

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

This Report on the Observance of Standards and Codes on Data Module for Israel was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on March 14, 2006. The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of Israel nor the Executive Board of the IMF.

The Response by the Authorities on this report and the Detailed Assessments Using the Data Quality Assessment Framework (DQAF July 2003) are also included.

The policy of publication of staff reports and other documents by the IMF allows for the deletion of market-sensitive information.

To assist the IMF in evaluating the publication policy, reader comments are invited and may be sent by e-mail to publicationpolicy@imf.org.

Copies of this report are available to the public from

International Monetary Fund • Publication Services
700 19th Street, N.W. • Washington, D.C. 20431
Telephone: (202) 623 7430 • Telefax: (202) 623 7201
E-mail: publications@imf.org • Internet: <http://www.imf.org>

Price: \$15.00 a copy

**International Monetary Fund
Washington, D.C.**

INTERNATIONAL MONETARY FUND

ISRAEL

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

Prepared by the Statistics Department

Approved by Michael C. Depler and William E. Alexander

March 13, 2006

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

The datasets covered in this report are national accounts, consumer and producer price indices, government finance, and monetary statistics. The agencies that compile the datasets assessed in this report are the Central Bureau of Statistics (CBS), the Bank of Israel (BOI), and the Ministry of Finance (MOF).¹

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

CBS website: (<http://www.cbs.gov.il>)

BOI website: (<http://www.bankisrael.gov.il>)

MOF website: (<http://www.mof.gov.il>).

This report is based on information provided prior to and during a staff mission during the period November 1–15, 2005 and publicly available information. The mission team was headed by Mr. Robin D. Kibuka, and also comprised Messrs. Gary Jones and Pierre Papadacci (all STA), Ms. Ann Lisbet Brathaug and Mr. Kari Manninen (external consultants), and Mrs. Barbara El Ouardighi (STA Senior Administrative Assistant).

¹ While the MOF was not directly assessed, its data are a significant source for the annual consolidated general government accounts compiled by the CBS.

Contents	Page
Abbreviations.....	3
I. Overall Assessment.....	4
II. Assessment by Agency and Dataset	7
III. Staff's Recommendations	16
Tables	
1. DQAF July 2003—Summary Results.....	8
2a. Assessment of Data Quality—Dimensions 0 and 1—Central Bureau of Statistics.....	9
2b. Assessment of Data Quality—Dimensions 0 and 1—Bank of Israel	10
3a. Assessment of Data Quality—Dimensions 2 to 5—National Accounts.....	11
3b. Assessment of Data Quality—Dimensions 2 to 5—Consumer Price Index.....	12
3c. Assessment of Data Quality—Dimensions 2 to 5—Producer Price Index.....	13
3d. Assessment of Data Quality—Dimensions 2 to 5—Government Finance Statistics	14
3e. Assessment of Data Quality—Dimensions 2 to 5—Monetary Statistics.....	15
Appendix Table	
4. Overview of Practices Regarding Coverage, Periodicity, and Timeliness of Data Compared to the SDDS.....	19

ABBREVIATIONS

<i>1993 SNA</i>	<i>System of National Accounts 1993</i>
BOI	Bank of Israel
CBS	Central Bureau of Statistics
CPC	Central Product Classification
CPI	Consumer Price Index
DQAF	Data Quality Assessment Framework
DSBB	Dissemination Standards Bulletin Board
<i>GFSM 2001</i>	<i>Government Finance Statistics Manual 2001</i>
HES	Household Expenditure Survey
<i>MFSM</i>	<i>Monetary and Financial Statistics Manual</i>
MOF	Ministry of Finance
NPIs	Nonprofit Institutions
PPI	Producer Price Index
<i>PPI Manual</i>	<i>Producer Price Index Manual, 2004</i>
ROSC	Report on the Observance of Standards and Codes
SDDS	Special Data Dissemination Standard
SRFs	Standardized Report Forms
WPI	Wholesale Price Index of Industrial Output for the Domestic Market

I. OVERALL ASSESSMENT

1. Israel subscribed to the Special Data Dissemination Standard (SDDS) on April 23, 1996 and met all requirements on June 5, 2000. The country is generally in observance of the SDDS, meeting the specifications for coverage, periodicity, timeliness, and the dissemination of advance release calendars. Israel avails itself of one of its two flexibility options for the timeliness of the industrial production index and disseminates the data one week later than prescribed. While practices generally meet or exceed SDDS requirements, monitoring of the data releases indicates that there have been some delays in the dissemination of the monetary and financial statistics, particularly the analytical accounts of the central bank. The mission noted that Israel does not fully manifest the intra- and interagency coordination and communication that are the hallmarks of most SDDS-subscribing countries. This has placed an undue burden on the Central Bureau of Statistics (CBS) as the national coordinator. Appendix I provides an overview of Israel's dissemination practices compared to the SDDS.

2. The Report on the Observance of Standards and Codes (ROSC)—Data Module contains the following main observations. Israel's macroeconomic statistics are of generally high quality and are broadly adequate to conduct effective surveillance. Israel's statistical managers are highly aware of all dimensions of data quality and are undertaking reforms—some at the cutting edge—to continue, among other things, to enhance data quality. However, some shortcomings may impede the accurate and timely analysis of economic and financial developments and the formulation of appropriate policy. Foremost among these are deficiencies in the timeliness, concepts and definitions, and classification of monetary statistics. There also is room to enhance source data for national accounts, producer prices, and government finance statistics. The agencies comprising the statistical system, especially the CBS, need adequate and sustained resources to improve the scope and timeliness of data compiled under their mandates commensurate with the substantial transformation of the Israeli economy. The increasing importance of the service industries and the decreasing significance of agriculture, among other developments, characterizes this transformation. The serviceability and accessibility of monetary statistics and, to some extent, producer prices and government finance statistics could benefit from further improvements. Section II provides a summary assessment by agency and dataset based on a four-part scale. This is followed by staff's recommendations in Section III. The authorities' response to this report and a volume of detailed assessments are presented in separate documents.

3. This report applies the July 2003 version of the IMF's Data Quality Assessment Framework (DQAF) to present the mission's main conclusions. The report organizes the mission's findings by agency for the first two dimensions of the DQAF and across datasets for the remaining four dimensions of the DQAF.

4. **Prerequisites of quality and assurances of integrity.** Israel has strong legal and institutional frameworks that support the compilation and dissemination of statistics:

- The Statistics Ordinance clearly mandates responsibility to the CBS for compiling and disseminating national accounts, prices, and government finance statistics. The ordinance requires the CBS to ensure the confidentiality of individual data providers

and administer sanctions for noncompliance with reporting requirements. The CBS resources are increasingly stretched, particularly for compiling national accounts and government finance statistics, because of limited financial and inflexible manpower budgets. The constrained resource situation is likely to tighten further in the face of the measurement demands of a rapidly changing economy. This applies especially to the growth in the service industries, which should be monitored closely. The laws ensure the independence of the CBS. The mission found that the compilation and dissemination of the datasets it reviewed are based solely on statistical considerations and not subject to external influence. Management is highly sensitive to all dimensions of quality and is actively implementing a quality management system. The CBS actively promotes an environment of professionalism, transparency, and adherence to ethical standards.

- The Bank of Israel (BOI) is responsible for compiling and disseminating monetary statistics by tradition, but the current Bank of Israel Law does not specifically spell out this mandate. However, this law explicitly empowers the central bank to collect data and ensures the confidentiality of the reported data. Resources are broadly adequate to enable the central bank to undertake its current and development work programs. The BOI management is keenly aware of quality issues and is undertaking a major institutional review of its internal organization with the aim of becoming more efficient in discharging its duties while ensuring continued professionalism, transparency, and observance of ethical norms.

5. **Methodological soundness.** The Israeli macroeconomic statistics broadly follow internationally accepted standards and guidelines on concepts and definitions, scope, classification and sectorization, and basis for recording. The recording basis for monetary statistics generally follows the recommendations of the *Monetary and Financial Statistics Manual (MFSM)*, but their classification/sectorization, concepts and definitions, and, to a lesser extent, scope, need to be improved. Government finance statistics are generally consistent with the *System of National Accounts 1993 (1993 SNA)* and the *Government Finance Statistics Manual 2001 (GFSM 2001)*. They could benefit from strengthened interagency coordination aimed at improving the scope and basis for recording. The scope and recording basis for producer prices also could be improved. The national accounts follow the *1993 SNA*, but the recording of GDP at market prices should be brought in line with international standards.

6. **Accuracy and reliability.** Macroeconomic statistics in Israel rate highly on accuracy and reliability. In large part, this reflects the efforts to assess source data and validate intermediate data and statistical outputs across datasets. The CBS needs additional resources to improve the source data for national accounts, producer prices, and government finance statistics. For national accounts and producer prices, priority should be given to obtaining more comprehensive and timely inputs. Similarly, for government finance statistics, more timely source data on central and local government operations would contribute to better inputs in the compilation of the consolidated general government accounts. Revision studies for national accounts and, to a lesser extent, producer prices would enhance their accuracy and reliability. Source data for monetary statistics are very accurate.

7. **Serviceability.** Production and dissemination of real and fiscal sector statistics (for which the CBS uses some estimates) in Israel meet SDDS periodicity requirements and are commendably timely. The BOI has initiated steps to consolidate responsibility for monetary statistics and to improve timeliness. Consistency across datasets is broadly adequate, although there still is room to improve monetary statistics. Most datasets follow the international good practice of providing clear and transparent information about revision schedules and the revisions themselves.

8. **Accessibility.** Overall, data and metadata are readily accessible, reflecting to a great extent recent efforts of the CBS to revamp its website and enhance responsiveness to inquiries by data users. The BOI is working to address current problems affecting users' access to monetary data and metadata, including upgrading the BOI website.

9. Israel's reorientation of monetary policy toward an inflation-targeting regime has significantly affected the use and relative importance of various types of macroeconomic statistics over the last few years. Principally, data requirements for the new regime's policy design and monitoring have expanded beyond the traditional range of macroeconomic statistics to incorporate new forward-looking indicators of economic activity and prices. In particular, the BOI has increasingly focused on indicators such as productivity, price indices, market-based inflation and interest rate expectations, and information from professional forecasters. In addition, the BOI would like to see the CBS disseminate more timely real sector indicators to better support the inflation-targeting regime. Moreover, the BOI is taking steps to strengthen its statistical forecasting models for assessing the inflationary outlook, among other things, to reduce placing too much emphasis on market-derived indicators. To support this growing demand for economic information, it is important to review and revise appropriately the current allocation of resources for data compilation and dissemination within the BOI and other data-producing agencies. Finally, consistent with the views of the IMF Executive Board,¹ the authorities are encouraged to expand the coverage of the forward-looking data that support the monetary regime in Israel on their national websites and the Dissemination Standards Bulletin Board (DSBB), including the addition of relevant metadata.²

10. With regard to government finance statistics, the Ministry of Finance (MOF) was not directly assessed. However, its data are a significant source for the annual consolidated general government accounts compiled by the CBS. The mission met with officials at the MOF to discuss the accounting reforms being implemented in such areas as standardization, accrual-based financial reporting, and the application of information technology to fiscal management and reporting practices. The MOF (accountant general) is midway through implementing the "Merkava" project, which is aimed at, among other things, improving

¹ See The Acting Chair's Summing Up, Fifth and Sixth Reviews of the Fund's Data Standards Initiatives (BUFF/03/116, 07/15/03 and BUFF/05/178, 11/04/05).

² The SDDS provides for the dissemination of forward-looking indicators as an encouraged category—a data category that is not prescribed, but is recommended—for enhancing the transparency of economic performance and policy.

information on the assets and liabilities of the government, developing balance sheets for central government ministries, and preparing accrual-based financial statements commensurate with international standards. The authorities are to be commended for their proactive efforts in improving fiscal transparency and accountability, as well as plans to harmonize the financial management information system being developed with the *GFSM 2001*. The mission noted the synergies that are possible between the MOF's work and the CBS's concurrent implementation of the *GFSM 2001* framework for compiling annual consolidated general government accounts. Many of the recommendations contained in the detailed assessments directly relate to fully exploiting these synergies (see the section on government finance statistics in Volume III, Detailed Assessments Using the Data Quality Assessment Framework). Foremost among these is the creation of an interagency working group that would have a mandate—and timetable—to address the following areas: basis of recording, classifications, coverage, periodicity, and timeliness.

II. ASSESSMENT BY AGENCY AND DATASET

11. In this section, the results are presented for each element of the DQAF using a four-point rating scale (Table 1). Assessments of the prerequisites of data quality and the assurances of integrity (Dimensions “0” and “1” of the DQAF) are presented in Tables 2a–b. For each dataset, the assessment of methodological soundness, accuracy and reliability, serviceability, and accessibility (Dimensions “2” to “5” of the DQAF) are shown in Tables 3a–e.

12. With the assistance of the authorities—and to complement the Fund's assessment of the quality of official statistics produced by Israel—the mission conducted an informal survey of key users of macroeconomic statistics. Questionnaires were sent to 40 users with 18 responses received from academics, banks, public and private sector analysts, and consulting companies. Users were asked to evaluate the coverage, periodicity, timeliness, dissemination practices, accessibility, and overall quality of the official statistics.

13. Data users informed the mission that there had been recent improvements in data production and dissemination, particularly in the CBS website and the bureau's timely responses to inquiries. However, they noted that there was room to improve the BOI and the MOF websites and the two agencies' services in response to inquiries. They were also concerned about the scope and dissemination of monetary as well as the MOF's central government tax and expenditure data, the timeliness of the consumer price index (CPI) and other real sector data, the lack of good-quality data on some service industries, and the large revisions in national accounts, including trade statistics. There was also a widespread view that, given the substantial ongoing transformation of the Israeli economy, the CBS faced a daunting task to cope with the growing statistical demands, exacerbated by severe manpower and financial budget constraints. Respondents also indicated that while ad hoc funding arrangements with various national institutions had alleviated some of these constraints, the situation was not sustainable without a longer-term solution.

Table 1. Israel: Data Quality Assessment Framework July 2003—Summary Results

		Datasets				Monetary Statistics	
		National Accounts	Consumer Price Index	Producer Price Index	Government Finance Statistics		
Key to symbols: O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; NA = Not Applicable							
Dimensions/Elements							
0. Prerequisites of quality							
0.1	Legal and institutional environment	O	O	O	O	LO	LO
0.2	Resources	LNO	LO	LO	LNO	LO	LO
0.3	Relevance	O	O	O	O	LNO	LNO
0.4	Other quality management	O	O	O	O	LO	LO
1. Assurances of integrity							
1.1	Professionalism	O	O	O	O	LO	LO
1.2	Transparency	O	O	O	LO	LO	LO
1.3	Ethical standards	O	O	O	O	O	O
2. Methodological soundness							
2.1	Concepts and definitions	O	O	O	O	LO	LNO
2.2	Scope	O	O	LO	LO	LO	LO
2.3	Classification/sectorization	O	O	O	O	O	NO
2.4	Basis for recording	LO	O	LO	LO	LO	LO
3. Accuracy and reliability							
3.1	Source data	LO	O	LO	LO	LO	O
3.2	Assessment of source data	O	O	O	O	O	O
3.3	Statistical techniques	LO	LO	LO	O	O	O
3.4	Assessment and validation of intermediate data and statistical outputs	O	O	O	O	O	NA
3.5	Revision studies	LO	O	LO	O	O	NA
4. Serviceability							
4.1	Periodicity and timeliness	O	O	O	O	O	LO
4.2	Consistency	O	O	O	O	O	LO
4.3	Revision policy and practice	O	O	LO	O	O	O
5. Accessibility							
5.1	Data accessibility	O	O	O	LO	LO	LO
5.2	Metadata accessibility	O	O	O	O	O	LNO
5.3	Assistance to users	O	O	O	O	O	LNO

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

Table 2a. Israel: Assessment of Data Quality—Dimensions 0 and 1—Central Bureau of Statistics

<p>0. Prerequisites of quality</p> <p>Legal and institutional environment The Central Bureau of Statistics (CBS) is the general authority for official statistics in Israel under the terms of the <i>Statistics Ordinance</i> [New Version], 5732-1972, last amended in 1978, which prescribes that the CBS must adhere to the principles of neutrality, objectivity, and scientific independence. Individual data are required to be kept confidential according to the <i>Statistics Ordinance</i> and other national laws. The CBS has put detailed procedures and sanctions in place to prevent disclosure of such data. The CBS has the legal mandate to require reporting from government agencies, enterprises, and individuals. It seeks to secure the cooperation of respondents by providing assistance, limiting the response burden to the extent possible, and testing questionnaires before they are sent out. Respondents are informed about their rights and obligations. The <i>Statistics Ordinance</i> provides clear guidance regarding data sharing and coordination among data-producing agencies. Formal agreements exist and, as a general rule, the CBS does not encounter major difficulties in dealing with the other agencies. Nonetheless, the compilation of government finance statistics—consolidated general government accounts—could be improved through closer collaboration with the MOF and BOI. Adhering to confidentiality provisions, the CBS cannot share individual data.</p> <p>Resources Staffing is increasingly overstretched, especially in macroeconomic statistics, and reduced funding combined with a hiring freeze make it difficult to undertake research on the data and new methods, or engage in important development work aimed at further implementing international standards (i.e., <i>1993 SNA</i>, <i>GFSM 2001</i>, and price index manuals). The qualifications, skills, and motivation of staff are high, and are maintained and further developed by providing internal training, including for new staff, and participation in international forums. Significant investment in human resources development—given existing budget constraints—is embedded in the corporate culture of the CBS. Computer resources are largely outdated. Needed improvements require additional—and sustained—budgetary resources. On-site facilities are excellent. Without additional funding and greater managerial discretion in allocating funds and staff, it will be difficult to maintain excellence, strengthen existing functions, and implement planned programs. The CBS has entered into ad hoc service-level contracts funded by some national organizations; although these projects are important, they may not be sustainable.</p> <p>Relevance The Public Council for Statistics (and other informal bodies) advise on the relevance of the CBS’s statistics. Much statistical activity is driven by adherence to international standards. General users are encouraged to provide any comments they wish to make. These are monitored closely. Information on new and emerging requirements is obtained through participation in meetings organized by the Organization for Economic Co-operation and Development, the United Nations Economic Commission for Europe, Eurostat, the IMF, etc.</p> <p>Other quality management The CBS management is highly sensitive to all dimensions of quality and is actively implementing a quality management system based on the framework of the European Foundation for Quality Management. Every department comprises at least one person responsible for quality management issues. Various processes are in place to monitor the quality of the statistical program.</p>	<p>1. Assurances of integrity</p> <p>Professionalism Several provisions in the <i>Statistics Ordinance</i> support the CBS’s professional independence. The Government Statistician manages the activities and finances of the CBS and appoints staff. The <i>Statistics Ordinance</i> stipulates that Israel’s official statistics should be free from any political or other pressure, particularly with regard to techniques, definitions, and methodologies. Recruitment and promotion are based on relevant aptitude and expertise. The <i>Statistics Ordinance</i> contains provisions that require that the choice of data sources, statistical techniques, and dissemination be informed by statistical considerations. The <i>Statistics Ordinance</i> includes specific provisions that support professional and independent statistical processes. The CBS has an active policy in place for responding to erroneous use or misinterpretation of statistics.</p> <p>Transparency Information on the terms and conditions for compiling statistics is available on the CBS website, in the <i>Statistics Ordinance</i>, and in the report prepared in accordance with the <i>Freedom of Information Law</i>, which can also be found on the CBS website. Advance access by the MOF to national accounts and general government accounts data are indicated in Hebrew in the CBS sources. Advance notice is given of major changes in methodology, source data, and statistical techniques.</p> <p>Ethical standards Staff behavior is guided by the CBS’s <i>Statistics Ordinance</i>, the <i>Civil Service Code</i>, and the <i>CBS Code of Ethics</i>, created in May 2004, which is given to all employees and published on the CBS website.</p>
--	---

Table 2b. Israel: Assessment of Data Quality—Dimensions 0 and 1—Bank of Israel

<p>0. Prerequisites of quality</p> <p>Legal and institutional environment The responsibility of the central bank for monetary statistics is not specified in the BOI Law or in any other official provision. Coordination with the MOF, which forwards to the BOI statements from institutional investors, is good. Some clauses in the BOI Law empower the central bank to collect source data from commercial banks and provide for the confidentiality of data from individual providers.</p> <p>Resources There is some shortage of human resources for the compilation of monetary statistics. Financial and computer resources, as well as the premises, are adequate. There is scope for improving the cooperation between the various departments with regard to the design and timely updating of the BOI website for posting monetary statistics.</p> <p>Relevance Monetary statistics are adequate in meeting the data needs for the BOI's inflation targeting monetary policy. No regular surveys or meetings on the needs of monetary statistics users outside the BOI are conducted. Specific requests on monetary statistics from users are not analyzed to improve the statistical program and dissemination formats.</p> <p>Other quality management There is a strong awareness of monetary statistics quality as a contribution to the effectiveness of monetary policy formulation. However, quality awareness is less observed, for instance, with regard to consistency of monetary statistics with other macroeconomic datasets or dissemination of monetary statistics.</p>	<p>1. Assurances of integrity</p> <p>Professionalism Legal provisions targeting all levels of staff within the BOI warrant that monetary statistics are produced on an impartial basis. The BOI promotes professionalism through support for research and analysis, publication of working papers, and participation in international conferences. However, to date no BOI staff has attended courses or seminars on monetary statistics offered by the IMF despite specific invitations to do so. Choices of sources and statistical techniques, as well as decisions about the dissemination of monetary statistics, are informed solely by statistical consideration. The current bias of these choices toward the inflation-targeting monetary regime needs to be better balanced by other policy considerations. The timely communication of the BOI to the public in the context of monetary policy decisions ensures that monetary statistics are correctly interpreted.</p> <p>Transparency The BOI Law lacks any mention of monetary statistics, and this is not compensated by specific information on the terms and conditions under which source data are collected and processed and monetary statistics are disseminated to the public. Government officials have no access to monetary statistics prior to their release to the public. On the CBS website, there is no indication that the BOI is the source for monetary statistics. Generally, the BOI provides advance notice of changes in methodology.</p> <p>Ethical standards Throughout the staff of the BOI, ethical standards are at the highest level. A series of guidelines for BOI staff behavior are set out in the BOI Law, the labor constitution regarding BOI employees, internal work procedures, and an information booklet for employees. In addition, provisions on secrecy under national penal law apply to BOI employees as well.</p>
--	---

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

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
<p>Concepts and definitions The CBS compiles the national accounts according to the conceptual framework of the 1993 SNA.</p> <p>Scope The CBS compiles all the tables and accounts recommended in the 1993 SNA. Income and capital accounts for all sectors have not yet been completed. Supply and use tables are currently being compiled in the framework of the national accounts. The delimitations of the economy and production boundary are largely defined in accordance with the 1993 SNA. The assets boundaries for tangible assets are only partly in line with the 1993 SNA recommendations.</p> <p>Classification/sectorization The CBS uses classifications and sectors derived from appropriate standards.</p> <p>Basis for recording In general, valuation for recording flows and stocks is largely in accordance with the 1993 SNA. Most transactions are recorded on an accrual basis, except part of taxes/subsidies and other expenditure in general government, which are recorded on a cash basis. The compilation of GDP at market prices deviates from international standards, as net taxes on imports are excluded from, and subsidies on exports are included in, GDP.</p>	<p>Source data Available sources are broadly adequate. A business register was completed in 2003 and is currently being updated. No survey of the detailed composition of intermediate input in the service industry exists. Sources for construction activities could be improved. A household expenditure survey (HES) is conducted annually. Household consumption expenditure is estimated partly based on HES and partly on other sources (different volume indicators). Government sources are sound. Administrative data on financial institutions are comprehensive. The available price indices are sound and sufficiently detailed, but the coverage should be expanded. Source data are, in most cases, consistent with the definitions, scope, and classifications required in the national accounts. Timeliness of the annual business surveys is inadequate.</p> <p>Assessment of source data Source data are adequately checked.</p> <p>Statistical techniques Statistical techniques are broadly sound. The use of outdated fixed coefficients is limited. Agricultural work-in-progress is not recorded. Double deflation is only partly used. Volume measures are chain-linked. Quarterly national accounts compilation techniques are sound.</p> <p>Assessment and validation of intermediate data and statistical outputs Validation procedures are extensive. Discrepancies between GDP by expenditure and GDP by production are only partly removed. The remaining discrepancy is explicitly shown on the production side (in current prices only).</p> <p>Revision studies Data on the scale, direction, and magnitude of revisions are examined and discussed in publications. Studies of long-term trends in the revision patterns are not undertaken on a regular basis.</p>	<p>Periodicity and timeliness Periodicity meets, and timeliness exceeds, SDDS requirements. Projections of GDP are published in October and revised in December for the current year. Estimates/projections can be subject to substantial revisions from the first to the final version.</p> <p>Consistency The statistics are internally consistent. Time series according to 1993 SNA go back to 1995, while historic time series according to <i>System of National Accounts 1968</i> are available for the period 1950 to 1995. The national accounts are consistent with balance of payments and government finance statistics.</p> <p>Revision policy and practice Periodic revisions follow a regular and transparent schedule. Preliminary estimates are clearly indicated in press releases and in metadata in CBS publications, but not in databases or in tables in hard-copy publications. The nature and effects of major revisions are explained in the statistical publications.</p>	<p>Data accessibility National accounts are published in a clear manner. Publications include extensive explanations and definitions. Different levels of details are distinguished in the publications and the database. Relevant series are published on a seasonally adjusted basis. National accounts are disseminated in a press release, and press conferences are held twice a year. The advance release calendar is strictly followed and data are made available to all users at the same time, with the exception that three official agencies receive the data one day in advance under embargo. Nonpublished data are made available on request for free or sometimes for a charge.</p> <p>Metadata accessibility A comprehensive description of the methodology is published in <i>Current Briefing in Statistics</i>, which is available on request for a charge and for free on the Internet.</p> <p>Assistance to users User support is excellent. A comprehensive catalog, detailing how to obtain a product or service, and their prices, is published. The CBS website includes information on publication prices and charging policy for nonpublished data.</p>

