 Staff, financial, and computing resources are commensurate with statistical programs*

At the end of 2001, Istat employed a total staff of 2,613, of which 2,240 were permanent and 373 contractual employees. In comparison with 2000, permanent staff increased around 4 percent; the considerable number of contractuels in 2001 can largely be attributed to temporary needs associated with the general censuses. Despite the increased staff resources, 149 projects (37 of which are the result of Community regulations) planned for execution in 2001 had to be postponed until 2002. The extensive requirements of the EU in the domain of new and timelier statistics are major contributors to the pressure on Istat's resources.

There are 95 workstations for every 100 Istat employees. All staff involved in statistical work have a workstation.

*0.2.2 Measures to ensure efficient use of resources are implemented*

Istat makes use of a wide range of efficacy, efficiency, structural, economic, and financial indicators to provide management with a mechanism to monitor institutional performance from both a quantitative and qualitative perspective. These indicators are published in Istat's *Annual Report*.

Istat's Governing Board has the task of optimizing available financial resources for the statistical programs, as well as the evaluation of costs against the activities to be carried out.



It would appear, however, that further efficiency gains could be made in various monthly and annual surveys, such as PRODCOM and enterprise surveys by close monitoring of the implementation of improved data collection procedures.

### **0.3     *Quality awareness***

#### **0.3.1   *Processes are in place to focus on quality***

Istat has put many measures in place to maintain and improve quality. For instance, Istat's Methodological Studies Office focuses on methods and techniques for survey quality control. On a broader level, Comstat, issues binding directives relating to SISTAN agencies on methodological and qualitative aspects of the National Statistical Program.

The focus on quality is also apparent from the Legend of Quality Measures published in the *2001 Italian Statistical Yearbook* and from Istat's leading role in the Eurostat expert group on quality aimed at providing guidance to the national statistical offices of EU member states.

#### **0.3.2   *Processes are in place to monitor the quality of the collection, processing, and dissemination of statistics***

By law, the overall monitoring of the quality of statistics is attributed to the Commission for Guaranteeing Statistical Information, an independent body set up to ensure the impartiality and completeness of the information produced under the National Statistical Program. Quality is also monitored by the SISTAN Quality Circles, which have oversight functions on progress of the National Statistics Program.

An example of the processes that Istat has put in place to monitor the collection of statistics is the Information System for Survey Documentation and Quality Control. This system manages both qualitative information and quality indicators related to each phase of the conducting of statistical surveys.

#### **0.3.3   *Processes are in place to deal with quality considerations, including tradeoffs within quality, and to guide planning for existing and emerging needs***

Quality considerations were a major reason for Istat's institutional reorganization in August 2000, which reflected the philosophy that more emphasis should be placed on pertinence, promptness and ease of use of the statistical information. In accordance with this philosophy, many changes have been introduced or are planned in the near future. These measures refer in particular to reducing the delay at which statistics are released and improving their accessibility, whether in hard copy or electronic format.

## **1. Integrity**

### **1.1 Professionalism**

#### *1.1.1 Statistics are compiled on an impartial basis*

The Commission for Guaranteeing Statistical Information is charged with ensuring the impartiality and completeness of the information produced by Istat. The commission views impartiality as being composed of two elements: first, data should be a truthful description of reality; second, data should be simultaneously disseminated to all users. Impartiality was also one of the cornerstones of Istat's reorganization of August 2000 according to the following official text: "Independence, impartiality, reliability, pertinence of the statistical information, reduction of the burden on respondents, and protection of statistical secrecy and privacy are the fundamental criteria inspiring the documents setting down the rules for implementing the organization decree."

#### *1.1.2 Choices of sources and statistical techniques are informed solely by statistical considerations*

There is no evidence that Istat is subject to outside pressure in its choice of sources and statistical techniques.

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

Although Istat's independence and the functions of Istat's President in SISTAN guarantee the right to comment in cases of erroneous interpretation or misuse, such is rarely done in practice with respect to the PPI.

Istat's policy is to avoid any misunderstandings by providing ample information with the releases. The Press Office has instituted a call-in service whereby journalists may obtain explanation of the information disseminated. Senior researchers are present at most press conferences to explain the data, particularly in cases when methodological changes have been introduced. Istat's president may also indirectly comment on erroneous interpretations by giving an interview to one of the major newspapers.

### **1.2 Transparency**

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

The complete set of documents that articulate the terms and conditions under which Istat executes the statistical program is available to the public on the SISTAN website. Furthermore, the *Carta dei Servizi Esterni della Diffusione* (Charter of Dissemination Services) is available to the public on the Istat website.

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

National government access is not given prior to release, and data releases are not signed off by any outside authority.

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

All Istat publications are identified as being produced by Istat.

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

Advance notification of methodological changes is provided through seminars and papers disseminated throughout the academic community. Changes under consideration are also indicated—in advance—in the text of the *Three Year National Statistical Plan*, in such publications as *Quick Notes*, and *Information Series*.

**1.3 Ethical standards**

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

All public servants take an oath about conduct expected of them before they enter the public service. In addition, by signing the employment contract any new Istat staff member undertakes not to disclose individual data. New employees follow a training program of one week, in which staff ethics is one of the subjects treated. Istat has no involvement in the instructions given to statistical staff employed by other agencies, such as the large number of temporary enumerators that were hired by the municipalities to conduct the 2001 census.

**2. Methodological soundness**

The PPI is at present undergoing the regular revision that is due every five years. In this work, Istat follows EU Regulation 165/1998, which establishes certain data requirements, primarily regarding the coverage, periodicity, and timeliness of the data. Also, as a guideline for this work, the *Eurostat Manual of Business Statistics* of 1998, with its recommendations on short-term statistics (Section 3.0), is used. Some of the new statistical methods and procedures introduced in connection with the 1999 revision of the CPI will also be applied to PPI compilations, where applicable. The Istat staff now have an opportunity to upgrade the PPI to the highest EU standards.

## **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 PPI (1995=100) was developed using 1993 SNA national accounts concepts for recording and valuation of product prices and weights (ESA 95 was not ready at that time). PRODCOM concepts and definitions are followed for individual products whose prices are to be measured each month. The current PPI refers to output prices; input price and stage of processing indices are not calculated. Instead, indices by final use are provided.

## **2.2 Scope**

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

The PPI covers core mining, manufacturing, and energy generating activities. Business services are not covered, but at the request of the ECB, discussions in EU on the feasibility of compiling indices on them, particularly communication services, have started and pilot surveys are being prepared. (As of early 2002, only the PPI of the U.K. includes various such services.) Following EU recommendations, uranium mining, nuclear fuels, weapons and ammunition, ship and aircraft building can be excluded, as reliable data on these activities are difficult to obtain. In addition, the Istat PPI excludes the mining of iron ore, and the building of locomotives and train wagons. Separate price indices are provided for agricultural products and construction activities.

Following the 1993 SNA (and later the ESA 95), all resident market enterprises are included. The coverage of the PPI differs from the 1993 SNA as it excludes changes in inventories, own-account production of goods for own final consumption and capital formation, services, and illegal sales to willing buyers. These omissions are common for PPIs and allowed by the EU.

## **2.3 Classification/sectorization**

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

The 1993 SNA is followed in the classification of institutional units and transactions. The NACE, Rev. 1 (ATECO91 for Italy) is used for the classification of industries and product groups down to the five-digit level (a fifth digit has been added for domestic purposes). The classification of products and varieties is based on a combination of the NACE, the Classification of Products by Activity, and PRODCOM down to the nine-digit level. Istat uses its own detailed classification of goods by end use, but also provides data to Eurostat according to the Main Industrial Grouping classification (Commission Regulation 586/2001).

## **2.4 Basis for recording**

### **2.4.1 Market prices are used to value flows and stocks**

Weights and prices are valued at billed sales prices (ex-factory selling prices) for own products, excluding VAT and other specific taxes and transportation costs.

### **2.4.2 Recording is done on an accrual basis**

The output data for products used for weighting are recorded at the time they are sold. Price data for products refer to the time of the sales contract (or orders booked during the month, according to the *Eurostat Manual of Business Statistics*). For simple products, such as fuels, prices are recorded on the 15<sup>th</sup> of each month. For more complex products, the timing of the recording depends on when the most representative contract of the month is concluded. In general, PPI data are recorded when the products are sold and not when they are produced (as recommended by 1993 SNA).

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

In the Italian classification of products according to end use (that differs from the EU classification), weight distribution ratios have been established for products with different end use. The ratios were derived through a detailed analysis of input/output accounts. Transactions between establishments within an enterprise are not recorded.

## **3. Accuracy and reliability**

### **3.1 Source data**

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

Istat has developed a comprehensive and up-to-date business register (ASIA), which is used as a database for various surveys. The business register is based on data from several sources, such as the census of industry, trade, and services (undertaken every five years) and the registers of the Chamber of Commerce, the MEF, and the National Institute of Social Security. The main source for the PPI product weights was the 1993 PRODCOM Survey, which covered a total of 70,000 industrial establishments (out of 250,000) and 6,000 products. This large sample includes all establishments with 20 employees or more (50,000 establishments) and a random sample of 20,000 small establishments with 3-19 employees. In accordance with EU Regulation 3924/1991, the output coverage of the survey should reach 90 percent per NACE Rev. 1 class. The Istat monthly industrial production survey, covering about 8,000 establishments and 600 products, was used to update these source data through 1995. However, due to the low rate of response (60 percent or less in the past), the output coverage for the annual survey has been reached on the basis of a much smaller sample than planned for and the accuracy and reliability of the survey

results thus are questionable. Istat has been trying to improve the response rate by contacting nonrespondents and is now using a special agency to remind them to respond. Also, the collaboration of the industrial associations involved has been sought and as a result, the response rate is expected to increase far above the 65 percent recorded in 1999 and the publication lag already has been reduced to 18 months. To improve further the estimates of industry totals, attempts have been made to replace missing establishments with similar establishments selected at random among the respondents.

The source for activity weights is the Istat Survey on Economic and Financial Accounts of Enterprises, which includes 8,500 enterprises with 100 employees and more, and a random sample of 110,000 small enterprises. The coverage target is 80 percent, but again the response rate has been low (around 50 percent) and the estimated production totals are therefore in doubt. Results become available about 18 months after the reference period. This survey is now being thoroughly revised. The questionnaire and the data collection procedures have been streamlined. But most importantly, data for the missing enterprises will be supplemented with business account data obtained from the Chamber of Commerce register, which includes about 600,000 corporate enterprises. These data cover about 90 percent of the employment of large- and medium-sized enterprises (with 20 employees or more), but only 45 percent of small enterprises. As the turnover and employment data for the larger enterprises are very close to the corresponding estimates produced by the enterprise survey, Istat plans to use these account data to complete at the NACE three-digit level the corresponding survey data for missing enterprises. However, for small enterprises, the Chamber of Commerce data are of little help. Here Istat will improve the data collection procedures by simplifying the questionnaire and increasing the number of visits to the enterprises. Furthermore, the possible bias from nonresponse will be reduced by replacing missing enterprises with similar responding enterprises, as was done for the PRODCOM survey. The new industry estimates for 2000 should become available in June 2002, and they are expected to provide a more reliable source for the PPI weights.

From the source data updated through 1995, sectors, activity groups, and product groups were determined according to the shares of each group in total product sales. A judgmental process was applied in the selection of products and enterprises. The product groups selected at the four-digit level had to cover at least 90 percent of total value added of Section D of NACE Rev. 1, while the enterprises selected covered on average 70 percent of total product sales with a minimum coverage of 40 percent, as recommended by Eurostat. These enterprises were surveyed in 1995 for the purpose of obtaining the major product varieties produced, monthly price data for these varieties (base-year prices), a description of the terms of transactions, and sales volumes. As mentioned before, the final product varieties selected were those deemed most representative for the enterprise.

For the regular monthly PPI, price data are collected for 1,034 products from 3,680 establishments. A monthly form is used to collect the data by fax, e-mail, or mail. About 12,000 price quotations are received each month. A new comprehensive program for data entry and monitoring was introduced recently.

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

The source data used for weights and prices largely meet the definition, scope, classification, valuation, and timing requirements of the PPI. Istat plans as a first priority to compile an export price index (called industrial output prices on nondomestic markets) as required by EU regulation. Later on, the PPI coverage will be expanded to major business services and an import price index introduced. Random sampling methods are considered for the new sample of small enterprises under development.

### *3.1.3 Source data are timely*

As source weight data for 1995 were not available at the time of the revision of the PPI, 1993 and 1994 data were used instead. These data were partly updated using the monthly production surveys, as mentioned before. A later check of the 1995 source data at the time when they finally became available revealed that they would have produced practically the same weights as those already adopted. Regarding monthly price collections, establishments are required to submit data by the 5<sup>th</sup> of the month following the reference month, but many of them tend to pass the deadline. On the 20<sup>th</sup> of the month, reminders are sent to non-respondents by an external company providing postal services (i.e., sending faxes and/or priority mail to listed addresses) and the responses are closely monitored by Istat. In order to comply with EU regulations and SDDS requirements, Istat recently has been able to reduce the response and publication lag by about 12 days. As a result, the PPI now becomes available within the month following the reference month.

## **3.2 Statistical techniques**

### *3.2.1 Data compilation employs sound statistical techniques*

Indices are calculated at the four-digit level of NACE and the nine-digit level of PRODCOM. Product prices are calculated from variety prices using arithmetic means. Long-term price relatives are based on the average of price relatives. The Laspeyres formula is then used to aggregate the product indices to various industry levels. In the ongoing revision of the PPI, Istat plans to introduce geometric mean calculations for elementary series, as recommended in the *Eurostat Manual of Business Statistics*. However, the use of the chain version of the Laspeyres formula with annual links, also recommended by the EU to capture structural change, has not yet been considered. When the PPI (1995=100) was introduced in 1997, the previous index was linked to it by using linking factors for 1995.

Prices for temporarily missing products are estimated by carrying forward the last reported price for a maximum of three months. Perishable products, such as fruits and fish, are not included in the sample. For products or varieties that become permanently unavailable, a substitute product of similar characteristic is selected. If needed, quality adjustments are made based on the overlap pricing method. Here the *Eurostat Manual of Business Statistics* encourages the use of hedonic methods to estimate the effect on price from quality change

especially in the computer industry. An Istat working group recently has been formed to develop recommendations in this area and it will report to Eurostat on its findings.

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

In linking earlier versions to the 1995 based PPI, the back data for activity groups had to be reclassified to agree with the new NACE.

The industrial goods producing sector of the economy is well covered by the PPI. The service industries are excluded. The proportion of total industrial output that is not covered in regular PPI compilations is less than 10 percent due to the coverage adjustments mentioned above (see section 3.1.1). The same applies to each of the industry groups included in the PPI.

**3.3 *Assessment and validation of source data***

*3.3.1 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 planning*

Because of low response rates, information on sampling errors for weighting data is not available. Regarding the price surveys, there are few problems of nonresponse as the relationship established over the years with respondents is very good. In the monthly price collection, large price changes of 10 percent or more are verified with respondents to ensure accuracy. Istat frequently contacts the respondents by phone to keep abreast of developments in the product sample and to collect other information. Sector specialists are consulted to improve coverage.

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

*3.4.1 Main intermediate data are validated against other information where applicable*

The staff of the Price Statistics Division regularly compare PPI data with comparable components of the CPI, and with export and import price indices. The *General Report on the Country's Economic Situation* (published by the MEF) includes an analysis of inflation in which the various price indices produced by Istat are compared, as does Istat President's report at the annual Parliamentary hearings on the budget law.

*3.4.2 Statistical discrepancies and other potential indicators of problems in intermediate data are investigated and available to guide users*

Unusual movements in the PPI are investigated. However, these movements are not normally explained to the users. The PPI press releases do not provide any analysis of the data; they only describe in percentage terms recent changes in the PPI data.



*3.43 Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated and available to guide users*

The economic activity indices are derived from product indices, so there are no discrepancies in aggregates.

**3.5 Revision studies**

*3.5.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes*

The discrepancies between preliminary and final data are very small and therefore have not been published. However, occasionally studies have been undertaken, for example, when the response for petroleum data was delayed, which affected the movements in provisional data to an unacceptable degree. This problem was solved by achieving an improvement in the collaboration from the oil companies.

**4. Serviceability**

**4.1 Relevance**

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

Users' needs in the area of price statistics are periodically monitored by the Commission for Guaranteeing Statistical Information in connection with the annual review of the three-year statistical program for Italy. The program then becomes law. Advisory committees for the development of the CPI, PPI, and HBS are regularly established. Also at the municipal level, users' views are represented in the recommendations of the local statistical commissions. Every two months, Istat staff participate in the Prices Monitoring Group, which also includes representatives of trade unions, retailers and wholesalers. In the regular meetings of the Quality Circles, arranged by Istat, discussions this year concerned an experiment in Milan to collect prices on goods sold through the Internet, the need to start collecting producer prices for exported goods, (as recommended by Eurostat), and the possibility of producing measures of core inflation. Meetings also are held at least once a year with representatives of the Association of Industry. High priority is given to addressing the concerns of international users. Istat price statistics staff regularly participate in meetings and seminars organized by Eurostat, the UN, the ILO, and the OECD, and it contributes to the development of best practices in EU price compilations.

## **4.2 *Timeliness and periodicity***

### **4.2.1 *Timeliness follows dissemination standards***

The provisional PPI is published at the end of the month following the reference month. The PPI, therefore, complies with SDDS requirements.

### **4.2.2 *Periodicity follows dissemination standards***

The PPI is published monthly according to the SDDS.

## **4.3 *Consistency***

### **4.3.1 *Statistics are consistent within the dataset***

Aggregate and component PPIs are consistent.

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

As a result of linking the new PPI time series to previous versions, consistent time series are available for more than five years. Methodological notes explain the main breaks and discontinuities in the series.

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

Following *ESA 95* and other EU regulations, PPI data are broadly in line with national accounts deflators of production.

## **4.4 *Revision policy and practice***

### **4.4.1 *Revisions follow a regular, well-established and transparent schedule***

The Istat advance calendar for the data releases during the year provides the dates for the release of both the provisional and the final PPI.

### **4.4.2 *Preliminary data are clearly identified***

Preliminary data for the PPI are published at the end of the month following the reference period. However, the preliminary character of the data is not as clearly identified as for the CPI.

### **4.4.3 *Studies and analyses of revisions are made public (see also 3.5.1)***

As the revision of the final PPI data is negligible, there has been no need to analyze and publicize any discrepancies.

## **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 PPI press release provides an overall index with breakdowns on the economic use of the products and for 3 sectors and 14 subsectors of NACE, Rev. 1. The PPI presentations provide charts and comments, which are, however, restricted to repeat the percent changes already appearing in the tables. In general, table outlays are easily readable. A printed catalogue listing Istat publications is available to users.

#### *5.1.2 Dissemination media and formats are adequate*

The PPI is first provided as a press release and about an hour later entered on the Istat website. The data are later published in the *Monthly Bulletin of Statistics* of Istat and provided in detail on a diskette and in an annual publication.

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

The PPI data release procedures referred to above are strictly adhered to. The release date and hour are well known among the public. The final data are submitted to the President of Istat on the day before the day of the release.

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

The PPI is released simultaneously to all users. No advance information is provided to any users.

#### *5.1.5 Nonpublished (but nonconfidential) sub-aggregates are made available upon request*

With Istat's President's permission, tabulations (as a rule for a fee) of more detailed data than normally published can be obtained by users.

### **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*

In connection with PPI revisions, Istat publishes comprehensive papers on new methods and techniques introduced. The descriptions are provided in Italian. Summaries in English are occasionally available. The SDDS summary methodologies are updated quarterly, as needed. The latest revision was made in March 2002.

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

Istat publishes documentation on various levels of detail according to users' needs. Comprehensive methodologies are provided to inform analysts in the series *Note Rapide*, while less elaborate descriptions and glossaries are available to general users in the *Monthly Bulletin of Statistics* and the annual publication on price statistics.

**5.3 Assistance to users**

*5.3.1 Contact person for each subject field is publicized*

The PPI press releases list the contact person, including the telephone number, to whom users can turn with their queries and requests. However, the e-mail address of this official has not yet been provided.

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

A catalogue of publications is available and updated each year. In addition, each Istat publication lists the most recent publications issued and discloses information on the prices of statistical publications. Assistance in placing orders also is provided.

Table 3. Italy: Data Quality Assessment Framework: Summary Presentation of Producer Price Statistics

Elements	NA	Assessments				Comments
		O	LO	LNO	NO	
<b>Prerequisites of quality</b>						
0.1 Legal and institutional environment		X				
0.2 Resources		X				
0.3 Quality awareness		X				
<b>1. Integrity</b>						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
<b>2. Methodological soundness</b>						
2.1 Concepts and definitions		X				
2.2 Scope		X				
2.3 Classification/sectorization		X				
2.4 Basis for recording		X				
<b>3. Accuracy and Reliability</b>						
3.1 Source data			X			Source data: Surveys providing the weighting scheme were subject to large nonresponse.
3.2 Statistical techniques			X			Index does not adequately capture structural change.
3.3 Assessment and validation of source data		X				
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies		X				
<b>4. Serviceability</b>						
4.1 Relevance		X				
4.2 Timeliness and periodicity		X				
4.3 Consistency		X				
4.4 Revision policy and practice		X				
<b>5. Accessibility</b>						
5.1 Data accessibility		X				
5.2 Metadata accessibility		X				
5.3 Assistance to users		X				

Note: NA= Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed

## IV. GOVERNMENT FINANCE STATISTICS

### 0. Prerequisites of quality

#### 0.1 *Legal and institutional environment*

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

There is no single agency responsible for compiling and disseminating a comprehensive and integrated set of government finance statistics. Three agencies—Istat, the MEF and the BIX—are responsible for collecting, processing, and disseminating different components. The availability of independent datasets is valuable in allowing cross-checking of the data, but the fragmentation of responsibility presents a major problem in providing comprehensive and consistent statistics in this area. The problem is acknowledged by the authorities and a Commission including representatives of the three agencies has been put in place to achieve a reconciliation of the data.

- Legislative Decree 322/1989 Article 15 gives Istat the authority to collect data required for compiling macroeconomic statistics, including the national accounts. In this regard, Istat is responsible for compiling the general government deficit (net borrowing) required for reporting on Italy's compliance with the Stability and Growth Pact.
- For budget management purposes, Legislative Decree 468/1978 Article 30, as modified by Legislative Decree 208/1999, gives the MEF responsibility for the compilation and dissemination of the revenue and expenditure data for general government on a cash basis. According to this law, the MEF must present the *Economic and Financial Planning Document*, containing the budget (and three-year forecasts), to Parliament not later than June 30 each year. In addition, it must present cumulative quarterly reports on the execution of the budget on a cash basis. The MEF also compiles central government financing and debt data on the basis of Legislative Decree 468/1978 and Presidential Decree 38/1998.
- The 1993 Banking Law (Legislative Decree 385/1993) provides the BI with authority to collect information directly from Italian banks and other financial institutions. In this regard, the BI is responsible for compiling financing and debt data for the general government sector.

Istat publishes annual accrual estimates for the operations of the general government sector in the context of the national accounts. The MEF publishes monthly cash-based data on revenue, expenditure, financial asset transactions, and the cash borrowing requirement for the

budgetary central government. It also publishes the same details on a quarterly and annual basis for the general government sector. The BI publishes monthly, quarterly and annual data on financing and debt for the general government sector; breakdowns by subsector, financial instrument, and holder are provided.

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

The MEF, the BI, and Istat have established a number of specific agreements for the exchange of data. Each agency reports that these agreements give them the data they need. For example, there is a legal convention that governs the provision of data by the MEF to Istat for the purpose of compiling the national accounts. The convention defines the characteristics of the data, the level of detail, the periodicity and timeliness, and the format of the data transmission. Several official inter-institutional working groups are in force on a very large number of issues. The MEF also has a less formal agreement by which, e.g., data on state interest expenditure on an accrual basis are provided to Istat and the BI on a quarterly basis to calculate aggregates for transmission to Eurostat and the ECB. The BI provides Istat with a complete set of data for financial accounts (flow of funds) and also data on general government borrowing requirement financing and debt for transmission to Eurostat and the European Commission.

Istat has prepared, and maintains, a complete list of public units that comprise the different subsectors of general government. This list is routinely provided to the MEF and the BI for use in classifying their data consistently with the national accounts definition of general government.

*0.1.3 Respondents' data are to be kept confidential and used for statistical purposes only*

Confidentiality of individual responses is not generally an issue. However, Istat treats its collection and processing of government statistics in the same manner as other source data—i.e., the comprehensive confidentiality provisions of Istat's legislation are considered to apply. The oath of office of the MEF employees provides broad guidelines applicable to confidentiality. The BI statistics do not disclose the data of individual institutions or transactions. Council Regulation (EC) 2533/1998 governs the collection of statistical information for the fulfillment of ESCB tasks and includes a requirement for confidentiality (Article 8). The 1993 Banking Law includes a secrecy clause (Article 7), which ensures the confidentiality of individual data and requires that data be disseminated in a manner that prevents identification of individual persons or entities.

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

According to Article 7 of Legislative Decree 322/1989, all government agencies, bodies and administrative offices are required and are obliged to supply to Istat any data and information that is requested of them for surveys that are part of the National Statistical Program. In addition, Istat performs an activity aimed at encouraging responses of high quality and

exhaustiveness (through Quality Circles, focus groups, preliminary meetings with associations of respondent units for provinces and municipalities, etc.).

There is an analogous specific legal mandate ensuring the reporting of the cash based data collected by the MEF on the activities of central government units. The MEF views the provisions of Legislative Decree 468/1978, as amended by Legislative Decree 208/1999, as playing the same compulsory role and noted that all units report except for about 5 percent of local government units and the small mountain communities.

Statistical reporting to the BI in support of its supervisory and surveillance functions with respect to Italian MFIs is governed by various regulations of the ECB and by provisions in the 1993 Banking Law.

## **0.2 Resources**

### *0.2.1 Staff, financial, and computing resources are commensurate with statistical programs*

Existing staff resources at Istat and the BI (Public Finance Directorate) are sufficient to carry out their current responsibilities. Both units have well qualified and highly motivated staff.

The MEF has traditionally had almost no statistical capacity. It recently (2001) adopted planning mechanisms focused on ensuring adequate staff, financial, and computing resources in the area of statistics. Most training in the area of statistics is occurring on-the-job.

### *0.2.2 Measures to ensure efficient use of resources are implemented*

Istat and the BI have implemented programs for monitoring the utilization of staff, computing and financial resources. Managers in the MEF report that there is little flexibility for reallocating scarce resources during periods of critical need.

## **0.3 Quality awareness**

### *0.3.1 Processes are in place to focus on quality*

Istat, as the central agency of SISTAN, has recognized the importance of quality and has put in place management tools for evaluating the quality of the information produced, as has the BI (see 0.3.2). The MEF focuses on the application of accounting rules. As there are no surveys using estimates, quality control processes have not been formally documented.

### *0.3.2 Processes are in place to monitor the quality of the collection, processing, and dissemination of statistics*

Istat has a department charged with the construction of an integrated and consistent approach to assessing quality through the use of generalized software programs for producing and disseminating data (i.e., instruments connected with sampling, checking, and correcting



elementary elements). At a national level, SISTAN has enacted a Quality Circles Statute with oversight functions on the progress of the National Statistical Program. Extensive involvement in inter-agency working groups is also directed towards ensuring the quality of the statistics used by Istat in compiling government finance statistics. Istat (national accounts unit and the unit that has the responsibility for the data collection surveys) regularly checks the quality of data (coverage, classification, missing or erroneous recordings or answers to surveys, etc.), their internal consistency and the consistency between data coming from alternative or linked data sources (Istat, the MEF, the BI, others).

The MEF data are audited. In addition, informal processes relying on the professional judgment of the staff working with the central government operations data are employed. The MEF debt data are subjected to checks on the underlying data bases, imputation techniques, and a review of the related documentation. Cross-checks are also carried out against data contained in the budget. In calculating yields, the Debt Management Department relies on “internal professionalism and market based conventions.”

The BI (Public Finance Directorate) employs consistency checks between financing flows and debt stocks. Also, the BI advised that information obtained from large datasets is cross checked with information obtained directly from the institutional units involved in a transaction. Consistency with data produced by other agencies (Istat and the MEF) is also monitored.

### *0.3.3 Processes are in place to deal with quality considerations, including tradeoffs within quality, and to guide planning for existing and emerging needs*

Trade-offs among quality considerations (such as timeliness and accuracy) do not always appear to be major factors taken into account when setting statistical priorities. New data requirements appear to be frequently added to the work program. In guiding Istat planning for existing and emerging needs, permanent contacts (also through working groups, focus groups, seminars, etc.) with main users or institutional bodies (Court of Auditors, Parliament, public or private research institutions, Eurostat, OECD, etc.) are important.

## **1. Integrity**

### **1.1 Professionalism**

#### *1.1.1 Statistics are compiled on an impartial basis*

Under specific provisions of Legislative Decree 322/1989, the Commission for Guaranteeing Statistical Information is charged with ensuring the impartiality and completeness of the information produced by Istat. The Commission views impartiality as being composed of two elements—data should mimic reality and should be simultaneously disseminated to all users. Legislative Decree 468/1978 provides for the impartiality of data compiled by the MEF.

The statutory provisions under which the BI compiles statistics are adequate to support its independence in conducting these functions. In this regard, provisions in both the Community Legislation and the 1993 Banking Law complement the BI's long tradition of institutional independence and professionalism.

The professionalism of Istat and the BI staff is supported by recruitment procedures and a selection process that evaluates exclusively the merit and the potential of candidates and current employees. Staff at various levels participate in international organizations' committees in order to maintain close and frequent contacts with representatives from other countries. Staff are also engaged in the working groups of national bodies engaging in economic research and analysis. The results of such participation can be seen in the methodological papers produced. The staff are actively involved in academic debate through the publication of discussion papers, articles, books and the participation to conferences and seminars.

*1.1.2 Choices of sources and statistical techniques are informed solely by statistical considerations*

Staff in Istat, the MEF, and the BI appear to be free from political or other influence in choosing the most appropriate sources and methods for compiling their respective data on government finances.

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

Compilers of general government data are available to provide expert advice on technical aspects of the statistics and each institution is allowed to respond publicly to any misinterpretation of the statistics. Explanatory material to aid in the interpretation of the statistics is provided routinely through press releases and in the statistical publications, although more could possibly be done to inform users of the differences among items that have a similar name. In this field, Istat plans to release a methodological publication where, among other things, differences in concepts and content of different items will be analytically explained.

**1.2 Transparency**

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

The terms and conditions for the compilation and dissemination of statistics by Istat are available through the SISTAN website. Furthermore, the *Carta dei Servizi Esterni della Diffusione* (Charter of Dissemination Services) is available to the public on the Istat website. Legislative Decree 468/1978 as amended by Legislative Decree 208/1999, which governs the collection of data by the MEF, also is publicly available. The Banking Law and other national level normative texts are available on the BI website.

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

There is no internal government access to the data prior to their publication.

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

General government statistics are disseminated in agency-specific publications and websites. Statistics compiled by another agency that are included in the publication normally identify the source agency in a footnote to the tables.

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

Changes as significant as the adoption of the *ESA 95* framework are notified in advance through seminars and methodological papers. Other changes are described in the relevant publication at the time the change is effected.

**1.3 Ethical standards**

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

Staff in Istat and the MEF are bound by the rules applying to all public service staff, as set out in the Code of Conduct adopted by the Italian Data Protection Commission regarding the obligations applying to all civil servants as to “loyalty, impartiality, diligence, and commitment to work.” In addition, the specific legislation related to each agency include provisions concerning the behavior of staff that are reflected in their oaths of office. Training is provided by Istat to newly recruited employees, both researchers and other levels, where behavior rules are clearly pointed out.

Concerning the BI, guidelines for staff behavior are clear and are published in the document *Bank of Italy Staff Rules*, which includes references on professional secrecy and staff conduct. Every new BI employee participates in an extensive orientation and training program that is aimed at explaining the fundamental duties and powers of the BI and its employees. The organizational structure of the Research Department and the established modalities for interaction with national and supranational users are also designed to foster ethical behavior.

## **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***

There is no comprehensive and integrated presentation of government finance statistics that is published in a single location. Users must obtain data from various sources that are compiled on different bases and are not completely consistent. However, the BI's *Annual Report* and bi-annual *Economic Bulletin* publish statistics produced by both Istat (general government accounts) and the BI (general government financing and debt data), and the methodological section of the *Annual Report* includes some information on how the different indicators are conceptually related.

General government sector statistics are compiled and published by Istat on an accrual basis in the context of national accounts that are based on *ESA 95*. These data cover nonfinancial transactions only and, in addition to their use in the broader national accounts context, are used to compile the net lending/borrowing balance required under the Stability and Growth Pact. Also, cash-based general government accounting data are published by the MEF using a national presentation that identifies the government's cash borrowing requirement. Istat has published a reconciliation between the cash borrowing requirement of the general government (the MEF balance) and the accrual measure of net lending/borrowing.

Neither of these presentations include information on the financing of the respective borrowing measures. Financing data corresponding to the net borrowing/net lending compiled by Istat are produced by the BI. They are transmitted by Istat to Eurostat and are stored in the New Cronos data base. Istat plans to publish them in the next yearbook on institutional sector accounts. The BI also produces financing data corresponding to the cash borrowing requirement compiled by the MEF. Both types of financing data are published by the BI database; they differ significantly in 2000 and 2001 from the corresponding borrowing measures compiled on the formation side. The BI statistical database includes, also, information on the stock of general government debt valued in domestic currency at face value.

Neither the MEF nor Istat publish their data using the analytic framework recommended in the international standard for government finance statistics (*GFSM 1986* or *GFSM 2001*). However, their revenue and expenditure data by economic type can be broadly related to the international standard.

There are no plans to compile statistics according to the framework of the new *GFSM 2001*. Istat is considering the possibility of compiling integrated nonfinancial and financial statistics for general government as an extension of its current responsibility for compiling the general government sector of the national accounts.

## **2.2 Scope**

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

General government statistics—covering budgetary and extrabudgetary central government, social security funds, and local government (regions, provinces, municipalities and mountain communities, local health units, etc.)—are compiled and published by Istat annually. In addition, and in accordance with pending EU regulations, quarterly national accounts based statistics for the general government sector are being developed.

The MEF publishes public sector data quarterly and annually with a coverage that is slightly different from Istat's general government. Consolidated data are published for the MEF's version of the general government sector as well as its component subsectors. Monthly data are published by the MEF for budgetary central government.

The BI financing and debt statistics are compiled each month for the general government sector and its component subsectors.

## **2.3 Classification/sectorization**

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

The general government institutional sector is defined by Istat in accordance with *ESA 95*. The definition of the subsectors of general government is also consistent with *ESA 95*, and utilizes the allowable option of showing the social security funds as a separate subsector. Istat compiles and publishes the nonfinancial transactions of general government according to the classifications of *ESA 95*, identifying the standard items of the accounts for production, primary and secondary income flows, and transactions in nonfinancial assets. As noted in 2.1.1, Istat does not yet publish information on the financial transactions of general government.

The BI uses the same definition of government as Istat. Indeed, a common listing of public entities is used to ensure consistency of coverage of units in both datasets. The BI includes a section on public finances in its *Annual Report* that provides consolidated accounts of the general government that identify separately, revenue by broad type, current expenditure by economic type, capital expenditure, and the net borrowing. Other tables provide details of the formation of the general government's cash borrowing requirement and its financing as derived from the BI sources, along with information on the stock of debt. (The latter tables are also published monthly in a supplement to the monthly bulletin.)

The MEF uses a national classification to derive the government's cash borrowing requirement, as follows:

**Current revenue**

Taxes (total, direct, and indirect)  
Property income  
Social contributions  
Sale of goods and services  
Sale of capital assets  
Current transfers  
Other current revenue

**Capital revenue**

Capital transfers  
Depreciation (historic cost)  
Other capital revenue

**Financial assets**

Repayment of loans extended  
Change in bank deposits (net reduction)  
Other decrease in financial assets

**Total cash inflows**

**Current expenditure**

Personnel costs  
Purchase of goods and services  
Current transfers  
Interest  
Depreciation (historic cost)  
Other current expenditure

**Capital expenditure**

Capital formation  
Capital transfers  
Other capital expenditure

**Financial assets**

Acquisition of shares and equity  
Extension of loans  
Change in bank deposits (net increase)  
Other increase in financial assets

**Total cash outflows**

**Balance (government cash borrowing) = Total outflows less total inflows**

Data on bank deposits refer to commercial banks only (changes in deposits held by the Treasury at the BI are considered among the financing items). Sectoral details of the government borrowing are also provided. Instrument details are provided for the central government (State) sector only.

The MEF data are consolidated in accordance with the requirements of *GFSM 2001* and a table is provided that shows each subsector and the consolidation adjustments separately. The treatment of some transactions in the public accounting standards differs from that used in macroeconomic statistics.<sup>13</sup> Istat and the MEF cooperate closely to identify such transactions and treat them appropriately.

In addition, Istat prepares general government expenditure estimates classified by COFOG, while the MEF prepares COFOG data for expenditure of budgetary central government.

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<sup>13</sup> For example, when an extraordinary dividend is paid by a public enterprise to the government. In the MEF data this transaction is recorded as a component of revenue, while in government finance statistics and national accounts it is treated as a withdrawal of equity from the enterprise.