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

<p>2. Methodological soundness</p> <p>Concepts and definitions The CPI follows the 1993 SNA household consumption concept and uses sufficiently detailed expenditure data from annual HES.</p> <p>Scope The scope is broadly consistent with international standards. Urban and nonurban households are included. Differences from the 1993 SNA household expenditure concept are kept under review.</p> <p>Classification/sectorization In the CPI basket, goods and services are classified by branch and economic activity similar to Central Product Classification (CPC) and aggregated to subgroups and groups very similar to Classification of Individual Consumption by Purpose.</p> <p>Basis for recording The valuation rules used in the HES are consistent with the 1993 SNA. Actual cash transaction prices that reflect the conditions of sale at the time of purchase are collected monthly.</p>	<p>3. Accuracy and reliability</p> <p>Source data Well-conducted annual HES is used for the CPI weights, and some 60,000 monthly prices from 3,000 outlets collected for the index provide a good basis for accurate series even at the detailed level.</p> <p>Assessment of source data The assessment and validation process takes into account the various stages of data collection, editing, and compilation. Validation is well implemented and documented and further used to guide the statistical process to assure production of high-quality statistics.</p> <p>Statistical techniques Generally, international statistical technical guidelines are followed rigorously. However, some item indices would benefit from research in alternative quality adjustment methods, such as use of hedonic regression analysis. Also, the method for owner-occupied housing leaves room for uncontrolled qualitative characteristics to influence measures of month-to-month price changes.</p> <p>Assessment and validation of intermediate data and statistical outputs The CPI division's specialists analyze every item index to ensure that movements are consistent against other information about commodity and retail markets, including other relevant price indices.</p> <p>Revision studies The CPI series are not revised. Weight revisions are studied every two years, and information on changes is disseminated to the public.</p>	<p>4. Serviceability</p> <p>Periodicity and timeliness The CPI is compiled monthly and disseminated 15 days after the end of the reference month. Although CPI statistics already exceed the SDDS requirement for timeliness, they could be advanced even further to better meet users' needs.</p> <p>Consistency Long-time series are maintained along with the current index using linking factors.</p> <p>Revision policy and practice The data are final when first released and are not subject to revision.</p>	<p>5. Accessibility</p> <p>Data accessibility Generally, the CPI publication, <i>Price Statistics Monthly</i>, is clear and provides various levels of detail including short- and long-term index changes and is provided also on the CBS website, accompanying a press release. The CBS website that is being developed currently provides detailed explanations in Hebrew only.</p> <p>Metadata accessibility A comprehensive methodology is published in the technical series publication No. 60, <i>Consumer Price Index</i>, which is available also in English. Overall metadata accessibility is very good, and the DSBB is updated regularly.</p> <p>Assistance to users User support is excellent. A comprehensive catalog, detailing how to obtain a product or service, and their prices, is published. The CBS website includes information on publication prices and charging policy for nonpublished data.</p>
---	--	---	---

Table 3c. Israel: Assessment of Data Quality—Dimensions 2 to 5—Producer Price Index

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
<p>Concepts and definitions The Wholesale Price Index of Industrial Output for the Domestic Market (WPI) measures the developments in output prices for a fixed set of products, during the first stage of marketing in Israel. The concepts and definitions broadly conform to international guidelines. The CBS also compiles input price indices for residential buildings, road construction, and agriculture that generally follow the guidelines of the <i>Producer Price Index Manual, 2004 (PPI Manual)</i>.</p> <p>Scope Although the WPI statistics cover the core manufacturing and mining activities for domestic use, the very minimum recommended by the <i>PPI Manual</i>, the coverage could be increased into services activities and the export sector so as to provide a more comprehensive index coverage. The survey covers production for the domestic market, or about 65 percent of total production in manufacturing activities.</p> <p>Classification/sectorization The goods and services are classified according to the CPC and establishments classified by the national adaptation of the International Standard Industrial Classification for all economic activities.</p> <p>Basis for recording Market prices are used in the valuation of weights and in the price survey. The prices refer to those actually paid by the purchaser “ex factory gate.” However, the market prices and valuation for well-specified transactions are net transaction prices (after discount and credits) and include all taxes (also value-added tax), which is not recommended by the <i>PPI Manual</i>.</p>	<p>Source data The price data collected are generally sufficiently detailed to derive the WPIs at the 2-digit activity level and 4-digit product level for covered activities. The weights for the current indices were obtained from annual summaries of monthly manufacturing surveys of 1993/94. As such, they need to be updated. Monthly price collection covers about 4,200 price quotes for some 1,800 types of products.</p> <p>Assessment of source data The software used with prices collected in Computer Assisted Telephone Interviews performs logical and statistical checks. Processes are in place to assess and validate the data used for the compilation of WPI statistics.</p> <p>Statistical techniques Generally, international statistical methodological guidelines are followed. However, a few shortcomings remain in the use of input prices instead of market prices. Methods to account for quality change rely on imputation instead of explicit quality adjustment techniques. Also, the elementary index uses arithmetic means, instead of the preferred geometric means (also on Table 3b).</p> <p>Assessment and validation of intermediate data and statistical outputs Staff verifies the prices against other sources when available. Unusual movements are explained in the publication.</p> <p>Revision studies The WPI series are not revised. The weight adjustments within activities are not investigated.</p>	<p>Periodicity and timeliness The WPI is compiled monthly and disseminated 15 days after the end of the reference month, meeting SDDS requirements.</p> <p>Consistency Long time series are maintained along with the current index using linking factors.</p> <p>Revision policy and practice The data are final when first released and are not subject to revision. No clear policy on weight revisions is followed.</p>	<p>Data accessibility Generally, the WPI publication, <i>Price Statistics Monthly</i>, is clear and provides various levels of detail, including short- and long-term index changes, and is provided also on the CBS website, accompanying a press release. The CBS website that is being developed currently provides detailed explanations in Hebrew only.</p> <p>Metadata accessibility A description of the index methodology is included in <i>Price Statistics Monthly No.1, 1995</i>, available in Hebrew, but not in English. More detailed metadata should be disseminated on the CBS website. Metadata on the DSBB are updated regularly.</p> <p>Assistance to users User support is excellent. A comprehensive catalog, detailing how to obtain a product or service, and their prices, is published. The CBS website includes information on publication prices and charging policy for nonpublished data.</p>

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

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
<p>Concepts and definitions The CBS compiles and disseminates annual general government statistics in the context of national accounts based on the 1993 SNA. The CBS's government finance statistics are not presented as a distinct statistical output in a comprehensive fiscal analytical framework, but plans to follow the <i>GFSM 2001</i> (in national presentations) are advancing.</p> <p>Scope Annual general government statistics have full coverage of all government subsectors. All material government activities are included in the statistics. For general government, the CBS publishes a balance sheet for financial assets and liabilities and for nonfinancial assets (in the context of national accounts). Central government operations and debt data are disseminated by the MOF on a monthly and quarterly basis, respectively, but do not fully cover all extrabudgetary units and nonprofit institutions (NPIs).</p> <p>Classification/sectorization The CBS's classifications are in accordance with the national accounts and the detailed revenue and expense classification of the <i>GFSM 2001</i>. The sectorization of the general government is consistent with the <i>GFSM 2001</i>.</p> <p>Basis for recording Generally, flows and stocks are valued at market prices. Transactions are recorded on either a mixed cash and/or accrual basis and, where necessary, adjusted to accrual to the extent possible. Debt is recorded at nominal values. Grossing/netting procedures are appropriate.</p>	<p>Source data The source data on general government have deficiencies vis-à-vis the scope, definitions, and the classifications required for government finance statistics compilation and could usefully be brought into closer conformity with international guidelines. These are largely accounting data received from the MOF, the extrabudgetary funds and the NPIs, the social security scheme, and the local authorities. The data are adjusted and reclassified, where necessary, by the CBS in the national accounts context and according to the <i>GFSM 2001</i>. The source data provide the CBS with all the necessary stock and flow data (except for some on the nonfinancial and financial accounts). Financial accounts are not timely apart from budgetary central government.</p> <p>Assessment of source data The final source data are, to the greatest extent possible, based on audited accounts for all general government institutions.</p> <p>Statistical techniques The CBS makes estimates in compiling the data on the local government and the extrabudgetary sectors and in the preparation of the annual preliminary data for the general government sector. The techniques used are sound.</p> <p>Assessment and validation of intermediate data and statistical outputs All tables are checked for internal consistency.</p> <p>Revision studies The reliability of the statistics is assessed, internally, on a regular basis.</p>	<p>Periodicity and timeliness The SDDS requirements are met.</p> <p>Consistency Statistics are internally consistent for most of the accounts, even though some discrepancies occur in the underlying sources. The discrepancy between net lending/borrowing and financing is difficult to assess given deficiencies in the financial accounts. For the financial accounts, the differences between the opening and closing balance sheet for each asset and liability category, and the net transactions and other net economic flows, are not yet fully reconciled, because of a lag in securing data on other economic flows. Reported transfers received equal reported transfers paid between subsectors of the general government. Data are consistent with the national accounts, as well as the monetary statistics. Ongoing work by the MOF under the multifaceted “Merkava” project should greatly improve the consistency of fiscal aggregates for compiling the budgetary central government accounts on an accrual basis.</p> <p>Revision policy and practice Periodic revisions follow a regular and transparent schedule (in the context of national accounts). Users are informed of these revisions when the data are disseminated. The general government accounts are revised on an annual basis for use as an input in compiling the <i>GFSM 2001</i> aggregates and balances.</p>	<p>Data accessibility The general government account data facilitate proper and meaningful interpretation within the national accounts framework. They are not presented in a way that allows major revenue and expenditure aggregates and balancing items to be identified and related to detailed underlying data, as is the case in of the <i>GFSM 2001</i> framework.</p> <p>Metadata accessibility For the general government and its subsectors, metadata are provided on annual government operations, financing, and debt in publications and on the Internet. Metadata on sources and methods are provided (in the context of national accounts) but could be usefully expanded for the data compiled using the <i>GFSM 2001</i> framework.</p> <p>Assistance to users User support is excellent. A comprehensive catalog, detailing how to obtain a product or service, and its prices, is published. The CBS's website includes information on publication prices and charging policy for nonpublished data.</p>

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

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
<p>Concepts and definitions The overall structure of monetary statistics does not follow concepts and definitions set out in the <i>MFSM</i>. Monetary statistics are not presented in the form of surveys with balanced assets and liabilities.</p> <p>Scope The scope of monetary statistics covers the BOI (central bank) and commercial banks (other depository corporations). Money market mutual funds are not covered. (Checks cannot be written on mutual funds in Israel; however, there is a report to the public on mutual funds.) One credit aggregate includes loans obtained by resident nonfinancial corporations from nonresident banks, while monetary statistics are deemed to cover transactions of resident financial institutions only.</p> <p>Classification/sectorization Classification of financial assets and sectorization of the economy recommended by the <i>MFSM</i> are not applied. Monetary statistics are overly aggregated.</p> <p>Basis for recording Stocks are valued at market prices, and fair value is being implemented where applicable. The BOI and commercial banks apply accrual accounting. Loans are reported net of specific provisions for loan losses.</p>	<p>Source data Source data are comprehensive since all depository corporations report monthly to the BOI, but essential information, such as breakdowns that would permit better sectorization of the economy, are missing.</p> <p>Assessment of source data Accuracy of source data reported by commercial banks is checked on an ongoing basis by the BOI's Banking Supervision Department.</p> <p>Statistical techniques Some data series are seasonally adjusted through well-established techniques.</p> <p>Assessment and validation of intermediate data and statistical outputs In the absence of comprehensive sectoral surveys, standard checks usually applied to intermediate and statistical outputs in monetary statistics cannot be undertaken.</p> <p>Revision studies Monetary statistics are not subject to formal revision cycles since most data are deemed final when released.</p>	<p>Periodicity and timeliness Periodicity of monetary statistics meets SDDS requirements for dissemination while timeliness has been problematic, especially for central bank accounts.</p> <p>Consistency In the absence of comprehensive sectoral surveys, standard checks usually applied to statistical outputs in monetary statistics cannot be undertaken. Monetary statistics are available in the form of time series over a long period; thus, they are reconcilable and show consistency over time. Foreign assets and foreign liabilities for commercial banks are identical to those in the international investment position because the latter are directly applied to monetary statistics. Net position of the government in monetary statistics is broadly consistent with bank financing in government finance statistics. Changes in net foreign assets of depository corporations are not assessed against corresponding transactions in the balance of payments statistics.</p> <p>Revision policy and practice There is no need for a regular and permanent revision schedule.</p>	<p>Data accessibility Monetary statistics are not presented in the form of comprehensive surveys. Instead, each major aggregate or component is presented at an overly aggregated level without a clear heading that would facilitate direct and immediate access to users. The preannounced schedule for the release of monetary statistics to the public is not posted on the BOI website, but on the CBS and DSBB websites only. Monetary statistics are made available to all users at the same time. Some nonpublished detailed data series are available upon request to the BOI.</p> <p>Metadata accessibility A summary methodological notice is posted on the DSBB, but is neither posted on the BOI website nor included in the publications of the BOI. Methodological notices are not adapted to the needs of different audiences.</p> <p>Assistance to users The name of a contact person for monetary statistics is posted on the DSBB, but not in the BOI's own dissemination media. A catalog of publications is available.</p>

III. STAFF'S RECOMMENDATIONS

14. Based on the review of Israel's statistical practices, discussions with the data-producing agencies, and responses from data users (see Appendix III of the Detailed Assessments volume), the mission has a set of recommendations. They are designed to increase further Israel's adherence to internationally accepted statistical practices and would, in the mission's view, enhance the analytical usefulness of Israel's statistics. Some additional technical suggestions are included in the Detailed Assessments volume.

Cross-cutting recommendations

- The CBS, together with the BOI, the MOF, and other relevant agencies, should improve coordination and, among other things, establish working groups on standardizing statistical production (e.g., fully adopting the *1993 SNA* and migrating to the *GFSM 2001* framework for compiling policy-relevant fiscal data). The mandate and modus operandi of such working groups should be formalized so as to better exploit possible synergies in statistical processes, including the design of the websites.
- Urgent action is needed to provide additional staff to the CBS to discharge its mandate in terms of current and future work programs. In addition, adequate funding needs to be secured to ensure that IT resources promote efficient execution of its statistical responsibilities.
- Investigate options for further streamlining the responsibilities for statistical operations of the CBS with a view to freeing up resources to meet the emerging demands for new statistics.
- Improve the coverage and timeliness of annual business surveys used for compiling national accounts and price indices. In particular, surveys generating more detailed information on the composition of intermediate consumption in the manufacturing and service industries are needed. Furthermore, the range of price indices for compilation of constant price estimates should be extended.

National Accounts

- Bring the recording of GDP at market prices into accordance with international standards by including net taxes on imports and excluding subsidies received by exporters.

Consumer and Producer Price Indices

- Consider disseminating the CPI earlier and separating it from the WPI. Although price data exceed the SDDS requirements, advancing the release of the CPI will better serve the users' needs in an inflation-targeting environment. Moreover, it could serve

to strengthen the integration of input and output producer prices and give more prominence to the producer price index (PPI). More resources are needed for the latter.

- Update the WPI weights more frequently and provide additional metadata on the index (e.g., how the weights are derived at each level of aggregation and how establishment and product samples are drawn and maintained).
- Undertake more research to ensure that imputed prices are appropriate for industries with high turnover of product models and industries with products from unique projects. Further, investigate uncontrolled quality characteristics pertaining to the rental index calculation used for the housing component of the CPI.

Government Finance Statistics

- The CBS should establish and lead an interagency working group to identify deficiencies in data-collection programs for government finance statistics source data and propose recommendations and an action plan, as relevant. The bureau should coordinate activity—through formalized and regular contacts—to improve the coverage, classification, and recording of the data on all central government units in line with its ongoing migration toward full implementation of the *GFSM 2001* framework.
- Validate and incorporate, in collaboration with the MOF, the data obtained from the ongoing adjustments being made for accrual accounting in the context of the “Merkava” project. Further, incorporate findings in the annual general government accounts compiled by the CBS through the construction of detailed bridge tables adopting *GFSM 2001* definitions of revenue and expense, nonfinancial assets, and financial assets and liabilities.
- Accelerate ongoing work aimed at compiling the financial account of the general government so as to allow for improved validation and consistency of the data derived from the nonfinancial accounts of the consolidated general government sector. This work should be coordinated with the activities of the MOF and the BOI.
- Supplement the current *1993 SNA*-based presentation of consolidated general government accounts by publicly disseminating the existing time series that have been compiled according to the presentation prescribed in the *GFSM 2001* on the CBS website.

Monetary Statistics

- Include in the BOI statistical program, with the highest priority, a project for the (a) compilation of monetary statistics in accordance with the *MFMS* methodology; (b) timely provision of monetary statistics and metadata to the IMF for updating the DSBB; and (c) preparation of the new Standardized Report Forms (SRFs) for the

submission to the IMF of monetary statistics published in *International Financial Statistics*. SRFs should serve as an effective tool in promoting international standards.

- Ensure that the text of the new BOI Law under preparation (a) clearly authorizes the central bank to compile and disseminate monetary and financial statistics; (b) broadens the authority of the BOI to collect data not only from the depository corporations subsector, but also from all other financial institutions in Israel for statistical purposes; and (c) cross-references the Statistical Ordinance's Secrecy Clause to facilitate sharing of confidential data among the statistical agencies.
- Apply, on an ongoing basis, for the participation of BOI staff in the courses and seminars on monetary statistics offered by the IMF.
- Revise the design of the BOI and CBS websites, as well as other dissemination media, including the posting and publication of methodological notices and clear warnings. This would help users access monetary statistics easily and prevent any confusion on which dataset better meets their needs. Especially, designate only one comprehensive and internally consistent dataset as "monetary statistics" and adopt other names for the other datasets.

Table 4. Overview of Practices Regarding Coverage, Periodicity, and Timeliness of Data Compared to the SDDS

SDDS Data Category	Coverage (Meets SDDS)	Periodicity		Timeliness		Comments
		SDDS	Israel	SDDS	Israel	
Real Sector						
National accounts	Yes	Q	Q	1Q	NLT 6W	
Production index	Yes	M	M	6W (1M encouraged)	7W	Use timeliness flexibility. Missing SM page.
Labor market: Employment	Yes	Q	Q	1Q	10W	
Labor market: Unemployment	Yes	Q	M	1Q	10W	
Labor market: Wages/earnings	Yes	Q	M	1Q	10W	
Price index: Consumer prices	Yes	M	M	1M	15D	
Price index: Producer prices	Yes	M	M	1M	15D	
Fiscal Sector						
General government or public sector operations	Yes	A	A	2Q	3M	
Central government operations (revenue and expenditure, capital transactions, borrowing, and overall cash balance)	Yes	M	M	1M	6WD	
Central government debt	Yes	Q	Q	1Q	3M	
Financial Sector						
Analytical accounts of the banking sector	Yes	M	M	1M	NLT 3W	
Analytical accounts of the central bank (accounts of the CBI)	Yes	M (W recommended)	M	2W (1W encouraged)	2W	Missing SM page.
Interest rates	Yes	D	D		1D	Missing SM page.
Stock market: Share price index	Yes	D	D	¹	1D	
External Sector						
Balance of payments	Yes	Q	Q	1Q	10W	
International reserves and foreign currency liquidity	Yes	M (W recommended)	M	1W for official reserve assets 1M (1W encouraged) for the reserves template	1W for international reserves and the reserves template data	
Merchandise trade	Yes	M	M	8W (4-6W encouraged)	2W	
International investment position	Yes	A (Q recommended)	Q	3Q (1Q encouraged)	12W	
External debt	Yes	Q	Q	1Q	12W	
Exchange rates	Yes	D	D	¹	1D	Missing SM page.
Socio-demographic data						
Population	Yes	A	M	...	1M	

Notes: for periodicity and timeliness: (D) daily; (WD) working days or business days; (W) weekly or with a lag of the number of week(s) shown from the reference date; (M) monthly or with a lag of the number of month(s) shown from the reference date; (Q) quarterly or with a lag of the number of quarter(s) shown from the reference date; (SA) semiannual; (A) annual; (NLT) not later than; and (...) not applicable.

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

INTERNATIONAL MONETARY FUND

ISRAEL

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

Response by the Authorities

March 13, 2006

	Contents	Page
I.	Cross-Cutting Recommendations	2
II.	National Accounts.....	3
III.	Consumer and Producer Price Indices	4
IV.	Government Finance Statistics	5
V.	Monetary Statistics.....	6

I. CROSS-CUTTING RECOMMENDATIONS

The Central Bureau of Statistics (CBS), together with the Bank of Israel (BOI), the Ministry of Finance (MOF), and other relevant agencies, should improve coordination and, among other things, establish working groups on standardizing statistical production (e.g., fully adopting the 1993 SNA and migrating to the GFSM 2001 framework for compiling policy-relevant fiscal data). The mandate and modus operandi of such working groups should be formalized so as to better exploit possible synergies in statistical processes, including the design of the websites.

The following actions have already been undertaken:

- In order to improve the coordination of dissemination of statistics, the frequency of meetings of SDDS coordinators from the CBS, MOF, and BOI has been changed, and such meetings have been scheduled to take place every three months. The first meeting has taken place at the beginning of February 2006 and has covered pending SDDS issues, as well as plans for future cooperation. In the first stages, IT experts from the three institutions will also participate in these quarterly meetings. In the future, a specific working group will be established for better coordination of dissemination of statistics on the three websites.
- Coordination and standardization of government statistics: A working group, which includes representatives from the Budget Department and the Accountant General Department at the MOF, and the National Accounts Division at the CBS, has been established in order to promote the compilation of fiscal data according to the GFSM 2001. The first meeting of the group has taken place at the beginning of February—see details below under Government Finance Statistics.
- Coordination and standardization of other macroeconomic statistics, especially statistics on financial corporations, is planned, and some informal meetings have taken place between representatives from the CBS and the BOI involved in the preparation of statistics on financial corporations. Formal working groups will be established, once the expected reorganization at the BOI has taken place.

Urgent action is needed to provide additional staff to the CBS to discharge its mandate in terms of current and future work programs. In addition, adequate funding needs to be secured to ensure that IT resources promote efficient execution of its statistical responsibilities.

- A working group, which includes representatives from the Budget Department and the CBS, will be established to check the needs for additional staff and funding to the CBS.

Investigate options for further streamlining the responsibilities for statistical operations of the CBS with a view to freeing up resources to meet the emerging demands for new statistics.

- The budget and staff reductions that have taken place every year since 2001 have already led to continuous streamlining of statistical operations and IT infrastructure. Therefore, at this stage, it is quite difficult to address the issue of freeing up resources to meet the demands for new statistics.

Improve the coverage and timeliness of annual business surveys used for compiling national accounts and price indices. In particular, surveys generating more detailed information on the composition of intermediate consumption in the manufacturing and service industries are needed. Furthermore, the range of price indices for compilation of constant price estimates should be extended.

- The CBS has prepared a detailed work program for the improvement of coverage and timeliness of annual business surveys, as well as the update of the input-output tables, including the performance of the necessary surveys on the composition of intermediate consumption.
- Steps have already been taken to improve the timeliness of surveys of the services industries. The period covered has been brought one year forward, so that these surveys are now performed simultaneously with the manufacturing surveys.
- However, the performance of the rest of the work program will depend upon the approval of the necessary additional resources.

II. NATIONAL ACCOUNTS

Bring the recording of GDP at market prices into accordance with international standards by including net taxes on imports and excluding subsidies received by exporters.

- As mentioned in the report, at present GDP at market prices, including net taxes on imports and excluding other revenue components received by exporters, is published in current prices, but only as additional information to the users, and not as the main aggregate. However, beginning July 2006, this series in current and constant prices will be published as the main aggregate of the national accounts of Israel. The change has already been announced to the public at the press conference held on January 1, 2006 in connection with the publication of the national accounts.
- The recommendations in the detailed report will also be implemented as soon as possible.
- In relation to the recommendation of fuller integration of GDP from the production side and supply and use tables in the national accounts, it is worthwhile mentioning that the recently prepared supply and use tables have been integrated as far as possible, taking into account that surveys on intermediate consumption have not yet

been undertaken. The remaining difference between the total supply and total use is quite small: 0.3 percent of total supply in year 2000. The results of the adjustments to supply and uses, made in the table, will be included in the coming annual revision of the national accounts. Work on tables for additional years will include the preparation of matrices with detailed data on imports for intermediate consumption by industry that will be used for further adjustment. A full adjustment of supply and use will only be possible if sufficient resources are found to conduct surveys of intermediate consumption, and prepare a full input-output table.

III. CONSUMER AND PRODUCER PRICE INDICES

Consider disseminating the CPI earlier and separating it from the WPI. Although price data exceed the SDDS requirements, advancing the release of the CPI will better serve the users' needs in an inflation-targeting environment. Moreover, it could serve to strengthen the integration of input and output producer prices and give more prominence to the PPI. More resources are needed for the latter.

- The CBS has submitted a first document to the MOF regarding possible options to advance the release of the CPI. These may include an actual change in the date of publication of the official index or the production of an additional index at the beginning of the month, similar to a flash estimate as produced by Eurostat. On the issue of separation, both the CPI and PPI serve as indexation mechanisms in many areas of the economy. Therefore, at this point it seems that such separation of the publication is not desirable. As stated, additional resources (that are currently not at our disposal) are crucial to integrate the input and output producer indices and increase their prominence.

Update the WPI weights more frequently and provide additional metadata on the index (e.g., how the weights are derived at each level of aggregation and how establishment and product samples are drawn and maintained).

- The CBS updated the WPI weights in January 2006 based on the reference period of average 2005. We are in the process of redesigning the PPI program to allow more frequent updating of the index (once every five years). This will include providing additional metadata on the index.

Undertake more research to ensure that imputed prices are appropriate for industries with high turnover of product models and industries with products from unique projects. Further, investigate uncontrolled quality characteristics pertaining to the rental index calculation used for the housing component of the CPI.

- We wholeheartedly agree with these recommendations. In addition, the CBS has other areas of research and development in price indices that it would like to implement. Many of these are based on discussions of the public advisory committees that accompany the activities of the price statistics program. However, the CBS has

minimal resources for research and development in this area. Moving forward will depend upon the approval of the necessary additional resources.

IV. GOVERNMENT FINANCE STATISTICS

The CBS should establish and lead an interagency working group to identify deficiencies in data-collection programs for government finance statistics source data and propose recommendations and an action plan, as relevant. The bureau should coordinate activity—through formalized and regular contacts—to improve the coverage, classification, and recording of the data on all central government units, in line with its ongoing migration toward full implementation of the GFSM 2001 framework.

- A joint working group has recently been established with representatives from the CBS, the Accountant General Department and the Budget Department in the MOF. The main task of the WG is to adjust the current classification system of the state budget, to be compatible with both the GFS and SNA requirements.
- The WG's secondary task will be to examine the possibility of making some changes in the structure and substance of the state budget: the base of recording; the treatment and recording of some government transactions; the detailing of some specific budget items; proper distinction between current and capital accounts; recording of imputed transactions; identification of intragovernmental transactions; and elaboration of government financing data.

Validate and incorporate, in collaboration with the MOF, the data obtained from the ongoing adjustments being made for accrual accounting in the context of the “Merkava” project. Further, incorporate findings in the annual general government accounts compiled by the CBS through the construction of detailed bridge tables adopting GFSM 2001 definitions of revenue and expense, nonfinancial assets, and financial assets and liabilities.

- The process of entering the “Merkava” computerized accounting system is a gradual one, and might not be fully completed in the very near future.
- Therefore, bridge tables between the budget-detailed information and the data required for the compilation of both the GFS and SNA various accounts, as well as bridge tables between the two systems, will be structured prior to the full implementation of the “Merkava,” taking into account its advantages, and leaving room for future improvements and adjustments, including the accrual recording of transactions.