## **2.4 Basis for recording**

### *2.4.1 Market prices are used to value flows and stocks*

Generally, flows comprise only cash transactions and as a result are valued at market prices. In accordance with EU guidelines and *GFSM 1986*, debt liabilities are recorded at face value rather than market value. However, the BI also publishes financial flows which include accrual adjustments and stocks valued at market value (flow of funds statistics; in accordance with ESA95); this work is carried out in close cooperation with Istat. Foreign currency flows are converted to national currency using the mid-point of the buying and selling market exchange rates on the date of the transaction, while stocks are converted using end of period rates.

### *2.4.2 Recording is done on an accrual basis*

Istat estimates the nonfinancial transactions of government on an accrual basis. Generally, revenue is estimated by using techniques that time-adjust the cash data. In so doing, Istat is careful to take account of the different timing characteristics of the cash flows for a wide range of revenue items (e.g., different types of taxes). Expenditures are estimated from information on commitments. Reporting of data by local health units provides an exception to these general approaches in that they report to Istat (via the Ministry of Health) directly on an accrual basis. Interest expense is estimated on an accrual basis using the original terms of the contract to adjust for premia or discounts. Consumption of fixed capital is estimated using a perpetual inventory model based on a very long time series of asset holdings.

Normally, the cumulative accrual and cash estimates for particular items should be virtually identical over time. Istat noted that this is not currently the case for taxes in Italy because in the past the government built up extensive arrears by not paying tax refunds that were owed and has recently been reducing these arrears significantly. Istat plans to publish a methodological note explaining the difference between the cash and accrual estimates.

The MEF data on nonfinancial transactions and on financial transactions in assets are on a cash basis in conformity with *GFSM 1986*. The MEF also provides Istat with information that allows for time-adjusting the cash data.

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

All revenue and expenditure transactions are shown on a gross basis. In this regard, the MEF incorrectly shows taxes and related tax refunds (including refunds arising from the net

payment of VAT by producers) on a gross basis.<sup>14</sup> Consistent with international standards, Istat records the tax revenue net of any refund.

Also, consistent with international guidelines, debt stocks are recorded by the BI on a gross basis, while financing transactions are shown net at the detailed level of the classification used, i.e., by instrument, currency, residency, or counterparty.

### **3. Accuracy and Reliability**

#### **3.1 Source data**

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

The MEF uses administrative sources to obtain timely coverage of general government cash based transactions. In addition to data on budgetary central government, which are available monthly, public entities outside the budget—social security funds, extrabudgetary funds, regional, provincial, and local government units—are required by law to report to the MEF on a quarterly basis. As a result, according to the MEF, data are reported for all units except for about 5 percent of local governments and the small mountain communities. Information is available from the accounting system to enable the consolidation of transfers among different levels of government. However, the MEF indicated that there was evidence of a build up of arrears at the local government level.<sup>15</sup> Similarly, the MEF (Debt Management Department) noted that they publish only central government financing data because the coverage and reporting of such data to them by local governments is deficient. Local governments can finance capital spending by direct borrowing but are not required to report these data. A decree to strengthen the reporting of borrowing by local governments has been drafted and is currently subject to comment.

Istat combines the MEF budget data with annual censuses of the other general government units. The censuses collect comprehensive information on revenue (assessments and cash receipts), expenditure (commitments and cash payments) and financial transactions. Owing to the long delays experienced with reporting by some municipalities, Istat introduced a rapid reporting system in 2000 to collect information from a stratified random sample of municipalities. The survey provides for electronic reporting and is benchmarked against the latest fully enumerated census results. Local health units report accrual data to the Ministry

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<sup>14</sup> The MEF shows the gross VAT as revenue and the deductible VAT as current expenditure, even though the producer is required only to pay the net amount. Similarly, VAT rebates on exports are recorded as current expenditure.

<sup>15</sup> Although such arrears are not directly measured in the cash accounting system used by the MEF, it is important for data on them to be available.



of Health on a quarterly and annual basis, and the results are provided to Istat in a timely manner.

Financing and debt data compiled by the BI are available, among other sources, through the bank reporting system. In particular, in their capacity as supervisors of the banking system, the BI receives data on bank loans classified to the general government sector using the Istat list of general government entities. Post office savings are reported directly to the BI each month, and treasury securities are directly available from the BI department responsible for cooperating with the MEF for the issuance and redemption of treasury securities. Data on treasury securities issued by other bodies are collected directly from the issuing bodies and from financial intermediaries.

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

While the scope, valuation, and time of recording of budget and nonbudget data available through the MEF are consistent with the requirements of *GFSM 1986*, the classification and definitions of items are not. Government finance statistics classifications are not incorporated into the coding system of the chart of accounts. It is difficult, therefore, to generate government finance statistics without extensive clerical intervention, other than on a very approximate basis.<sup>16</sup>

On the other hand, in consultation with Istat, COFOG codes have been included by the MEF in the budget coding system for the purposes of compiling national accounts and are now an integral part of the State Accounting Law (Legislative Decree 94/1997) and could be used to provide a functional breakdown of budget expenditures. Also, the revenue and expenditure data available from Istat as an intermediate step in the preparation of the national accounts provide a good basis for compiling *GFSM 2001* nonfinancial statistics.

Eurostat has drafted new regulations for the compilation and reporting of quarterly national accounts based data for the general government sector, but the regulations have not yet been approved. The new requirement would be for general government revenue and expenditure data classified by the main *ESA 95* economic type categories to be provided on an accrual basis. In anticipation of the regulations' approval, Istat has been developing procedures for their compilation.

The BI data on stocks and flows are fully consistent with the requirements of *GFSM 1986*, and EU regulations. Flows and stocks are also published that comply with *ESA 95*.

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<sup>16</sup> The staff at the MEF commented that they no longer have the expertise to compile statistics according to the *GFSM 1986* standards.

### *3.1.3 Source data are timely*

Data for budgetary central government are available within 45 days of the end of the reference month, while quarterly and annual data from the MEF are available within one quarter and six months respectively. The coverage (general government) of the quarterly and annual data is broader than in many other countries.

Istat's annual surveys generally provide data that can be used in the preparation of general government sector data for the year  $t-1$  (i.e., for 2000 in early 2002) although responses from some municipalities to the census survey (which is conducted by Istat in cooperation with the Ministry of the Interior) are available only with a long lag. For this reason, Istat has started to collect data from municipalities by a sample survey too. The survey collects data with the same level of detail as the census, and has been conducted with respect to 1999 and 2000.

The BI financing and debt data are available monthly between 5 and 9 weeks after the reference month, depending on the sector to which they refer.

## **3.2 Statistical techniques**

### *3.2.1 Data compilation employs sound statistical techniques*

The rapid survey of municipalities conducted by Istat is based on internationally accepted sampling techniques. Istat's collections of data from other government units are undertaken using full enumeration rather than sample surveys. The MEF data collections are from administrative accounting systems. The BI data for the general government cash borrowing requirement are obtained from bank sources on financing. As to the formation side, only information from the State budget is used and the estimate for other central government operations is determined residually as the difference between the State budget information and the total borrowing requirement of central government as computed from the financing side.

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

Istat procedures for estimating accrual data are consistent with international practices, and appear to make effective use of the available data (see 2.4.2 above).

### **3.3 *Assessment and validation of source data***

#### **3.3.1 *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 planning***

There are no material gaps in the coverage of general government units. The MEF data are validated through the auditing of the accounts for all agencies. Reported data are reviewed for consistency with the definition of items and conformity with expectations. The MEF advises Istat of any instances where data are reported according to public accounting standards that are not in conformity with national accounts requirements (e.g., a dividend that includes the proceeds from privatization). Istat has extensive procedures for routinely comparing reported data for different subsectors of the general government sector against alternative sources of data.

It is one of the strengths of the Italian system that independently available estimates are available for purposes of comparison and validation. However, the emergence of a large discrepancy in 2000 and 2001 (a) between the borrowing requirement computed by the MEF (using information on nonfinancial transactions and transactions in financial assets) and the borrowing requirement computed by the BI (using information on transactions in liabilities), and (b) between the net lending/borrowing measured by Istat (based on nonfinancial transactions) and the corresponding figure measured by the BI (based on financial transactions) is evidence of a weakness in the current system. Historically, the discrepancy has been less than 0.02 percent of GDP and has fluctuated between positive and negative values. In 2000 the discrepancy increased to 0.6 percent of GDP, while in 2001 it is around 0.3 percent.

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

#### **3.4.1 *Main intermediate data are validated against other information where applicable***

Istat validates the major nonfinancial aggregates for the general government sector, as well as other sectors, in the context of the national accounts. The BI checks the consistency between stocks and flows of financial assets and liabilities of government. The BI also cross-checks data from different sources when they become available.

#### **3.4.2 *Statistical discrepancies in intermediate data are assessed and investigated***

Not applicable.

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

The discrepancy between nonfinancial data and the corresponding financing data, in particular for year 2000, is being investigated by a high level Commission (chaired by the President of Istat). It is expected to report its findings with respect to central government before the end of the summer 2002.

## **3.5 Revision studies**

### *3.5.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes*

There are no revision studies. Revisions mainly result from the routine replacement of preliminary data by final audited data. Very rarely, the MEF final data may be revised as a result of new data.

The introduction of *ESA 95* has had a major impact on a wide range of macroeconomic statistics, including for general government. Revisions have been made to the Istat national accounts time series back to 1980. In addition, Istat general government sector data will be revised if the EU decides on a different treatment from that adopted by Italy with regard to new arrangements (such as securitization) in the national accounts.

## **4. Serviceability**

### **4.1 Relevance**

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

Cumulative year-to-date monthly budgetary central government data are used for tracking the execution of the budget and monitoring fiscal policy. Also, cumulative quarterly general government data in the national format emphasize the government's borrowing requirement. The BI compiles and publishes information on public finances in its monthly *Supplements to the Statistical Bulletin*, as well as in its biannual *Economic Bulletin* and its *Annual Report*. These statistics emphasize the financing of the government's borrowing requirement and, in accordance with EU requirements, general government gross debt at face value. The data provided by Istat emphasize the net lending/borrowing of the general government sector that is required by the EU. Users have indicated that the differences among these different deficit measures are not sufficiently well explained.

Government finance statistics in accordance with international standards are not currently compiled. Previously they had been compiled by the MEF in accordance with *GFSM 1986* solely for provision to the IMF, but were not used in determining or monitoring fiscal policy.

The need for clerical intervention to compile these data from the national presentation resulted in them not being available until some time after the original MEF data.

No feedback from users is sought on a regular basis for government finance data compiled by the MEF, the BI, or Istat (although Istat's dissemination directorate surveys customers accessing Istat's central and regional data-shops, subscribers to hardcopy publications, and website visitors at least annually).

## **4.2 *Timeliness and periodicity***

### **4.2.1 *Timeliness follows dissemination standards***

With the exception of data on monthly central government operations, the data meet the timeliness standard of the SDDS, as follows:

- monthly central government operations data are not published until 45 days after the reference month instead of within one month
- quarterly central government debt data are published within one quarter
- annual general government operations data are published within six months of the end of the year

### **4.2.2 *Periodicity follows dissemination standards***

The periodicity of the data meet or exceed the periodicity standard of the SDDS, that is:

- central government operations data are published at least monthly and annually
- central government debt data are published at least quarterly
- general government operations data are published quarterly and annually

## **4.3 *Consistency***

### **4.3.1 *Statistics are consistent with the dataset***

General government sector data from the national accounts, from the BI and the MEF, are each internally consistent. Aggregates are consistent with their components, and balances are consistent with the aggregates. The sum of the data for subsectors, after appropriate consolidation, is consistent with the consolidated general government. Annual data are consistent with the sum of the quarterly estimates.

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

Government finance statistics time series are consistent over time—the MEF, the BI, and Istat are able to explain divergences from the expected trend, and there are no breaks in the series due to methodological developments. The Istat and the BI databases have been recalculated backwards following the introduction of the *ESA 95* methodology.

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

Most of the items included in Istat's estimates of the general government sector of the national accounts are consistent or reconcilable with the equivalent data sources elsewhere. In particular, external transactions of government are consistent with the balance of payments, net lending/borrowing is reconcilable with the cash borrowing data at the MEF, and data are consistent with other Istat data series. However, reconciliation items between MEF and Istat data grew substantially over the past few years; moreover, as noted in 3.4.3 above, there is a discrepancy between the cash borrowing requirement data at the MEF and the corresponding financing data at BI. The differences between MEF and Istat data, on the one hand, and between MEF and BI data on the other hand are especially large for the year 2000 and data are currently being investigated by a higher level Commission chaired by the President of Istat.

#### **4.4 Revision policy and practice**

##### *4.4.1 Revisions follow a regular, well-established, and transparent schedule*

The publication of general government statistics by each agency follows a regular and well understood pattern whereby initial data are preliminary and are subsequently replaced by final data.

##### *4.4.2 Preliminary data are clearly identified*

Preliminary data are not clearly identified by the MEF nor is there a general comment in their publication on the revision policy used (e.g., unless otherwise indicated, data are preliminary when first released). The MEF data are published showing cumulative current period data and the equivalent data for the previous two years.

##### *4.4.3 Studies and analyses of revisions are made public*

No specific studies or analyses of routine revisions are made public. On the other hand, Istat publishes several analyses and descriptions when extraordinary revisions are made (e.g., in 1999 in order to adopt the *ESA 95* system).

### **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 MEF data are presented in a standard national format, for each subsector, in both the quarterly and annual bulletins that provide a clear link between the aggregates and the

derivation of the borrowing requirement. Extensive commentary on developments in the data are also provided. However, the use of public accounting standards means that the format is more suited to specialist users. The BI presents data on the financing of the borrowing requirement and on gross debt. All the standard breakdowns are provided (subsector, instrument, and holder). Istat presents the data according to the *ESA 95* framework. Istat releases a range of publications (synthetic and more detailed, presenting time series or methodological aspects, for specialists and nonspecialists). Time series data are available for the Istat and the BI aggregates.

#### *5.1.2 Dissemination media and formats are adequate*

There is no single publication devoted to providing complete government finance statistics. As a result, users need to refer to several publications and formats to try to assemble a full picture of developments. The MEF provides cumulative quarterly accounting data for general government in its quarterly bulletin *Relazione Trimestrale di Casse*. The BI provides details of financing in its monthly *Supplements to the Statistical Bulletin, Monetary and Financial Indicators*. The *Annual Report* of the BI provides annual data in a ten-year time series, including data on the formation of net lending/borrowing compiled by Istat. Similarly, Istat publishes annual time series for general government data in *ESA 95* format in its national accounts bulletins and in specialized publications on its website.

These bulletins are available on the websites of the respective agencies. The website of the BI also allows for the downloading of monthly time series.

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

Advance release calendars are published by each agency, and the actual date of publication normally meets the pre-announced schedule.

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

General government statistics are released simultaneously to all interested users, as follows:

- Central government operations data are released through an MEF press release on its website, followed by a hard copy publication.
- General government revenue and expenditure data are released simultaneously through an Istat press release, followed by its national accounts publication.
- Central (and general) government debt data are released by the BI through supplements to its bulletin.

The press releases and publications are also simultaneously posted on the respective agency's website.

*5.1.5 Nonpublished (but nonconfidential) subaggregates are made available upon request*

Istat provides nonpublished general government revenue and expenditure data on request (as a rule for a fee) but only after taking account of confidentiality requirements. The BI regularly publishes a large amount of detail and on demand releases unpublished data for an earlier period than is available electronically. The MEF releases unpublished data very rarely.

**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*

EU regulations, the description provided in *ESA 95* and (1993 *SNA*), and Eurostat's *Manual on Deficit and Debt* provide the background to Istat's work on compiling the general government sector of the national accounts. In addition, a wide range of research papers and other documents are prepared by Istat staff on many of the specific procedures used.

Publications prepared by the BI routinely include summary descriptions of the concepts, sources, and methods used. *ESA95* and *1993 SNA* provide the background for the compilation of flow of funds statistics, while Eurostat's *Manual on Deficit and Debt* is the reference for debt statistics. Very limited documentation is provided by the MEF in its publications, although extensive commentary on developments is included.

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

See 5.2.1 above.

**5.3 Assistance to users**

*5.3.1 Contact person for each subject field is publicized*

Contact persons for central government debt are published by the MEF (Debt Management Department) in its quarterly bulletin. For each Istat website publication, contact persons are indicated. However, not all other statistical releases identify contact persons. In addition, the contact person for each subject field is publicized on the IMF's Dissemination Standards Bulletin Board.

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

Catalogues are widely available on the agencies' Internet websites.



Table 4. Italy: Data Quality Assessment Framework: Summary Presentation of Government Finance Statistics

Elements	NA	Assessments				Comments
		O	LO	LNO	NO	
<b>Prerequisites of quality</b>						
0.1 Legal and institutional environment				X		No single agency is assigned responsibility for compiling and disseminating comprehensive, integrated statistics.
0.2 Resources		X				
0.3 Quality awareness		X				
<b>1. Integrity</b>						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
<b>2. Methodological soundness</b>						
2.1 Concepts and definitions			X			Statistics are compiled mainly in the context of the national accounts, not in an integrated framework for fiscal analysis.
2.2 Scope		X				
2.3 Classification/sectorization			X			Classifications conform with national accounts and public accounting but are only broadly linkable to the <i>GFSM</i> 2001.
2.4 Basis for recording		X				
<b>3. Accuracy and Reliability</b>						
3.1 Source data			X			Data collection for local government (i) borrowing by local governments to finance capital spending is not fully reported to the MEF and there is evidence of a build up of arrears at the local government level and (ii) is not always timely.
3.2 Statistical techniques		X				
3.3 Assessment and validation of source data		X				
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies			X			Revision studies are undertaken for major changes but not on a routine basis.

Table 4. Italy: Data Quality Assessment Framework: Summary Presentation of Government Finance Statistics (concluded)

Elements	NA	Assessments				Comments
		O	LO	LNO	NO	
<b>4. Serviceability</b>						
4.1 Relevance			X			No regular feedback is sought from users. Different measures are not well explained.
4.2 Timeliness and periodicity			X			Monthly data are not timely.
4.3 Consistency				X		A large discrepancy in 2000 and 2001 between the borrowing requirement and financing.
4.4 Revision policy and practice			X			Preliminary and revised data are not always clearly identified. Studies of revisions are not made public, except for major changes.
<b>5. Accessibility</b>						
5.1 Data accessibility		X				Very little documentation on sources and methods is available for the MEF data.
5.2 Metadata accessibility			X			
5.3 Assistance to users			X			Contact persons not publicized by the MEF or the BI.

Note: NA= Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed

## V. MONETARY STATISTICS

### 0. Prerequisites of quality

#### 0.1 *Legal and institutional environment*

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

With the transfer of monetary competence to the Eurosystem<sup>17</sup> and the introduction of the euro in January 1999, the ECB, assisted by the National Central Banks, is responsible for monetary and related statistics in the euro area.<sup>18</sup> The ECB Statute requires that the statistical work is to be carried out, wherever possible, by the national central banks that have adopted the euro. Hence, the BI collects source data from resident depository corporations, compiles aggregates at the national level, and transmits these to the ECB, which produces a consolidated balance sheet of the Monetary Financial Institutions (MFIs) sector at the euro area level.

The BI is given the legal authority and responsibility for the collection of money and banking statistics by Article 5 of the Protocol on the Statute of the ESCB and the ECB as provided for under the Maastricht Treaty, the Council Regulation (EC) 2533/1998 of November 23, 1998 that governs the collection of statistical information for the fulfillment of tasks of the ESCB, Regulation (EC) 2819/1998 of the ECB of December 1, 1998 that establishes the framework concerning the consolidated balance sheet of the MFIs sector, and Regulation ECB/1998/16 and subsequent amendments that govern the collection of data required by the ESCB.<sup>19</sup> Such information, aggregated as required, is used to compile statistics relating to the single currency area, which are then disseminated by the ECB.

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<sup>17</sup> The “Eurosystem” is the term used to refer to the ECB and the national central banks of the member states, which have adopted the euro. The focus of the Eurosystem’s policy responsibility is the euro area.

<sup>18</sup> Monetary statistics consist of data on the financial and nonfinancial assets and liabilities of an economy’s financial corporations sector. The financial corporations sector consists of all resident corporations or quasi-corporations engaged in financial intermediation or in related auxiliary financial activities.

<sup>19</sup> The Regulation of the ECB of November 22, 2001 concerning the consolidated balance sheet of the MFIs sector (ECB/2001/13) has replaced Regulation ECB/1998/16 with effect from January 1, 2003.

The authority of the BI to request information directly from Italian banks and other financial institutions is provided for in the 1993 Banking Law (Legislative Decree 385/1993) and in the 1998 Basic Text on Laws relating to Financial Intermediation (Legislative Decree 58/1998).

Two departments within the BI are in charge of the compilation of monetary and financial statistics: The Credit and Financial Statistics Department (also referred to as Credit System Information Service or SISC, the Italian initials for Servizio Informazioni Sistema Creditizio) and the Research Department. The SISC is responsible for data collection, verification, and dissemination of monetary and financial statistics; it publishes these data in the quarterly *Statistical Bulletin*. Within the Research Department, the Statistics and Data Processing Directorate supplements the data provided by the SISC with information from other sources to produce overall monetary and financial statistics. Within the Directorate, the Monetary, Banking, and Financial Statistics Division is responsible for research on the statistical methodology and the compilation and dissemination of important monetary and financial indicators, which are published in the monthly and quarterly *Supplements to the Statistical Bulletin*, the semi-annual *Economic Bulletin*, and the *Annual Report*.

#### *0.1.2 Data sharing and coordination among data producing agencies are adequate*

The BI is the sole agency involved in producing national monetary statistics. As such, the BI is represented in all ECB statistical committees and other EU level working groups, as appropriate, to ensure that issues pertaining to data sharing and coordination stemming from EMU are addressed in a comprehensive manner during all stages of developing and implementing new banking regulations. Cooperation with other national providers of economic and financial data, such as the UIC, is established under Article 7(5) of Legislative Decree 385/1993. The BI also has established coordinating committees with Istat and the MEF to facilitate the mutual provision of aggregate data, while respecting confidentiality.

#### *0.1.3 Respondents' data are to be kept confidential and used for statistical purposes only*

The BI monetary statistics do not disclose the data of individual institutions or transactions. Council Regulation (EC) 2533/1998 governs the collection of statistical information for the fulfillment of ESCB tasks and includes a requirement for confidentiality (Article 8). The 1993 Banking Law includes a secrecy clause (Article 7), which ensures the confidentiality of individual data and requires that data be disseminated in a manner that prevents identification of individual persons or entities. In addition, the BI voluntarily abides by the relevant provisions set forth in the Law on the National Statistical System (Legislative Decree 322/1989) regarding confidentiality, in particular Article 6, part 2 Processing of personal data.

Access to data is authorized for work related needs only. Secrecy is an obligation of all employees; sanctions, which are specified in the internal BI document Employee Rules, are clearly established and enforced in cases where obligations have not been met. The SISC maintains an automated disclosure prevention system that meets the ECB requirements as

well as those established in the Presidential Decree 318/1999 on Regulations including provisions for laying down the minimum security measures applying to the processing of personal data in pursuance of Article 15(2) of Act No. 675 of December 31, 1996.

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

Apart from the 1993 Banking Law, which requires financial intermediaries to report balance sheet data to the BI, regulations established by the EU Council and ECB also require that the actual reporting population should consist of the MFIs resident in the territory of the member states participating in the euro area. The Council Regulation (EC) 2532/1998 and the ECB Regulation 2157/1999 regulate the power of the ECB and national central banks of the euro area member states to impose sanctions on reporting agents in case of noncompliance with the statistical requirements.

The EU and ECB statistical regulations require a minimization of the reporting burden for MFIs. To this end, a formal procedure (Merits and Costs Exercise) is followed by the ESCB in order to assess the costs of implementing new statistical requirements for reporting agents against the merits for users of new statistical requirements, before they are being introduced. In Italy, the Interbank Group for the standardized reporting procedure of financial intermediaries (PUMA2), which is coordinated by the BI and which comprises representatives of about 15 banks, provides useful elements for evaluating costs and, more generally, the overall impact on the reporting entities. Reducing respondent burden also has been addressed, in part, through the development of specifically structured electronic surveys, i.e., the data presentation or Unified Business Matrix Procedure reporting models, that have been developed and made available to MFIs by the BI. Since part of the statistical production of the BI is aimed at supporting efficiency in the banking and financial system, the BI provides for restitution to the reporting agencies in the form of appropriately compiled data, called statistical return flows.

**0.2 Resources**

*0.2.1 Staff, financial, and computing resources are commensurate with statistical programs*

The BI Institutional Plan, which has a three-year duration with annual audits, addresses staff, financial, and computing resource needs by serving as a single reference for the development, management, and control of overall resources in direct correlation with available financial means. One section of the Plan specifies the objectives to be pursued in the area of human resources as well as the qualitative/quantitative distribution of personnel across the diverse units of the BI. Integrated human resource planning at the BI is aimed at ensuring the availability of adequate staff in quantitative and qualitative terms. To this end the staff participates in task forces that discuss relevant subjects, engage in on-the-job training, and participate in internships with international organizations (in particular the ECB) to acquire expertise in developing and implementing statistical methodologies.

Another section of the Plan delineates BI objectives with regard to the acquisition and optimization of information technology resources. In addition, the combination of statistical and research functions has resulted in a high level of interest on the part of the staff in experimenting with new approaches, and there is regular participation in meetings, seminars, and international task forces (e.g., ECB committees) in this area. The BI's staff, financial, and computing resources for compiling monetary statistics are adequate to perform the required tasks.

#### *0.2.2 Measures to ensure efficient use of resources are implemented*

On the basis of the Institutional Plan, the Resources Management Department prepares annual operating plans detailing projects to be realized in each of the plan's three years. The program of work is approved by the Strategic Committee on the basis of available financial resources under provisions of the BI budget for the period under consideration. In addition, Sectoral Programming Committees, which oversee operational programming, deliberate on the use of resources under their supervision and verify the degree to which operational plans have been executed, exercising decisional powers in specific cases, as necessary.

Management of the BI Research Department regularly interact with staff of the SISC on issues that need to be addressed for enhancing the policy vision and understanding of the strategic value of the work carried out. To facilitate this, the Credit and Financial Statistics Committee is charged with coordinating all users' needs within the BI, monitoring the trade-off between costs and usefulness of collected and produced statistics, ensuring their coherence and nonredundancy, promoting the unambiguous definition of the statistical concepts applied by the BI, and maintaining them in a data dictionary.

The production of almost all data flows on the part of intermediaries is underpinned by a specific technical infrastructure, the Unified Business Matrix Procedure, which was developed by the Interbank Group PUMA2. The work of the respective PUMA2 working group, coordinated by the SISC is aimed at the development of reference documentation for the production of data on financial intermediaries (e.g., the matrix report forms for banks' balance sheet information, statistical and supervisory reports of financial companies that are on the special register, reports of the Central Credit Register, payment system investigations, etc.). The working group also aims to support the decisions of the Credit and Financial Statistics Committee.

In addition, the advisory function performed by the PUMA2 working group to the Committee enables the latter to evaluate more clearly the impact on both the BI and reporting agencies of new data requests and their associated costs and thus to have at their disposal useful reference points for the decisions for which they are responsible.

### 0.3 *Quality awareness*

#### 0.3.1 *Processes are in place to focus on quality*

The BI views its oversight of the statistical patrimony as being primarily oriented toward satisfying the informational requirements of an ever increasing user base. To this end, the BI's Credit and Financial Statistics Committee provides guidance aimed at focusing on quality in BI's communications with intermediaries in *Documentation on Data Collection from Intermediaries* and in the *Annual Report*, which focuses on statistical resources and data quality. The Committee is also responsible for defining levels of data quality assurance and oversees data validation procedures for checking the consistency and plausibility of reported data.

#### 0.3.2 *Processes are in place to monitor the quality of the collection, processing, and dissemination of statistics*

To ensure compliance with the ECB statistical reporting requirements the BI has reorganized internal tasks regarding the collection, processing, and dissemination of statistics. The following checks on the data reported by MFIs are performed at various levels by the SISC and Research Department, both for individual and aggregated data: formal correctness; logical coherence of accounting data; examination of individual time series data; comparison between the trends of different intermediaries' data; internal coherence of aggregated balance sheet data; and behavior of aggregated time series. There are specific procedures for the SISC, which is staffed with specialists in the fields of statistics and information technology, to abide by in ensuring the coherent, verified, and efficient production of data. In addition, the publication of statistical data is also subject to an established internal authorization procedure.

To facilitate the process of quality awareness, the BI Research Department has developed a system (*Base informativa servizio studi*) that collects historical series referring to different statistical sectors (balance of payments, monetary statistics, and financial accounts, etc.) and facilitates the internal sharing of this information. There also are dedicated information technology systems for checks and cross-checks, and monitoring statistical procedures.

No formal surveys of users are undertaken; however, users can contact the SISC and Research Department, and responses are provided to all requests and inquiries. Users' feedback is encouraged through facilities incorporated in the database *Base Informativa Pubblica Online*, recently made available on the BI's website. Aside from regulations issued by the ECB and the European Commission, there are no other external bodies that provide guidance on the quality of monetary statistics, or on strategies for improving data production.

*0.3.3 Processes are in place to deal with quality considerations, including tradeoffs within quality, and to guide planning for existing and emerging needs*

Tradeoffs are discussed in the context of the work of the relevant ECB committees within which the BI is represented as a full partner. Internally, the SISC plays a strategic role in maintaining the ongoing dialogue with Italian MFIs. Similarly, contacts are maintained with the academic and research community by the Research Department. In addition, since the Research Department carries out statistical elaboration and analysis for a diverse body of users—including itself, as a major user of monetary statistics—comparisons of need between data producers and data users is a common practice. Concerns are then reported back to the ECB and, internally, are taken into consideration in the annual review and revision of the Institutional Plan.

**1. Integrity**

***1.1 Professionalism***

*1.1.1 Statistics are compiled on an impartial basis*

The statutory provisions under which the BI compiles monetary statistics are adequate to support its independence in conducting these functions. In this regard, provisions in both the European Community legislation and the 1993 Banking Law complement BI's long tradition of institutional independence and professionalism.

The professionalism of staff of the SISC and Research Department is supported by recruitment procedures and a selection process that evaluates exclusively the merit and the potential of candidates and current employees. Staff at various levels participate in the ECB, OECD, BIS, Eurostat committees, and in other fora. Staff of the Research Department are also engaged in working groups of national bodies that are engaged in economic research and analysis and actively involved in academic debates through the publication of discussion papers, articles, books, and contributions to conferences and seminars.

*1.1.2 Choices of sources and statistical techniques are informed solely by statistical considerations*

The choices of source data and statistical techniques are determined solely by statistical considerations in the appropriate ECB committees in which the BI fully participates. These committees, which have grown out of the consultative structures developed in the context of the European Monetary Institute (the predecessor of the ECB), are designed to ensure that the statistical techniques and harmonized definitions adopted are agreed upon with sufficient advance notice so as to allow all member states participating in the EMU to modify their internal organizational structures accordingly.



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

The institutional independence of the BI and the BI Governor ensures that the entity is fully entitled to comment. SISC and/or Research Department staff participate in all relevant briefings managed by the BI's Communications Office, thereby helping to ensure that the statistical data disseminated are interpreted properly.

**1.2 Transparency**

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

The Protocol on the Statute of the ESCB and of the ECB, along with the texts of all other relevant EU and ECB regulations are available on the ECB Internet website. The BI website contains references and active hyperlinks to the ECB's website. The Banking Law and other national level normative texts also are available on the BI website.

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

There is no in internal government access prior to release. Prior to release, the aggregated statistical balance sheet of Italian MFIs is transmitted to the ECB for the compilation of the euro area monetary aggregates. The release of national contributions to the euro area aggregates is subject to an embargo until the publication of the ECB's press release on the monetary aggregates for the euro area. Specific references to this practice are made in the DSBB metadata and in the BI press releases communicating advance release calendar information available on the BI website.

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

The BI publications clearly identify the BI as the data producing agency. Notice is also given that "unless otherwise indicated, all data are compiled by the Bank of Italy" and that attribution is requested when the BI statistics are used or reproduced in other formats.

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

The general policy of the BI is that major changes in methodology are announced in advance in the relevant publications as well as at the time they are introduced. In the transition to the euro, advance written notice of methodological changes was provided in addition to including notification in the relevant press release.

### **1.3 Ethical standards**

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

Guidelines for staff behavior are clear and are published in the document *Bank of Italy Staff Rules*, which includes references on professional secrecy and staff conduct. Every new BI employee participates in an extensive orientation and training program that is aimed at explaining the fundamental duties and powers of the BI and its employees.

## **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 used by the BI to compile monetary statistics are in broad conformity with the guidelines outlined in the *Monetary and Financial Statistics Manual (MFSM)*.

The BI compiles and disseminates the following aggregated sectoral balance sheets for monetary statistics: the (i) Balance sheet of the BI; (ii) Italian component of the aggregated balance sheet of the Eurosystem; (iii) Balance sheet of banks and money market funds; and (iv) Italian component of the monetary aggregates of the euro area—Residents of Italy and the rest of the euro area. For calculating the Italian components of the euro area aggregates, the balance sheets mentioned in (i) and (iii) are first consolidated, and then aggregates are obtained by adding up the relevant liabilities of the money issuing sector vis-à-vis the money holding sector.<sup>20</sup> The consolidated balance sheet of MFIs is not published.

The broad money aggregate M3 of the euro area is composed of (i) a narrow monetary aggregate M1, consisting of currency in circulation and overnight deposits, (ii) other short-term deposits, namely deposits with an agreed maturity of up to two years and deposits redeemable at a period of notice of up to three months, and (iii) marketable instruments, which comprise repurchase agreements, money market fund shares/units, money market paper, and debt securities with a maturity of up to two years.<sup>21</sup> In January 2002, the Italian contribution to the monetary aggregate M3 of the euro area was 15 percent.

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<sup>20</sup> *Supplements to the Statistical Bulletin—Methodological Notes and Statistical Information – Monetary and Credit Aggregates of the Euro Area: The Italian Components*. June 2000. The publication is only available in Italian.

<sup>21</sup> M3 and its components exclude holdings by nonresidents of the euro area of money market fund shares/units, money market paper, and debt securities with a maturity up to two years.

## 2.2 *Scope*

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

Italy's Other MFI subsector comprises the BI, 832 credit institutions<sup>22</sup>, including their domestic headquarters and domestic branches, and 29 money market funds (as of December 2001). MFIs are defined in Regulation ECB/1998/16 as Resident credit institutions as defined in Community law, and other resident financial institutions whose business is to receive deposits and/or close substitutes for deposits from entities other than MFIs and, for their own account (at least in economic terms), to grant credit and/or make investments in securities. Credit institutions are defined in Community Law<sup>23</sup> as (a) an undertaking whose business is to receive deposits or other repayable funds from the public and to grant credits for its own account; or (b) an electronic money institution [within the meaning of European Parliament and Council directives]. Money market funds are defined in Regulation ECB/1998/16 as Collective investment undertakings, the issued units of which are close substitutes of deposits, in terms of liquidity, for deposits and which primarily invest in money market instruments and/or in other transferable debt instruments with a residual maturity of up to and including one year, and/or in bank deposits, and/or which pursue a rate of return that approaches the interest rates on money market instruments. Credit institutions and money market funds make up the Other MFI subsector in Italy. The term MFIs refers collectively to the central bank and other MFIs. A list of Italian MFIs is maintained and disseminated on the ECB website.

For analytical purposes, the *MFSM* defines the Other depository corporations subsector, which is equivalent to the term other MFIs. Other depository corporations consist of all resident financial corporations (except the central bank) and quasi-corporations mainly engaged in financial intermediation, whose liabilities consist of deposits or financial instruments that are included in the definition of broad money. The national definition of broad money is thus fundamental to the methodology of the *MFSM*, in that it determines which units in the financial system are classified as other depository corporations. In Italy, other MFIs are the only deposit-taking financial institutions fulfilling both criteria that classify them as other depository corporations—that is, Italy's other MFIs are mainly engaged in financial intermediation and issue deposit liabilities that are included in M3 of the

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<sup>22</sup> Of which are 253 limited company banks, 44 cooperative banks, 474 mutual banks, and 61 branches of foreign banks.

<sup>23</sup> Banking coordination directives 77/780/EEC of December 12, 1977 and 89/646/EEC of December 30, 1989.

euro area. Also, the BI does not grant derogations to small MFIs.<sup>24</sup> As a result, the scope of the monetary statistics compiled by the BI is complete and consistent with the guidelines recommended in the *MFSM*.

In line with the *MFSM* guidelines, the asset management companies, securities firms, and financial companies operating in Italy's financial system are to be classified as Other financial corporations. Their liabilities would be included in a Financial Corporations Survey that would extend the coverage beyond the central bank and MFIs enclosed in the depository corporations survey (or consolidated balance sheet of MFIs).

### **2.3 Classification/sectorization**

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

The BI uses the residency criterion to distinguish between domestic and external accounts for the compilation of monetary statistics. The delineation between resident and nonresident institutional units is consistent with the criterion in the *1993 SNA* and *BPM5* and is thus in accordance with the *MFSM*. The residency criterion applied is euro area residency (domestic) reflecting the economic reality of the EMU in Stage III. Consequently, branches of monetary union member states' banks in Italy are regarded as resident MFIs, whereas branches of domestic banks outside the euro area are classified as nonresidents (Rest of the world).