Accelerate ongoing work aimed at compiling the financial account of the general government so as to allow for improved validation and consistency of the data derived from the nonfinancial accounts of the consolidated general government sector. This work should be coordinated with the activities of the MOF and the BOI.

- Compiling the financial accounts of General Government appears in the CBS work plan for 2006.
- The work is scheduled to be done in stages, starting with the budgetary Central Government and the local authorities, where data is relatively easily available, and then continuing to the public NPIs. For the NPIs, comprehensive work must be done in order to fully and accurately cover this subsector. The work will include collection of additional data in the NPI surveys and analysis of financial reports, as well as development of methods of extrapolations and interpolations on the basis of available indicators.
- Collaboration and coordination, with the MOF and BOI, on this matter are currently being developed, and the issue will also be included in the work of the joint WG mentioned above.

Supplement the current 1993 SNA-based presentation of consolidated general government accounts by publicly disseminating the existing time-series that have been compiled according to the presentation prescribed in the GFSM 2001 on the CBS website.

- The GFS data in the IMF's based presentation is scheduled to be publicized in the CBS website later this year, and then annually, at the time of the submission of the annual GFS data to the IMF for inclusion in the GFS Yearbook
- The Hebrew version of the tables in the GFSM format is currently under preparation.
- The CBS intends to consult the IMF about the preferred timing and ways of presentation of the GFS data on the CBS website.

V. MONETARY STATISTICS

Include in the BOI statistical program, with the highest priority, a project for the (1) compilation of monetary statistics in accordance with the MFSM methodology; (2) timely provision of monetary statistics and metadata to the IMF for updating the DSBB; and (3) preparation of the new Standardized Report Forms (SRFs) for the submission to the IMF of monetary statistics published in International Financial Statistics. SRFs should serve as an effective tool in promoting international standards.

- The BOI is undertaking a wide-ranging review of all databases and data issues including collection, processing, and dissemination. In light of the likelihood that this project will take some time to complete, the BOI has undertaken a more timely but smaller project to compile monetary statistics according to the MFSM methodology. This project is currently under way, with a number of issues to be resolved, primarily regarding the commercial banks' balance sheets. This project aims at constructing bridge tables to arrive at the appropriately defined monetary statistics at the economy-wide level and sectoral estimates based on data that are currently being collected; the

collection of additional or newly defined sectoral data will have to await the outcome of the larger review, and will be included in the joint WG.

- Timeliness issues have been resolved.
- Preparation of SRFs is part of the smaller, timely project discussed in point “a” above. We note our agreement that the SRFs are indeed an effective tool in promoting the *current* international standards, and the BOI is undertaking to meet these standards as agreed upon with the mission. Nevertheless, the BOI also takes issue with the standard itself, noting that (1) data dissemination standards in the area of monetary statistics should be more closely related to monetary policy, in general, and should be oriented to the particular monetary framework that has been adopted by each country; (2) the IMF has been proactive in promoting inflation targeting as a “best practice” monetary framework but that the MFSM methodology is not a particularly important or useful framework for the compilation of monetary policy indicators for the IT monetary framework; and, therefore, (3) the IMF should consider a flexible standard for the dissemination of newly defined monetary statistics with the modalities of flexibility, depending on the nature of the monetary regime. Naturally, the process of considering and adopting such a revised standard is likely to be a lengthy one, if it is done at all, and until such time as the standard is revised, the BOI recognizes the importance of adhering to existing standards. Furthermore, the BOI will propose the inclusion of new monetary policy indicators, based on information derived from markets, as discussed with the mission.

Ensure that the text of the new BOI Law under preparation (1) clearly authorizes the central bank to compile and disseminate monetary and financial statistics; (2) broadens the authority of the BOI to collect data, not only from the depository corporations subsector, but also from all other financial institutions in Israel for statistical purposes; and (3) cross-references the Statistical Ordinance’s Secrecy Clause to facilitate sharing of confidential data among the statistical agencies.

- The new BOI law under preparation does meet points (1) and (2) above, with clear authorization to the BOI to collect data from all financial institutions and compile and disseminate monetary and financial statistics. The issue of cross-referencing is under consideration in the preparation of a somewhat revised version of the new law that is expected to enter the legislative process at an appropriate time following general elections later this month and, most likely, the formation of a new government.

Apply, on an ongoing basis, for the participation of BOI staff in the courses and seminars on monetary statistics offered by the IMF.

- In process.

Revise the design of the BOI and CBS websites, as well as other dissemination media, including the posting and publication of methodological notices and clear warnings. This would help users access monetary statistics easily and prevent any confusion on which the dataset better meets their needs. In particular, designate only one comprehensive and internally consistent dataset as “monetary statistics” and adopt other names for the other datasets.

- **BOI:** These issues will be addressed within the comprehensive reform of data issues referred to above. A positive recommendation to adopt the IMF requirement regarding names of datasets will be made in the context of this reform and it will also be recommended to clearly indicate which data are used as measures of monetary expansion or contraction in policy formulation and which are best used for other purposes, such as analysis of financial stability.
- **CBS:** The work on coordination and cooperation of dissemination of statistics by the three institutions, mentioned under cross-cutting recommendations, will include a revision of the design of the CBS and BOI websites and other dissemination media to facilitate access of users to monetary statistics.

INTERNATIONAL MONETARY FUND

ISRAEL

Detailed Assessments Using the Data Quality Assessment Framework (DQAF)

Prepared by the Statistics Department

Approved by Michael C. Deppler and William E. Alexander

March 13, 2006

This document contains a detailed assessment by dataset of the elements and indicators that underlie the data quality dimensions discussed in Israel'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 (SDDS), the generic framework of the Data Quality Assessment Framework (DQAF), and the results of the users' survey.

Contents	Page
Abbreviations.....	3
I. Central Bureau of Statistics	6
II. National Accounts.....	24
III. Consumer Price Index.....	51
IV. Producer Price Index.....	67
V. Government Finance Statistics	84
VI. Monetary Statistics.....	105
Tables	
1. DQAF (July 2003): Summary of Results for the Central Bureau of Statistics.....	23
2. DQAF (July 2003): Summary of Results for National Accounts.....	49
3. DQAF (July 2003): Summary of Results for Consumer Price Index.....	66
4. DQAF (July 2003): Summary of Results for Producer Price Index.....	83
5. DQAF (July 2003): Summary of Results for Government Finance Statistics.....	104
6. DQAF (July 2003): Summary of Results for Monetary Statistics.....	124
Appendices	
I. Summary of the Special Data Dissemination Standard (SDDS)	126
II. Data Quality Assessment Framework—Generic Framework.....	128
III. Results of Israel’s Users’ Survey.....	131
Appendix Tables	
7. Questionnaire Results Analyzed by Type of User.....	131
8. Results of Israel’s Users’ Survey, November 5, 2005	132

ABBREVIATIONS

<i>1968 SNA</i>	<i>System of National Accounts 1968</i>
<i>1993 SNA</i>	<i>System of National Accounts 1993</i>
<i>Binder</i>	Binder on “ <i>Current Information on the Money and Capital Markets</i> ” published by the Monetary Department, Bank of Israel
BSD	Banking Supervision Department - BOI
BOI	Bank of Israel
CAPI	Computer Assisted Personal Interview
CATI	Computer Assisted Telephone Interview
CBS	Central Bureau of Statistics
COFOG	Classification of the Functions of Government
COICOP	Classification of Individual Consumption by Purpose
Constitution	Labor Constitution Covering BOI Employees
CPC	Central Product Classification
CPI	Consumer Price Index
<i>CPI Manual</i>	<i>Consumer Price Index Manual, 2004</i>
DDE	Direct Data Entry
DQAF	Data Quality Assessment Framework
DSBB	Dissemination Standards Bulletin Board
EFQM	European Foundation for Quality Management
FXAD	Foreign Exchange Activity Department - BOI
GFS	Government Finance Statistics
<i>GFS Yearbook</i>	<i>Government Finance Statistics Yearbook</i>
<i>GFSM 1986</i>	<i>A Manual of Government Finance Statistics, 1986</i>
<i>GFSM 2001</i>	<i>Government Finance Statistics Manual 2001</i>
<i>Guide</i>	<i>Guide on Money and Banking Statistics Published in International Financial Statistics</i>
HES	Household Expenditure Survey
HPC	Handheld Personal Computer
ILO	International Labor Organization
ISIC	International Standard Industrial Classification of All Economic Activities
ISWGNA	Intersecretariat Working Group on National Accounts
IT	Information Technology
ITD	Information Technology Department - BOI
MD	Monetary Department - BOI
<i>MFSM</i>	<i>Monetary and Financial Statistics Manual, 2000</i>
MOF	Ministry of Finance
NII	National Insurance Institute
NIS	New Israel Sheqalim
NPIs	Nonprofit Institutions
NPISHs	Nonprofit Institutions Serving Households

PPI	Producer Price Index
<i>PPI Manual</i>	<i>Producer Price Index Manual, 2004</i>
RD	Research Department - BOI
ROSC	Report on the Observance of Standards and Codes
SDDS	Special Data Dissemination Standard
SRFs	Standardized Report Forms (for the submission of monetary statistics to the IMF)
VAT	Value-Added Tax
WPI	Wholesale Price Index

DETAILED ASSESSMENTS USING THE DATA QUALITY ASSESSMENT FRAMEWORK

The following detailed information on indicators of statistical practices in national accounts, consumer and producer price indices, government finance, and monetary statistics was gathered from documents available to the public and information and documents provided by the Israeli officials. This information, organized along the lines of the generic Data Quality Assessment Framework (DQAF), July 2003 (see Appendix II), was used to prepare the summary assessment of data quality elements, based on a four-part scale of observance as shown in Israel's Report on the Observance of Standards and Codes (ROSC)—Data Module.

The Central Bureau of Statistics (CBS), at the heart of the Israeli statistical system, has a strong organizational culture and a well-articulated and vigorously implemented set of operating principles. Thus, the assessments of the two institutionally oriented dimensions of the DQAF—prerequisites of quality and assurances of integrity—would be essentially the same for each of the datasets for which the CBS is responsible. Both to bring out this feature of the Israeli macroeconomic statistics and to avoid unnecessary repetition, the assessments of these dimensions for the CBS are presented once, in Section 0, below.

The assessments of the national accounts, consumer and producer price indices, and government finance statistics in Sections II to V refer back to this section, while also commenting on aspects of the two dimensions that may be particular to the subject field. The assessment of the institutionally oriented dimensions of monetary statistics, focusing on the Bank of Israel (BOI), and the product-oriented dimensions of that dataset, are contained in Section VI.

I. CENTRAL BUREAU OF 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 Central Bureau of Statistics (CBS) has a clearly mandated responsibility for collecting, processing, analyzing, and disseminating national accounts, consumer and producer prices, and government finance statistics, which are four of the macroeconomic datasets being assessed in this report.¹ All statistics collected and published by the CBS are governed by the *Statistics Ordinance* [New Version], 5732-1972, last amended in 1978. The *Statistics Ordinance* (Article 3) assigns responsibility, and provides authority, to the CBS for each of the following:

- performing and publishing the results of statistical acts as to the population and its social, health, economic, commercial, industrial, and other activities and as to the physical conditions of the country;
- cooperating with state agencies in performing statistical acts and publishing their results;
- preparing, in consultation with the Public Council for Statistics, multi-annual general schemes for the statistical acts of state agencies;
- prescribing, in consultation with the Public Council for Statistics and the agencies concerned, uniform statistical classifications for the use of government agencies; and
- assembling and publishing information on statistical acts that are performed or planned by or for the bureau or state agencies.

In this context, the CBS is the primary agency in Israel for collecting, compiling, analyzing, abstracting, and disseminating information on a great majority of Israel's official statistics covering the economic, social, and general conditions of the country and its citizens.²

¹ The other dataset being assessed, monetary statistics, is the responsibility of the BOI. Discussions were held with the Ministry of Finance (MOF) which compiles central government finance statistics, a major source of data for the annual consolidated general government accounts compiled by the CBS. However, the MOF was not directly assessed.

² Article 7 of the *Statistics Ordinance* empowers the CBS, subject to the approval of the government, to collect statistics in 28 specific areas, as well as "any such matters as the Statistician may direct with the approval of the Prime Minister." The government transferred its authority under the *Statistics Ordinance* to the Prime Minister in 1949. The Prime Minister, in 1985, issued a blanket permit for the CBS to collect statistics in all 28 of the areas delineated in Article 7. In addition, the Government Statistician, using his authority under Section 29 of Article 7, and with the approval of the Prime Minister, added two additional areas of statistical inquiry to the list: Environmental Statistics (1997) and Research and Development Statistics (2002).

The *Statistics Ordinance* mandates the CBS as an independent authority under the administrative supervision of the Prime Minister, thus requiring ministerial approval for decisions on organizational structure, legal matters with regard to personnel, and finance.³ The system of official statistics in Israel is embodied in the functions of the Government Statistician, who is appointed by the government under the recommendation of the Prime Minister and empowered under the *Statistics Ordinance* to, among other things:

- guide the statistical apparatus of the state agencies;
- set the requirement for statistical surveys and statistical use of administrative files, including compliance with specific legal bases;
- ensure arrangements for the compilation of official statistics; and
- enforce the obligation to provide information and protect statistical confidentiality.

Regarding the actual statistical work, the CBS is not bound by instructions. However, as set out in the *Statistics Ordinance*, it must adhere to the principles of neutrality, objectivity, and scientific independence. In addition, in collecting information from the public or from other institutions (including state agencies) whereby the privacy of an individual is impinged, the CBS may not request the receipt of more information than is minimally required for the purpose of the statistical inquiry. This is mandated in Article 8 of the *Basic Law: Human Dignity and Liberty*, which states: “There shall be no violation of rights under this *Basic Law* except by a law befitting the values of the State of Israel, enacted for a proper purpose, and to an extent no greater than is required.” The requirements of Article 8 of the *Basic Law* are reflected in paragraph 4.1 of the *CBS Code of Ethics*, which states: “(a) The CBS shall collect only that information that is relevant to the purposes of the statistical activity that it is carrying out; (b) In cases in which the statistical activity could possibly invade privacy, the CBS shall act in order that this invasion of privacy does not exceed the minimum necessary.”

0.1.2 Coordination and data sharing among data-producing agencies are adequate.

Coordination

The *Statistics Ordinance* provides for a multitiered approach to statistical cooperation in Israel. Article 3(2) states that one of the functions of the CBS is “to cooperate with State agencies in performing statistical acts and publishing their results.” Article 4 recognizes the Public Council for Statistics, which comprises representatives of state agencies, institutions of higher education and research, and public bodies of experts on statistics and on economic and social subjects. The functions and powers of the council, as set out in Article 4, provide for cooperation between the CBS and the users of its statistics. These functions and powers include:

³ The MOF determines the CBS budget through the budgetary processes.

- advising the Prime Minister and other ministers on matters relating to the statistical acts of state agencies;
- advising the Statistician on matters relating to statistical acts that are performed by the bureau; for this purpose, the council may inspect questionnaires addressed to the public;
- receiving from state agencies their schemes for the performance of statistical acts and to give an opinion as to coordination between such agencies in respect of such schemes; and
- making proposals for developing and rendering more efficient statistical acts of state agencies.

Article 5 of the *Statistics Ordinance* mandates a regime of statistical cooperation and coordination between state agencies. While the CBS is the “central” state agency that provides official Israeli statistics, other state agencies are allowed to carry on their own statistical activities. According to Article 5, if such statistical activity by a state agency involves addressing the public or part thereof, that statistical act shall be performed after consultation with the Government Statistician. Conversely, statistical acts by the CBS that relate to matters in the area of activity of a government ministry shall be performed after consultation with the ministry concerned. If the statistical act performed by a state agency, including the CBS, is a census, it may be performed only after receiving advance permission from the Prime Minister.

Article 15 of the *Statistics Ordinance* provides the CBS with authority to access records held by the state, local authorities, and others. It states: “Where the Government has, under section 7, approved the collection of statistics relating to any matter, any person who has the custody, or charge of any records or documents of the State, a local authority, a religious community within the meaning of article 2 of the Palestine Orders in Council, 1922-1947, or any person from which, in the opinion of the Statistician, information can be obtained relating to such matter or likely to assist in the completion or correction of statistics relating to such matter shall grant access thereto to the Statistician or any empowered employee for the purpose of obtaining such information.” Article 15 thus empowers the CBS to access computerized administrative datasets held by state and local authorities, as well as such data held by other public and private bodies and institutions.

On the face of it, Article 15 does not appear to have a relationship to the topic of coordination. However, in practice, the implementation of the authority under Article 15 requires preliminary coordination with the body holding the records to determine the following: the content of the data held by that body; the content of the data required by the CBS; the format of the data to be accessed; cost of producing the data (if any); manner of delivery of the data; etc. It is not uncommon for a body holding such data to raise legal objections to providing some or all of the data requested, requiring the intervention of the CBS legal department and, in rare situations, the intervention of the attorney general on behalf of the CBS.

The legal authority under Article 15 is amplified in Article 15A, which empowers the CBS to access information from state agencies even when such information is required, under law, to be kept secret by that agency. Information accessed under Article 15A must be kept secret by the CBS in the same manner the law requires it be kept secret by the state agency providing it. However, Article 15A allows for exceptions to the power it gives the CBS. For example, Article 15A(b) states: “The provisions of this section shall not apply to any information, records, and documents the delivery of which, in the opinion of the Minister of Finance, may injure the economic system of the State or, in the opinion of the governor of the Bank of Israel (BOI), may injure the financial institutions of the State.”

Article 18A provides guidance regarding carrying out joint statistical activity between the CBS and any other state agency, including the sharing of data collected in accordance with Article 18A. More on this article follows below in the section on data sharing.

In practice, and following from the legal regime described above, the CBS coordinates closely, including through regular meetings, with other data-producing agencies, such as the BOI and various government ministries. Among other things, this cooperation is meant to ensure the proper understanding of the CBS data requirements, the avoidance of a duplication of efforts, and the minimizing of response burden. It is noted that administrative data are used extensively by the CBS in producing its statistics on education, health, finance, and tax, as well as statistics regarding aspects of the labor market. Increasing efforts are being made to use administrative by-product data in the compilation of economic statistics.

Data sharing

In general, there is no data sharing between the CBS and other state agencies or others. The strict confidentiality requirements imposed on the CBS by the *Statistics Ordinance* lead to a one-way flow of identified or identifiable data. The exceptions to this rule are set out in Article 18A(a), which states: “Where the Bureau collects statistics or other particulars in cooperation with, or as an agent of, any State agency authorized under law to require the same, it may, notwithstanding anything provided in this *Ordinance*, disclose them to that agency so long as it is indicated in a conspicuous position on the document by which they are requested that they are collected by the Bureau as aforesaid and the person from whom they are collected has been advised of such fact. Where the Bureau collects statistics or other particulars in cooperation with, or as an agent of a State agency not authorized under law to collect the same, the Bureau may disclose them to that agency if it is also indicated as aforesaid that the provisions of the *Ordinance* concerning the duty to deliver particulars do not apply and the person from whom the particulars are collected has been advised of such fact.”

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

The confidentiality of individual data is seen by the CBS as much more than a legal obligation; the statistical system depends on being trusted and accepted by the citizens,

especially to ensure high-quality responses to statistical enquiries. Article 17 on “Secrecy” of the *Statistics Ordinance* strictly protects confidentiality. There are three specific provisions:

1. No individual return, and no part of an individual return made, and no answer to any question given, for the purposes of this Ordinance shall be published except for the purposes of a prosecution under this Ordinance;
2. No information collected for the purposes of this Ordinance and derived from an individual return or the answer to a question, or from records or documents as referred to in section 15, shall be so published as to enable the identification of the person to whom it relates; and
3. No person other than an employee shall see any individual return made for the purposes of this Ordinance, or any part of such a return, except for the purposes of a prosecution under this Ordinance.

The obligation to protect confidentiality is also rooted in the *Protection of Privacy Law*, 5741-1981. For example, Article 16 of this law stipulates: “No person shall disclose any data obtained by him by virtue of his functions as an employee, manager, or possessor of a database save for the purpose of carrying out his work or implementing this Law or under a court order in connection with legal proceedings. Any person, who infringes the provisions of this section, shall be liable to imprisonment for a term of five years.”

This confidentiality requirement is also reflected in the CBS *Code of Ethics*, which states, in paragraph 4.4: “The CBS must preserve, in accordance with the law, the confidentiality of information it receives under the *Statistics Ordinance*.”

In addition, paragraph 4.2 of the *Code of Ethics* requires that “the CBS shall provide the respondent, at his or her request, information about the purpose of the statistical activity, the methods of preserving the confidentiality of the information gathered, and additional information regarding the statistical activity.”

The unauthorized disclosure of individual statistical data by an employee of the CBS is a criminally punishable act. Pursuant to Articles 20 and 22 of the *Statistics Ordinance*, the penalty for such act is imprisonment of up to three years. To date, there have been no criminal proceedings for violations of confidentiality, indicative of the fact that the statistical staff are strictly and completely abiding by their obligation of confidentiality.⁴

The CBS provides researchers with two different types of anonymized microdata files under license for research purposes: Public Use Files and Microdata Under Contract Files. In

⁴ A rule of aggregation is applied, so that all aggregations include data for at least three enterprises. If the size of one enterprise is exceptionally large, compared to the two others included, more than three enterprises are aggregated. In some cases, permission has been obtained from the enterprises to publish data that disclose the activity of a single enterprise.

addition, the CBS makes some microdata available through its Research Room. Each of these methods of making such data available take distinct measures to protect the confidentiality of the data sources.

A system of central data storage with selective access operates at the CBS. The secure deletion of files and disposal of paper and other data media (disks, CD-ROMs, hard disks, magnetic tapes, etc.) is guaranteed in accordance with data protection rules (secure-access storage until collection and shredding by a contractor).

Access to the CBS's premises is only possible with a service identity card (card reader) or with registration at the reception. Rooms that contain the computing center, central data interchange points, telephone installations, data media and programming files archives, or other classified materials are additionally monitored with access at times limited to specific individuals.

The individual offices are usually not locked. Registration on any IT system requires a personal user identification and password, which are secured by cryptographic techniques. The internal network is secured against unauthorized outside access by a redundant firewall architecture and is a closed network for the most part. For security reasons, Internet connection and e-mail servers are not connected to internal networks used for the compilation of statistics. This results in having to provide two separate computers for most staff.

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

The Government Statistician is empowered to determine whether, and to what extent, the survey is to be conducted with or without an obligation to provide information. If an obligation to provide information has been stipulated, all natural legal persons under private and public law, associations of persons, public authorities, as well as communities and local authorities shall be liable to reply to duly ordered questions. Articles 11, 13, and 15 of the *Statistics Ordinance* make it mandatory for all respondents to provide the information requested unless an exemption is obtained (Article 15A(b)).

The policies and practices of the CBS emphasize explanation, courtesy, and effective respondent relations in eliciting response, and the burden placed on respondents is considered. Efforts aimed at reducing the response burden include measures such as (1) restricting sample sizes and—to the extent possible—the range and detail of surveys to the essential minimum, (2) making more extensive use of data from administrative registers, and (3) applying rotation schemes in sample designs to ensure that the response burden is spread as widely as possible over survey populations. Reporting is mandatory, although the penalty for noncompliance is only a maximum 3-month prison term and/or fine of up to US\$3,000. The mandatory nature of reporting is viewed as an effective deterrent to noncompliance, and the CBS has never instituted legal proceedings for noncompliance against individuals in its household surveys. Legal proceedings have been instituted for

noncompliance against a handful of businesses over the last decade. However, where this has been done, the businesses have chosen to comply rather than be prosecuted.

Every questionnaire indicates contact persons who can provide assistance in responding, as well as information on how to complete the questionnaire and explanations for answering the questions. Also, every paper and Internet questionnaire contains legally required information on the purpose, type, and scope of the survey, obligation to provide information, reporting unit, confidentiality, and other aspects of the survey. In particular, a reference to the *Statistics Ordinance* is given in surveys and statistical inquiries citing the following sentence: “The information provided in the questionnaire is intended for statistical purposes only, and shall be kept in the CBS and strict confidentiality shall be maintained. Anyone who violates this confidentiality shall be severely punished. The information shall not be published in a way that enables the respondent to be identified.” To encourage future participation, the CBS provides respondents with information on the results of the survey, upon request and in conformity with established statistical confidentiality guidelines.

0.2 Resources

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

Staffing

In recent years, and at the same time as the statistical workload has been increasing, the number of staff of the CBS has decreased through attrition (principally retirement). Moreover, a hiring freeze imposed by the Prime Minister’s office has constrained the ability to recruit younger qualified professionals. Currently, 771 staff, in total, work in the CBS, with 4 dedicated to government finance, 24 to national accounts, and 25 to price statistics.⁵ Under the existing institutional arrangements, the total number of staff deployed in statistics is clearly insufficient for current and future needs. Such needs are, for example, the development of accounts and input/output tables called for to fulfill requirements of the System of National Accounts 1993 (*1993 SNA*), the phased implementation of the *Government Finance Statistics Manual 2001 (GFSM 2001)*, and extending the coverage of the output and input price indices (e.g., to service industries and the export sector).⁶ See subject area assessments for further discussion.

⁵ Of the total, according to the CBS, 155 are enumerators (under a separate budget), while the remaining 616 employees work the equivalent of 598.3 full-time employees, as some staff are employed on a part-time basis.

⁶ Although current staff is considered adequate for the existing program of price statistics, staff are insufficient to fully carry out the national accounts and government finance statistics work programs. This shortcoming should be addressed in the short term.

There is significant investment in human resources development—given existing budget constraints—which is embedded in the corporate culture of the CBS. Most of the staff have an advanced academic degree in economics or statistics, and many have participated in relevant training, given either by the IMF or by Eurostat at the CBS or abroad. Some senior staff also participate in providing specific training for other statistical agencies in the region. In addition, all staff have participated in training arranged by the CBS to develop skills in computer programming, analysis of financial reports, economics, and statistics. The CBS also conducts current seminars, where papers on national accounting are presented and discussed. Part of the staff participates in international working groups in the areas assessed. Formal annual performance assessments were institutionalized for both management and staff in 2005—following the participation in a national pilot that the CBS helped design and implement—with the intention to move to semiannual assessments in 2006.

Remuneration arrangements for the CBS staff are in the lower range for academics. However, due to layoffs in recent years in the private sector, wage differentials are not so large as in former years, and it has not been very difficult to recruit able academics and avoid a high rate of turnover. Nonetheless, there is inconsistency with the arrangements in the wider public administration (e.g., the BOI and the Ministry of Finance (MOF)).

Computing resources

Most PCs are now relatively old and increasingly in need of updating, with many staff using outdated operating systems. Only a limited number of high performance computers with the latest technology are currently used in compiling and disseminating statistical series. Also, data storage arrangements and wide area networks with high bandwidth to support the work of the statisticians could be usefully strengthened.