The classifications of institutional units into sectors of the domestic economy by the BI are specified in the Regulation ECB/1998/16<sup>25</sup>, and are consistent with *ESA 95* and *MFSM*.<sup>26</sup> The economic sectors identified in the monetary statistics are the following: (i) MFIs; (ii) Non-MFIs, disaggregated according to General government (with Central government and Other general government) and Other resident sectors (with Other financial intermediaries, Financial auxiliaries, Insurance corporations and pension funds, Nonfinancial

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<sup>24</sup> According to Regulation ECB/1998/16 (Article 2.2), a national central bank may grant derogations to small MFIs, provided that the MFIs which contribute to the monthly consolidated balance sheet account for at least 95 percent of the total MFI balance sheet.

<sup>25</sup> The Regulation of the ECB of November 22, 2001 concerning the consolidated balance sheet of the MFI sector (ECB/2001/13) will replace Regulation ECB/1998/16 with effect from January 1, 2003.

<sup>26</sup> The sectoral classification of resident units recommended in the *MFSM*, for the purpose of compiling monetary statistics, refers to the following subsectors: (i) central bank; (ii) other depository corporations; (iii) other financial corporations; (iv) central government; (v) state and local government; (vi) public nonfinancial corporations; (vii) other nonfinancial corporations; and (viii) other resident sectors.

corporations, and Households and nonprofit institutions serving households); and (iii) Rest of the world. The economic sector MFIs does not distinguish data on MFI's assets or liabilities according to whether they are held/incurred by the ECB, national central banks, or other MFIs. In accordance with Regulation ECB/1998/16, the BI is required to report data on MFI's liabilities to central government (that is, central government deposits) on a monthly basis and MFI's claims on central government on a quarterly basis. The *MFSM* recommends the collection of all data on central government on a monthly basis to facilitate, among other things, the monthly calculation of net claims on central government.

The classification of financial instruments used for monetary statistics by the BI is in line with the Regulation ECB/1998/16 and the ECB *Guideline for Money and Banking Statistics* of November 2000. The classification is consistent with *ESA 95* and *MFSM*.

The monthly balance sheet of the BI refers to the accounting financial statement of the BI and displays core asset and liability items. The statistical balance sheets display MFI holdings of assets and relevant instrument categories required for the compilation of monetary aggregates. Liability items are currency in circulation, deposit liabilities, money market fund shares/units issued, debt securities issued, capital and reserves and remaining liabilities. In order to separate monetary and nonmonetary liabilities, deposit liabilities are also broken down into overnight deposits, deposits with agreed maturity, deposits redeemable at notice, and repurchase agreements (repos). MFI holdings of assets are disaggregated into cash, loans, securities, other than shares, money market fund shares/units, shares and other equity, fixed assets, and remaining assets.

Until December 1998, the BI's claims on the MFIs included special advances granted by the BI to banks in financial distress (Advances under Treasury Ministry Decree of 1974 pursuant to Law 588/1996). As from January 1999, these public aid loans to banks with a total value of 15,983 million euro (representing 8.8 percent of the BI's total assets as of end-December 2000) have been indistinguishably included in the item Remaining assets of the BI's statistical balance sheet<sup>27</sup> and not in item Loans to euro area residents—MFIs. The BI chose this approach to be consistent with the accounting classification of the special advances. According to the BI, the advances have been recorded in item Other assets of the accounting balance sheet<sup>28</sup> because these advances refer to financial arrangements preceding Stage Three of the EMU and do not represent refinancing operations or lending facilities of the Eurosystem, thus disqualifying them from being included in item Lending to euro area financial sector counterparties of the accounting balance sheet. The current treatment of the

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<sup>27</sup> "Italian component of the aggregated balance sheet of the Eurosystem," Table 8 of *Supplements to the Statistical Bulletin—Monetary and Credit Aggregates of the Euro Area: the Italian Components*.

<sup>28</sup> "Balance sheet of the Bank of Italy," Table 1 of *Supplements to the Statistical Bulletin—Monetary and Credit Aggregates of the Euro Area: the Italian Components*.

special advances in the BI's statistical balance sheet may satisfy accounting and reporting criteria of the ECB, however, it deviates from statistical requirements on instrument classification and sectorization, as recommended in the *MFSM*. In addition, the value of remaining assets constituted around 12 percent of the BI's total assets in the statistical balance sheet during the first quarter of 2002, thus reducing the analytical usefulness of the BI's data on financial instruments.

In line with the *MFSM*, repo transactions are treated as collateralized loans if there is a firm commitment to reverse the operation and not merely an option to do so. The cash received by MFIs in exchange for the financial assets sold under a repurchase agreement is recognized on the balance sheet as deposit liabilities under the item repos.

The current treatment of nonmarketable securities, and financial derivatives deviates from the respective *MFSM* guidelines. Nonmarketable securities should be classified as loans. The only financial derivative transactions that are recorded on-balance sheet are option premiums and margin deposits. Paid option prices as well as initial margins and variation margins paid for open futures-market positions are recorded in item other assets; option prices received as well as initial margins and variation margins received are recorded in item other liabilities. However, the *MFSM* recommends that all financial derivatives with market value or fair value, which are subject to on-balance-sheet recording, should be presented as a separate category in the sectoral balance sheets of MFIs.

## **2.4 Basis for recording**

### **2.4.1 Market prices are used to value flows and stocks**

The general recommendation of the *MFSM* is that the valuation of financial assets and liabilities should be done on the basis of market prices or market-price equivalents. Valuation according to market-price equivalent (or fair value) is needed for valuing financial instruments that are not traded in financial markets. The valuation of loans is an exception to this principle and loan values should be based on creditors' outstanding claims without adjustment for expected loan losses. This amount comprises the outstanding principal plus any accrued interest and is referred to as the book value of a loan. Monetary gold and nonmonetary gold should be valued on the basis of the market price of gold. Holding gains and losses arising from changes in market values (or fair values) of financial assets and of outstanding liabilities should be recorded separately in a revaluation account.

In reporting balance sheet data for the BI to the SISC, the Accounting Department values marketable securities and monetary gold on a monthly basis at market prices. Lending to the financial sector and other assets and liabilities are valued at nominal value.

Consistent with the *MFSM* recommendations, loans, deposits, and capital and reserves on the balance sheets of credit institutions are valued at nominal value. However, differing from the *MFSM*, the banks' loan portfolios are valued with the outstanding principal amount only, that is, excluding any accrued interest (see 2.4.2). In line with the recommendations of the

*MFSM*, loan valuation is not adjusted for expected loan losses, and provisions for expected loan losses are recorded in remaining liabilities. Securities that are part of the trading portfolio are valued at market prices, whereas securities intended for investment are recorded at book value. Transactions are recorded when new securities are issued and securities are redeemed. Financial derivatives that are currently recorded on-balance sheet (options and warrants) are valued at purchase price, which is inconsistent with the *MFSM*.

In line with the *MFSM*, all foreign currency denominated assets and liabilities held with the BI and credit institutions are translated into domestic currency at the market exchange rate existing at the end of the reference month. Unrealized gains and losses attributable to any valuation adjustment are recorded in the valuation account. This accounting principle is consistent with the recommendations of the *MFSM*.

The BI compiles and publishes transactions data from total flows adjusted for changes in (i) prices of financial assets and liabilities, (ii) exchange rates—for financial instruments denominated in dollar, yen, and Swiss franc—and (iii) other changes in the volume of assets, such as write-offs of claims.<sup>29</sup>

#### *2.4.2 Recording is done on an accrual basis*

Consistent with the general principle of accrual accounting, interest payable/interest receivable are recorded on the balance sheet as interest accrues, rather than when interest is actually paid or received (cash basis). However, in accordance with the Regulation ECB/1998/16, accrued interest on loans and deposits are recorded in the balance sheet item other assets/other liabilities, with the exception of accrued interest on securities at discount, which are recorded in the underlying securities held or issued by MFIs. This recording of accrued interest deviates from the accrual accounting principles recommended in the *MFSM*, according to which interest due but not paid on financial instruments should be incorporated into the outstanding amount of the financial asset or liability, rather than being treated as part of other accounts receivable/payable.

It should be noted that the BI provides the ECB with memorandum items at a monthly frequency that separately identify accruals on loans and on deposits, which are being derived from BI's and other MFIs' balance sheets. Furthermore, the BI compiles Italy's financial accounts on the basis of *ESA 95* with accrued interest included in the instruments that generated them.

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<sup>29</sup> Adjusted flow data are published in the following tables of the BI's *Supplements to the Statistical Bulletin—Monetary and Credit Aggregates of the Euro area: the Italian Components*: (i) Counterparts of Money: Residents of Italy and the Rest of the Euro Area; (ii) Italian Components of the Monetary Aggregates of the Euro Area: Residents of Italy and the Rest of the Euro Area; (iii) Financial Assets: Residents of Italy; and (iv) Credit: Residents of Italy."

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

In line with the general principle of the *MFSM*, assets and liabilities of the BI and other MFIs are collected and compiled on a gross basis. Claims on particular transactors are thus not netted against liabilities to those transactors.

For the compilation of the sectoral balance sheets of the BI and other MFIs, the data on financial assets and liabilities are aggregated into major categories (e.g., claims classified by debtors and deposits classified by creditors).

**3. Accuracy and Reliability**

**3.1 Source data**

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

According to the articles 15 and 26.3 of the ESCB Statute, a weekly financial statement of the ESCB has to be compiled and published by the ECB. The BI's financial statement, as its contribution, has to be reported weekly to the ECB. The data compiled for the dissemination of the central bank's monthly balance sheet, which is published in the *Supplements to the Statistical Bulletin*, refer to the accounting financial statement of the BI as it stands at the last day of the month.<sup>30</sup> The SISC generates the BI's assets and liabilities on the basis of the data provided by the Accounting Department and in accordance with the rules laid out in the ECB Guideline on the framework for accounting and reporting in the ESCB.

Source data from Italy's MFIs are collected and aggregated by the SISC using a specific technical infrastructure, the PRISMA procedure. The data are provided on a monthly basis by MFIs in detailed supervisory and statistical reporting forms that form part of the data reporting model (*Matrice dei Conti*) and are accompanied by comprehensive guidelines set out in the manual developed by the BI for MFIs and other financial intermediaries. Items in these monthly returns are derived from accounting records of the reporting institutions. The collection of statistical MFI balance sheet data is based in Italy on a total census; thus there is a 100 percent statistical coverage of depository corporations.

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<sup>30</sup> As of December 1998, following the completion of the transfer of the foreign reserves held by the UIC to the BI, the source data for compiling the BI's balance sheet cover exclusively the positions of the central bank.



The collection of statistical information for the fulfillment of the tasks of the ESCB is carried out under EU Regulation concerning the collection of statistical information by the ECB<sup>31</sup>, the confidentiality regime, and in accordance with the new framework established under ECB Regulation ECB/2001/13.<sup>32</sup>

The accounting rules followed by the BI—in line with the other national central banks of the euro area—have been established by the Governing Council of the ECB. In applying these rules, the accounting principles harmonized by the EU Community law and generally accepted international accounting standards are taken into account. The accounting rules followed by the MFIs in drawing up their accounts are laid down in the national transposition of Council Directive 86/635/EEC of December 8, 1986 on the annual accounts and consolidated accounts of banks and other financial institutions, and any other international standards applicable.

The report forms from which the monetary statistics are prepared rely on the accounting records of the BI and other MFIs. The Eurosystem's definition of money also includes the short-term liabilities of those central government institutions that gather funds in a number of countries in the euro area. For this reason, the Italian components of the euro area's monetary aggregates include also the central government's liabilities, which correspond to the Post Office's and the Cassa Depositi and Prestiti's short-term deposits.

The accounting records supporting the balance sheets of the BI and other MFIs are reclassified and sectorized according to Regulations ECB/1998/16 and ECB/2001/13. Instrument and sector classification are consistent with the *MFISM*.

Developments in the financial sector are monitored by the SISC and Research Department of the BI and relevant changes are incorporated in monetary statistics. This is especially the case for the update and maintenance of the List of MFIs<sup>33</sup> to take into account those events that lead to a financial institution leaving Italy's MFI sector (e.g., resulting from the involvement of an MFI in a merger or the liquidation of an MFI) or joining it (e.g., resulting from the establishment of a new MFI).

The financial press is monitored for information on developments in financial markets that may be of relevance for the compilation of monetary statistics. Periodic meetings are held

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<sup>31</sup> Council Regulation (EC) No. 2533/1998 of November 23, 1998.

<sup>32</sup> Council Regulation (EC) No. 2423/2001 of November 22, 2001.

<sup>33</sup> The objectives of the list of MFIs include facilitating the production of a comprehensive and consistent balance sheet of the money-creating sector in the euro area and ensuring that the information on the statistical reporting population is as complete, accurate, and homogeneous as possible.

with the Credit and Financial Statistics Committee, Interbank Group for the standardized reporting procedure of financial intermediaries, and other financial market participants to identify new developments that need to be taken into account in the compilation system of monetary statistics. In this context, the SISC and Research Department recently discussed with the Interbank Group the future requirements for MFI interest rate statistics laid down in the new Regulation ECB/2001/18, which defines the statistical standards according to which MFI interest rates on deposit and lending business should be collected and produced.<sup>34</sup>

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

The source data reasonably approximate the definitions, classifications, time of recording, and valuation required. Because money market funds provide their report forms to the Statistics Department after the cut-off reporting date (that is, the 12<sup>th</sup> working day after the reference month), the BI incorporates estimated values for these institutions into the aggregated MFI balance sheet. The BI Research Department estimates data for the current month on the basis of pre-month data that were provided by money market funds on the 25<sup>th</sup> calendar day following the end of the month to which they relate. A new BI regulation was issued in February 2002 to bring the timeliness of money market funds' statistics in line with ECB requirements (see 3.1.3).

With the introduction of euro banknotes in January 2002, the value of banknotes in circulation does not coincide with the actual amount of euro banknotes physically put into circulation by the BI, but follows a specific allocation procedure set out in the Regulation ECB/2001/15. Pursuant to the accounting regime agreed between the Eurosystem national central banks, the item banknotes in circulation includes by convention, as of January 2002, the BI's share of the total euro notes issued corresponding to Italy's paid-up share in the ECB's capital plus the total amount of lira notes still in circulation.

Transactions of the BI and MFIs with counterparties that cannot be reasonably approximated or allocated to specific instruments or sectors are recorded in other assets and other liabilities.

The statistical compilers of the Research Department are aware of methodological differences between primary source data derived from balance sheets and secondary data sources, such as financial market data and data reported from the banks' counterparties.

### *3.1.3 Source data are timely*

The data collection system allows the timely compilation of monetary statistics, which are released in the monthly *Supplements to the Statistical Bulletin* of the BI.

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<sup>34</sup> First reporting under this Regulation shall begin with monthly statistical information for January 2003.

The accounting records of the BI are available on a weekly basis and are provided from the Accounting Department to the SISC. The source central bank balance sheet is available within one week after the end of the reference month. The returns of the MFIs are submitted to the SISC on the 12<sup>th</sup> working day following the end of the reference month. The BI completes the processing of these data and the compiling of aggregates for the balance sheet of the central banks and the Italian contribution to the consolidated balance sheet of the euro area MFIs between the 12<sup>th</sup> and 15<sup>th</sup> working day after the end of the reference month. The ECB receives an aggregated monthly balance sheet covering the positions of MFIs in Italy on the 15<sup>th</sup> working day.

In addition to the collection of monthly source data of all MFIs, the BI conducts surveys with a sample of financial institutions at ten-days intervals to provide timely summary data on monetary and credit developments and on the interest rates applied by credit institutions.

At present, resident money market funds, which are part of Italy's MFI sector, report their accounting records on the 25<sup>th</sup> calendar day following the end of the reference month, that is, with a time lag of about one week compared to all other MFIs (see also 2.2.1). With the BI's Regulation No. 38489/2002, all money market funds will be obliged to report source data to the SISC like all other MFIs by the 12<sup>th</sup> working day after the end of the reference month. First recording according to this new timeliness requirement will begin with data for August 2002.

The SISC conducts follow-ups with late respondents via the interbank network in order to collect information to meet publication deadlines.

### **3.2     *Statistical techniques***

#### **3.2.1   *Data compilation employs sound statistical techniques***

The main procedure for gathering, filing, validating (see 3.3), and processing of data received from financial intermediaries is managed by a highly computerized system called PRISMA, subdivided by PRISMA1 and PRISMA2, both developed and maintained by SISC. PRISMA1 files the incoming information as it arrives from the reporting institutions, monitors the quality of the data, and automatically communicates any errors to reporting institutions for correction. PRISMA2 manages the output of PRISMA1 and contains both the original information received from the reporting institutions and the aggregated raw data on financial intermediaries stored in the form of time series. The integration of these time series with historical data series for the different statistical sectors (balance of payments, monetary, government finance statistics, and national accounts) and the compilation of monetary and financial aggregates and indicators are managed by the Research Department's data base (*Base informativa servizio studi*). In the case of incomplete information, both PRISMA and routines used to feed the data base can generate estimated data either automatically or under the direct control of experts.

The detailed supervisory and statistical report forms that make up part of the unified reporting Matrix are easy to complete for the respondents, and they include several checks within the tables. The new reporting forms of Section V of the Matrix, which were incorporated for the collection of MFI balance sheet information as required by the ECB, were pilot-tested with several respondents prior to their implementation.

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

Cases of nonreporting MFIs are rare and their quantitative impact on data aggregates are negligible. In cases where no returns are received from a bank, balance sheet data are calculated by applying to the previous month's data of that bank the same rate of growth observed for credit institutions that transmitted data to the BI. In the following month the returns will be updated with the statistics officially received and processed. The BI's Research Department also estimates data on money market funds using Arima models, which have been developed for estimations and quality controls for MFI statistics.

The ECB calculates seasonally adjusted data on monetary aggregates for the euro area. The Research Department calculates seasonally adjusted one-month growth rates for monetary statistics, which are published in BI's monthly press releases, the *Economic Bulletin*, and *Annual Report*.

*3.3 Assessment and validation of source data*

*3.3.1 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 planning*

The data system PRISMA assesses the source data for accuracy in the completion of forms and investigates any discrepancies in the data. For checking the internal consistency and plausibility/reasonableness of reported data on a bank-by-bank basis, PRISMA uses fully automated data validation procedures—formal cross-checks and identification of out-of-trend movements—that facilitate the monitoring of the accuracy of data reported in the banks' monthly returns. The results of the assessments are monitored and made available to the Credit and Financial Statistics Committee. This Committee works to ensure that data collection forms are complete and essential.

The BI officials of the SISC and Research Department are represented at the ECB's Working Group on Money and Banking Statistics to assess, and if necessary enhance, monetary statistics methodology in the context of developments affecting financial markets and financial intermediaries in the euro area.

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

#### **3.4.1    *Main intermediate data are validated against other information where applicable***

The SISC conducts verification processes of the monetary statistics compiled on the basis of Section V of the Matrix against the prudential data generated from the reporting forms of the other sections. Monetary statistics are also validated against data compiled from sample surveys conducted with selected financial intermediaries at ten-days intervals. Furthermore, checks are made against balance of payments statistics, statistics on payment systems, and data on the Central Credit Register.