Owing to the withdrawal of previously agreed funding and, thus, the lack of sufficient computer resources, some needed improvements to the statistical work program cannot be implemented. The information technology (IT) budget for expenditures on material and services—excluding expenditures on in-house software development and maintenance—is dedicated to the technology unit within the CBS's Information Technology Department (ITD). This budget amounts to NIS7 million per year. In contrast, the planned activities for fiscal year 2006 envisage, among other things, the computerization of field work in household surveys, construction of a data warehouse, and renewal of IT equipment and infrastructure, all of which require additional—and secure—budgetary resources.

Despite the increasingly outdated IT infrastructure for compiling and analyzing statistics, the CBS uses modern and updated standard software packages (SAS Version 9, Office XP, SQL, Oracle, and Adabas Databases, etc.), complemented by in-house developed software. To a limited extent, Internet technology (Sun Unix) has been used in the closely linked but distributed production system. Standard tools for online reporting, processing, and dissemination via statistical information systems could be further developed.

The security of IT systems is justifiably given particular importance and has consumed substantial resources. Back-up systems for the common servers exist. Further back-up in case of disasters and other unusual events is also provided for and has been established or strengthened during various emergency periods (war in Iraq, etc.), thereby impacting on resources in this area.

Recommendation: *Urgent action is needed to provide adequate staff to the CBS to discharge its mandate in terms of current and future work programs. In addition, adequate funding needs to be secured to ensure that IT resources are suitable for maximizing the efficient execution of the statistical work program.*

Physical facilities

The staff of the CBS is located in an office building that was built in 1999 and has a layout suited to an efficient organization of work. Staff generally seem satisfied with workplace conditions.

Financial resources

Budgeting planning for national statistics is based on an annual funding horizon. However, in recent years, funding plans have often been changed by the financing authority (MOF), rendering planning, particularly medium- and long-term planning, more difficult. Funds are assigned by the MOF with an input orientation and allocated between categories, such as personnel expenditure, material and administrative expenditure, building investment expenditure, and other investment expenditure. Because significant funds are used for staff and administrative resources, the product-oriented deployment of staff at the CBS is particularly important. However, rigidities limit management's ability in redeploying resources, that is, away from censuses toward macroeconomic statistics—imposed by the existing budget framework and spending controls imposed by the MOF.

To partially compensate for the constrained financial circumstances under which it must operate, and with a view to retaining qualified staff, the CBS has in recent years begun to work as a subcontractor to the MOF and BOI. Projects paid for by the MOF and BOI are currently being pursued in, among others, the following: development of balance sheets for the financial sector (BOI); quarterly survey on capital formation (BOI); quarterly calculation of government spending in the Occupied Territories (MOF); and annual report to the OECD on Israel's overseas grants in aid. While the projects enable the CBS to retain staff positions that would otherwise have been terminated, the future of the projects is uncertain. To a certain extent, the projects also divert resources from some core activities.

Recommendation: *Investigate options for further streamlining the responsibilities for statistical operations with a view to freeing up resources to meet the emerging demands for new statistics (0.2.1 and 0.2.2).*

0.2.2 Measures to ensure efficient use of resources are implemented.

Quarterly programs at department, division, and individual level are used for planning and monitoring of output targets and resource use. They are also used for quality assurance; division managers present explicit quality indicators on evaluating how the goals were achieved. These quality indicators, together with overall performance evaluation, are used for dividing any additional compensation on top of the regular monthly salary for individual employees on a quarterly basis. Though not very large in absolute terms, the symbolic value of such compensation incentive is seen effective.

The CBS has recognized the increasingly tight resource situation facing it in the medium term and has implemented a range of measures designed to help efficiently use resources. However, despite continuing attention to efficient operational arrangements, resources do not appear sufficient within the national statistical system to address the additional demands being placed upon it, given the rapidly evolving nature of the Israeli economy.

To cope with the additional and other foreseeable medium-term statistical tasks, taking into account a parallel reduction in the available financial and human resources and doing this with an acceptable quality, a need exists to organize work more effectively and to set priorities. In such an environment, the authorities need a carefully considered and systematic multi-annual program and resource-planning scheme, based on their strategic goals. Proceeding from the resources available, priority should be given to those projects that will yield the comparatively largest contribution to the achievement of strategic goals.

Recommendation: *The CBS, together with the BOI, the MOF, and other relevant agencies, should establish working groups on standardizing statistical production (e.g., fully adopting the 1993 SNA and migrating to the IMF's GFSM 2001 framework for compiling policy-relevant fiscal data). The mandates and modus operandi of such working groups should be formalized so as to, among other things, better exploit possible synergies in statistical processes.*

0.3 Relevance

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

On fundamental issues, the Public Council for Statistics advises the CBS and initiates plans for further developments. Comprised of representatives of state agencies, institutions of higher education and research, and public bodies, and of experts on statistics and on economic and social subjects, the council has a fundamental role to play in ensuring the relevance of the CBS work program and the resulting outputs.

For specialist subjects, expert committees commissioned by the CBS and other statistical working parties advise the CBS—for example, on manufacturing, environmental, and social statistics. Discussions of expert committees can make it possible to tap the knowledge and

the experience of external experts for the planning and development of official statistics. Users and respondents are given a chance to articulate their interests. At the same time, representatives of official statistics may explain their concerns and clarify the feasibility of proposals in discussions with the parties concerned.

Feedback also is sought at seminars and meetings, where, for example, national accounts data are presented to institutions such as the National Insurance Institute (NII), the BOI, and the Ministry of Commerce, Manufacturing, and Employment. In addition, members of the CBS staff regularly participate in OECD and UN/ECE meetings and also in Medstat activities (arranged by Eurostat). In recent years, members of staff also are active in international working groups working on special subjects in connection with the revision of the *1993 SNA*. Some staff also are members of the International Association of Research in Income and Wealth. Almost all are members of the Israel Economic Association and participate in annual conferences of this association, which provides a valuable forum for feedback on official statistics. User surveys are conducted periodically.

0.4 Other quality management

0.4.1 Processes are in place to focus on quality.

The system of official statistics follows international and European quality standards. Israel has adopted the UN Fundamental Principles for Official Statistics and was an early subscriber to the IMF Special Data Dissemination Standard (SDDS). The CBS is establishing a quality management system—initially in the area of the consumer price index (CPI) and national accounts—based on the framework of the European Foundation for Quality Management (EFQM). The EFQM process has resulted in more efficient, transparent, and well-documented collection, validation, and compilation processes.

Interrelations between datasets have been improved in recent years, that is, through strengthened cooperation between national accounts, balance of payments, and foreign trade statistics staff, to ensure consistency and resolve conflicts between data from different sources (choice of reliable sources). The Macro Economics Department prepares supply-use tables in cooperation with staff from the Business Economics Department, checking data sources and consistency. Functions have been transferred (recognizing economies of scale). Before deciding upon dates of publication of early estimates, staff perform simulations to check quality (recognizing trade-offs).

Managers are held accountable for quality, given that the annual planning cycle focuses on the results obtained relative to the strategic objectives. In addition, staff training programs pertaining to data quality are offered periodically. Staff also are encouraged to participate in IMF and Eurostat training courses.

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

The quarterly planning and evaluation program is the cornerstone of short-term quality monitoring. This quality monitoring, also incorporated into employee compensation, provides explicit quality assessment of targeted results.

The organization of the CBS provides for methodological expertise in all subject-matter departments. In addition, expert advice on quality and on strategies for improvement is provided by the Department of Methodology and Statistical Analysis, as well as by the recently established cross-sectoral function of Chief Scientist.

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

The strategic goals of the CBS are defined in the Research and Development Plan, which addresses individual quality aspects in detail. Specific activities, though not necessarily stated in the aforementioned plan, include the following:

- further adoption of the *1993 SNA* and improvement of the GDP flash estimates;
- preparation of input/output surveys;
- development of a longitudinal survey;
- further development of government finance statistics as part of the system of national accounts and in line with the *GFSM 2001*;
- carrying out of weight revisions to update the wholesale price index (WPI) weights in 2006 and CPI weights in 2007 to comply with the *Producer Price Index Manual, 2004 (PPI Manual)* and *Consumer Price Index Manual, 2004 (CPI Manual)* recommendations;
- increase in the coverage of the producer price index (PPI) to include services;
- increase in the input and output price index coverage of additional industries;
- improvement of the timeliness of annual surveys; and
- improvement of the coverage of the rapidly expanding services industries.

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis.

Article 2 of the *Statistics Ordinance* establishes that the CBS is headed by the Government Statistician, who is appointed by the Government upon proposal of the Prime Minister. Official public notification of this is given in the *Reshumot* (Official Gazette). The Government Statistician is authorized to direct the statistical systems in the institutions of the state and is required to act on the basis of scientific considerations. The CBS decides independently what statistics to compile and develop, which sources to use, and what

methods to apply. It also decides what the institution is to publish as official statistics and when and how this will be done, based on scientific and technical considerations and—increasingly—budget restrictions. Such independence is seen as necessary for the credibility and the authority that official statistics must have to fulfill the role in monitoring developments in the Israeli economy and society.

Staff members with extensive professional experience are deployed at the level of directors and deputy directors. Although staff are not necessarily recruited for their statistical skills, on-the-job training and mentoring enhance the cultivation of expertise in the respective fields of data compilation

The CBS actively promotes professionalism. In careful selection of staff, it matches new recruits with the needs of the organization. It provides extensive staff development and training opportunities and promotes an active research and development program. Staff frequently participate in international meetings. Furthermore, to encourage academic statisticians to contribute to the research on official statistics, the CBS provides staff each year with an opportunity to publish papers on research and development activities in Israeli statistics. Also, in recent years the CBS has introduced a promotion procedure requiring peer-reviewed professional and methodological research and analysis. This procedure has further encouraged research and analysis. Publication of working papers and methodological papers by staff has resulted in many improvements in methods applied.

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

Within the context of the *Statistics Ordinance*'s mandate for neutrality, objectivity, and scientific independence, the CBS's choices of sources of data for compiling the national accounts, price statistics, and the general government sector accounts are determined by the availability of basic statistics and data from administrative records according to criteria of statistical reliability, coverage, and consistency over time. The choice of source data and statistical techniques is primarily based on consideration of the accuracy of data. Decisions to disseminate data are based solely on statistical considerations, and decisions about the timing, media, and other aspects of dissemination are based on statistical considerations. No evidence exists of political interference in the choice of data sources and statistical techniques used in the compilation of the datasets assessed.

The *Statistics Ordinance* (Article 3) requires that official statistics be published. The statistical results are first published in a press release. The CBS publishes more than 300 press releases per year—excluding the weekly update to the advance release calendar—and does not need political approval to publish statistical information. This also holds for all other publications. The press releases are published at 1:00 p.m. (national accounts) and at 5:00 p.m. (price statistics) in Jerusalem and disseminated to users by fax, satellite, e-mail,

and on the Internet.⁷ Decisions regarding timing and media are made at least four months in advance. Regular publication dates are announced in a yearly and weekly advance release calendar. Statistical data of top interest to journalists are announced in a press conference (about 10–20 events yearly). Within the context of defined preembargo access arrangements, statistics are made available to all users at the same time. In exceptional cases, ministries with specific subject-matter interests are provided with advance information at close of business on the day preceding publication. This applies to statistics that the media typically expect the ministries to comment on immediately after they have been issued by the statistical office.

While the access arrangements to statistics prior to their release are documented on the IMF's Dissemination Standards Bulletin Board (DSBB), they are not documented on the CBS website. These arrangements should also be documented on the CBS website where they are likely to be more accessible to local users of statistics.

Recommendation: *The CBS should provide documentation on the CBS website explaining preembargo data access to ministries with specific subject-matter interests.*

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

The reactions of the media in Israel to the CBS publications, as well as articles in the media on other aspects of the office, are monitored and evaluated daily at the Information Unit through a “clipping service.” Comments on erroneous interpretations and misuse are sent to the media, and in certain important matters press briefings have been held.

1.2 Transparency

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

The *Statistics Ordinance*, in English and Hebrew, is available to the public on the CBS website at <http://www.cbs.gov.il>. Copies of the *Statistics Ordinance* are also available through the CBS Information Office (info@cbs.gov.il) and in the CBS library. Information on the terms and conditions under which statistics are collected, processed, and disseminated is published annually (in Hebrew only) in the report prepared in accordance with the Freedom of Information Law, 1998, which can be found at <http://www.cbs.gov.il/freeinfo06.pdf>. In addition, all publications mention contact persons, postal addresses, telephone numbers, facsimile numbers, e-mail addresses, and other relevant information of interest. Further, contact details are provided for the respective experts for the individual statistical fields, including contact persons for technical questions.

⁷ Price statistics, when disseminated on a Friday, are released at 1:30 p.m.

In the case of new statistics, journalists receive methodological information at press conferences and other events, where staff of the CBS provide information about statistical topics of current interest. All information for press conferences is also published on the website.

Finally, when the CBS conducts surveys, it informs respondents of the general purpose of the particular survey, noting that the information received will be used for statistical purposes only.

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

The CBS normally does not provide data to any external person or institution before it officially releases the data. Preembargo access arrangements are available (see 0.1.2). That is, internal government access to national accounts and government finance statistics is given a day before publication under strict embargo. This is made known to the public, among other places, on the IMF's DSBB and in the CBS's publications in Hebrew. However, this is not indicated in the relevant English-language publications of the CBS.

Recommendation: *Clearly indicate terms under which the MOF and BOI may obtain access to data prior to their public dissemination in the relevant English-language publications.*

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

All CBS products can be clearly identified as such by the agency's name and logo (on press releases, in hardcopy publications, and on the website). In all statistical publications the public is informed that attribution is required. In some cases where the statistics have been reproduced without attribution, the Information Unit at the CBS follows up (see 1.1.3).

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

Information on changes in methodology, source data, and statistical techniques is given to users in advance and when changes are introduced. Explanations of new methods and changes in source data and statistical techniques are published on the website and in all relevant print publications. Special publications also make changes transparent. Major changes are also discussed with users well in advance in dedicated seminars organized by the Information Unit.

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 can be divided into three categories: legal norms; administrative norms; and ethical norms, as described below.

The *Statistics Ordinance* establishes a legal norm for the protection of confidentiality. All new staff are informed of the obligation of maintaining statistical confidentiality, and they sign a declaration, in accordance with Article 10 of the *Statistics Ordinance*, in which they state that they will not disclose information without authority. In addition, periodic training courses for new employees include the legal basis for the operations of the CBS, including the obligation of the protection of confidentiality.

Administrative norms are based both on the actual work ethic practiced by employees of the CBS and on the administrative norms delineated in the Israel Civil Service Administration's detailed Rulebook (known by its Hebrew acronym "TAKSHIR"). Part IV of the *TAKSHIR* deals extensively with discipline and employee behavior. While most of the *TAKSHIR* is directed toward human resource departments, those sections that apply directly to employee behavior, such as the prohibition against sexual discrimination, are made widely known to the CBS staff. During the training process, new employees learn about the CBS work ethic and the particulars of the *TAKSHIR* directly relevant to them. Also, in the course of training, it is explicitly pointed out to the staff that international standards and methodological guidelines are to be followed. As relevant to their work program, clear directives for the specialized units have been discussed, adopted, and communicated by all heads of departments.

As for ethical norms, a CBS *Code of Ethics* was created in May 2004 and distributed to all employees. It is prominently available on the CBS Intranet and also published in Hebrew in the yearly *Freedom of Information Report* as mentioned earlier, which is available on the CBS website at <http://www.cbs.gov.il>. Based primarily on the *Code of Ethics for Statisticians*, which was adopted originally by the Public Statistics Council and the Israel Statistical Association, the CBS *Code of Ethics* contains modifications that relate to the statutory status of the CBS. In essence, the CBS *Code of Ethics* reflects actual CBS practice and the CBS ambient work ethic.

Summary of Recommendations

- Urgent action is needed to provide adequate staff to the CBS to discharge its mandate in terms of current and future work programs. In addition, adequate funding needs to be secured to ensure that IT resources are suitable for maximizing the efficient execution of the statistical work program.
- Investigate options for further streamlining the responsibilities for statistical operations with a view to freeing up resources to meet the emerging demands for new statistics (0.2.1 and 0.2.2).
- The CBS, together with the BOI, the MOF, and other relevant agencies, should establish working groups on standardizing statistical production (e.g., fully adopting the 1993 *SNA* and migrating to the IMF's *GFSM 2001* framework for compiling

policy-relevant fiscal data). The mandates and modus operandi of such working groups should be formalized so as to, among other things, better exploit possible synergies in statistical processes.

- The CBS should provide documentation on the CBS website explaining preembargo data access to ministries with specific subject-matter interests.
- Clearly indicate terms under which the MOF and BOI may obtain access to data prior to their public dissemination in the relevant English-language publications.

Table 1. Israel: Data Quality Assessment Framework (July 2003): Summary of Results for the Central Bureau of Statistics^{1/} —
Dimensions 0–1

Criteria	Element	NA	Assessment				Comments
			O	LO	LNO	NO	
0. Prerequisites of quality							
0.1	Legal and institutional environment		X		X		Nonsecure funding/budgetary resources and externally imposed administrative rigidities.
0.2	Resources						
0.3	Relevance		X				
0.4	Other quality management		X				
1. Assurances of integrity							
1.1	Professionalism		X				
1.2	Transparency		X				
1.3	Ethical standards		X				

1/ The CBS is responsible for the national accounts, the consumer and producer price indices, and government finance statistics. The two institutionally oriented dimensions of the DQAF—Prerequisites of Quality and Assurances of Integrity—are presented once, in this table, for the three datasets.

II. NATIONAL ACCOUNTS

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 1998, the Central Bureau of Statistics (CBS) has followed the *System of National Accounts 1993 (1993 SNA)* as the general framework for compiling national accounts statistics.

Estimates of illegal output are included for construction activities and illegal slaughtering of animals. Other illegal output sold to willing buyers is included if reported by households in the Household Expenditure Survey (HES).

2.2 Scope

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

The CBS compiles the tables and accounts that the Intersecretariat Working Group on National Accounts (ISWGNA) determined as a minimum requirement for the implementation of the *1993 SNA* on a regular basis. This concerns 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 capital accounts) with an annual frequency; and
- annual rest-of-the-world accounts.

The sector accounts for all sectors have not yet been completed. By now, the sequence of the accounts for the total economy covers annual data up to the capital account, while financial accounts have been compiled in the framework of balance of payments. National balance sheets have been prepared for certain years.

The CBS also regularly compiles other tables and accounts that the ISWGNA determined as recommended for *1993 SNA* implementation, as listed below:

- quarterly value added and GDP at current and constant prices by activity;
- quarterly expenditures of GDP at current and constant prices; and
- annual supply and use accounts (to be integrated in near future).

Supply and use tables have currently been compiled in the framework of the national accounts in Israel. In the past, such tables were only published in connection with the preparation of input-output tables (latest for 1995). The supply and use tables for 2000 will be published at the end of 2005, and series with annual tables for the years from 2000 to 2005 will be compiled in the coming years. Presently, for the years up to 2003, supply tables are available. The supply tables are compiled in the Business and Economy Department in cooperation with the National Accounts Division (in the Macro Economics Department).

In addition to the core tables, a number of satellite accounts have been compiled for many years, e.g., national expenditure and financing of education, health, culture, research and development, national expenditure on defense, public expenditure on environment protection, accounts for nonprofit institutions (NPIs), and tourism accounts.

The delimitation of the constituent units of the economy is in accordance with international recommendations. This means, among other things, that the following are included as part of the economy:

- territorial enclaves in the rest of the world;
- free zones/bonded warehouses/factories operated by offshore enterprises under customs control; and
- workers who work part of the year abroad.

The Israeli national accounts largely define the production boundary in accordance with current international recommendations. Therefore, the following items are in the scope for output (irrespective of actual full coverage):

- own-account production of all goods for own final consumption;
- research and development on own account;
- output of goods for own-account fixed capital formation;
- mineral exploration;
- production of computer software; and
- illegal output sold to willing buyers.

In contrast with international recommendations, the production of entertainment, literary, or artistic originals is not included, due to lack of data. As noted earlier, explicit estimates for illegal output sold to willing buyers are only partially included.

The asset boundary used in the Israeli national accounts is not entirely in accordance with the *1993 SNA*. Specifically:

- defense-related assets that could be used for civilian purposes are currently included in general government expenditures instead of fixed capital formation;
- valuables are not recognized as such, and historic monuments are not included;

- output does not include agricultural work in progress;
- the value of entertainment, literary, or artistic originals is not included; and
- leases and other transferable contacts are also not included.

Regarding defense-related assets, relevant classifications are now introduced in the budget files of the Defense Ministry. Thus, such assets could be available in the near future. For other missing items, plans are to include collection on some of these items in the business surveys in the coming years.

On the other hand, the following items are correctly included in the definition of intangible assets:

- mineral exploration (whether successful or not);
- systems and standard-application computer software and databases (purchased or built in-house); and
- patented entities.

Recommendations:

- *Expand the scope of the annual accounts to also include income accounts for all sectors as well as capital accounts.*
- *Make the asset boundary in accordance with the 1993 SNA.*

2.3 Classification/sectorization

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

The Israeli national accounts follow the 1993 SNA classifications for institutional units, transactions, and other flows. The exception is government defense expenditures on assets that could be used for civilian purposes, which are actually included in general government consumption expenditures instead of fixed capital formation.

The classification of production by economic activity is based on the International Standard Industrial Classification of All Economic Activities, Rev. 3 (ISIC, Rev. 3), while products are classified by the Classification of Products by Activity (CPA). The Classification of Individual Consumption by Purpose (COICOP) serves to break down household final consumption expenditure, and the Classification of the Functions of Government (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

In general, valuation for recording flows and stocks is largely in accordance with the 1993 SNA. One important exception exists; GDP at market prices does not include net taxes on imports and includes subsidies received by exporters. Data according to the 1993 SNA definition are also disseminated, but only at current prices. For international comparisons, data provided to international organizations are reported according to the 1993 SNA definition.

The deviation from the 1993 SNA has been considered conceptually superior, since import taxes on consumption durables such as cars are high in Israel. Especially the rate of change in GDP at constant prices may be distorted if taxes on imports are included in GDP. However, since taxes on imports have been decreasing in recent years, the deviation is being reviewed, and, according to plans, the net taxes on imports, etc. will be included in GDP as recommended in the 1993 SNA in the near future.

Market output by activity is valued at basic prices. Market output at producer prices is also available, as requested by some users. Estimates of output for own use are mostly valued at cost, due to lack of suitable data, even though market prices will be used if available. Sales and excise taxes are included in the estimates of intermediate consumption, and value-added tax (VAT) is, as recommended, included in the valuation of intermediate consumption, apart from the deductible part. The deductible part of value-added taxes also is excluded from the valuation of final uses.

Separate data on insurance on freight on imports are available. Imports and exports are valued at f.o.b. However, in the table "GDP and use of resources," net taxes on imports and revenue components received by exporters are included in imports and exports respectively (see above). Customs data and banking data on transactions in foreign currency are converted to U.S. dollars using the market exchange rate at the moment they take place. For national accounts purposes, the aggregate monthly data in U.S. dollars are being converted to national currency, new Israeli sheqalim (NIS), using average exchange rates. The method is currently being reviewed since at least customs data on transactions are available after conversion to NIS made at the moment they take place.

Recommendation: *Bring the recording of GDP at market prices in accordance with international standards by including net taxes on imports and excluding subsidies received by exporters.*

2.4.2 Recording is done on an accrual basis

Most transactions are recorded on an accrual basis including those for general government transactions (see corresponding detailed assessment for government finance statistics). Owing to changes in the government accounting, which are currently being implemented by

the Ministry of Finance (MOF), it may be possible to bring the recording of all government transactions in line with the 1993 SNA recommendations in the near future.

Recommendation: *The part of taxes and subsidies on products, and of other government expenditure that are still on a cash basis, should be recorded on an accrual basis.*

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

Transactions between establishments (local kind of activity units) within the same enterprise are recorded on a gross basis, as recommended in the international guidelines.

3. Accuracy and reliability

3.1 Source data

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

The available sources are broadly sufficient to prepare accurate and reliable national accounts statistics (see the two tables below summarizing the sources for the annual and quarterly accounts). Nevertheless, in some areas, source data are scarce—for instance, for prices covering services, financial statements for the construction industry, and some private personal service activities. Also, a survey on the composition of intermediate consumption is needed, particularly in the service industries. Extrapolation models have been developed when recent data are lacking.

Data sources are kept under continuous review. New sources will be analyzed and, if appropriate, incorporated on the occasion of the next revision. An example is the new survey on imports and exports of services.

In Israel, GDP by expenditure is considered most reliable, and thus a statistical discrepancy will balance the GDP estimated from the production approach in the annual accounts. Regarding the quarterly accounts, GDP estimates were compiled only by expenditure until 2004, but from August 2004 onward, compilation is carried out also by the production approach.

Sources for annual GDP

Business register

A business register in line with international recommendations was completed in 2003, including updated data this year. The business register consolidates the various administrative business files comprising mainly the VAT and the National Insurance Security files. The VAT is updated monthly, the employees' data are updated two times a year, and

bimonthly files of new employers are added. The business register provides, annually, demographic data including the number of active businesses by size and economic branch, number of employees, new businesses (openings), mergers, splits, and inactive or dormant businesses (closures).

From a methodological standpoint, the business register provides the sampling frames for the various monthly and annual business surveys carried out by the CBS. Since 2004, the business register has provided four new frames of business surveys (manufacturing indices, VAT revenue indices, Israeli employees' jobs and wages, and foreign workers). Also, one new frame is under preparation for the annual survey.

The data collected in the business register include the data from enterprises. Recently, a new process has started, which collects data from the enterprises distributed by the local units. The local units will be defined and maintained in the register, and this will enable the CBS to produce statistics and demographic data by local units (establishments).

Business surveys

The CBS conducts annual business surveys for manufacturing, accommodation services, and all other services—the exceptions are banking and insurance services, domestic services to private households, services of private teachers, and sales of food, fruit, and vegetables at stands and markets, for which data are collected from other sources. Up to 2004, the samples were drawn with probability proportional to an estimated size within strata defined by industries.

In 2004, the CBS started the process of redesigning the surveys of business establishments. Three principles guide the new design. **First**, the annual sample is stratified by industry, and size levels and units are drawn with equal probabilities within strata. There is a take-all stratum, and several samples (e.g., one to five) take some strata for each industry. **Second**, two types of update are carried out: (1) an annual update reflecting all the changes in the frame during the preceding year; and (2) intraannual (e.g., bimonthly) update accounting for newly created establishments. The surveys are longitudinal, where the panel usually lasts for about 5–7 years. A sequential permanent random number scheme is applied each year to an updated frame to reallocate an annual-base sample. Thus, a maximal overlap of successive annual samples is achieved. **Third**, the CBS has developed a methodology to modify the permanent numbers of the new establishments to overcome the discrepancies introduced by the different schemes used and to control the overall sample size. Presently, no sampling errors are computed for the business surveys.

Following the above redesign of the business surveys, the CBS is in the process of developing the estimation of the sampling errors based on a subsample replication technique—the jackknife method.

The data collected from the business surveys are broadly sufficiently detailed to derive national accounts aggregates. However, it would be recommended to consider surveys

generating detailed information on the composition of intermediate consumption. This is recommended, in particular, for the service industries (trade, services, transport, and communication) and also for manufacturing, where the present data are based on an outdated survey (survey from 1995). Official statistics, in general, are rather close to the national accounts, although some modifications may be necessary. Administrative sources, on the other hand, generally require more adjustments toward the concepts and definitions of national accounts.

Main Sources for the Annual Accounts

Production Approach	
ISIC Categories	Main Sources
Agriculture, hunting, and forestry	<ul style="list-style-type: none"> - Output from Annual Census of Agriculture carried out by the Ministry of Agriculture and the CBS - Intermediate consumption is estimated (based on imports, domestic supply of fertilizer, etc.) - Wage data from the National Insurance Institute (NII)
Fishing	<ul style="list-style-type: none"> - Annual Census of Agriculture - Estimation of intermediate consumption (fixed ratios)
Mining and quarrying	<ul style="list-style-type: none"> - Annual survey of manufacturing (included mining and quarrying) - Questionnaire to establishments including financial statements
Manufacturing	<ul style="list-style-type: none"> - See Mining and quarrying (diamonds are excluded) - Diamonds: Use data on imports and exports of diamonds by type
Electricity, gas, and water supply	<ul style="list-style-type: none"> - Annual financial statements from the electricity company, gas - Revenue data from VAT - Estimations based on input-output tables for the last available year (water) - Intermediate consumption based on fixed ratios
Construction	<ul style="list-style-type: none"> - Quarterly survey on construction - Intermediate consumption based on fixed ratios
Wholesale and retail trade, repair of motor vehicles, and personal and household goods	<ul style="list-style-type: none"> - Annual survey of trade, services, transport, and communications based on financial statements - Covers all revenues and total inputs including capital formation
Hotels and restaurants	<ul style="list-style-type: none"> - Annual survey of hotels - Guest-nights in hotels
Transport, storage, and communication	<ul style="list-style-type: none"> - See wholesale and retail trade - Kilometers traveled by taxis and lorries, loads hauled by ships, number of passengers in Israeli airlines
Financial intermediation and insurance	<ul style="list-style-type: none"> - Financial reports published by the Supervisor of Banks - Insurance services: financial reports prepared by the MOF
Real estate, renting, and business activities	<ul style="list-style-type: none"> - See wholesale and retail trade
Public administration and defense; compulsory social security	<ul style="list-style-type: none"> - General government accounts - Number of employees from the ministries and the NII's wage files
Education, health and social work	<ul style="list-style-type: none"> - Private services: see wholesale and retail trade - Public services: government accounts - Number of employees from the ministries and the NII's wage files
Other community, social, and personal service activities	<ul style="list-style-type: none"> - See wholesale and retail trade
Taxes and subsidies on products	<ul style="list-style-type: none"> - General government accounts

Expenditure Approach	
Expenditure Category	Main Sources
Household final consumption expenditure	<ul style="list-style-type: none"> - Annual household expenditure survey - Commodity flow method for <ul style="list-style-type: none"> - agricultural food products (meat, fish, eggs, vegetables, etc.) - Israeli Electric Corporation reports on electricity - fuel, hotel guest-nights, number of hospitalizations, cinema visits, etc. - imports data - Domestic sales/output of relevant industries providing households (monthly production indices) - Balance of payments regarding direct purchases in Israel by foreign residents and by Israelis abroad
Final consumption expenditure of nonprofit institutions serving households	<ul style="list-style-type: none"> - Annual survey of nonprofit institutions serving households (NPISH), which covers all NPISHs employing two or more employees - Wage data from the NII
Government final consumption expenditure	<ul style="list-style-type: none"> - See production approach
Acquisitions less disposals of tangible fixed assets	<ul style="list-style-type: none"> - Commodity flow method used for transport equipment, machinery and other equipment - Physical data for buildings (included dwellings), based on square meters of building constructions - Monthly manufacturing survey (subsample) - Quarterly or annual reports from of public institutions including general government and other major enterprises on expenditure on fixed capital
Acquisitions less disposals of intangible fixed assets	<ul style="list-style-type: none"> - Imports of software - Customized software: fixed share of the revenues of the computer industry - Own-account produced software: estimations based on employment by type of profession - Mineral exploration: data from the Ministry of Infrastructure (energy department)
Additions to the value of nonproduced nonfinancial assets	<ul style="list-style-type: none"> - Not included
Changes in inventories	<ul style="list-style-type: none"> - Quantities of inventories of agricultural products, fuel, etc. - Annual survey of manufacturing - Annual survey of trade - Annual survey of transportation - Imports and exports of diamonds (monthly)
Acquisitions less disposals of valuables	<ul style="list-style-type: none"> - Not included
Exports and imports of goods	<ul style="list-style-type: none"> - Foreign trade statistics (customs declarations)
Exports and imports of services	<ul style="list-style-type: none"> - Balance of payments

Household surveys

The HES has been conducted annually since 1997. Before that, it was conducted every five years. The sample is drawn from municipal property tax files for local authorities and lists of households (usually in small villages). The sample covers urban and nonurban households, except kibbutzim, collective moshavim, Bedouins living outside of localities, and residents of institutions.

A two-stage sampling method is applied. In the first stage, a sample of localities is selected. Some of the largest localities are included with certainty. In the second stage, in every locality that is sampled, a sample of residential dwellings is drawn. The final sampling probability is uniform for all dwellings in the population.

The sampling frame is updated annually, and the sample size has been approximately 7,000 households. The response rate is close to 90 percent. The HES covers a full year. An introductory interview takes place for all sampling units, where basic socio-demographic and welfare-related data are collected. Each sampling unit fills in a biweekly diary. The data are collected “in the field” over a 13-month period, beginning in January of the survey year and ending in January the subsequent year. The sample is spread across survey periods so that all weeks in the investigation period are represented.

The survey questionnaires for the HES are constructed on sound design principles, ensuring effectiveness in terms of several criteria, such as data validity, clarity, and user-friendliness. The HES data-processing procedure applies comprehensive budget plausibility checks.

It should be noted that the HES is not the only source for the estimate of household final consumption expenditure in the national accounts. For consumption of housing services, business and personal services, and part of those products for which data are not available elsewhere, the HES is the primary source. The total amounts to approximately half of the households’ consumption. For other consumption expenditures, the national accounts use data on flows of goods and services. Examples are monthly data on quantities of agricultural products, fish, production for own use from agricultural surveys, reports of Israeli Electric Corporation and fuel companies on electricity and fuel, hotel statistics (guest nights), and hospitalization days in commercial hospitals from the Ministry of Health. All are adjusted with relevant price indices to obtain estimates at current prices. In addition, information is used on output from activities providing goods and services to the households, and foreign trade data are used on imports of consumption goods. During backwards revisions, cross-checking with the results from the HES is conducted.

Government finance statistics

Government finance statistics are compiled each quarter and cover operations of the central government, including most extrabudgetary funds, all defense-related expenditure, local government, and NPIs mainly financed and controlled by the government. Capital stocks of government are estimated from data on fixed capital formation using the perpetual inventory

method. Detailed data on expenditure are obtained from the Accountant General, financial reports of local authorities, and a survey covering various NPIs that are part of central government. The data are classified by type of expenditure and purpose. These data enable the measurement of output, intermediate consumption, fixed capital formation, and final consumption expenditure of government services.

Administrative data

The Israeli national accounts use different administrative data sources. The most important administrative sources are the monthly VAT data (from the tax authorities), administrative data from finance, insurance, and credit institutions collected by the Supervisor of Banks and Bank of Israel (BOI), customs data, and data from the NII. Insofar as these data deviate from the national accounts concepts, adjustments will, in special cases, be made (see 3.1.2).

The Customs authorities have outsourced the compilation of exports and imports of goods (foreign trade statistics) to a private company, making it necessary for the CBS to pay for receiving part of the customs data. No extra resources have been allocated to the CBS to finance this and any changes in output. This can become a problem regarding the sustainability of customs data as a source in the national accounts.

Price statistics

Price statistics used in the national accounts include, among other things, the consumer price index (CPI), the producer price index (PPI), and foreign trade price indices. The price statistics, especially the CPI, are available at a very detailed level, due to the high inflation reigning in many years. The PPI covers only part of the industries (manufacturing), but plans are to extend the coverage to also collect prices for the service industries. In addition, it would be recommendable to collect prices for output from construction.

Currently, all price indices from foreign trade statistics are unit price indices. However, for technological products this is not recommended, as unit price indices do not take quality changes into account. Apart from this, price statistics are generally close to national accounts needs in terms of concepts and coverage.

Sources for quarterly GDP

In Israel, quarterly GDP estimates are compiled both by expenditure and by production, but the expenditure approach is currently viewed as being more reliable, and, thus, a discrepancy is shown at the production side. A large number of monthly and quarterly indices support the compilation of quarterly accounts. By and large, these indices are consistent with the annual account.

Subannual surveys are carried out for most of the industries, such as manufacturing, hotels and lodging, and transportation. In addition, monthly data are gathered on revenue classified by industries, based on reports from the VAT register. Some of these sources are also used to

compile the expenditure components. A large number of other monthly and quarterly indicators are also available, which provide a reasonable basis for compiling the quarterly accounts. Some indicators are less satisfactory, among which are, for instance, the sources for output/value added for construction activities. The main problem with these sources is the lack of output price information and the use of input price indices based on the structure from the 1995 input/output table.

Main Sources for the Quarterly Accounts

Production Approach		
ISIC Categories	Main Sources	Assessment of Coverage for Current Years
Agriculture, hunting, and forestry	- Monthly statistics on production of agricultural goods	Good
Fishing	- See agriculture	Good
Mining and quarrying	- Monthly production index	Good
Manufacturing	- Monthly production index	Good
Electricity, gas, and water supply	- Revenue data from VAT	Good
Construction	- Quarterly survey on construction	Less satisfactory
Wholesale and retail trade, repair of motor vehicles, and personal and household goods	- Monthly revenue index based on VAT	Good
Hotels and restaurants	- See wholesale and retail trade - Guest-night in hotels (monthly)	Good
Transport, storage and communication	- See wholesale and retail trade - Kilometers traveled by taxis and lorries, loads hauled by ships, number of passengers in Israeli airlines (monthly)	Good
Financial intermediation	- Quarterly financial statements from banks and insurance companies - VAT for other financial services	Good
Real estate, renting, and business services	- See wholesale and retail trade	Good
Public administration, education, health and social work	- Quarterly general government accounts - Private services: see wholesale and retail trade	Good
Other community, social, and personal service activities	- See wholesale and retail trade - Quarterly general government accounts	Good
Net taxes less subsidies on products	- Quarterly general government accounts	Good

Expenditure Approach		
Expenditure Category	Main Sources	Assessment of Coverage for Current Years
Household final consumption expenditure	<ul style="list-style-type: none"> - Monthly data on output for industries providing goods and services to households - Commodity flow data on monthly basis - Guest nights in hotels - Hospitalization days - Volume indicators on transportation - Monthly foreign trade data - Balance of payments 	Satisfactory/good
Final consumption expenditure by government and nonprofit institutions serving households	<ul style="list-style-type: none"> - Quarterly government finance statistics - Wages from the NII 	Good
Gross fixed capital formation	<ul style="list-style-type: none"> - Commodity flow method for used for transport equipment, machinery and other equipment - Physical data for buildings (included dwellings), based on square meters of building constructions - Monthly manufacturing survey (subsample) on products (equipment) for capital formation - Quarterly reports from public institutions including general government and major enterprises on expenditure on fixed capital - Imports of software - Customized software: fixed share of the revenues of the computer industry - Own-account produced software: estimations based on employment by type of profession - Mineral exploration: data from the Ministry of Infrastructure 	Satisfactory
Changes in inventories	<ul style="list-style-type: none"> - Quantities of inventories held by government of agricultural products, fuel, etc. - Quarterly survey of manufacturing inventories - Quarterly survey (subsample of the monthly industry survey) - Imports and exports of diamonds (monthly) 	Satisfactory
Exports and imports	<ul style="list-style-type: none"> - Foreign trade statistics (monthly from Customs) - Balance of payments for services 	Good for goods and satisfactory for services

Ad hoc studies and versatility

Ad hoc surveys are seldom conducted to supplement the regular surveys, but such surveys can, on a limited scale, be conducted to fill gaps or to resolve temporary problems with regular data. For instance, when Internet and cable-TV were new phenomena, data from Internet suppliers and cable-TV companies were collected to fill the gaps until HES data were available.

The CBS arranges no formal or regular meetings with the business community to identify new developments that need to be taken into account in the national accounts compilation system. However, CBS representatives will occasionally be invited to present their work for members of the business community, and then information on new developments is sought.

Every three weeks internal seminars are held for the national accounts staff, where reviews of international research papers are presented and discussed. The staff follows international activities either through participation in meetings or over the Internet. New international manuals are posted on the local network for easy reference by all staff.

In general, the different CBS units are keen to receive information on any possible changes to the data sources and keep closely in touch with the supplying agencies for that purpose. If needed, the CBS staff will advise the agencies on procedures for classification and improvement of data quality, as for example in the case of customs data.

Recommendations:

- *Improve the coverage of source data: in particular, consider surveys generating detailed information on the composition of intermediate consumption in the manufacturing and service industries; extend the range of prices for compilation of constant price estimates.*
- *Review modalities for obtaining customs data as a source in the national accounts statistics.*
- *Consider improving the price indices for foreign trade statistics by moving away from unit price indices where appropriate.*
- *Extend and improve the data collection for construction by collecting financial statements.*

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

The source data are in most cases consistent with the definitions, scope, and classifications required by the national accounts. One reason is that national accounts statistics have an important influence on the design of official statistical surveys. An example is the manufacturing survey, which is set up to meet the requirements in the 1993 SNA regarding financial statements and balance sheet statistics. Data from the financial accounts are on the accrual basis. Administrative information, however, may deviate more from national accounts requirements; for example, monthly VAT data are on a cash basis. Similarly, taxes, social contributions, and other expenditure data from the government administration are also available only on a cash basis. No adjustments are made to bring such data on to an accrual basis. In other cases, administrative data are adjusted to meet the national accounts requirements—for instance, in the case of administrative data on insurance and of inventory data, where valuation adjustments have to be made.

The coverage of total economic activities (in terms of value added) by all data sources is good, covering more than 80 percent of economic activities. However, data on value added from construction are only partial, and parts of the estimates are based on volume indicators. Funding for improving the data collection for construction services is currently sought. For other important industrial groups, the coverage is good.

3.1.3 *Source data are timely*

The publication schedule of the national accounts statistics is as follows:

- Quarterly national accounts: about 45 days after the reference quarter;
- First annual flash estimate/projection: October of the reference year (year t);
- Second annual flash estimate/projection: December, year t;
- First preliminary annual accounts (based on more or less full coverage of short term indicators): March, year t+1;
- Second revised preliminary annual accounts: July, year t+1;
- Third revised preliminary annual accounts: July, year t+2;
- Fourth revised preliminary annual accounts: July, year t+3; and
- Fifth revised accounts: July, year t+4 (revisions will also take place annually after this, if necessary).

For the quarterly accounts the timeliness of the sources is good, and several of the indicators used are available on a monthly basis. Regarding the annual national accounts, the manufacturing survey for a reference year is available with a lag of two years and, hence, implemented in the revised preliminary accounts in July of year t+3. The survey results for the service industries (trade, services, transport, and communication) currently are available with a lag of three years, which means they will be implemented in the version published in July of year t+4. Thus, the data collection and processing timetables are less adequate to meet timeliness and periodicity for disseminating the national accounts statistics. There are plans to improve the timeliness of the survey for service industries in the near future, which would strongly be recommended. Also improving the timeliness of the annual manufacturing survey would be recommended.

Recommendation: *Improve the timeliness of annual business surveys, in particular for the service industries (trade, services, transport, and communication).*

3.2 *Assessment of source data*

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

The accuracy of the data collected through household surveys is routinely assessed. Information on sampling errors is available on a regular basis, as is information on coverage,

problems with survey operations, and nonresponse. Presently, no sampling errors are computed for the business surveys. Following the redesign of the business surveys, the CBS is developing the estimation of the sampling errors based on a subsample replication technique—the jackknife method.

National accounts are revised once a year. During the revision process all known data sources available will be analyzed for both temporal consistency and consistency with other data sources. Underreporting/misreporting will be adjusted for. In working with the supply and use tables and comparing GDP estimates obtained from different methods, the CBS will analyze secondary sources for accuracy.

3.3 *Statistical techniques*

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

As a rule, source data are in the first instance treated by sectoral specialists, employing sound compilation practices. For instance, specialists investigate outliers by checking with the source rather than simply adjusting them. The sectoral specialists also compare the basic data with external information on the branches of industry on which they are working.

In addition, the national accounts division checks the information received before using it and compares the sources extensively with other data sources for consistency. For example, the division investigates the plausibility of the trade statistics, using data from the business surveys and VAT data.

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

Estimates for the nonobserved economy are made for detailed items in the national accounts, using various indirect indicators for the unobserved activity. For instance, estimates of work and consumption of unregistered foreign workers are implemented in the accounts, as are estimates of activity of start-up businesses that still do not have sales and are not yet included in the business surveys. In addition, adjustments are made for underreporting the value of diamond exports, for underreported transportation activities, and for various personal services.

Production approach procedures

By and large, the estimates are compiled at a sufficient level of detail. Output and intermediate consumption estimates are compiled at least at the 2-digit industry level, and, in some cases, at the 3-digit level (manufacturing and agriculture). They are published at the 1-digit level, but more details are given in the databases on the CBS's website.

The reliance on fixed ratios derived from benchmarks or other sources is limited. Only the estimates for construction activities are based on fixed ratios that are more than five years

old. Construction contributes less than 10 percent to GDP. A special survey for the construction industry is planned to take place in the coming years.

The output of owner-occupied dwellings is correctly recorded as the estimated rentals that tenants would pay for similar accommodation. Information on rentals is from the HES.

Given the lack of suitable data, the data on growing crops, the stock of fish, and livestock reared for food are not included in the national accounts as capital formation work-in-progress as recommended in the *1993 SNA*. It is assumed that such work-in-progress is of minor importance. Work-in-progress is recorded in respect of large construction projects and included under capital formation. However, ongoing work on the production of large equipment is treated as work-in-progress, if not sold.

In the Israeli national accounts, the valuation of inventories of finished goods and goods for intermediate consumption is adjusted for holding gain/losses, taking into account the average period of holding inventories and the accounting method used by enterprises holding the inventory.

The perpetual inventory method is used as the conceptual basis for estimating consumption of fixed capital.

The CBS converts to an accrual basis all expenditure on consumption by employees and some other expenditure data. However, taxes and subsidies on products and some government revenue data are not converted to an accrual basis, but are recorded on a cash basis.

Double deflation as recommended by the *1993 SNA* is only partly used. For the final annual accounts, output at the 3-digit level in manufacturing is deflated with an appropriate price index, normally the PPI. The input in manufacturing is deflated with a weighted price index based on input information from the latest available input-output table. For the quarterly accounts and the preliminary annual accounts, production indices for manufacturing and other volume indices are used to extrapolate value added. In a few cases, value added at current prices is deflated directly by a general overall price index.

Volume measures of taxes and subsidies on products are correctly estimated by extrapolating the base year taxes/subsidies using the volume changes obtained for flows excluding taxes. Also, output volume of trade margins is properly estimated by using base year margins. Margins at current prices are currently being checked by various indirect methods. An indirect method has been developed and will be implemented in the near future.

Since 1998, volume changes in all aggregates are measured using annual chain indices. Earlier, a fixed base year was used that was changed every five years.

Expenditure approach procedure

The expenditure approach is used to estimate GDP in Israel since expenditure data have better coverage and timeliness than production data. The expenditure components are mainly based on sources that are independent from the production approach. Household final consumption expenditure relies partly on HES and partly on data on flow of goods and services, like monthly data on quantities of agricultural products, fish, and production for own use from agricultural surveys, etc. Some of these data are identical to the production indicators, while others are independent.

Gross-fixed-capital formation relies primarily on (1) data on exports and import of goods (foreign trade statistics), (2) reports on revenues from sales of domestically produced investment goods to the domestic market, (3) physical data for dwellings and other types of buildings, and (4) data from quarterly or annual business reports on actual expenditure on fixed capital. Changes in inventory rely primarily on data on quantities of inventories held by government of agricultural products, fuel, etc., and data from the Industry and Crafts Quarterly Survey on the value of stocks held by enterprises and on imports and exports of diamonds. However, inventories of retail trade and wholesale are only measured annually and are not available until three years after the reference year, which means the preliminary data for these inventories are obtained from the commodity flow method.

All expenditure categories are calculated at a sufficient level of detail. Fixed ratios are not used in the estimation of any of the main expenditure categories.

Specific GDP issues

The following specific issues are properly addressed:

- Government final expenditure excludes incidental sales.
- Expenses of residents abroad are included in household final consumption expenditure and in imports; conversely, expenditures of nonresidents in the economy are excluded from (domestic) household final consumption expenditure and included in exports. These data are derived from the balance of payments, including biannual surveys on expenditures of tourists and a benchmark survey (1997) on expenditures of Israelis abroad extrapolated from data on days traveled, by country.

However, stores of wealth in the shape of valuables are not included, due to lack of data.

Volume measures

Dedicated price indices/deflators are used to deflate GDP components at least at the 1-digit level of the corresponding classifications. Household final consumption uses mainly the CPI at the 3-digit level of detail. For investments in machinery and equipment, the CBS uses PPI at a 3-digit level for domestically produced goods, and, for imported machinery and equipment, uses an import price index for capital goods.

The household consumption implicit deflator is consistent with the CPI, though not identical, owing to, among other things, different weights in the national accounts and the HES. Government final consumption expenditure is derived by deflating detailed cost components of output for final use with relevant input price indices including compensation of employees. Changes in inventories at constant prices are derived after excluding holding gains and losses, and values have been adjusted to average prices for the period, taking into account the accounting methods used and the length of the periods the inventories are held.

Specific quarterly techniques

The benchmarking technique that is applied currently assumes that the gap between the indicators and the actual data widens over time according to a geometric model. Iterations are made: At the first stage, quarterly indicators are adjusted to the revised data (converting the annual gap to quarterly terms), then the annual indicators obtained are adjusted, and the quarterly data are finally adjusted to these annual results (a small final adjustment). The results of this method have been compared to the results using the Denton technique. The results are quite similar, although the Denton technique yields slightly smoother adjustments. Currently some computer applications have been prepared, so that the Denton technique can be used in the national accounts in the future.

The quarterly compilation system derives quarterly series from seasonally unadjusted source data, thus providing unadjusted quarterly estimates. The series are seasonally adjusted by using the X-12 Arima software, and concurrent adjustment is made.

Recommendations:

- *Further integrate GDP by production in the national accounts.*
- *Volume measures of GDP should be compiled using the double deflation method for all industries as recommended in 1993 SNA.*
- *Output of agricultural work-in-progress should be compiled.*

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Intermediate results are validated against other information where applicable

The data compiled from the main sources are routinely checked against each other and against other independent sources.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

Discrepancies in intermediate data are routinely investigated, and measures are taken to remove them. Tables exist to compare various methods of aggregating the GDP, as well as to compare sources of employment. Also, a monthly publication, containing data on the main

economic indicators, presents a table where comparisons between different indicators easily can be made.

CBS staff routinely carry out annual comparisons of HES data and data on the supply of goods and services by destination. An internal CBS committee on employment data discusses discrepancies. Adjustments are made after deciding which source is most reliable, consistent, and complete.

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

CBS staff have recently prepared supply and use tables in the framework of the national accounts and will publish tables for 2000 by end-2005. The supply tables are compiled in the Business and Economy Department in cooperation with the National Accounts Division (Macro Economics Department), while the use tables are mainly prepared in the National Accounts Division. The supply and use tables will be used on a current basis to investigate discrepancies. However, for full benefit from supply and use accounts in this context, they should be compiled concurrently with the finalization of the annual national accounts based on the annual surveys. Supply and use accounts are also an important tool for estimating value added at constant prices.

Discrepancies between the GDP by expenditure components and GDP by activity are investigated but only partly removed. This is due to the assumption that data from the production side are still less complete than from the expenditure side. The remaining discrepancy is explicitly shown at current prices.

Series of composite indices are published by the BOI and a higher education institution. However, these indices cover only a few components and are not considered to be of good-enough quality to validate the official GDP estimates. The CBS does not perform studies to ensure that bias in the GDP estimate is negligible and stable over time.

Recommendation: *Further integrate and take advantage of the supply and use tables in the national accounts.*

3.5 Revision studies

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

Data on the scale, direction, and magnitude of revisions are examined, and they are discussed in the national accounts publications. However, studies of long-term trends in the revision patterns are not undertaken on a regular basis. Agencies outside the CBS have studied revisions, the most recent one being published more than 10 years ago. The CBS is planning a new revisions study in the near future.

Neither are there any systematic studies of sources of errors, omissions, and fluctuations of data, even though such issues are examined and mentioned in the national accounts publications.

The Israeli national accounts' revision cycles are annual. The timing is adapted to the deadlines to submit material for publication in the *CBS Statistical Abstract of Israel*. Following the examination of revisions, findings are reported to the relevant data-collecting units for further improvements of the data. The examination of revisions over time has, in some cases, led to a decision to change the estimation methods. Revisions are documented by the persons responsible for the relevant issues. However, no systematic documentation is yet in place, although a system of rules is under preparation in the framework of the European Foundation for Quality Management (EFQM).

Recommendation: *Undertake studies to identify long-term trends or systematic biases in revisions, and publicize the major findings.*

4. Serviceability

4.1 Periodicity and timeliness

4.1.1 Periodicity follows dissemination standards

The periodicity of the national accounts is annual and quarterly, in accordance with the Special Data Dissemination Standard (SDDS) requirement.

4.1.2 Timeliness follows dissemination standards

The timeliness of the quarterly national accounts exceeds the SDDS, which requires publication within a quarter after the reference period. The CBS publishes main quarterly aggregates in 45 days.

The first annual estimate or projections of GDP for year t is released in October of year t , partly based on monthly/quarterly indicators and partly on trends. This projection is revised in December of the same year. In March of the subsequent year the first version based on a complete dataset is released. In July, this version again will be revised, together with revisions of previous years. The time series will be revised backwards as long as needed.

Recommendation: *The first two estimates/projections of GDP should not be called preliminary GDP but should be renamed to show their status as very early projections of GDP. Metadata for the projections should be available, covering concepts, scope, basis of recording, data sources, and statistical techniques used in compiling the GDP projections. The point should also be underlined that such projections could be subject to substantial revision.*

4.2 Consistency

4.2.1 Statistics are consistent within the dataset

The statistics are internally consistent in the sense that:

- the statistical discrepancies between the estimates according to the production approach and the expenditure approach are relatively small and amount to about 1 percent of GDP (current prices);
- GDP estimates at current prices, volume measures, and deflators are consistent within the “value = volume x price” framework; and
- all totals are the sum of the details, except for the seasonally adjusted quarterly figures, which at the moment are derived by adjusting at every aggregate. This method is to be changed soon, and then also the totals of seasonally adjusted figures will be the sum of the details.