#### **3.4.2    *Statistical discrepancies in intermediate data are assessed and investigated***

The SISC investigates statistical discrepancies and determines major factors that might be contributing to them. Reporting institutions are contacted automatically by the system PRISMA to provide corrected data and explanations, prior to the dissemination of the statistics, for incorrect and/or not plausible fluctuations in the data.

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

Large fluctuations in monetary or credit aggregates are rare, and likely to occur only after a significant change in statistical methodology. In the case of large and unexplained fluctuations in data series, the SISC and Research Department investigate possible classification/sectorization errors by individual respondents. The Research Department checks on a monthly basis the behavior of monetary data at aggregated level, calculating growth rates, and verifying the overall consistency of monetary statistics.

### **3.5    *Revision studies***

#### **3.5.1    *Studies and analyses of revisions are carried out routinely and used to inform statistical processes***

The MFI balance sheet statistics reported in the *Supplements to the Statistical Bulletin* are provisional for the latest month and include estimated values (e.g., the figures for the period from December 1995 to May 1998 and the latest figures for money market funds). The explanatory notes to the *Supplements to the Statistical Bulletin* state that estimated data are subject to revision. As far as money and banking data are concerned, the size of revisions is very small. Studies and analyses of revisions to investigate the sources of errors and fluctuations are not carried out routinely, and the methods of revising the data are not explained. Based on the experience of the staff, deviations, omissions, and other potential sources of problems in the data (e.g., erroneous sectorization of institutional units) are identified and investigated (see 3.3).

## **4. Serviceability**

### **4.1 Relevance**

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

The data requirement needs of the main users of statistics within the BI's Research Department are regularly reviewed. There is an established process of consultation that takes place periodically with policy departments, representatives from the banking community, and academia. Staff of the SISC and Research Department participate in meetings with external users and in international conferences (BIS, ECB, Eurostat, OECD, and IMF) in order to assess user needs. Making the monetary statistics compatible with the methodology and statistical requirements of these international institutions is considered to be an important step to ensure that monetary statistics compiled by the BI are relevant and useful.

### **4.2 Timeliness and periodicity**

#### **4.2.1 *Timeliness follows dissemination standards***

The analytical accounts of the BI are disseminated within one week, and those of the MFI sector one month after the end of the reference month, consistent with the specifications of the SDDS.

Although there is an embargo on the release of national monetary data before the release of the euro area monetary aggregates by the ECB, the embargo is not normally expected to delay the release of the national data beyond the timeliness prescribed by the SDDS. In the event of a delay in the release of euro area monetary aggregates that would affect the timeliness of disseminating national data, a notice will be added to the DSBB Advance Release Calendar for the affected month.

#### **4.2.2 *Periodicity follows dissemination standards***

The balance sheet of the BI and other MFIs are compiled and disseminated on a monthly basis, which is consistent with the SDDS.

### **4.3 Consistency**

#### **4.3.1 *Statistics are consistent within the dataset***

The BI's and credit institutions' records for claims on, and liabilities to each other are consistent. Additional internal consistency checks, including reconciliation of stock and flow data are maintained by the Research Department.

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

As from June 1998, the monetary statistics are based on the source data of all Italian credit institutions and uniform ECB reporting requirements. As a minimum requirement, the ECB requested the production of harmonized historical data at least as from September 1997 on the basis of best estimates. The BI produced estimated time series for the period December 1995—May 1998. Main breaks and discontinuities in the time series are explained in the methodological appendix of the *Supplements to the Statistical Bulletin*. Unusual changes in economic trends are explained by the Research Department in the *Economic Bulletin* of the BI.

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

The Balance of Payments Office at the BI regularly checks the consistency of the monetary statistics with balance of payments statistics (international investment position). There is a discrepancy between derivation data for the cash borrowing requirement computed by MEF and the corresponding financing data (which include banking data) computed by BI.

### **4.4 Revision policy and practice**

#### *4.4.1 Revisions follow a regular, well-established and transparent schedule*

The latest data on the BI are considered final. Monthly data of the other MFIs are provisional and, like estimated data, subject to revisions. In accordance with the principles and guidelines on revision policy set out by the ECB, revisions are carried out at the time of the next release; once the revisions are incorporated, the data are considered final. The BI informs the users in the methodological appendix of the *Supplements to the Statistical Bulletin—Monetary and Financial Indicators* that the figures for the most recent months may have been affected by revisions in the reports submitted by banks.

According to the Eurosystem revision policy, national central banks in the euro area should not need to systematically revise data outside the ordinary date range (so called exceptional revisions). Significant data revisions applied to values related to a period prior to the month preceding the current reference month—not due to grossing-up or to minor revisions—and any exceptional revisions are to be explained to the ECB by means of explanatory notes. According to the BI, the only significant revisions made to date refer to reconstructions of time series—several of which occur from 1990 onwards—to take account of the introduction of uniform reporting of balance sheet data in May 1998 for the entire universe of Italian banks and the harmonization of monetary statistics with ESCB statistical requirements (see 4.3.2). The *Supplements to the Statistical Bulletin* provide information on these significant revisions.

#### 4.4.2 *Preliminary data are clearly identified*

Users are alerted in the methodological appendix of the *Supplements to the Statistical Bulletin—Monetary and Financial Institutions: Banks and Money Market Funds* that the data on MFIs for the latest month are provisional. Provisional figures are in parenthesis. The revised data are disseminated in the same way, and at the same level of detail, as the data being revised. Revised data are not marked in the tables. Revisions are normally negligible; significant revisions are explained in the methodological notes.

#### 4.4.3 *Studies and analyses of revisions are made public (see also 3.5.1)*

The BI does not provide information on studies and analyses of revisions to the public. According to the Research Department, revisions in monetary data are normally very small. No analysis of the preliminary versus revised data is being published 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 central bank and the other MFI accounts are presented in a balance sheet format. The Italian component of the aggregated balance sheet of the Eurosystem and the Italian contribution to the euro area monetary aggregates provide useful indications both at national and euro area level. However, a consolidated balance sheet of MFIs is not published in statistical releases. Such an analytical framework constitutes a core set of data for macroeconomic analysis; it links the consolidated deposit liabilities of the BI and the other MFIs to their claims on the resident sectors of the economy and nonresidents.

The *Supplements to the Statistical Bulletin—Monetary and Credit Aggregates of the Euro Area: the Italian Components* contains two balance sheet presentations for the BI. Table 1 Balance Sheet of the Bank of Italy refers to the balance sheet prepared using accounting classifications, whereas Table 8 Italian component of the aggregated balance sheet of the Eurosystem represents the statistical balance sheet (see 3.1.1). Although the difference in total values in both tables is very small, the classification of asset and liability positions in Table 1 and Table 8 varies considerably, reflecting the accounting and statistical reporting requirements, respectively. In its *Monthly Bulletin*, the ECB uses the term Financial Statement to identify the Eurosystem's balance sheet by accounting classifications, and retains the term Balance Sheet for statistical purposes.

Comments on current trends are provided in the *Economic Bulletin* and *Annual Report*. Seasonally adjusted growth rates for selected deposits and loans are released via a press release.



#### *5.1.2 Dissemination media and formats are adequate*

Data on selected deposits and loans, and some interest rates are first released via a press release. The release of *Supplements to the Statistical Bulletin—Monetary and Credit Aggregates of the Euro Area: The Italian Components* and *Supplements to the Statistical Bulletin—Monetary Financial Institutions: Banks and Money Market Funds* follow immediately afterwards, when the publications are posted on the website of the BI. Longer and historical time series can be accessed free of charge and downloaded from the BI website.

#### *5.1.3 Statistics are released on the pre-announced schedule*

Monetary statistics are released according to a quarter ahead Advance Release Calendar giving precise release dates for the next six months. The press release containing the calendar is disseminated on BI's Internet website.

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

Data are released simultaneously to all interested users.

#### *5.1.5 Nonpublished (but nonconfidential) sub-aggregates are made available upon request*

Unpublished and nonconfidential data are made available upon request free of charge. The availability of nonpublished statistics, and the terms and conditions on which they are made available are publicized.

### **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 monetary statistics' metadata pages, including the concepts, classifications, data sources, characteristics, and definitions are available in the SDDS framework posted on the IMF's DSBB. These metadata pages are scrutinized and updated periodically. Users have easy access to the metadata via a hyperlink on BI's website. Additional detailed information on sectorization, classification, and valuation of balance sheet positions shown in the tables of the *Supplements to the Statistical Bulletin* are provided in the methodological appendix. A comprehensive explanation of methodology is provided in two specialized publications: *Supplements to the Statistical Bulletin—Methodological Notes and Statistical Information*, No. 11 of February 2000, and No. 33 of June 2000.

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

In March 1994, the BI published a brochure on *The Monetary and Financial Statistics of the Bank of Italy*. The brochure explains the data collection and processing system, and the statistical products of the BI. A comprehensive sources and methods manual is available for interested internal and external users (especially MFIs) of monetary statistics. The manual is updated regularly.

*5.3 Assistance to users*

*5.3.1 Contact person for each subject field is publicized*

Prompt and knowledgeable service and support is provided to statistics users. However, the statistical releases do not identify specific individuals. Only the *Economic Bulletin* identifies the head of the Research Department. Users surveys for monetary statistics have not been produced.

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

A catalogue of publications is available in the *Economic Bulletin* and on the Internet website of the BI. Publications, documents, and other services are free of charge.

Table 5. Italy: Data Quality Assessment Framework: Summary Presentation of Monetary Statistics<sup>1/</sup>

Elements	NA	Assessments				Comments
		O	LO	LNO	NO	
<b>Prerequisites of quality</b>						
0.1 Legal and institutional environment		X				
0.2 Resources		X				
0.3 Quality awareness		X				
<b>1. Integrity</b>						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
<b>2. Methodological soundness</b>						
2.1 Concepts and definitions		X				Classification of nonmarketable securities, and financial derivatives deviates from international standards. Where appropriate, distinguish MFI assets and liabilities according to whether they are held/ incurred by the ECB, national central bank(s), or other MFIs. Valuation of securities held to maturity, debt securities issued, and financial derivatives deviates from <i>MFSM</i> guidelines.
2.2 Scope		X				
2.3 Classification/sectorization			X			
2.4 Basis for recording			X			
<b>3. Accuracy and Reliability</b>						
3.1 Source data		X				Revision studies investigating sources of errors are not routinely undertaken.
3.2 Statistical techniques		X				
3.3 Assessment and validation of source data		X				
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies			X			

Table 5. Italy: Data Quality Assessment Framework: Summary Presentation of Monetary Statistics<sup>1/</sup> (concluded)

Elements	NA	Assessments				Comments
		O	LO	LNO	NO	
<b>4. Serviceability</b>						
4.1 Relevance		X				There is a discrepancy between derivation data for the cash borrowing requirement computed by MEF and the corresponding financing data (which include banking data) computed by BI.
4.2 Timeliness and periodicity		X				
4.3 Consistency			X			
4.4 Revision policy and practice		X				
<b>5. Accessibility</b>						
5.1 Data accessibility		X				Statistical releases do not identify knowledgeable contact persons.
5.2 Metadata accessibility		X				
5.3 Assistance to users			X			

Note: NA= Not Applicable; O = Practice Observed; LO = Practice Largely Observed;  
LNO = Practice Largely Not Observed; NO = Practice Not Observed

<sup>1/</sup> Assessment using the Depository Corporations Survey as the reference point.

## 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 statistics is clearly specified*

The UIC, an instrumental entity of the BI since 1998, is responsible for collecting and compiling the balance of payments and international investment position statistics. The BI and UIC contribute in formulating the requirements and assessing the quality of the statistics compiled by the UIC. Both institutions disseminate data on balance of payments and international investment positions, with different periodicity and level of detail.

Since the start of Stage Three of EMU in January 1999, Italy (along with the other members of the euro area) provides contributions for the euro area balance of payments. The legal authority for collecting balance of payments and international investment statistics is provided for by (i) Article 5 of the Protocol on the Statute of the ESCB and the ECB (as provided for under the Maastricht Treaty); (ii) the Council Regulation (EC) 2533/1998 of November 23, 1998 that governs the collection of statistical information for the fulfillment of tasks of the ESCB; and (iii) the ECB Guidelines 2000/4 (May 2000) addressing the detailed requirements for balance of payments and international investment position statistics. Such information, aggregated as required, is used to compile statistics relating to the single currency area, which are then disseminated by the ECB. In order to strengthen the legal framework for the collection of balance of payments statistics, the ECB has issued a dedicated recommendation (ECB Recommendation ECB/2000/5) to cover those institutions other than national central banks that play a central role in the process of collecting and compiling statistics, including, among others, the UIC.

At the national level, the collection and dissemination of statistics by the BI and UIC is governed by the Foreign Exchange Law (Legislative Decree 148/1988); the Banking Code (Legislative Decree 385/1993); and the UIC Law (Legislative Decree 319/1998). Article 21 of the Foreign Exchange Law entitles the UIC to collect and process data on foreign transactions directly from the resident banks and, after authorization of the Interministerial Committee for Credit and Savings, from resident nonbanks. The Committee authorized the UIC to collect data on external transactions of nonbanks exceeding a certain threshold in May 1990 and for stock data on external assets/liabilities of resident nonbanks exceeding the threshold of 250,000 euro in October 1995. The law allows sample surveys as a possible approach for collecting data from resident nonbanks. Article 2 of the UIC Law entitles the UIC, as an instrumental entity of BI, to collect information for the compilation of the balance of payments and international investment position statistics.

Consistency in methods is facilitated by permanent coordination between the BI's Research Department and the UIC's Statistics Department and by reference to international standards agreed at the IMF, ESCB, and Eurostat level. UIC representatives participate in the meetings of the BI's Financial and Banking Statistics Committee. The BI and UIC also participate in the ECB's Statistical Committee and (together with Istat) at the European level in the Committee on Monetary, Financial, and Balance of Payments Statistics.

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

A permanent committee at the highest level is in charge of the coordination between the BI and Istat, and it has also endorsed a formal agreement for exchanging data. The meetings of the permanent committee take place at least three times per year. In addition, the Research Department of the BI and the Statistics Department of the UIC are permanent members of the Financial and Banking Statistics Committee, comprising a number of other departments of the BI.

*0.1.3 Respondents' data are to be kept confidential and used for statistical purposes only*

The BI and UIC are not allowed to disclose data of individual institutions or transactions. Council Regulation (EC) 2533/1998 governing the collection of statistical information for the fulfillment of ESCB tasks includes a requirement for confidentiality (Article 8). The 1993 Banking Law includes a secrecy clause (Article 7), which deals with the confidentiality of individual data and requires that data be disseminated without the identification of individual persons or entities. Article 21 of the Foreign Exchange Law prevents the UIC from permanently storing elementary transactions with the names of the transactors and requires the dissemination of the data in a way that prevents the identification of individual persons or entities. In addition, the BI and UIC voluntarily abide by the relevant provisions set forth in the Law on the National Statistical System (Legislative Decree 322/1989) regarding confidentiality, in particular the articles on processing of personal data and their use for statistical purposes only. Article 13, paragraph 1, of Law 675/1996 specifies that in any national surveys and other statistical inquiries, respondents must be informed of their rights and obligations with regard to the provision of information. Similarly, they must be informed that the information provided will be used only for statistical purposes. Detailed references to legal terms and conditions of dissemination and confidentiality of reported data are contained in all software made available to reporting agents.

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

Statistical reporting is mandatory under the 1993 Banking Law (Legislative Decree 385/1993), and the Foreign Exchange Law. Moreover the Legislative Decree 322/1989 defines the penalties for noncompliance with the reporting requirements or for misreporting.

The UIC has developed and distributed free of charge a series of specific software tools to assist users in compiling and checking their returns to the UIC. Moreover, the UIC website

provides assistance to the respondents by showing the relevant questionnaires and FAQs and by indicating points of contact.

## **0.2 Resources**

### *0.2.1. Staff, financial, and computing resources are commensurate with statistical programs*

The BI Institutional Plan, which has a three-year duration with annual audits, serves as a single reference for the development, management, and control of overall resources in direct correlation with available financial means. One section of the Plan specifies the objectives to be pursued in the area of human resources as well as the qualitative/quantitative distribution of personnel across the diverse units of the BI. Integrated human resource planning at the BI is aimed at ensuring the availability of adequate staff in quantitative and qualitative terms. To this end the staff participates in task forces that discuss relevant subjects, engage in on-the-job training, and participate in internships with international organizations (in particular the ECB) to acquire expertise in developing and implementing statistical methodologies. Another section of the Plan delineates the BI objectives with regards to the acquisition and optimization of information technology resources. In addition, the combination of statistical and research functions has resulted in a high level of interest on the part of the staff in experimenting with new approaches, and there is regular participation in meetings, seminars, and international task forces (e.g., ECB committees) in this area.

At the UIC about 90 people work in the Statistics Department. At the BI a specific unit (Balance of Payments Unit, with 6 people) within the Research Department is assigned the task of elaborating and analyzing balance of payments data.

### *0.2.2 Measures to ensure efficient use of resources are implemented*

On the basis of the Institutional Plan, the Resources Management Department of the BI prepares annual operating plans detailing projects to be realized in each of the Plan's three years. The program of work is approved by the Strategic Committee. In addition, Sectoral Programming Committees, which oversee operational programming, deliberate on the use of resources under their supervision, and verify the degree to which operational plans have been executed, exercising decisional powers in specific cases, as necessary. At the UIC, internal auditing and expenditure controls are operative at the highest level and are reported to the Board.

## **0.3 Quality awareness**

### *0.3.1 Processes are in place to focus on quality*

The BI and UIC view their oversight of the statistical system as being primarily oriented toward satisfying the informational requirements of an ever increasing users' base. To this end, the BI's Credit and Financial Statistics Committee, of which the UIC's Statistics Department is a permanent member, provides guidance aimed at focusing on quality in

communications with intermediaries in its Documentation on Data Collection from intermediaries. The Committee is also responsible for defining levels of data quality assurance and oversees data validation procedures for checking the consistency and plausibility of reported data. On a more informal basis, senior managers of the BI and UIC meet frequently on issues specifically related to quality of the euro area and national statistics, seen from both the process and product side.

Issues affecting the quality of monetary union and national balance of payments data have been discussed in European fora. These fora have made recommendations to ensure that the balance of payments collection systems of monetary union members are adapted to meet user needs. A particular focus of the assessments of national data has been on the adequacy of ITRS systems to handle the increased volume of transactions, problems in distinguishing between residents and nonresidents, integration of national financial markets and the disappearance of the domestic and foreign concepts previously applied to given financial instruments, changes in corporate cash management, and changes in payments systems. Changes to Italy's balance of payments collection system to maintain the quality of monetary union and national balance of payments data are being coordinated at the European level.