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

Fully consistent national accounts time series according to the *1993 SNA* are available for 1995 onward. In addition, historic data according to the System of National Accounts 1968 (*1968 SNA*) for 1950–95 are available. A partial break occurs in 1964, due to a change in methods of household surveys.

Methodological notes, in both the hard-copy publications and on the CBS website, identify and explain the two existing main breaks and discontinuities in time series and their causes.

Atypical changes in economic trends are usually explained in the analytical text included in the publication. However, these explanations are not provided in or with the databases accessible to users.

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

The rest-of-the-world account is nearly fully consistent with the balance of payments. Both sets of data are compiled within the same department in the CBS.

The government finance statistics are compiled in the national accounts unit in the CBS. With the implementation of the *Government Finance Statistics Manual 2001 (GFSM 2001)*, the national accounts data are fully consistent with government finance statistics data.

4.3 *Revision policy and practice*

4.3.1 Revisions follow a regular and transparent schedule

Because the revision cycle for the provisional estimates is predetermined, it follows a regular and well understood pattern. As a rule, the revisions of the annual national accounts take place in June/July for the current and the previous year based on availability of new data. No rule determines how far back the revision will be taken. The revision policy is not stated.

The revision cycle is made known to the public by way of the Internet, press releases, and press briefings. The reasons underlying the revision cycle are explained in press releases if the revisions deviate from the general revision schedule. For instance, the timing of the revision could be set according to the timing of the preparation of the national budget and the annual report of the BOI.

A short documentation of revisions is included in the publication of the statistical series but is not included so far in the database accessible to users.

Revisions outside the regular cycle do not normally happen. However, extraordinary revisions are made when important new information is obtained or important errors are found. Such revisions are made known to the public.

4.3.2 Preliminary and/or revised data are clearly identified

Preliminary estimates are clearly indicated in the press releases and in metadata publications of the CBS, but not in databases available to users or in tables in the hard-copy publications.

Recommendation: *Consider indicating with the tables which estimates are still provisional, that is, expected to be subject to revision.*

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

The nature and effects of major revisions are explained in the statistical publications but not in the databases available to users.

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. In the annual publication on national accounts, about 17 pages of charts and explanatory text, including definitions, concepts,

sources, and methods, accompany the data. The *Statistical Abstract of Israel* also contains several pages of explanatory text.

The publications are available on the CBS's Internet website accompanied by tables and charts to facilitate analysis. In addition, PowerPoint presentations (for instance from the press briefings) are added to the website.

Different levels of detail are distinguished in the publications and the databases. The main annual and quarterly aggregates are published in the *Statistical Abstract of Israel*, while the national accounts disseminated in the *Current Statistics* are accompanied by more details. A complete overview is provided on the Internet at www.cbs.gov.il.

Analysis of current-period developments accompanies the dissemination, first in the press releases and afterwards in introductory text to the main annual publication. Estimates are disseminated at a sufficiently detailed level and with time series. The *Statistical Abstract of Israel* contains time series back to 1950, providing explanations of breaks in the time series.

All main national accounts series are disseminated in a seasonally adjusted format.

5.1.2 Dissemination media and format are adequate

National accounts are disseminated in press releases, and twice a year press conferences are held.

The CBS provides paper publications, and electronic copies of the publications and press releases are available on the website. Comprehensive and detailed statistics can be accessed for free through the Internet.

5.1.3 Statistics are released on a preannounced schedule

The CBS publishes an advance release calendar for the coming four months and keeps mainly to the preannounced release dates and time. In a very few cases, the four-month release calendar has been changed, and then the change has been announced a week in advance.

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

The advance release calendar for the coming four months is published on the CBS Internet website at the end of each month. In addition, a week-ahead calendar giving precise release dates is posted on the website at the end of every week.

The national accounts data are released simultaneously at 1:00 PM on the CBS website and to all interested parties by fax in a press release, copies of which may be obtained by the public on request from the CBS Information Office.

A few selected users (MOF, BOI, and Prime Minister's Office) have access to the results, under strict embargo, the day before the official release. At press conferences, embargos are imposed to allow simultaneous availability to the public (see 1.2.2 in the detailed assessment for the CBS).

5.1.5 Statistics not routinely disseminated are made available upon request

Nonpublished data (but nonconfidential) are made available on request for free or sometimes for a charge. Information about the availability of additional statistics is given on the website and in the paper publications. In addition to the tables in the publications, most series are freely available from the database on the website.

5.2 Metadata accessibility

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

Documentation on sources and methods is given in hard-copy publications, including the *Statistical Abstract of Israel*, and on the Internet. The documentation, which also includes information on concepts, definitions, and classifications used, is comprehensive but not very detailed. The major differences from international guidelines are pointed out, and any limitations on data are also described.

A more comprehensive description of the methodology is published in the CBS's *Current Briefing in Statistics*, which is available on request for a charge.

The SDDS metadata and summary methodologies for Israel are reviewed each quarter.

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

A catalog of the CBS's publications is published. On the website, information by subject gives details on how to locate data. Special-use information is currently being added on the website.

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

Each CBS publication, including the press releases, contains contact information, including the name, telephone number, and e-mail address of the person to contact. For each dataset, queries are answered by a staff member of the relevant division, in most cases by the head of the section or a senior executive officer.

In addition, individual queries can be directed to the information units at the CBS by phone or by mail. Assistance to users is monitored and reviewed periodically. The number and nature of user queries is recorded and analyzed by the CBS.

The series “Statistilite” is published to raise awareness, and seminars are held at educational institutions. Access points for clients are advertised on the government website, at conferences where a CBS stand is often opened, and in some government publications.

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

The CBS maintains a comprehensive catalog of its products and services, detailing how to obtain the product or service and its price if there is a charge. The CBS website indexes the current and previous issues of the quarterly and annual releases of national accounts and related tabulations of longer time series. The website includes information on the publication prices and charging policy for supply of nonpublished data.

Table 2. Israel: Data Quality Assessment Framework (July 2003): Summary of Results for National Accounts
(*Compiling Agency: CBS*)

Element	NA	Assessment			Comments
		O	LO	LNO	
0. Prerequisites of quality					
0.1 Legal and institutional environment		O			
0.2 Resources				LNO	Decreasing budget, hiring freeze, outdated IT, inflexible budget mechanism
0.3 Relevance		O			
0.4 Other quality management		O			
1. Assurances of integrity					
1.1 Professionalism		O			
1.2 Transparency		O			
1.3 Ethical standards		O			
2. Methodological soundness					
2.1 Concepts and definitions		O			
2.2 Scope		O			
2.3 Classification/sectorization		O			
2.4 Basis for recording			LO		GDP at market prices are not compiled in accordance with international standards, as net taxes on imports are excluded from GDP and other revenue components on exports are included. Part of taxes/subsidies on products, and other government expenditure are recorded on a cash basis

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

Table 2. Israel: Data Quality Assessment Framework (July 2003): Summary of Results for National Accounts
(*Compiling Agency: CBS*)

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
3. Accuracy and reliability						
3.1 Source data			LO			Too few details on input of all service activities. Weak source for construction. Lack of prices on services. Annual business surveys are not timely (two-year lag for the manufacturing survey and three-year lag for the survey on trade, services, transport, and communication). Unit price indices are used for all imports and exports of goods.
3.2 Assessment of source data		O	LO			Double deflation only partly used. GDP by production is compiled but not yet completely integrated. Output from agricultural work-in-progress is not recorded.
3.3 Statistical techniques		O				Studies of long-term trends in the revision patterns are not undertaken on a regular basis.
3.4 Assessment and validation of intermediate data and statistical outputs						
3.5 Revision studies						
4. Serviceability						
4.1 Periodicity and timeliness		O				
4.2 Consistency		O				
4.3 Revision policy and practice		O				
5. Accessibility						
5.1 Data accessibility		O				
5.2 Metadata accessibility		O				
5.3 Assistance to users		O				

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

III. CONSUMER PRICE INDEX

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 follow the principles outlined in the *System of National Accounts 1993 (1993 SNA)* and the *Consumer Price Index Manual, 2004 (CPI Manual)*. Household expenditure estimates from the Household Expenditure Survey (HES) are used for the weights of market expenditure on goods and services. The survey provides a good basis for the index weights at the 4-digit level and for the selection of items. Additional information is used for item level weights. The level of detail is sufficient, with 10 major groups, 38 subgroups at the 2-digit level, 148 at the 3-digit level, and 420 at the 4-digit level for the 1,322 items in the consumer price index (CPI) basket. The HES survey covers more than 95 percent of total household consumption expenditure.

The monthly price data of about 60,000 observations, from some 3,000 outlets, are collected for these items, covering about 100 localities out of a total of 875. The concept of prices follows international standards. Monthly prices used in the calculation are generally day-weighted over-the-month average prices.⁸ Items are well specified and include sufficient detail in transaction specifications, for instance, time of day and day of week for the collection.

2.2 *Scope*

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

As in the HES, the entire urban and nonurban population falls within the scope of the CPI except for kibbutzim, collective villages, Bedouins living outside of localities, and residents of institutions. The Israeli CPI is a consumption CPI and follows the *1993 SNA* final consumption expenditure concept. It does exclude the following: own-account production of market goods and services, as well as illegal purchases. For the owner-occupied housing part of final consumption, a rental equivalent method is used. The difference between the *1993 SNA* household expenditure concept is described in the CPI methodology publication *Consumer Price Index, Technical Publications Series No. 60*, although not explicitly.

⁸ The Computer Assisted Telephone Interview (CATI) collection generally produces over-the-month prices, and the weekly Computer Assisted Personal Interview (CAPI) field collection prices are point-in-time prices, from which monthly averages are calculated.

The all-item CPI is used widely in social and business contracts; it is also used as the target inflation measure in the Bank of Israel's (BOI) inflation targeting regime. The CPI is also published without the housing index based on the rental equivalence method.⁹ Some market transactions are denominated in U.S. dollars (certain legal, travel, and housing services), thereby affecting the CPI both directly and indirectly through imported goods. The Central Bureau of Statistics (CBS) and the BOI are engaged in close dialogue about the effects. The monthly average exchange rate is used for the U.S. dollar, except for those rents that are converted to new sheqalim at the average day rate of the contract date.¹⁰

2.3 Classification/sectorization

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

The ILO and *CPI Manual* guidelines are largely followed. The original national expenditure classification in the HES and the CPI is not the Classification of Individual Consumption by Purpose (COICOP). Nonetheless, it corresponds very closely and is in conformity with International Labor Organization (ILO) guidelines. The *1993 SNA* is used to classify households and transactions. Since 1999, to make international comparisons easier at the detailed level, all newly introduced products are classified according to the COICOP system. The few exceptions to COICOP include, for example, a separate major group for fruits and vegetables, the grouping together of transportation and communications, and housing maintenance as a separate major group.¹¹ A one-to-one mapping is made to COICOP, which is used for data transfers, for instance, to Eurostat and the ILO. The Central Product Classification (CPC) is used. Deviations from international standards are clearly explained in the HES and the CPI methodology publications.

⁹ The CBS also publishes the series without fruits and vegetables and without fruits, vegetables, and housing.

¹⁰ The changes in the U.S. dollar exchange rate have both a direct effect on the CPI, mainly through the housing component, and an indirect effect through the price change of imported goods. The consumers face these effects, and they correctly reflect the prices actually paid. However, the extent of housing index changes reflecting the exchange rate change may not affect the owner occupied housing stock similarly in all market segments and, among others, in all income quintiles.

¹¹ The CBS also publishes a group index for food, including fruits and vegetables separately, as it appears in the COICOP.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

The valuation rules used in the CPI are in accordance with the *1993 SNA*. The CPI weights are valued at purchasers' prices and include trade and transportation margins and applicable taxes. Cash payments are the basis for the price survey. Monthly installment payment and credit card interest are excluded.

2.4.2 Recording is done on an accrual basis

Prices of goods and services are recorded in the period they are purchased in cash payments. List prices are not used. Administratively set prices are used for a few tariffs, for example, bus and railway fares, passenger airline flights, and mobile telephone services. Regarding these products, the collection is different, because tariff changes are followed instead of monthly price collection. The CPI staff usually knows these changes in advance.

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

Weights are netted based on the household final consumption expenditure concept by netting out estimates from, among others, sales of used cars and other durable consumer goods.

3. Accuracy and reliability

3.1 Source data

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

The data sources are adequate. The main price surveys are the: Computer Assisted Telephone Interviews (CATI), conducted by the CBS staff at the data collection center located at the central office; Computer Assisted Personal Interviews (CAPI) by field collectors using handheld personal computers (HPCs); and Direct Data Entry (DDE) into the CPI database. Also, for some special items, searches using the Internet are used either in parallel with CAPI or as part of DDE collection. The rental survey covers the rental apartments and housing services by owner-occupiers. The ongoing HES and additional outside information are used for the CPI weights. These collection programs are kept under review and provide sufficient input for good quality consumer price statistics.

The HES is geographically comprehensive and conducted annually using appropriate scientific sampling methods.¹² The survey is based on a biweekly diary and interview data collected from the sampled households throughout the survey year. A two-phase sample based on municipal property tax registers was drawn, first sampling for localities and then using systematic sampling of dwellings with a uniform sampling probability of 1:249. The sampling probability was determined on the basis of estimates of the anticipated proportion of nonrespondents in the survey, the planned size of the sample, and the total number of households in the survey population in the middle of the survey year.

The sampling methods for choosing the products, outlets, and CPI basket items follow the guidelines of the *CPI Manual*. The product sample is based on the HES and includes all consumption headings (products) whose value exceeds NIS 1,000 of total expenditure. Data sources are discussed at the time of weight revisions. Other data sources, such as weights obtained from the Communication Ministry and monthly price data derived from a large and detailed private database, are also used. These programs, together with the continuous household budget survey for the weights, give the CBS good and comprehensive source data for CPI compilation.

For owner-occupied housing, the CBS uses two data sources: (1) a monthly rental survey that includes all 8,000 observations for the rental component and about 1,500 observations for owner-occupied housing (a two-month moving average in order to reduce variance), and (2) an additional outside data source on rental houses for owner-occupied housing (about 2,000 renters annually). The outside data are integrated with the main database for reinforcing “weak” cells. The rental component of the index uses all observations from the rental survey because these have information on the linking mechanism for adjusting rental prices during the months in which the contract is not renewed. The price index for the rent component is similar to the goods and services collected in the CATI program (monthly prices of identical services, i.e., rental units).

The method for imputation of owner-occupied housing is based on stratified average prices of contracts that are subject to renewal. To reduce variance in the monthly series, two-month moving averages are compared each month. The method and the software application for the calculation of both owner-occupied housing and rents are well developed and give reasonably good and relatively stable month-to-month estimates. However, the method for owner-occupied housing still leaves room for quality differences to play a role in month-to-month average price changes.

The method relies on successful stratification of apartments to groups whose relative price changes are as similar as possible. While the stratification is based on apartment location and

¹² Since 1997, the HES has been conducted annually, and the CPI weights updated every two years. Before that, the survey was carried out every five years, and the sample covered only urban households, while estimates for nonurban households were added based on the composition of these households.

number of rooms, some quality characteristics may experience month-to-month variation. These partly uncontrolled quality characteristics, which may influence the price estimate, include information on more detailed locations and additional space measures (e.g., square footage). Further research on this dataset and price indicator for an important expenditure component should be carried out.

Price survey coverage is comprehensive: all consumer purchases are covered, including used cars.¹³ Since January 2005, the Internet has been used as a new collection medium, in parallel with selected CAPI items and as a primary source for certain DDE collection items.¹⁴

The CBS staff use the scientific random sampling techniques to select outlets and localities, and they use cut-off sampling for selecting items and products. Sampling of outlets is done from the business and population registers as taken from localities' registers based on population. The field staff, in close consultation with store managers, carries out the selection of varieties in the outlets.

Ad hoc surveys are conducted. For example, the extra charge for door service provided by restaurant security guards was investigated and the price added to the price of meals in corresponding restaurants.

Recommendation: Investigate further and disseminate relevant information on the rental index calculation used for the housing component of the CPI.

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

The CAPI group items are collected from outlets staggered into four weekly groups so that every outlet is sampled at least once a month. Well-specified item prices are collected weekly, and arithmetic average prices are used in the price relatives. The CATI staff collect the prices from the 15th through the 31st of the month, but the prices refer to prices over the entire month. The over-the-month average prices are weighted by the number of days the prices have stayed at each level during the month, and the prices in the index calculations are day-weighted over-the-month average prices. This way all prices reflect over-the-period prices.

¹³ Used cars are the only secondhand product included in the price collection process. Prices are collected from a representative sample of cars using a special monthly publication as the primary source.

¹⁴ The DDE includes more complicated items like car insurance and telephone services using caller profiles. External sources are used to validate the inputs for special calculations done through DDE, i.e., newspaper and magazine articles are constantly followed based on the major group. The reason for the DDE is that these products require special knowledge and more advanced IT skills.

Source data are broadly consistent with the definitions, scope, and classification of the CPI estimates.

3.1.3 Source data are timely

Periodicity and timeliness of the price survey are adequate for the CPI. The price data are collected throughout the month and processed in time for dissemination on the 15th of each month. Respondents are made aware of the timeliness requirements. Procedures are in place, and price collectors are educated about follow-up procedures in case of refusal, shop closure, or other unusual situations.

The expenditure weights derived from the annual HES are available one year after the reference year. The weights currently used refer to the average of 2002 and 2003 surveys, price-updated to represent 2004. The current revised index was first compiled for January 2005.

3.2 Assessment of source data

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

The accuracy of the HES is routinely estimated, and information on sampling errors is monitored and used in the survey process to improve the efficiency and accuracy of the expenditure estimates. Information on survey operations, biases, over/undercoverage, misclassification, processing, and nonresponse is also reported in survey publications.

The CPI has undergone the European Foundation for Quality Management (EFQM) framework process—a self-assessment diagnostic tool used to improve quality and performance—that looks into process control and auditing of the CPI. Among other things, the EFQM process has resulted in more efficient, transparent and well-documented collection, editing, validation, and compilation processes.

As a result of the EFQM process, CPI compilers have documented the data editing processes. This work provided material that was included and put together into an *Editing Guide*, for the CPI central office. Also, *Data Collection Guides* for CATI and CAPI staff are produced, and updates for these documents are prepared as necessary and used, for example, to train new staff.

The CBS takes appropriate steps to ensure the accuracy and consistency of the price data. The checks start during fieldwork, with logical editing of data during price collection using the software designed for the handheld computers. Back-checking of fieldwork is done by the survey division officials in the central or regional offices. Automated checks include checks for extreme values (value ranges) and price changes (based on item level variance estimates

on price changes) confirmed with respondents. Records are maintained. Also, automated comprehensiveness checks are in place to ensure that all data from each price collector are collected, and possible missing prices and item description changes are confirmed and commented on. The software forces the CAPI and CATI price collectors to give information on outlet-level changes.

First, the field staff need to validate their data before sending them to the database. The field supervisors are there to help resolve problems and make random checks. If questions are left open regarding comparability or changes, the central office staff will see this in the transferred data and decide case-by-case by consulting the field staff. Any changes made to the data are flagged and explained in the editing application weekly. Senior staff review all flags and explanations. Typically, the number of these kinds of changes is about 50 to 100 per month. All atypical values that are confirmed and deemed nonerror are included in the calculation.

A second level of checks occurs at the end of each data collection period and auditing process. The checks are not automated. Rather, they are performed by the survey division officials who function as the auditors of price collection—another important tool for improving and monitoring data collection. The auditor occasionally accompanies collectors during fieldwork, regardless whether data are collected by CATI or CAPI. Also, collectors sometimes rotate, to check for possible collector-effects. In addition, 10 percent of outlets are contacted to ensure the price collector actually visited the outlet and to ensure the chosen products marked as unsold or temporarily unavailable actually were unavailable or not sold at the outlet in question.

Finally, well-established procedures for quality checks, run by the CPI head office staff, also are in place. Overall, the assessment of source and intermediate data is carried out in an exemplary manner and on par with international best practices, thus providing quality source data for the rest of the statistical compilation process.

All explanatory data on these changes have to be validated by the central office staff and the field supervisors. Item level indices are assessed against other data, such as corresponding producer price index (PPI) product series. For example, heating fuel price data that come from the field are checked against government sources.

3.3 *Statistical techniques*

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

The HPCs and the data editing system have logical checks to minimize coding and editing errors. Comments from the data collector or the field supervisor are required for large price changes and for any changes in the specifications. Also, the system monitors some transaction-specific characteristics, such as time of day and day of the week of collection of certain fruit and vegetable products. Items that come from outside the compiling system have a strict double-checking procedure, by which the compiling employees make sure the data

entered are correct. Those employees use a messaging device to communicate with field collectors exchanging information; alerts or advice can be sent both ways concerning any detail of a specific observation, item, or store. General information also can be transmitted.

Price changes for missing observations are estimated on the basis of price movements of other observations of the same item. Products that become permanently unavailable are replaced in the sample; enumerators select a replacement with as many of the same quality characteristics as possible. Prices from previous periods are sought for the replacement item, if possible, and overlapping is used so that the price change is based on the new item. Generally, new items are introduced when the market basket is updated.

For treatment of quality changes, all item specifications are marked with an asterisk if the quality character is seen to be so important that a noncomparable replacement needs to be selected in case the item becomes unavailable. When large quality changes occur, the varieties are linked into the index so that their introduction does not affect the price level. Small quality changes are considered as a change in price. Explicit quality adjustments are usually not made. Hedonic methods are evaluated but not yet implemented. In some cases, where the product cycle is short and new versions with improved quality characteristics appear rapidly, the overlap method may give biased estimates, as explained in the *CPI Manual*. The difficulty with products such as cars, electronic appliances, and computers is recognized. Efforts to improve the methods are investigated within the very limited resources for research. As a result, a long time may pass before the index methodology in use is affected.

Seasonal products are imputed as if they were missing prices. Also, procedures are in place to avoid too early reintroduction of seasonal products back into the index. For clothing and footwear, a bridge method is used when seasonal items are reintroduced. The index series are also calculated and released in seasonally adjusted form. The all-item index is adjusted for seasonality by weighting the adjusted series for clothing and footwear, fruits and vegetables, travel abroad, and some other items. The technical application of the X-12 Arima seasonal adjustment technique is used separately for each series.

New products are introduced into the sample as they gain market share. Business and professional magazines are followed to identify new products that are potentially gaining consumer demand.

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

Household expenditure from the HES is used for the CPI weights and correctly reflects the economic cost to the consumer at the time the good or service is purchased regardless of method for payment.

For the CAPI observations, an unweighted arithmetic average price over weekly prices for a month is compared to the previous month's average for each observation. For prices

collected through CATI, the day-weighted average of actual prices over the month is used as an individual price quote in the index calculation, when possible. The CBS calculates indices for each observation, chaining the short-term price change to the previous month's observation index.¹⁵ Aggregation over observation for branch and item levels follows Laspeyres aggregation (or, in case of unknown weights within a branch, a Carli aggregation) of observation indices with relatively recent base period weights. The current weight reference period and price reference period for the index are the same (2004). The index base period is 2002, and the weights, from the 2002 and 2003 HESs, are price updated to the price reference period.¹⁶ The aggregated index is thus equivalent to a Lowe Index.

New weights will be introduced in January 2007 based on the HESs from 2004 and 2005. Index reference will remain the same on request by users. Members of the weight revision committee are consulted about the update of the CPI basket and whether to change the base period.

Recommendations:

- *Investigate the use of alternative elementary aggregate level formulas and consider changing the formula to a geometric average, as recommended by the CPI Manual.*
- *Research alternative quality adjustment methods, such as hedonic regression analysis, their feasibility, data requirements, and effects on the subindices. Some durable goods and the housing component could probably benefit most from experimenting with other methods.*

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Intermediate results are validated against other information where applicable

The CPI is compared with estimates from the PPI indices, as relevant. For example, food products and some specific domestic products, such as paper products, are compared. Some specific items, such as fuel, are compared with other market data and sometimes with other countries' statistical agencies. Price levels are also checked with the Purchasing Power Parity program.

¹⁵ Since the weights are unknown, the index is actually a Carli index at some level. However, since there is no aggregation over prices and the chained price relative (which is equal for either Carli or Dutot) formula is applied for individual observations, no additional bias on top of Laspeyres upward bias in the CPI is introduced. Use of chaining at the observation level also overcomes the bouncing effect while still giving the benefit of easy handling of substitutions.

¹⁶ In 2005, for the first time, the index reference period was kept unchanged while the weights were updated; the reference period was kept at 2002 while 2004 was changed for base price and base weight periods.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

Changes are regularly checked as part of the validation process. Contributions to the overall index, large month-to-month changes, and 12-month changes are always listed, sorted, and examined at all levels of aggregation. This is part of the routine validation practice and is intended to both assure the consistency of aggregate figures and alert the staff for possible inquiries about the movement-and-effect subindices.

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

The structure of the aggregation is simple, and imputation methods are consistent with the aggregation so that discrepancies do not arise. Overall, the current practice provides reasonably accurate estimates at the publication level. Steps are taken to control the sample and nonsample error in the HES.

3.5 Revision studies

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

The CBS policy is that the CPI results are final when first published.

The CPI basket and weights are updated every two years. Regarding these revisions, a few studies have been conducted on the effects of weight changes and on the compilation process. For example, a study on updating the fruits and vegetables compiling technique was conducted and, as a result, an average of point-in-time prices from weekly price collection with fixed weights replaced the old method of collecting over-the-month prices and quantities.

The housing index was changed to the rental equivalent method in 1999, and continuous comparisons are made with the old method. Also, prior to the change, a comprehensive study on the impact of the methodological change was conducted.

The owner-occupied housing component of the index was changed to a rental equivalent from an estimation of changes in housing prices. However, the consumption alternative cost method was not changed conceptually.

4. Serviceability

4.1 *Periodicity and timeliness*

4.1.1 *Periodicity follows dissemination standards*

Israel meets the periodicity standard of the Special Data Dissemination Standard (SDDS), given that the CPI data are compiled monthly.

4.1.2 *Timeliness follows dissemination standards*

The monthly estimates of the CPI are published on the 15th at 5:00 p.m. of the following month, thus meeting—and indeed exceeding—the SDDS requirement of one month after the end of the reference period. It is feasible to publish the index even up to 5 days earlier if users' needs require this (as indicated by the users' survey and meetings with the users and the mission). The CBS is willing to consider an earlier release.

Recommendation: Consider disseminating the CPI earlier and separately from the WPI and other price indices. Advance release for the CPI would better serve the needs of the users. Separating the publication of the price indices would facilitate giving more prominence to the PPI, although the mission understands this will require additional resources.