*0.3.2 Processes are in place to monitor the quality of the collection, processing, and dissemination of statistics*

The BI and UIC cooperate in addressing any quality issues on data collected and compiled. To ensure compliance with the ECB requirements defined in ESCB committees, the UIC, under the BI supervision, has reorganized internal tasks regarding the collection, processing, and dissemination of statistical data, with particular focus on the accuracy of compiled data. Statistical checks on the data reported by banks and nonbanks are performed at various levels by the UIC both for individual and aggregated data: formal correctness; logical coherence of accounting data; examination of individual time series data; comparison between the trends of different intermediaries' data; comparison between different sources of data and between stocks and flows; and behavior of aggregated time series. An additional level of quality check is performed each month by the BI Unit in charge of analyzing the balance of payments developments. This additional level of BI's control often provides useful input to the UIC.

No formal surveys of users are undertaken; however there is a tradition of users contacting directly both the BI and UIC, and responses are provided to all requests and inquiries.

*0.3.3 Processes are in place to deal with quality considerations, including tradeoffs within quality, and to guide planning for existing and emerging needs*

Tradeoffs are discussed in the context of the work of the relevant ECB committees where the BI (and UIC) is represented as a full partner. The BI and the UIC maintain an ongoing dialogue with the Italian banking industry. Similarly, contacts are maintained with the academic and research community by the Research Department of the BI and the Statistics Department of the UIC. In addition, ongoing review of users' needs takes place through the



provision of detailed statistics and analyses by the Research Department to a number of internal and external users. Concerns are then reported back to the BI and the UIC managers and to the ECB committees. Those concerns are taken into consideration in the annual review and revision of the Institutional Plan. In the process of survey design, an in-depth exchange of views occurs with the business community as to how to produce statistics that respond to identified needs (e.g., UIC's international tourism survey).

## **1. Integrity**

### **1.1 Professionalism**

#### *1.1.1 Statistics are compiled on an impartial basis*

Guidelines for staff behavior are clear and publicized in the UIC's and in the BI's Staff Rules, which include rules on professional secrecy and on professional conduct. Moreover, according to the Banking Law and to the Foreign Exchange Law, the data are confidential before their publication.

The professionalism of BI and UIC staff is supported by recruitment procedures and a selection process that evaluates exclusively the merit and the potential of candidates and current employees. Staff at various levels participate in IMF, ECB, OECD, BIS, and Eurostat committees, and in other fora. Staff of the BI are also engaged in working groups of national bodies involved in economic research and analysis and actively participate in academic debates through the publication of discussion papers, articles, books, and contributions to conferences and seminars.

#### *1.1.2 Choices of sources and statistical techniques are informed solely by statistical considerations*

In the frame of the current approach for collecting data for the euro area balance of payments, the choice of statistical sources is left to the country in accordance with the principle of subsidiarity. Against this background, Italy defines the data collection approach taking into account specific features of its economy. The present collection system is an adaptation and improvement of the previous system based on settlements from banks' reports, which was designed during the time of exchange control. This system has been improved with the introduction of reports for transactions settled in nonresident banks and several specific surveys. The improvements were driven solely by statistical consideration.

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

The institutional independence of the BI and the BI Governor (which is also the Chairman of the UIC) ensures that the entity is fully entitled to comment on the statistics it disseminates. The Credit and Financial Statistics Department and/or the Research Department staff

participate in all relevant briefings managed by the BI's Communications Office, thereby helping to ensure that the statistical data disseminated are interpreted properly.

## **1.2 Transparency**

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

The Protocol on the Statute of the ESCB and of the ECB, along with the texts of all other relevant EU and ECB regulations, are available on the ECB Internet website. The BI website contains references and active hyperlinks to the ECB's website. The Banking Law and other national level normative texts also are available on the BI website. In addition, information on the relevant laws is published in the UIC's *Monthly Bulletin*. Detailed references to legal terms and conditions of dissemination and confidentiality of reported data are also contained in the software provided by the UIC to the reporting agents.

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

No government officials have prior access to the monthly data. National balance of payments, however, are sent to the ECB together with the extra euro area contribution, two days prior to the press release, in the frame of the data exchange for the aggregation of the euro area balance of payments statistics. The ECB is not entitled to comment on the national data.

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

In the statistics releases, the BI and UIC are clearly identified as being responsible for data compilation and dissemination. Notice is also given that unless otherwise indicated, all data are compiled by the Bank of Italy and that attribution is requested when the BI statistics are used or reproduced in other formats. The same applies for the UIC.

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

The BI and UIC provide users with advance notice about major methodological changes, explaining the rationale behind the change and its likely impact on the data. Such notice was given, for instance, when the Italian balance of payments statistics were brought to full consistency with the *BPM5*, and the Governor explained the changes in a press release (April 1999).

### **1.3 Ethical standards**

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

Guidelines for staff behavior are clear and are published in the document *Bank of Italy Staff Rules* and *UIC Staff Rules*, which includes references on professional secrecy and staff conduct. Every new BI and UIC employee participates in an extensive orientation and training program that is aimed at explaining the fundamental duties and powers of the institution and its employees. The organizational structure of the BI Research Department and the UIC Statistics Department and the established modalities for interaction with national and supranational users are also designed to foster ethical behavior.

## **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 line with concepts and definitions set out in the *BPM5*. Departures from the guidelines are relatively minor and reflect constraints on the collection system.

### **2.2 Scope**

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

In principle, Italy's balance of payments statistics cover all resident-nonresident transactions. Resident institutional units are defined in conformity with the *BPM5*'s concepts of economic territory and center of economic interest.

In line with international standards, transactions with residents of San Marino and Vatican City are regarded as cross-border transactions.

Contrary to *BPM5*, large parts of migrants' transfers are treated as an income component under compensation of employees, even if most reporters under this item spend more than one year in a foreign country.

### **2.3 Classification/sectorization**

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

Since January 1999, the balance of payments statistics have been brought into line with the classification of the *BPM5*. Additional changes were made during 1999-2000 to reflect

further international agreements, particularly the creation of the new functional category Financial derivatives, in the financial account, and the disclosure of reserve assets according to the International Reserves and Foreign Currency Liquidity Data Template (1999).

Minor deviations occur but are confined to only a few items. They are common to collection systems based on settlements and would require dedicated surveys to be overcome. In most cases, the departures from agreed standards are readily identifiable in disseminated documentation. A key document describing Italy's concepts, definitions, and deviations from agreed methodology for the euro area statistics is the ECB publication *European Union Balance of Payments/International Investment Position Statistical Methods*. There is a BI publication describing the full set of concepts and definitions. However, this publication dates back to 1996 and is not up to date. Drawing from the available documentation and the discussions with Italian authorities, the deviations are as follows:

- Goods for repair are recorded on a gross basis. This departure from the practice of net recording is not clearly documented.
- Direct investment income does not include income on trade credits between affiliated enterprises and income from intercompany loans.
- Other investment income does not include income on trade credits and the interest share on financial leasing. Moreover, it includes intercompany loans between affiliated enterprises.
- Financial derivatives between affiliated enterprises (excluding MFIs) are not identified separately within direct investment. Instead, they are included in financial derivatives.
- Securities traded in the context of financial derivatives contracts ending with the actual delivery of the underlying instruments are recorded under portfolio investment for the full amount finally settled (strike price). The notional difference between strike and market price cannot be allocated to the item financial derivatives.

The sector breakdown is fully consistent with the international standards. Four sectors are identified separately for the national balance of payments and international investment position. In line with the *BPM5*, those sectors are (i) monetary authorities, (ii) general government, (iii) MFIs; and (iv) other sectors.

## **2.4 Basis for recording**

### **2.4.1 Market prices are used to value flows and stocks**

As of January 2002, transactions recorded in the balance of payments statistics are expressed in euro, the only legal tender in the euro area. A table showing the main balance of payments components in Italian lira is also disseminated by the UIC and by the BI. Time series data as

from 1997 are expressed in euro on the basis of the locked exchange rate between lira and euro on January 1, 1999. Data from 1988 to 1996 are expressed in Italian lira and are available as separate time series.

Transactions in currencies other than euro are converted into euro at the exchange rate prevailing on the day of transaction or, when appropriate, at the corresponding weighted average exchange rate for the reference period. Stocks in other currencies are converted into euro at the end-month corresponding exchange rate.

A comprehensive security-by-security database supports the market valuation of equity and debt securities actively traded on the market. For securities that are either not actively traded, or are not issued in organized markets (such as certain private placements), reporters are asked to provide a proxy to market valuation. In practice, it is possible that securities not heavily traded are valued at the book value. Direct investment transactions arranged by exchange of shares when no price is agreed between parties are valued at book value.

#### *2.4.2 Recording is done on an accrual basis*

With a few exceptions, the Italian balance of payments is compiled with the full recognition of the change of ownership criteria as the cornerstone for the transaction to be recorded and their time of recording. Dividends are recorded as of the date they are paid. Income on bonds and notes, and money market instruments is compiled on the basis of accrual principles, based on information on stocks (monthly for banks), or accumulation of monthly flows for nonbanks. Reinvested earnings related to direct investment are also included based on an annual survey of direct investment (assets and liabilities). Trade credits are calculated based on estimations.

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

Grossing/netting procedures are broadly consistent with *BPM5*. Current and capital account transactions are recorded on a gross basis. Financial account transactions are recorded on a net basis, separately for the individual asset and liability components.

### **3. Accuracy and Reliability**

#### **3.1 Source data**

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

The collection system supporting the compilation of the balance of payments is an open settlement system, integrated with surveys, organized around reporting banks and nonbanks.

Banks and the monetary authority report their claims and liabilities vis-à-vis residents and nonresidents on a monthly basis. The information is broken down by type of assets/liabilities, currency, maturity, and debtor/creditor country. Banks report foreign transactions both on their own account and on behalf of their customers, with a breakdown by type of operation, currency, counterpart's country, and type of account used for the settlement (nostro/vostro, TARGET,<sup>35</sup> and so on). Assets in securities are reported on a security-by-security basis. The reports are transmitted in the frame of the Matrice Valutaria (matrix system). As of January 2002, an exemption threshold of euro 12,500 applies to banks' reports on cross-border transactions. Data from the matrix system is reported 12 working days after the end of the reference month.

Nonbanks (enterprises, households, and other financial institutions) report on cross-border transactions by means of a Comunicazione Valutaria Statistica (CVS). The reporting is done either through the domestic banks or directly to the UIC when the transaction is settled via a nonresident bank or through banknotes and other payment instruments. The system also collects gross transactions settled through clearing. An exemption threshold of euro 12,500 applies. The CVS is reported 25 days after the end of the reference month. Although there is a clear obligation for nonbanks to report transactions above the threshold, the increased use of nonresident banks is adversely affecting the coverage of the data in particular for small- and medium-size enterprises. This development, which is critical for all European countries relying on domestic settlements, is receiving attention in several European fora and suggests the need for cooperation at the international level.

In the CVS, transactions in tradable instruments (equity and debt securities) are reported with the International Securities Identification Number (ISIN). The features of the reported securities are identified against a comprehensive ISIN securities database, which enables the compilation of the balance of payments on an accrual basis (for income accruing from tradable securities). The UIC acts as the numbering agency for securities issued in the Italian (financial) market.

A survey of direct and portfolio investment is conducted by the UIC on an annual basis. Direct investments are reported both abroad and in the reporting economy. Portfolio investments are requested only on the asset side. The survey is designed to support the compilation of the Italian contribution to the IMF's Coordinated Portfolio Investment Survey. It involves banks and other financial institutions, insurance companies, companies listed on the Italian stock exchange, and a sample of other enterprises. Financial institutions report both on their behalf and as custodians on behalf of resident investors. To avoid double counting, and as a checking tool, domestic investors are asked to indicate the holdings held by domestic custodians. Useful information on reinvested earnings is derived from the survey, based on declared net operating profits (all inclusive concept) and dividends paid.

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<sup>35</sup> TARGET, which stands for the Trans-European Automated Real-time Gross Settlement Express Transfer system, is the real-time gross settlement system for the euro.

This information for the most recent year is used to calculate the reinvested earnings in the balance of payments for the current year, on the assumption that a simple relationship exists between direct investment income and stock data.

Since 1996, the UIC has conducted a very comprehensive border survey on tourism to support the compilation of the travel services account. The survey is organized around in-the-field interviews of both residents and nonresidents. It provides a wide range of information on the structure of tourism, both at the national and regional level. Since 2002, the survey provides also information useful in calculating passenger transport services. The survey methodology and strategy is believed to provide very accurate information.

Since 1998, the item transportation has been compiled based on the result of an ad-hoc survey conducted by the UIC (the time series from 1989 to 1997 was revised according to the new methodology). The survey identifies the cost-structure of international transportation by addressing a sample of operators and requesting information broken down by mode of transport, country of origin/destination, type of good, and type of transport device (cargo, container, etc.). The survey provides a detailed matrix of transportation costs for each of the dimensions considered. This matrix is combined with a corresponding matrix containing the volume of imports/exports in order to obtain total costs for transport. Credits and debits for merchandise transport are calculated by applying the Italian carriers' market share (source: Transport survey) to the total costs for transport. The cost structure of international transportation is recalculated each year. The survey also provides an estimate of the freight insurance costs.

The Treasury reports on a monthly basis on cross-border transactions conducted for the general government sector. Data based on settlements on government transfers with international organizations are provided on a quarterly basis. The Accounting Department of the BI reports on the external position of the general government on a monthly basis.

Istat reports data on external trade, based on two sources. The first consists of customs declarations on imports from and exports to non-EU countries (Extrastat). The second is based on surveys of companies' trade with other EU counterparts (Intrastat). Both sources are based on EU regulations. Trade data are adjusted to bring the goods item into full consistency with the *BPM5*. Adjustments are based on CVS reports of foreign transactions. The UIC also performs the adjustment of the goods item to a f.o.b. basis using the results of the survey on international transportation. Istat's data from an annual survey of insurance companies are used as an additional source to estimate the insurance services component.

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

Definitions, scope, and classifications used in source data are broadly in line with *BPM5*. Adjustment procedures exist to ensure that source data conform to the coverage, classification, valuation, and timing conventions of the *BPM5*.

Information based on reported cross-border settlements of domestic banks and nonbanks is completed and integrated with surveys to provide a full application of the accrual principle and to include, as much as possible, transactions settled outside the domestic banks.

Regarding nonbanks reporting of their foreign transactions, regular interaction between the UIC and the largest enterprises active in international business ensures that large parts of the settlements occurring outside domestic banks are reported directly. Small and medium enterprises are generally believed to use domestic banks, which helps ensure satisfactory coverage from banks' reports.

Surveys on tourism, on international transportation services, and on direct and portfolio investment are designed to adhere to *BPM5* guidelines.

The security-by-security database provides a powerful tool to capture most features of equity and debt securities. Given the membership of the UIC in the Association of National Numbering Agencies (ANNA) and its status as the numbering agency for domestic issues and securities, the coverage is particularly accurate for securities issued in Italy. ANNA provides a common platform for mapping issuances in the respective markets and the exchange of information among participants according to shared standards. For securities that are not heavily traded or not issued on organized markets, valuation must rely on respondents' assessments.

### *3.1.3 Source data are timely*

In general, source data are timely as regards the compilation of quarterly and annual balance of payments statistics. The BI and other banks report within 12 working days after the end of the reference month. Nonbanks report within 25 days after the end of the reference month. The outcome of the survey on international transportation is ready 30 working days after the end of the reference year. The results of the survey on tourism are available one month after the reference month. In the case of trade statistics, part of the information is provided by Istat on a quarterly or annual basis, in line with the approach used to identify the reporting threshold, which is based on enterprises' volume of activity defined in the quarter or annual period. The BI makes an estimate of trade by enterprises below the threshold to obtain preliminary homogeneous monthly time series.

## **3.2 Statistical techniques**

### *3.2.1 Data compilation employs sound statistical techniques*

Statistical techniques used to conduct surveys on tourism, on international transportation, on portfolio assets and on direct investment assets and liabilities are based on sound methodologies. Sampling approaches take into consideration the country-specific situation and its territorial diversity. Both sampling techniques and surveys' results are reassessed at each exercise.



Monthly reports from banks and nonbanks are automatically checked for internal consistency. The UIC provides respondents with free software supporting electronic reporting with built-in accounting checks. Once the data reach the UIC, a full set of quality checks is run before the identification of the reporters is erased. In case of wrong or implausible returns, the respondent is contacted to resolve the problem. Moreover, banks are provided free of charge with data on their contribution to the overall external transactions/positions. This feedback to the banks helps to strengthen a virtuous circle between compiling agency, reporting entities, and users.

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

The adjustments done to calculate goods imported/exported on trade credit and income on an accrual basis are based on a sound methodology. Adjustments of income data in order to include reinvested earnings are based on a comprehensive survey of direct investment in Italy and abroad. The c.i.f./f.o.b. factor for valuing imports is estimated each year on the basis of the sample survey of transportation enterprises.

**3.3 Assessment and validation of source data**

*3.3.1 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 planning*

The population of reporting banks, an essential element in the Italian data collection system for balance of payments statistics, is precisely defined in the framework of ECB regulations addressing the reporting population for monetary policy purposes. A long-standing relationship with the banking community derives also from the BI's supervisory functions. A similar long-standing relationship with banks is deeply embedded in the history of foreign exchange controls of the UIC. Comprehensive coverage of domestic banks assures coverage of cross-border settlements through them.

With respect to nonbanks, UIC has developed a close cooperation with large enterprises that use payments arrangements such as cash pools not held at domestic banks. This cooperation involves advisory functions as to how specific types of transactions should be classified, with UIC staff providing advice directly to concerned entities.

The sampling process for the survey of transportation is based on a register of operators, with detailed information on enterprises by province, size, and prevailing activity (by product and counterpart's countries).

The survey on tourism is supported by in-depth analysis of the structure of the sector. Before implementing the new survey, the previous collection system based on banks' reports and the new survey were run in parallel, to quantify the detected increase on coverage. The survey

was fine-tuned to cover all relevant border points (road crossings, international seaports, international railways, and international airports). According to Istat, the selected border points cover more than 90 percent of total tourism flows. Respondents are asked to provide their personal data for ex-post, sample-based quality checking.

There is a detected persistent bias between the initial and final release of trade statistics, which impacts the goods item of the quarterly balance of payments statistics. In particular, the initial releases of the first and second quarters appear to overestimate the actual final data, whereas for the last quarter an opposite phenomena is observed. Although this bias has been observed for a number of years, it has not been addressed in terms of enhanced estimation of the initial releases.

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

#### ***3.4.1 Main intermediate data are validated against other information where applicable***

A number of validations on intermediate data and statistical outputs are in place.