4.2 *Consistency*

4.2.1 *Statistics are consistent within the dataset*

The CPI aggregation structure is consistent from observation level to branch, branch to item, and item indices to higher levels of expenditure classes and the all-item index. No geographical aggregation is used, and the published income quintile CPIs are separate from the overall index.

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

Fully consistent time series data are available only for the last few years. The reason is that each time new weights are introduced, the historical CPI series are not reconstructed using the new weights for longer than two years. Instead, long time series are produced linking the old and new indices using factors, which are published. Although the product and item selection changes from time to time, at higher levels of aggregation continuous series are produced. A time series for the all-item CPI is published starting with September 1951, and long disaggregated series are available for some consumer expenditure groups.

No significant changes affecting the CPI methodology—other than renewing the market baskets—have been implemented since 1999. The methodology for owner-occupied housing services changed at that time from measuring the price change based on residential housing prices to the rental equivalent method. The old housing price index is still being published,

but the CPI is no longer compiled with the old method. Instead, linking factors are used. Users are informed about the changes on the CBS's website and in the press releases. Similarly, the major groups of fruits and vegetables underwent a methodological change in 1989, when the average of point-in-time prices from weekly price collection with fixed weights replaced the former method of collecting over-the-month prices and quantities.

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

The CPI is consistent and used for deflation of the household final consumption expenditure in the NA.

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

The CPI series are final when first released and are not subject to revisions.

The weight revisions are carried out every two years, and users are informed about the process via Internet and press releases. All revisions are brought for the approval of the relevant public committee, such as the weight revision committee, consisting of representatives of academia, private sector, and other government agencies. The revision cycle is published, together with other CPI metadata, and is also presented at press briefings. After the revision cycle is approved, it is disseminated to the public by press release, and a short documentation of revisions is included in the hard-copy publications as well.

4.3.2 Preliminary and/or revised data are clearly identified

There are no preliminary CPI data.

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

Since the data are final when first published, there are no revisions.

For the weight revisions, several small studies or methodological notes are produced, and index changes resulting from the weight revision are compared at the 3-digit level. Also, the revision of the market basket items, the number of price quotes collected, etc., are explained in special notes published in the *Price Statistics Monthly* and on the CBS website. In addition, results from one-time studies—such as alternative index number formulas for the CPI—have been published.

5. Accessibility

5.1 Data accessibility

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

Generally, the price index publication is clear and provides various levels of details including short- and long-term index changes. The main monthly publication, *Price Statistics Monthly*, is published on the Internet, on CD-ROM, and in a limited number of printed copies.¹⁷ The same publication is also used to disseminate the WPI and input price indices for residential building, road construction, and agriculture. The tables and charts are explained with an analysis of the latest index movements and the main contributors to the index.¹⁸ The publication is posted in full on the Internet as well, and often supplemental (PowerPoint) presentations are added to explain the data and methods further.

Users are familiar with the website and the corresponding monthly CD-ROM publication. Detailed estimates and time series are disseminated in published tables and in an online database accessible to the public. The main aggregates are also disseminated in a seasonally adjusted format.

Finally, the CPI is presented in annual publications, such as the *Statistical Abstract of Israel* at various levels of aggregation. A text with analysis is included with the dissemination of data.

5.1.2 Dissemination media and format are adequate

The dissemination media and format are adequate for the users' needs. Consumer prices are published in a press release and a publication that is added to the CBS website at the same time. The online database and historical publications give good access to detailed data and to long-term series. Various print publications include the CPI as part of other economic data series. A press conference is regularly held at the CBS, and the press release is distributed in both print and electronic format.

5.1.3 Statistics are released on a preannounced schedule

An advance release calendar for the coming four months is published on the CBS website and as a press release. The statistics are released on the 15th of every month at 5:00 p.m., or at

¹⁷ For the English version, see http://www1.cbs.gov.il/reader/prices/pricemenu_e_new.html.

¹⁸ The analysis does not speculate on the reasons behind the price changes but instead identifies major contributors to change and the largest changes.

1:30 p.m. on the previous weekday if the 15th is Saturday or a holiday. A press conference is held, and explanations on the statistics are given to the press and to the public through the Internet.

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

The data are released simultaneously to all interested users and on the Internet, by fax, and through a press release at a press conference. A strictly enforced embargo of all data prevents early public disclosure.

5.1.5 Statistics not routinely disseminated are made available upon request

In addition to the tables in the publications, most series are freely available on the CBS website. Further details are available to users upon request, as explained on the website and in hard-copy publications, together with the procedures and contact details on how to obtain such additional information. Customized tabulations are also provided, for a fee if it requires considerable extra work for the staff.

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

Up-to-date documentation on the concepts, scope, classification, data sources, and methods of CPI statistics is readily available on the CBS website and in various publications. The documentation is rather comprehensive. Nevertheless, more detailed information, especially in English, could be easily added to the website to serve international data users. To this end, the CBS website is being continuously developed. The major English methodology publication is *Consumer Price Index, Technical Publications Series No. 60*, which also describes detailed procedures for the treatment of special items in the index. Although this publication does not completely refer to the latest index, it is still valid and will serve as a good reference when staff update or publish a new users' manual.

Methodological notes are published in the price section of *Current Statistics*, released by the CBS each year. The information contains material on concepts, definitions, classification, data sources, compilation methods, statistical techniques, and other relevant methodological aspects and procedures. Brief methodological descriptions are also available in the *Statistical Abstract of Israel*, issued in September/October of each year and available on the CBS website. In all cases, major differences from international guidelines are pointed out, and any limitations on data are also described. Further methodological information is available upon request.

The SDDS metadata and summary methodologies for Israel are reviewed annually and are clearly linked to (and from) the CBS website. References to the SDDS metadata are given in press releases and in publications.

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

The CBS disseminates metadata at different levels of detail and is also producing an update of *Know the Index*, a manual for the CPI's light users. This publication includes charts and pictures explaining the main uses of the index. More detailed metadata are available in the CBS publications quoted in the summary methodologies. For example, the *Statistical Abstract of Israel* refers to *Technical Series 60*, mentioned above. Information for specialized users is currently being added to the CBS website.

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

An information center at the CBS provides service and support to users. If the necessary expertise is not available at the center in the first instance, staff transfer such queries to the relevant unit. In publications, press releases, and on the website, the contact points for enquiries by mail, phone, fax, and e-mail are given. Users are also free to visit the CBS library.

The CBS publishes information leaflets in the series *Statistilite* to raise public awareness on statistics and their use. Various seminars are also held at educational institutions. Access points are advertised on the government website, in some government publications, and at conferences where the CBS often has a stand.

In addition, individual queries can be directed to the information units at the CBS by phone or by mail. Assistance to users is monitored and reviewed periodically. The number and nature of user queries is recorded and analyzed.

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

An annual catalog is published and updated on a current basis on the CBS website. It gives information on how to obtain products and services and the price for each item. A listing of publications is available also in all major publications. On the website, information is also given on how to locate data by subject.

Table 3. Israel: Data Quality Assessment Framework (July 2003): Summary of Results for Consumer Price Index
(*Compiling Agency: CBS*)

Criteria	Element	NA	Assessment				Comments
			O	LO	LNO	NO	
0. Prerequisites of quality							
0.1	Legal and institutional environment		X				Additional resources are necessary to improve statistical adjustment methods and engage in research of alternative methods and data sources.
0.2	Resources			X			
0.3	Relevance		X				
0.4	Other quality management		X				
1. Assurances of integrity							
1.1	Professionalism		X				
1.2	Transparency		X				
1.3	Ethical standards		X				
2. Methodological soundness							
2.1	Concepts and definitions		X				
2.2	Scope		X				
2.3	Classification/sectorization		X				
2.4	Basis for recording		X				
3. Accuracy and reliability							
3.1	Source data		X				
3.2	Assessment of source data		X				
3.3	Statistical techniques			X			Investigate alternative formulas for the elementary aggregate. Alternative quality adjustment methods should be investigated.
3.4	Assessment and validation of intermediate data and statistical outputs		X				
3.5	Revision studies		X				
4. Serviceability							
4.1	Periodicity and timeliness		X				
4.2	Consistency		X				
4.3	Revision policy and practice		X				
5. Accessibility							
5.1	Data accessibility		X				
5.2	Metadata accessibility		X				
5.3	Assistance to users		X				

IV. PRODUCER PRICE INDEX

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 Wholesale Price Index of Industrial Output for the Domestic Market (WPI) measures the developments in output prices for a fixed set of products and services included in industrial output, during the first stage of marketing in Israel. Exports are not included, and the index refers to sales for domestic use covering some percentage of total sales for manufacturing and mining activities. The price concept for the price survey is the market price, including value-added tax (VAT) and excluding product subsidies. The WPI is not in line with the *System of National Accounts 1993 (1993 SNA)* concept of output valuation. Instead, it is based on the sales revenue part of production output value, including VAT, and excluding product subsidies.¹⁹ This concept of output, although differing from the recommendations of the IMF's *Producer Price Index Manual, 2004 (PPI Manual)*, is used consistently throughout all the CBS statistics describing the manufacturing sector. Hence, the pricing concept of the individual items also reflects this choice and includes VAT. However, this is a deviation from the *1993 SNA* valuation and the recommendations of the *PPI Manual*. See also section 2.4.1

The CBS also compiles input price indices for residential buildings, road construction, agriculture, and buses. The methodology and compilation of input price indices generally follow the guidelines of the *PPI Manual*. These indices are individual indices and are not, at the moment, used in the wider framework of input producer prices. Hence, this assessment, while including brief assessments of these indices, as relevant, is based on the more comprehensive PPI. However, the input price indices can, and should, be seen as part of a broader PPI covering both input and output prices for all domestic production. The ongoing work on increasing the coverage of input indices, as well as output indices, into the service sector is commendable. The mission strongly urges the CBS to allocate adequate resources to expand the price index coverage in this direction.

Revenue estimates for the weights are compiled in two stages. First, the upper levels—divisions and groups at 2- and 3-digit levels of the International Standard Industrial Classification of All Economic Activities (ISIC)—are based on annual estimates from the

¹⁹ Sales value is defined in the *Manufacturing Indices, Annual Summaries 2003* as the “value of the product sold for local market (export sales values excluded from the WPI) and the value of goods from an establishment’s product distributed among the workers; income from working (including repairs) on materials of clients; the value of merchandise produced by the establishment for its own use; purchase taxes and excise paid by the establishment; value-added tax placed on the sales value.”

monthly manufacturing indices survey, where information on output is limited to the higher aggregate levels. Generally, the 2- and 3-digit ISIC revenue estimates are generally sufficient for the structure and classification of the index. Second, the weights for lower levels of groups and classes—generally for 4- and 5-digit levels—are set separately. They are based on detailed product sales information collected from a sample of establishments and enterprises in special surveys conducted for this purpose.

The current weights refer to output during 1993/94 from the manufacturing surveys for those years. These data, combined with the estimated output of self-employed persons, served as the basis for calculating the present weights with a base year of 1994. Weights are all valued at 1994 prices, making the index a Lowe index because the aggregation rule follows the Laspeyres formula.

The CBS is considering taking stage-of-processing PPIs under development. At the moment, weights for output price indices by stage of processing are not determined.

2.2 Scope

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

The scope of the WPI broadly follows guidelines given in the *PPI Manual* by covering the core mining and manufacturing activities. All resident market enterprises, including free zones, are within the scope of the PPI, and only the market sales revenue part of the domestic output is considered.²⁰ Own account production of market goods or services for own account final consumption and for own account fixed capital formation is included in the sales value. Inventories and illegal market goods or services are not included.

The proportion of total output for the economy that is not covered, but included in the scope in the regular WPI compilation, is low. Further, the CBS has planned to extend the output indices into the services industries, although with current resources this is not feasible. For exports, which contribute over 40 percent of total manufacturing revenue, monthly price indicators are not produced. This part of final demand is likely to be subject—at least in certain industries—to different price developments from the domestic intermediate use. This is because pricing for different geographical markets may differ, and the weight distribution for exports is very different from that of production for domestic markets. Similarly, the importance of the services industry has grown rapidly, and the development of indicators, including price indices, has been lagging.

During the last two years, indices for the following three groups of business services have been developed: legal services, bookkeeping and accounting services, and security services.

²⁰ The diamond processing industry is excluded and noted on the publications.

These indices are available for use as deflators in the national accounts, although they have not yet been published. An agriculture output price index is produced annually as a part of the agriculture statistics. On top of these output indicators, the input indices mentioned above measure the price change of all monetary costs of the inputs independently from the output.

A short methodological note on the coverage of the price indices is available on the CBS website, describing the weighting and valuation concept used. However, there is no reference to how it differs from the *1993 SNA* and the *PPI Manual* concepts.²¹

Recommendation: *Since the relative importance of domestic manufacturing activities has been declining, the CBS's long-term goal should be to broaden the PPIs into the service activities and the exports sector. Expansion will require additional resources.*

2.3 Classification/sectorization

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

The classification and sectorization used in compiling the WPI broadly conform with international standards. A modified activity classification, based on the ISIC Revision 3 and adapted to local conditions, is maintained by the CBS and used to classify the principal economic activity of establishments.²² This adaptation and its differences from international standards are published. The Central Product Classification (CPC) is used to classify products.

Establishments are classified by kind of activity, in accordance with the *1993 SNA*. Similarly, the *1993 SNA* is used for transactions. Individual transaction prices in the monthly price survey follow the guidelines of the *PPI Manual*, including necessarily detailed specifications.²³ The same is largely true for the input price indices, which also include use of other types of prices for different input factor compensations.

²¹ This note is from the publication *Statistical Abstract of Israel No 56*. The valuation and pricing include taxes for internal consistency in the CBS's statistics.

²² The modifications of national classification include grouping mining and manufacturing activities under 1-digit manufacturing and classifying some service activities differently.

²³ This is true apart from the inclusion of VAT in the price concept, as discussed earlier.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

As noted above, the WPI weights are based on actual sales revenue from output (in the domestic market in mining and manufacturing) valued at market prices as defined by the CBS. This definition, as mentioned above, is internally consistent but not in line with the 1993 SNA. The deviation is correctly marked and explained in the WPI metadata and in the publications.

Product specifications include transaction characteristics. Transactions between units of the same enterprise valued at transfer prices are not very common for goods sold in the domestic market and hence are not collected.

Recommendation: *Change the valuation concept to basic prices.*

2.4.2 Recording is done on an accrual basis

For some industries, such as ship and aircraft production, the sales are divided for the months of the contract's duration, and, to a large extent, the sales also reflect the period of production. These types of data raise difficult issues, and therefore special accommodations need to be made. To effectively follow and develop measurements in these areas, different practices—and their implications—could be investigated. Independent measures for inputs and outputs, and their corresponding prices, should be the long-term goal.

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. However, transactions between units of the same enterprise valued at transfer prices are not very common for goods sold in the domestic market. The development of stage-of-processing indices has been discussed and may be planned if sufficient resources from among the qualified price staff can be allocated.

3. Accuracy and reliability

3.1 Source data

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

Price source data

Data collection is comprehensive for the industries within the scope of the WPI. The monthly prices are collected through an adequate and well-organized data collection process.

Sufficient coverage is achieved, with 4,200 transaction prices for more than 1,800 types of products collected from some 800 establishments. For most industrial activities, the price survey coverage is more than 80 percent of total sales.²⁴ Most large establishments are included; the sample of enterprises is kept under continuous review, and new enterprises replace the old as establishments drop out.

The price data collected are generally sufficiently detailed to derive the WPIs at the 2-digit activity level and the 4-digit product level for the covered sectors. Because domestic markets in Israel are relatively small, often a rather small number of large establishments account for a large share of the total.²⁵ In certain industries, the markets are so concentrated that data confidentiality issues prevent the publication of official statistics. Hence, the establishment selection practice, which could imply that the samples remain the same for a long period, is acceptable. Implicitly, cut-off sampling methods—combined with the judgmental selection of representative small and medium establishments—have been used at the first stage for the establishment selection. As such, once an establishment gets selected and inserted, it is usually not dropped in any subsequent resampling of establishments. The main reason for the practice is to achieve a representative sample with the maximum representative coverage—and with the minimum number of units (enterprises)—in the sample. This is also a resource issue, and the technique allows the CBS to utilize scarce resources as efficiently as possible. Nonetheless, the practice may result in a misrepresentative sample in an industry with a large number of establishments and many new entrants if the establishments in the sample remain constant.²⁶ In some cases, product coverage considerations may dictate adding small units to the sample.

Sampled product headings, establishments, and varieties, as well as periodic prices, follow well-considered designs. For the most part, the prices recorded are specified transaction prices for matched varieties so that the prices of like are compared with like.

The weight sources

The aggregate level weights for the current index—with a base year and weight base period of 1994—were derived from data on annual summaries of the monthly survey of manufacturing indices for 1993/94 and price updated to represent the year 1994. The monthly survey follows the methodology of the annual surveys with appropriate attention to methodological detail with respect to the sample, survey design, and fieldwork. The monthly

²⁴ For some industries, the coverage is full, and, for some industries that are less concentrated, the price survey coverage of establishments is lower.

²⁵ Of total manufacturing, the largest 2.7 percent of establishments covers 67.5 percent of the total sales revenue.

²⁶ The CBS does include small- and medium-sized establishments in the sample, but the selection process is not in line with international standards.

survey is based on a less comprehensive questionnaire and intended for data collection on short-term changes in sales revenue, along with other relevant information on employment labor costs. The annual summaries discuss sampling and nonsampling errors, but detailed sampling errors cannot be determined without simplifying assumptions. A more recent manufacturing survey, conducted in 2001, is available but was chosen not to be used for the WPI weights because of the long dissemination lag (almost three years after the end of the reference year).

The sample of 1993/94 monthly surveys was based on a periodically updated list of enterprises combined with administrative datasets. Since then, a business register has been developed and is being updated on a current basis. The maintenance procedures for the business register seem adequate, including the continuous addition of new units to the register and the updating of information on the activities of units.

Information about mergers and changeovers is hard to obtain. The list of units in the register is based on the reporting of associations to the tax authorities, although efforts to locate such units are made. The register now provides the sampling frame for the monthly manufacturing surveys, which will be used for the weight revision planned for January 2006. The monthly survey covers some 2,500 manufacturing establishments and serves as a reasonably good and definitely timely source for all 2-digit and for some 3-digit level aggregate weights. However, the monthly survey is not designed primarily to collect comprehensive annual data and provides less accurate, albeit more timely, source data for the PPI weights.

At more detailed product and product group levels, the weights are derived from special industry surveys. The establishments are asked to provide data on their main products and sales distribution. These data, together with data from special surveys, industry sources, and other available information, are used to derive the detailed level weights. These same surveys provided the basis for the initial sample for the establishments, within which products and transactions are sampled. These data, obtained from the establishments and other sources, are a reasonably good source for compiling weights for the lower level PPIs (by product).

Excluding the above-mentioned shortcomings, the source data collected are generally sufficiently detailed to derive PPIs at the 3-digit industry level and some product group levels.

Within all input and output price indices, newspapers and magazines are monitored on a daily basis for information on prices, weight distribution information, and other industry specific data that may have effects on the indices or that could be integrated into the price statistics. These data are also used in the validation process.

Periodic meetings are held with producers and the business community, for example “the association of quarry owners” or “the association of metal producers,” etc., depending on the index component that the weight revision is engaged with at a time. During such meetings, new developments that need to be taken into account in the price indices are discussed, and solutions are sought to practical questions of deriving the product level weights. Such

meetings are held on a large scale, especially when updating the index but also regularly when adding new firms to the sample.

The CBS staff visit most of the firms entered into the price collections. During these visits, staff discuss new developments and other key issues concerning the establishment: the local market situation, raw materials, production process, the business and regulatory environments, the products and transactions to be selected, the policy for defining prices, etc.

International standards are monitored for changes that need to be taken into account in the price index compilation, and new standards are taken into account for new indices in development, such as the indices for the service industry. For example, use of geometric means for compiling the low-level indices has been considered for the service PPIs under development. Also, the CBS has considered developing stage-of-processing indices; however, with current resources, this will be difficult.

Recommendation: *The selection of small- and mid-sized establishments could benefit, both in accuracy and in reduced respondent burden (but with increased costs for the CBS), from the introduction of scientific sampling methods and/or use of sample rotation for some activities where the number of these establishments is large. Also, for the accuracy of the industry index coverage, rough estimates could be derived.*

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

The scope of weights in the WPI is based on sales data, although the definitional differences allow these data to closely follow output as defined in the *1993 SNA*. This is reflected mainly in the valuation of weights, which are not at basic prices as recommended by the *PPI Manual*.²⁷ However, the data are internally consistent and comparable with the manufacturing production index used in the national accounts.

3.1.3 Source data are timely

Price collection is timely and allows the over-the-month prices to be collected and validated so that the PPI is compiled in less than two weeks' time. However, the weight data for the WPI index are outdated, with the latest manufacturing survey used for the current weights dating back to 1994. At the more detailed level, the WPI staff have conducted surveys and used other outside data sources to derive product level distributions within 3-digit industries. These surveys are conducted on an ad hoc basis between major weight revisions when deemed necessary for the quality and representativeness of the activities. Thus, the overall structure of the WPI does not strictly refer to one particular base period but to a hybrid where

²⁷ As mentioned earlier, the VAT is included in the valuation, and product subsidies are excluded.

more aggregate indices are prone to bias from outdated weights.²⁸ However, given the structural changes within the manufacturing sector, it is considered better to increase the accuracy of the series within the product groups and subindustries than to stick with old data at all levels.

The sluggishness in the weight revision, which requires considerable extra labor input, seems to be at least partly due to inability to free staff and other resources for the task, as well as the timeliness of annual industrial surveys. The less comprehensive monthly manufacturing survey, which will be used in the upcoming revision from the beginning of 2006, is more timely and allows future revisions to be implemented more frequently. The CBS has decided that timeliness requirements outweigh the potential for reduced comprehensiveness and accuracy.

The input price indices—basing their weights on other data sources—are more timely. This is mainly because the indices describe individual, relatively specialized industries, whereas the WPI needs the interindustry weights for further aggregation.

Recommendations:

- *Update the aggregate level weights according to existing plans. For future revisions, commit to a regular 2- to 5-year revision cycle taking into account the availability and timing of source data.*
- *Take steps to speed up the editing process of annual surveys to better serve both national accounts and price index weights.*

3.2 *Assessment of source data*

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

Similar assessment procedures in the consumer price index (CPI), WPI, and input price data collection processes are in place. CATI is the main collection method for the WPI and input price indices. Similar automated checks are used for atypical differences in periodic responses by individual survey units, and they are all confirmed with respondents. There exists no automatic deletion process for outliers, and thus they accord with good practice. Large price changes, which vary according to the industry and product in question, are investigated. Price changes at each CPC product level are examined for extreme, absolute,

²⁸ This is, of course, not bias from the index number point of view, but instead gives a misrepresentative picture of average price change. At the situation where relative price changes between 2-digit industries during the last five years have differed by a magnitude of over 50 percent and weight distribution changed dramatically, the timing of aggregate weight revision may produce considerably differing all-industry series.

and relative values on both an annual (12-month) and month-on-month basis. Contribution analysis is used at a higher level, working down to detect abnormal price changes. CATI collection is supervised and employs random post-enumeration checks for data accuracy.

World commodity prices, administrative sources, and the press sources are used for some products to validate data. For example, most metal prices, fuel, and food products are compared with world prices, and reasons for price changes in the world markets are followed.

Regarding the sources of weights, surveys are rigorously planned, and assessment processes take into account the very skewed establishment size distribution and structure of the Israeli economy. The monthly manufacturing survey produces annual estimates that are used in the current and upcoming revisions of weights for 2005. The survey doesn't give accuracy estimates for the annual figures but informs the users about limitations of data.

3.3 Statistical techniques

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

The monthly price survey provides a reasonably good basis for the compilation and public dissemination of some 100 3-digit product group estimates and 24 2-digit industry estimates. The collection of prices in each establishment is conducted monthly. Prices are collected between the 20th in the current month and the 5th of the following month relating to the 20th of each month. Except for a list of specific products, average prices are collected. This list mainly includes products with few price changes during the month (poultry, meat, etc.) and products with controlled prices (bread, milk, fuel, etc.). The prices collected are those received by producers "at factory gate." The prices are net transaction prices after discounts and credits and include all taxes (also VAT).²⁹ Prices in foreign currency units are converted to NIS using the average monthly exchange rate.

Missing prices are imputed based on the change of similar product prices. The method accords with the practices recommended in the *PPI Manual*. Permanently unavailable transactions are replaced with similar ones from the same producer. If the product is not available at the original establishment any longer, data from other sample establishments are sought, and, if necessary, new establishments are added. Prices for seasonal products are imputed based on the average change of the higher product group. Early seasonal prices are used with caution, and a bridge method is used to calculate the overall price change for

²⁹ For the input price indices, the VAT is excluded.

seasonal products.³⁰ Seasonality mainly affects products in agricultural (for input prices) and clothing industries.

Quality characteristics or transaction specifications are divided into minor ones (for which quality changes are considered as price changes) and significant ones (when the transaction is considered to be too different in two periods to be compared directly). If the value change resulting from the quality change cannot be explicitly determined, changes in significant quality characteristics result in replacing the transaction (if permanently missing). Also, either the price for the old product is imputed or the previous month price is sought for the replacement transaction. Estimation of the value of quality change relies on the expert judgment of the producer and the expertise of the PPI staff. Apart from quality adjustments, other explicit adjustment methods, such as production cost or hedonic adjustment methods, are not used. New products are added to the index when they gain market share, either through product substitutions or as completely new products.³¹

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

Gross sales are used for the weights. The structure of the PPI in mining and manufacturing is based on a mix of industry-product structure. Each observation constitutes an elementary aggregate, and simple price relatives for each observation are used for the observation index. For the first aggregated level—the product level—a chained Laspeyres aggregation formula is used.³² The current weight reference period of 1994, achieved by price-updating the 1993/1994 sales revenue data, is also the reference period for the prices and for the index reference.

Generally, international statistical technical guidelines are followed. A few shortcomings, although shared with many other statistical agencies and very difficult to solve for short-term price indicators, remain. **First**, for some industries, the month-to-month pricing is difficult, due to the unique nature of the products, or a long time is needed for the production process. Thus, actual prices are not used, and input prices are followed instead. For the building of ships, boats, and aircraft, the CBS uses contract pricing, defined by a basket of inputs. Although the actual pricing directly reflects the price of these inputs, possible changes in

³⁰ The bridge method compares the price of the reappearing seasonal product to the price it had when it exited the market. When the product is not in-season and not sold, the price is imputed. The bridge method is also used with temporarily missing prices.

³¹ In the case of a new product, the new observation index is linked to the upper level index and weights adjusted at the lowest aggregation level only.