- At the aggregated level, banks' reports on behalf of their customers are checked against reports from nonbanks on transactions settled through domestic banks. Cross checks between stock and flow data are performed for the banks' financial transactions. Time series checks are performed for each bank and for each main item.
- The annual benchmark survey on direct and portfolio investment is used to check the accuracy of nonbanks' stocks derived by accumulation of flows.
- Trade statistics based on Custom's documentation are checked against transactions reported by banks and nonbanks.
- A database provided by a company specialized in monitoring corporate events is used to check the accuracy and coverage of reported foreign direct investment. Moreover, the financial press is monitored for information on corporate events and to verify high-value direct investment transactions.
- Cross-border holdings of the banks are checked against the statistics based on their consolidated balance sheets.

#### ***3.4.2 Statistical discrepancies in intermediate data are assessed and investigated***

The size and sign of errors and omissions as an indication of problems of coverage at intermediate level is assessed on an ongoing basis.

The size and magnitude of revisions in the trade statistics are also assessed. However, there is no formal approach guiding staff as to how to address the accuracy of initial estimates

against subsequent revisions coming from Istat. This is an important consideration given that part of the monthly data coming from Intrastat is broadly based on estimates.

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

The consistency between the pattern observed in the goods item of the balance of payments and the trade statistics is monitored on an ongoing basis. In a number of task forces set up under the aegis of Eurostat in the field of current account items, EU members are involved in an ongoing data exchange and sharing. For instance, the results of bilateral comparisons of tourism and international transportation have been used for fine-tuning the surveys. Moreover, the implicit rate of return of the investment income component against cross-border claims and liabilities is estimated by the BI.

## **3.5 Revision studies**

### *3.5.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes*

Revisions are stored and assessed on an ongoing basis. In case of revisions stemming from a major break in the approach followed to collect the data, surveys are conducted to anticipate the likely direction of the revision. In some cases the studies are made available to the public (such as the new survey on tourism). The more day-to-day revisions are studied informally with frequent exchange of views between staff and managers.

## **4. Serviceability**

### **4.1 Relevance**

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

The BI and UIC participate actively in fora addressing statistical needs at the EU/euro area level. Those needs are discussed and assessed both in relation to the policy tasks of the ECB as well as against the scope for harmonization of statistics *per se*. These European fora have drawn attention to major changes in user needs for balance of payments data at both the national and monetary union level and to the need for changes in the design of collection systems to meet these needs. They have concluded that greater priority should be given to the compilation of monetary union balance of payments data than to national balance of payments data, in particular for the financial accounts. Managers of the UIC and of the BI are in close contact and monitor continuously the relevance of data compiled by the UIC. In the design of the survey on tourism, the UIC took into consideration a full range of requirements coming from the business community. The UIC disseminates a very detailed breakdown of current transactions with nonresidents at the provincial level. Banks reporting for balance of payments purposes are provided with information on their position as regards other banks

involved in current, capital, and financial transactions with the rest of the world. Also transport operators interviewed are given information about the survey results. However, with the exceptions mentioned above, users' needs related to the business community are not addressed in a structured way.

## **4.2 *Timeliness and periodicity***

### **4.2.1 *Timeliness follows dissemination standards***

The data meet the timeliness standard of the SDDS, as follows:

- A monthly balance of payments is disseminated six-weeks after the end of the reference month, through UIC press release.
- A semi-annual international investment position is disseminated about 130 days after the end of the reference period, through the monthly UIC press release.

### **4.2.2 *Periodicity follows dissemination standards***

The data exceed the periodicity standard of the SDDS, as follows:

- The Italian balance of payments is compiled and disseminated on a monthly, quarterly, and annual basis. This exceeds the quarterly prescription of the SDDS.
- The Italian international investment position is compiled and disseminated on a semi-annual basis. This exceeds the annual prescription of the SDDS.

## **4.3 *Consistency***

### **4.3.1 *Statistics are consistent within the dataset***

Concepts, definitions, and classifications for producing the monthly and annual balance of payments statistics are the same and are in line with the guidelines set forth in the *BPM5*. For the last two years, errors and omissions have been acceptable.

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

Consistent time series are available from 1988 onwards. In March 1999, the balance of payments was brought into full consistency with the *BPM5* for the period January 1999, onwards. Time series from January 1997 were also shown. In June 1999, the BI published time series for the period 1988 to December 1996 for main components of the balance of payments.

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

Balance of payments statistics are consistent with other datasets. The cross-border holdings and transactions of banks are consistent with the monetary statistics in terms of concepts and definitions. The pattern of trade in goods is consistent with that observed in the trade statistics.

**4.4** *Revision policy and practice*

**4.4.1** *Revisions follow a regular, well-established, and transparent schedule*

Revisions of the monthly figures are published in the UIC's *Statistical Bulletin* about 90 days after the end of the reference month (source of information: the UIC press release on the balance of payments). Further revisions are included when the *General Report on the Economic Situation* (Relazione Generale sulla Situazione Economica del Paese) is published in March by the Ministry of the Treasury and in May when the BI publishes its *Annual Report*.

**4.4.2** *Preliminary data are clearly identified*

In all UIC and BI publications, both online and paper versions, preliminary data are clearly identified.

**4.4.3** *Studies and analyses of revisions are made public*

Studies and analyses of revisions are made available only when major methodological changes occur, or when there is a break due to a new collection system. This is done by a press release followed by an explanation of the reason underlying the change and the expected impact on the data. For instance, when the Italian balance of payments was brought to full consistency with the *BPM5*, the changes were explained in a UIC press release on April 21, 1999.

**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 the balance of payments statistics is clear and supported by adequate explanatory text.

### *5.1.2 Dissemination media and formats are adequate*

Balance of payments statistics are available in paper publication, on the website of the BI and the UIC, and on a BI CD-ROM (Base informativa Pubblica).

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

The UIC's press release on the balance of payments statistics, which is also posted on the UIC's web page, includes a release calendar indicating the date (but not the time) of releases taking place in the next four months. The calendar also includes a one-quarter ahead notice of the precise release date for the stock data. Also, the release of the BI *Supplements to the Statistical Bulletin* is pre-announced by a calendar on the website.

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

Monthly updates are released on the UIC's website.

### *5.1.5 Nonpublished (but nonconfidential) subaggregates are made available upon request*

Time series on subaggregates related to detailed breakdowns by province and counterpart's country are available on request. The paper version of the UIC *Statistical Bulletin* provides a contact fax number to which requests for unpublished data can be addressed.

## **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*

A description is provided in the ECB document *European Union Balance of Payments/International Investment Position Statistical Method (BOP Book)*, which is available online. This document focuses in particular on the financial account items. Other information on surveys of transportation is available in the BI's 1996 document on balance of payments statistics and on the UIC's website. A description of the Italian methodology and survey approach for tourism is available from both Eurostat's and the UIC's web pages. Reference to Istat's survey on insurance companies, which is used as an input to adjust trade statistics, is not available in any Italian publication, but reference is made in the IMF-SDDS metadata (Italian methodological notes). A comprehensive document putting together the various information on statistical methods and including the new survey on tourism would prove useful.

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

The balance of payments statistics are compiled according to very detailed breakdowns at the level of provinces, counterpart country, and single subitem.

### **5.3    *Assistance to users***

#### **5.3.1    *Contact person for each subject field is publicized***

The UIC's paper publications provide a contact fax number and address for ad-hoc data requests. Contact person references also are provided in the *BOP Book*. A hyperlink from the UIC website to the DSBB would help users reference information provided on the Italian balance of payments system.

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

A catalogue of publications is available in the *Economic Bulletin* and on the Internet website of the BI. Publications, documents, and other services are free of charge.

Table 6. Italy: Data Quality Assessment Framework: Summary Presentation of Balance of Payments

Elements	NA	Assessments				Comments
		O	LO	LNO	NO	
<b>Prerequisites of quality</b>						
0.1 Legal and institutional environment		X				
0.2 Resources		X				
0.3 Quality awareness		X				
<b>1. Integrity</b>						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
<b>2. Methodological soundness</b>						
2.1 Concepts and definitions		X				
2.2 Scope			X			Large parts of migrants' transfers are misrecorded as compensation of employees.
2.3 Classification/sectorization			X			Income on trade credits and the interest share of financial leasing are not included under other investment income; income on trade credits between affiliated enterprises and income on intercompany loans are not included under direct investment income.
2.4 Basis for recording		X				
<b>3. Accuracy and Reliability</b>						
3.1 Source data			X			The coverage of crossborder financial transactions settled through nonresident banks is incomplete.
3.2 Statistical techniques		X				
3.3 Assessment and validation of source data			X			Initial releases of monthly and quarterly data on trade in goods tend to overestimate the final figure in the first and second quarters, and underestimate it in the last quarter.
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies		X				



Table 6. Italy: Data Quality Assessment Framework: Summary Presentation of Balance of Payments (concluded)

Elements	NA	Assessments				Comments
		O	LO	LNO	NO	
<b>4. Serviceability</b>						
4.1 Relevance			X			No regular feedback is sought from users.
4.2 Timeliness and periodicity		X				
4.3 Consistency		X				Studies are undertaken for methodological revisions but not for routine revisions.
4.4 Revision policy and practice			X			
<b>5. Accessibility</b>						
5.1 Data accessibility		X				An updated and comprehensive document describing statistical methods is not available.
5.2 Metadata accessibility			X			
5.3 Assistance to users			X			Some releases do not identify a contact person.

Note: NA= Not Applicable; O = Practice Observed; LO = Practice Largely Observed;  
LNO = Practice Largely Not Observed; NO = Practice Not Observed

### **Summary of the Special Data Dissemination Standard**

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 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 required to be disseminated on the DSBB.

- 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.

At the March 29, 2000 meeting of the IMF's Executive Board, Directors approved the incorporation of a new SDDS data category on external debt. The transition period for implementing this data category expires in March 2003.

As a result of the IMF Executive Board's Third Review of the SDDS in March 2000, the IMF staff began monitoring observance of the Standard through NSDPs maintained on the Internet. Monitoring commenced at the beginning of July 2000, and is limited to the coverage, periodicity, and timeliness of the data and to the dissemination of advance release calendars.

*Source: Guide to the SDDS.*

Data Quality Assessment Framework—Generic Framework  
(July 2001 Vintage)

Quality Dimensions	Elements	Indicators
<b>Prerequisites of quality<sup>1</sup></b>	<p><b>0.1 Legal and institutional environment</b>—<i>The environment is supportive of statistics.</i></p> <p><b>0.2 Resources</b>—<i>Resources are commensurate with needs of statistical programs.</i></p> <p><b>0.3 Quality awareness</b>—<i>Quality is a cornerstone of statistical work.</i></p>	<p>0.1.1 The responsibility for collecting, processing, and disseminating statistics is clearly specified.</p> <p>0.1.2 Data sharing and coordination among data producing agencies are adequate.</p> <p>0.1.3 Respondents' data are to be kept confidential and used for statistical purposes only.</p> <p>0.1.4 Statistical reporting is ensured through legal mandate and/or measures to encourage response.</p> <p>0.2.1 Staff, financial, and computing resources are commensurate with statistical programs.</p> <p>0.2.2 Measures to ensure efficient use of resources are implemented.</p> <p>0.3.1 Processes are in place to focus on quality.</p> <p>0.3.2 Processes are in place to monitor the quality of the collection, processing, and dissemination of statistics.</p> <p>0.3.3 Processes are in place to deal with quality considerations, including tradeoffs within quality, and to guide planning for existing and emerging needs.</p>
<p><b>1. Integrity</b></p> <p><i>The principle of objectivity in the collection, processing, and dissemination of statistics is firmly adhered to.</i></p>	<p><b>1.1 Professionalism</b>—<i>Statistical policies and practices are guided by professional principles.</i></p> <p><b>1.2 Transparency</b>—<i>Statistical policies and practices are transparent.</i></p> <p><b>1.3 Ethical standards</b>—<i>Policies and practices are guided by ethical standards.</i></p>	<p>1.1.1 Statistics are compiled on an impartial basis.</p> <p>1.1.2 Choices of sources and statistical techniques are informed solely by statistical considerations.</p> <p>1.1.3 The appropriate statistical entity is entitled to comment on erroneous interpretation and misuse of statistics.</p> <p>1.2.1 The terms and conditions under which statistics are collected, processed, and disseminated are available to the public.</p> <p>1.2.2 Internal governmental access to statistics prior to their release is publicly identified.</p> <p>1.2.3 Products of statistical agencies/units are clearly identified as such.</p> <p>1.2.4 Advance notice is given of major changes in methodology, source data, and statistical techniques.</p> <p>1.3.1 Guidelines for staff behavior are in place and are well known to the staff.</p>

Data Quality Assessment Framework—Generic Framework (continued)  
(July 2001 Vintage)

Quality Dimensions	Elements	Indicators
<b>2. Methodological soundness</b>  <i>The methodological basis for the statistics follows internationally accepted standards, guidelines, or good practices.</i>	<b>2.1 Concepts and definitions—</b> <i>Concepts and definitions used are in accord with internationally accepted statistical frameworks.</i>  <b>2.2 Scope—</b> <i>The scope is in accord with internationally accepted standards, guidelines, or good practices.</i>  <b>2.3 Classification/sectorization—</b> <i>Classification and sectorization systems are in accord with internationally accepted standards, guidelines, or good practices.</i>  <b>2.4 Basis for recording—</b> <i>Flows and stocks are valued and recorded according to internationally accepted standards, guidelines, or good practices.</i>	2.1.1 The overall structure in terms of concepts and definitions follows internationally accepted standards, guidelines, or good practices: see dataset-specific framework  2.2.1 The scope is broadly consistent with internationally accepted standards, guidelines, or good practices: see dataset-specific framework.  2.3.1 Classification/sectorization systems used are broadly consistent with internationally accepted standards, guidelines, or good practices: see dataset-specific framework.  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.

Data Quality Assessment Framework—Generic Framework (continued)  
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Quality Dimensions	Elements	Indicators
<b>3. Accuracy and reliability</b>  <i>Source data and statistical techniques are sound and statistical outputs sufficiently portray reality.</i>	<p><b>3.1 Source data</b>—<i>Source data available provide an adequate basis to compile statistics.</i></p> <p><b>3.2 Statistical techniques</b>—<i>Statistical techniques employed conform to sound statistical procedures.</i></p> <p><b>3.3 Assessment and validation of source data</b>—<i>Source data are regularly assessed and validated.</i></p> <p><b>3.4 Assessment and validation of intermediate data and statistical outputs</b>—<i>Intermediate results and statistical outputs are regularly assessed and validated.</i></p> <p><b>3.5 Revision studies</b>—<i>Revisions, as a gauge of reliability, are tracked and mined for the information they may provide.</i></p>	<p>3.1.1 Source data are collected from comprehensive data collection programs that take into account country-specific conditions.</p> <p>3.1.2 Source data reasonably approximate the definitions, scope, classifications, valuation, and time of recording required.</p> <p>3.1.3 Source data are timely.</p> <p>3.2.1 Data compilation employs sound statistical techniques.</p> <p>3.2.2 Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques.</p> <p>3.3.1 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 planning.</p> <p>3.4.1 Main intermediate data are validated against other information where applicable.</p> <p>3.4.2 Statistical discrepancies in intermediate data are assessed and investigated.</p> <p>3.4.3 Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated.</p> <p>3.5.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes.</p>

Data Quality Assessment Framework—Generic Framework (continued)  
(July 2001 Vintage)

Quality Dimensions	Elements	Indicators
<b>4. Serviceability</b>  <i>Statistics are relevant, timely, consistent, and follow a predictable revisions policy.</i>	<b>4.1 Relevance</b> — <i>Statistics cover relevant information on the subject field.</i>  <b>4.2 Timeliness and periodicity</b> – <i>Timeliness and periodicity follow internationally accepted dissemination standards.</i>  <b>4.3 Consistency</b> — <i>Statistics are consistent within the dataset, over time, and with major datasets.</i>  <b>4.4 Revision policy and practice</b> — <i>Data revisions follow a regular and publicized procedure.</i>	4.1.1 The relevance and practical utility of existing statistics in meeting users' needs are monitored.  4.2.1 Timeliness follows dissemination standards. 4.2.2 Periodicity follows dissemination standards.  4.3.1 Statistics are consistent within the dataset (e.g., accounting identities observed). 4.3.2 Statistics are consistent or reconcilable over a reasonable period of time. 4.3.3 Statistics are consistent or reconcilable with those obtained through other data sources and/or statistical frameworks.  4.4.1 Revisions follow a regular, well-established and transparent schedule. 4.4.2 Preliminary data are clearly identified. 4.4.3 Studies and analyses of revisions are made public.

Data Quality Assessment Framework—Generic Framework (concluded)  
(July 2001 Vintage)

Quality Dimensions	Elements	Indicators
<b>5. Accessibility</b>  <i>Data and metadata are easily available and assistance to users is adequate</i>	<b>5.1 Data accessibility</b> — <i>Statistics are presented in a clear and understandable manner, forms of dissemination are adequate, and statistics are made available on an impartial basis.</i>  <b>5.2 Metadata accessibility</b> — <i>Up-to-date and pertinent metadata are made available.</i>  <b>5.3 Assistance to users</b> — <i>Prompt and knowledgeable support service is available.</i>	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 formats are adequate. 5.1.3 Statistics are released on the pre-announced schedule. 5.1.4 Statistics are made available to all users at the same time. 5.1.5 Nonpublished (nonconfidential) subaggregates are made available upon request.  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.  5.3.1 Contact person for each subject field is publicized. 5.3.2 Catalogues of publications, documents, and other services, including information on any charges, are widely available.

<sup>1</sup>The elements and indicators included here bring together the pointers to quality that are applicable across the five identified dimensions of data quality.



### Users' Survey

A survey was made available to users of Italian macroeconomic statistics through the SDDS National Summary Data Page that is maintained by Istat. Respondents' comments covered several of the SDDS data categories, although most comments dealt with national accounts and government finance statistics. Also, the mission had discussions with a selection of users while in Rome. The comments summarized below are from a relatively small group.

Most users of Istat's macroeconomic statistics found the available dissemination formats to be of a high standard and encouraged Istat to expand the automated e-mail system for providing high-frequency users with updated datasets. Users noted that the adoption of *ESA 95* has led to significant improvements in many areas. Several users asked for greater disaggregated territorial coverage below the level of administrative regions. Several users emphasized difficulties in measuring both the trend and cyclical profile of productivity. In this context, data related to small enterprises regarding actual income and hours worked/paid, as well as improved availability of microdata on the distribution of household income would be useful.

Some researchers suggested that analytical work and econometric modeling would be facilitated if the timeliness of annual employment data could be brought into line with annual national accounts data. Specialized users also requested that Istat again provide data by branch of economic activity, including integrated sets of microdata from various sources. Improving the timeliness of the dissemination of certain disaggregated GDP components was also stressed.

In the area of government finance statistics, concerns were expressed with regard to the timeliness of comprehensive data on general government operations, particularly with regard to the requirements of the Stability and Growth Pact. The need for improvements in the coverage, periodicity, and timeliness of data on local financing operations in the context of devolution was viewed as a high priority. Several users indicated the need for a coordinated effort to communicate and present consistent data on government finance statistics on the part of the MEF, the BI, and Istat.