³² Since the weights are unknown for some products, the index is actually a Carli index for these. However, since there is no aggregation over prices and the chained Carli formula is applied for individual price relatives, no additional bias on top of Laspeyres upward bias in the PPI is introduced. Use of chained Carli at the observation level also overcomes the bouncing effect.

markups and input distribution may go unnoticed. **Second**, use of imputation instead of explicit quality adjustment methods (for products that undergo rapid technological change) may understate the effect of technical evolution.

Recommendations:

- *Investigate the effect of using an average of price relatives at the elementary aggregate level and consider changing the formula to a geometric average, as recommended by the PPI Manual.*
- *Undertake more research on individual industries with high turnover of product models and industries where the products typically result after long, unique projects. Review the quality adjustment methods and consider using alternative methods for different products and alternative output price measures.*
- *Update the weight reference period according to plans.*

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Intermediate results are validated against other information where applicable

Some product indices are validated against world commodity prices and some against corresponding CPI items. Also, general information on product market conditions, followed in the press, is used to confirm that changes are logical and reasons known to the price division staff.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

Unusual movements in the index arising from large movements in particular sectors are investigated and explained in the monthly compilation meetings. Staff explain their designated sector series, and the validity of each is discussed and confirmed. These discussions are kept within the price staff. The CBS takes appropriate measures to ensure that individual data are not disclosed during this process.

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

The structure of the aggregation is simple, and imputation methods are consistent with the aggregation so that discrepancies do not arise. Overall, the current practice provides reasonably accurate estimates at the publication level. Steps are taken to control sampling and nonsampling error in the Household Expenditure Survey (HES).

3.5 Revision studies

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

The CBS policy is that the WPI and input price indices are final when first published.

The latest weight revision was carried out more than 10 years ago. At that time the effect of weight changes was not formally studied. The weights at the detailed level have been updated, but the outcome or the effects of these revisions have not been investigated.

Recommendation: *With the increased metadata on the WPI compilation, the weight revision in 2006 provides an excellent opportunity to investigate the effects of weight revision at different levels of index aggregation.*

4. Serviceability

4.1 Periodicity and timeliness

4.1.1 Periodicity follows dissemination standards

Israel meets the periodicity standard of the Special Data Dissemination Standard (SDDS), because the WPI is compiled monthly.

4.1.2 Timeliness follows dissemination standards

The monthly estimates of the WPI and input price indices are published on the 15th at 5:00 p.m. of the following month, thus meeting—and indeed exceeding—the SDDS requirement of one month after the end of the reference period.

Recommendation: *Consider separating the CPI from other input and output price index dissemination; group them under a family of PPIs. This could raise the prominence of the PPI, especially if the coverage of these indices were to be gradually increased into the service activities and export sector. The mission understands that the latter would require additional resources for a successful outcome.*

4.2 Consistency

4.2.1 Statistics are consistent within the dataset

The aggregation structures of input and output indices are consistent from transaction level to the industrial activity and all-item index. The available data sources make the structure of the WPI a hybrid; at the 2-digit level the weights refer to industrial activities while below that they refer to product groups and products. To overcome this consistency problem, each activity includes a product group “*products from other activities,*” and a weight for that

group is estimated. This hybrid form is considered to provide reasonable estimates for both product and industry aggregations, and it is not uncommon among national PPI programs.

Recommendation: *The effects of cross-industry product aggregations based strictly on industry structure should be investigated.*

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

When new weights are introduced, historical WPI series are not reconstructed using the new weights. Instead, long time series are produced linking the different indices using factors, which are also published, between old and new series.

The previous classification was based on the old ISIC classification. For divisions that could be paired, linking factors were derived, and, at the same time, the old series were published with the old index for a year.

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

The WPI is consistent with the manufacturing output index. As discussed in 2.1.1 and 2.4.1, the CBS practice is internally consistent, and users are accustomed to the different valuation concept. By no means should this consistency be jeopardized by sudden changes in domestic definitions. However, to be consistent with the 1993 SNA and to follow the PPI Manual recommendation on price concept, the valuation should be made at basic prices, and the index should be compiled according to price concept, perhaps as a separate series for the users who need them in the international standard definitions.

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

The WPI is final when released. Some average input prices that are also published can be revised but not the actual index.

A WPI revision cycle of five to seven years is published on the Dissemination Standards Bulletin Board (DSBB), but the weights have not been completely revised at the aggregate level since 1995. The weights of the input price indices have been updated within the last five years.

Recommendation: *Commit to a regular cycle of weight revisions and publish information on the effects of the revision together with other WPI metadata.*

4.3.2 Preliminary and/or revised data are clearly identified

There are no preliminary WPI or input price index data.

Revised average input price data are clearly identified.

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

Since the data are final when first published, there are no revisions to the WPI index series.

The weight revisions carried out at the product and product group level within industries are not investigated. The reasons and source data for these changes and their effects on industry series are not studied, nor is the extent of product attrition over time.

Recommendation: Investigate both the major index revision—as well as updates—at a more detailed level of aggregation.

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)*

Generally, the price index publication is clear and provides various levels of detail including short- and long-term index changes. The main monthly publication, *Price Statistics Monthly*, is published on the Internet, on CD-ROM, and in a limited number of printed copies.³³ The same publication is used to disseminate also the CPI and input price indices for residential building, road construction, and agriculture. The tables and charts are all explained with analysis of the latest index movements and the main contributors to the index.³⁴ The publication is posted in full on the Internet as well, and often PowerPoint presentations are also added to explain the data.

Users are familiar with the CBS website and the corresponding monthly CD-ROM. Detailed estimates and time series are disseminated in published tables and in an online database accessible to the public. The main aggregates are also disseminated in seasonally adjusted format.

In addition, the WPI is also presented in annual publications, such as *Statistical Abstract of Israel* at various levels of aggregations. A text with analysis is included with the dissemination of data.

³³ For the English version, see http://www1.cbs.gov.il/reader/prices/pricemenu_e_new.html.

³⁴ The analysis does not speculate on the reasons behind the price changes but instead indicates major contributors to change and the largest changes.

5.1.2 Dissemination media and format are adequate

The dissemination media and format are adequate for the users' needs. WPI series are published in a press release and a publication that is added to the CBS website at the same time. The online database and historical publications give good access to detailed data and to long-term series. Various print publications include the WPI as part of other economic data series. A press conference is held at the CBS, and the press release is distributed in print and in electronic format.

5.1.3 Statistics are released on a preannounced schedule

An advance release calendar for the coming four months is published on the CBS website and as a press release. The statistics are released on the 15th of every month at 5:00 p.m., or at 1:30 p.m. on the previous weekday if the 15th is Saturday or a holiday. A press conference is held, and explanations are given on the statistics to the press and to the public through the Internet.

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

The data are released simultaneously to all interested users and on the Internet, by fax, and through a press release accompanying a press conference. A strictly enforced embargo of all data, until the scheduled release time, prevents early public disclosure.

5.1.5 Statistics not routinely disseminated are made available upon request

In addition to the tables in the publications, most series are freely available on the CBS website. Further details are available to users upon request, as explained on the website and in hard-copy publications, together with the procedures and contact details how to obtain additional information. Customized tabulations are also provided, for a fee if it requires considerable extra work for the staff.

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

Brief documentation on sources and methods for the WPI is updated and given in the relevant publications and on the Internet. For example, a publication from 1995, *Updating the Wholesale Price Index, 1994 in the Monthly Bulletin of Price Statistics, 1/1995* (in Hebrew only), provides basic information on the WPI methodology. Some methodological notes are published in the prices section of *Current Statistics*, released by the CBS each year. The information contains material on concepts, definitions, classifications, data sources, compilation methods, statistical techniques, and other relevant methodological aspects and procedures. Brief methodological descriptions are also available in the *Statistical Abstract of*

Israel, issued in September/October of each year and available on the CBS website. Generally, the easily available documentation is not very comprehensive, but details are available upon request. For the input price indices, summary methodologies are published on the Internet.

The SDDS metadata and summary methodologies for Israel are reviewed regularly. The metadata are accessible on the website and in publications, and references to the metadata are given in press releases.

Recommendation: *Add the detail of WPI methodology on concepts, their relation to international standards, data sources, and compilation and statistical methods to the CBS website. Also, information in English could be added to the CBS website to facilitate accessibility for international users.*

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

More detailed metadata are available upon request, while the basic methodology is readily available.

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

An information center at the CBS provides service and support to users. If the information center staff do not have the necessary expertise to help the user in the first instance, they transfer such queries to the relevant unit. In publications and press releases and on the website, the contact points for enquiries by mail, phone, fax and e-mail are given. Users are also free to visit the CBS library.

The CBS publishes information leaflets in the series *Statistilites* to raise public awareness on statistics and their use. Various seminars are also held at educational institutions. Access points are advertised on the government website, at conferences where the CBS often organizes a stand, and in some government publications.

In addition, individual queries can be directed to the information units at the CBS by phone or by mail. Assistance to users is monitored and reviewed periodically. The number and nature of user queries is recorded and analyzed by the CBS.

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

An annual catalog is published and updated on a current basis on the CBS website, which also gives information on how to obtain products and services and their prices, if applicable. A listing of publications also is available in all major publications. On the website, information is given on how to locate data by subject.

Table 4. Israel: Data Quality Assessment Framework (July 2003): Summary of Results for Producer Price Index
(*Compiling Agency: CBS*)

Element		NA	Assessment				Comments
			O	LO	LNO	NO	
0. Prerequisites of quality							
0.1	Legal and institutional environment		X	X			Additional staff resources are necessary to improve the coverage of input and output price indices, as well as to develop alternative collection and statistical adjustment methods.
0.2	Resources		X				
0.3	Relevance		X				
0.4	Other quality management		X				
1. Assurances of integrity							
1.1	Professionalism		X				
1.2	Transparency		X				
1.3	Ethical standards		X				
2. Methodological soundness							
2.1	Concepts and definitions		X				The scope of the PPI is restricted to the core mining and manufacturing activities for domestic markets.
2.2	Scope		X				
2.3	Classification/sectorization		X				The valuation of WPI weights should be at basic prices.
2.4	Basis for recording		X				
3. Accuracy and reliability							
3.1	Source data			X			The WPI weights are outdated, and the selection process of establishments does not meet the international recommendations.
3.2	Assessment of source data		X				
3.3	Statistical techniques			X			Quality adjustment methods could be improved and alternative elementary aggregate formulas investigated.
3.4	Assessment and validation of intermediate data and statistical outputs		X				
3.5	Revision studies			X			The weights at detailed product and group level have been updated, but these changes and their effects have not been investigated.
4. Serviceability							
4.1	Periodicity and timeliness		X				No clear policy on weight revisions is followed.
4.2	Consistency		X				
4.3	Revision policy and practice			X			
5. Accessibility							
5.1	Data accessibility		X				
5.2	Metadata accessibility		X				
5.3	Assistance to users		X				

V. GOVERNMENT FINANCE STATISTICS

2. Methodological soundness

While the Ministry of Finance (MOF) was not directly assessed, its data are a significant source for the annual consolidated general government accounts compiled by the Central Bureau of Statistics (CBS), which are assessed herein against the IMF's *Government Finance Statistics Manual 2001 (GFSM 2001)*. In this context, the mission met with officials at the MOF to discuss, among other things, the accounting reforms being implemented in such areas as standardization, accrual-based financial reporting, and the application of information technology (IT) to fiscal management and reporting practices. The MOF (Accountant General) is midway through a three-step project, "Merkava." The project is aimed at improving information on the assets and liabilities of the central government, developing balance sheets for central government ministries, and preparing accrual-based financial statements for central government, commensurate with international standards.

The authorities are to be commended for their proactive efforts in improving fiscal transparency and accountability, as well as plans to harmonize the financial management information system being developed with the *GFSM 2001*. The mission noted the synergies that are possible between the MOF's work and the CBS's concurrent implementation of the *GFSM 2001* framework for compiling annual consolidated general government accounts, the subject of this assessment. Therefore, many of the recommendations contained in the detailed assessment directly relate to fully exploiting these synergies. Foremost among these is the creation of an interagency working group (see 3.1.1, below) that would have a mandate—and timetable—to address the following shortcomings in the central government accounts compiled by the MOF and used as source data by the CBS:

Basis of recording:

- *Adjustments* to accrual recording, where possible (interest payments, taxes, etc.);
- *Gross recording* of transactions; and
- *Inclusion* of imputed transactions (consumption of fixed capital, unfunded pension schemes).

Classifications:

- *Classifications* of stocks (balance sheet items) and flows (budget items) in line with the *GFSM 2001*;
- *Proper* distinction between current and capital accounts in the government budget recording system;
- *Identification* of intragovernmental transactions; and
- *Elaboration* of government financing data according to the *GFSM 2001* framework (including data on debt holder and instrument).

Coverage:

- *Inclusion* of all extrabudgetary transactions; and
- *Incorporation* of National Insurance Institute (NII) data into the central government accounts.

Timeliness and periodicity:

- *Development* of monthly and quarterly statistics in the *GFSM 2001* format;
- *Improvement* of data sharing and transmission between the MOF and the CBS; and
- *Improvement* of the metadata disseminated (methodology, revision policy, etc.).

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 overall structure of the Israeli annual consolidated general government accounts in terms of concepts and definitions largely follows international standards and guidelines. The CBS compiles the general government, central government, and local government statistics in the context of the national accounts based on the *1993 System of National Accounts (1993 SNA)*. Therefore, the overall structure of the Israeli government finance statistics in terms of concepts and definitions closely follows the international standards of *GFSM 2001*, which is also used as a compilation framework, and the divergences are well known.³⁵

The analytical framework follows the framework required for compiling the national accounts. The revenue and expenditure data by economic type and by function can be related to the international standards as described in the *GFSM 2001*.³⁶ The same applies to the financial balance sheet figures classified by instrument, which have been publicly disseminated for 2001 and completed through 2003. Detailed stock and flow data on the financial accounts of the general government and its subsectors are currently being developed as an integral part of the CBS's work program, aimed at the phased migration toward full implementation of the *GFSM 2001*.³⁷

³⁵ The *GFSM 2001* describes, inter alia in an annex, the differences with the *1993 SNA*. Additional information regarding these differences can be found on the IMF's website under government finance statistics companion material.

³⁶ A cross classification of functional and economic classifications of expense also is available.

³⁷ Data for the central government, social security, NPIs, and the local authorities for 2002 and 2003 are readily available (data for 2004 are currently being prepared). The CBS indicated that it will prepare a complete balance sheet of the general government for the IMF's 2006 *GFS Yearbook* and that these data will also be disseminated in Israel in a dedicated publication.

The CBS has adopted the methodology set out in *GFSM 2001* as its framework for compiling integrated nonfinancial accounts and is also in the process of completing the adoption of this framework for financial statistics for government. The completion will extend the bureau's current responsibility for compiling the general government sector of the national accounts based on the *1993 SNA*, providing additional analytical tools and details to support fiscal analysis.³⁸ Although the government finance statistics data sent to the IMF for publication in the *Government Finance Statistics Yearbook (GFS Yearbook)* are, at present, not used as the analytical framework for government finance statistics in national sources, the CBS described short-term plans for incorporating the *GFSM 2001* presentation into its regular dissemination cycle. Addressing the issues indicated above would greatly facilitate full migration to the *GFSM 2001* framework for compiling and disseminating fiscal data. The last data provided to the IMF for the *GFS Yearbook*—on the consolidated general government—were for the fiscal year 2004.

For purposes of ensuring observance of the Special Data Dissemination Standard (SDDS), the MOF, in collaboration with the CBS, compiles and disseminates monthly, quarterly, and annual aggregates on a cash basis for the central government. The aggregates accord with the nationally established concepts and definitions using a sophisticated budget execution management information system as sources. The CBS also disseminates central government debt derived from MOF (Accountant General's Office) and Bank of Israel (BOI) sources, with a breakdown between domestic currency and foreign currency debt, on a residual maturity basis. These data broadly conform to the *Government Finance Statistics Manual, 1986 (GFSM 1986)* framework. However, apart from the relevant budget execution data, these do not constitute a complete source for compiling the annual general government accounts. Moreover, the definitions used by the MOF are, in some instances, not in conformity with international standards, requiring ad hoc adjustments by the CBS staff to the data to ensure its adequacy as source data (see 3.1.1).

Recommendation: *The CBS and MOF should collaborate in constructing detailed bridge tables from the nationally established concepts and definitions used in the central government accounts to the GFSM 2001 definitions of revenue, expense, nonfinancial assets, and financial assets and liabilities.*

³⁸ The CBS and the MOF requested technical assistance from the IMF.

2.2 *Scope*

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

In the context of the national accounts, the CBS compiles and disseminates annual general government statistics, covering budgetary and extrabudgetary central government,³⁹ the NII (a social security scheme), local governments,⁴⁰ and NPIs mainly financed and controlled by government. The scope is consistent with the principles, definitions, and concepts of the 1993 *SNA*. Both public corporations and quasi-corporations (financial or nonfinancial) are excluded when they are considered as market producers. To ensure proper coverage according to the *GFSM 2001*, some imputed transactions are shown of general government units (e.g., the Ministry of Housing, Jewish Agency, and some municipalities) that provide rent subsidies among certain population groups through government-owned housing companies (e.g., Amidar, Amigur, and other such housing companies). The transactions are shown, for reference, in the expenditure side, but then netted out in the revenue side.⁴¹

All material general government activities are included in the general government statistics.⁴² That is, the data of the various levels of government are available, with the exception of some detailed breakdowns of expenditure items from the local government accounts. As mentioned above, stock data on financial assets for the general government sector and its subsectors, while now compiled, are not yet disseminated by the CBS. The lack of this information makes it very difficult to compile quality data on the changes in financial assets and liabilities. The basic sources of Israeli government finance statistics are the central government fiscal accounts reported by the Ministries of Finance and Defense, the individual accounts for municipalities and local authorities, the NPIs' administrative data, and the

³⁹ The budgetary central government consists of state accounting agencies (parliament, ministries, and related agencies) while the extrabudgetary central government is comprised of transactions for three extrabudgetary funds, the activities of national institutions (the Jewish Agency, the World Zionist Organization, the Jewish National Fund, and the Jewish Foundation Fund), the activities of the extensive range of NPIs, as well as the transactions in guarantees provided by the U.S. government.

⁴⁰ The local government covers 70 municipalities, 140 local councils, and 54 regional councils and includes also the religious councils and municipal activities of the rural units without municipal status, e.g., the kibbutzim and moshavim.

⁴¹ Since this imputed subsidy is included in the households' final consumption expenditure (i.e., the rent is recorded at its market price), rerouting is made in order to reach the correct amount of saving in the government and the households sectors: the subsidy is recorded as a transfer from the government to households, then from households to the housing companies, and finally from the housing companies back to the government.

⁴² Israel is a centralized state and the legal framework establishes a clear allocation of responsibilities between different levels of government and a stable basis for intergovernmental fiscal relations. The central government both finances and administers many expenditure programs that in other countries would fall to the local authorities. In addition, the local authorities require the permission of the central government to borrow.

accounts of the social security fund. Preliminary government finance statistics data, which may include estimates for the smaller units' activities, are replaced by data based on full coverage as soon as possible, as relevant.

The government finance statistics, as presented by the CBS in the context of national accounts, covers all transactions of units within its scope as presented in the Statement of Government Operations (Table 4.1 in *GFSM 2001*). The CBS has embarked on a project to compile adequate information on Other Economic Flows of all financial assets and liabilities (Table 4.3 in *GFSM 2001*) and on Sources and Uses of Cash (Table 4.2 in *GFSM 2001*). As previously mentioned, stock data for the general government's financial assets and liabilities are published annually, and the data are available in comparable time series, albeit not over a long period. Consolidated financial balance sheets (Table 7.1 in *GFSM 2001*), while under development, are not yet published domestically.

The MOF provides the CBS monthly data compiled by the Accountant General of the Treasury on the budgetary central government accounts, although these data are not presented according to international standards. For these data, the MOF adopted instead the presentation required to monitor budget execution. However, owing to problems related to the coverage of data in the central government sector, particularly in the extrabudgetary sector, ready comparisons cannot be made between net lending/borrowing (derived from the nonfinancial accounts).⁴³

The MOF, in cooperation with the CBS, disseminates monthly central government debt data. The scope of the debt data is broadly in line with internationally accepted standards (*GFSM 1986*).

Recommendation: *The MOF should accelerate ongoing work aimed at expanding the scope of government finance statistics to include all economic stocks (nonfinancial assets and financial assets and liabilities) of the central government in order to facilitate (CBS) compilation of a full set of general government accounts on an annual (and quarterly basis) and in line with the GFSM 2001 framework.*

2.3 Classification/sectorization

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

The CBS compiles the general government statistics in the context of national accounts (*1993 SNA*). Consequently, the institutional sectorization of the general government is largely consistent with the *GFSM 2001*. The notable exceptions are as follows:

⁴³ Data users also reported that both the scope and level of detail of the central government tax and expenditures data disseminated by the MOF could be usefully improved. The CBS supported this view.

- National institutions, i.e., the Jewish Agency, the World Zionist Organization, the Jewish National Fund, and the Jewish Foundation Fund (although neither financed nor fully controlled by the government), are included in the general government sector;⁴⁴
- The local authorities subsector includes imputation of own-account municipal services of the kibbutzim and moshavim; and
- A small number of nonprofit institutions (NPIs) are included in the general government sector; they sell their services at significant economic prices but have not been transferred to the corporate sector.

The government finance statistics are provided separately for the consolidated general government and the central and local governments.

Data for the general government and its subsectors are disseminated for revenue by economic type, expense by economic type, and function, in line with the *GFSM 2001* framework. The main *1993 SNA* financial balances, such as savings and net lending and borrowing, are disseminated. Data on financial transactions are only disseminated for the domestic/foreign aggregates as a part of the monthly central government data prepared and disseminated by the CBS for the SDDS (see 3.1.1). Central and general government financing data, being developed by the CBS, distinguish between domestic and foreign financing and between types of instruments. General government data are also classified by purpose according to the Classifications of the Functions of Government (COFOG).

The publicly available information on the central government disseminated by the MOF is comprehensive but not detailed. The published budget documents include a functional and economic classification of expenditure that is highly aggregated. The classification scheme for expenditure and revenue does not fully conform to international standards (i.e., the *GFSM 2001* framework).

The publicly available central government debt data are disseminated by the MOF in collaboration with the CBS and distinguish between foreign and domestic debt.⁴⁵ These data further distinguish between short- and long-term debt, by currency composition. In addition, the Government Debt Management Unit of the MOF and the BOI publish detailed annual debt data.

⁴⁴ These function as an executive arm of the government, executing social policy and economic goals. Key officials nominated to these units are approved by the government. The magnitude of the related activities is believed to have declined in recent years and is not considered by CBS compilers to be negligible.

⁴⁵ By law, the Accountant General must prepare a balance sheet showing government assets (loans, deposits, and other financial assets) and liabilities (foreign and domestic loans) no later than nine months after the end of the reference year.

Recommendation: *The MOF should adopt the classification scheme for revenue, expense, nonfinancial assets, and financial assets and liabilities of the GFSM 2001 framework.*

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

All flows in the 1993 SNA-based government finance statistics accounts, compiled by the CBS, are recorded at the amount of cash paid or received and, as a result, are valued at purchased (market) prices. The exception is some special items such as own-account gross fixed capital formation, where the full cost valuation method is used. Transactions in foreign currency are converted to NIS using the midpoint exchange rate prevailing in the market at the moment they take place. Outstanding government debt is recorded at nominal value. Nominal values also are used for loans and deposits with banks and for other financial assets and liabilities, which are not traded.

In the national accounts, the perpetual inventory method is used to estimate the written-down replacement costs of fixed assets, including infrastructure assets. The value of the stocks is based on acquisitions and disposals that have been accumulated and revalued over a very long period. The value of the assets is the original acquisition value adjusted by an allowance for price changes (assumptions are made regarding the remaining service life of each asset) and written down (by geometric depreciation profiles) for the accumulated consumption of fixed capital.

Recommendation: *Value all flows and stocks at market prices consistent with the GFSM 2001.*

2.4.2 Recording is done on an accrual basis

The annual consolidated general government finance statistics accounts compiled by the CBS are, to the extent possible, based on the accrual recording of transactions. The accounts include the consumption of fixed capital and imputed government pension contributions, both of which are estimated on an accrual basis in the national accounts framework. Stocks and flows on the general government sector, published by the CBS, in principle adopt an accrual basis in line with 1993 SNA for the time of recording. The CBS takes account of the different timing characteristics of the cash flows for the different types of taxes, as necessary when compiling the consolidated general government accounts. Other central government revenues, like interest and sales, are largely available on an accrual basis from the accounting records, as are data on the compensation of employees. A further move toward accrual accounting will be possible after the completion of the new “Merkava” accounting system, based on International Public Sector Accounting Standards (IPSAS), in the government

ministries, envisaged by end 2006.⁴⁶ The local authorities began implementing an accrual accounting system in 2004. Most transactions from the extrabudgetary central government (including the NPIs) and the social security scheme are available on an accrual basis.

Recommendation: *The MOF, in collaboration with the CBS, should validate and incorporate the data obtained from the ongoing adjustments being made for accrual accounting, in the context of the “Merkava” project, and incorporate findings in the annual general government accounts compiled by the CBS.*

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

Government transactions are compiled on a gross basis for revenue, expenditure, and financing for all sectors of the general government, consistent with the 1993 SNA. The same principles apply to the stocks of financial assets and liabilities. Acquisitions and disposal of nonfinancial assets are in most cases presented net in the national accounts. Both the CBS and the MOF correct transactions by netting against the original transactions, for instance, if refunds of taxation or of overpaid expenses are corrected.

3. Accuracy and reliability

3.1 Source data

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

To compile general government statistics in the context of national accounts, the CBS makes use of detailed disaggregated data obtained from the MOF (Accountant General and Budget Departments), the National Insurance Institution, the extrabudgetary funds, the local authorities, and the extensive range of NPIs financed and controlled by government. After routinely checking and, where necessary, clarifying these source data, the CBS then uses them to compile statistics consistent with the 1993 SNA. The national accounts codes are embedded in the original source files of the general government subsectors. For the purposes of reporting and analyzing these transactions in the context of the GFSM 2001 framework, the CBS embeds the GFSM 2001 codes in the set of government accounts compiled in the national accounts framework. Data on intergovernmental transactions and positions are available in enough detail to allow the CBS to compile a consolidated general government account.

⁴⁶ Under the MOF’s Economic Resources Planning (Merkava) initiative, all ministries and public entities will be required to publish annual financial statements. The aim is to consolidate these into one government financial statement. A committee of six public and private sector experts has been appointed to propose reforms to the government fiscal accounting. The CBS is not represented.

The data for the budgetary central government and the social security scheme are derived from the actual detailed accounting records (administrative files) of these entities, as are data for local governments. These accounts are subject to the same stringent controls and audits as those of the central government. A special questionnaire for data collection is used only for conducting subannual surveys, for example, a quarterly survey of the local authorities' fixed capital formation. Data covering the operations of local authorities, including transactions on financial and nonfinancial assets and liabilities, are provided from the local governments, in a format the CBS (Macroeconomic Department) can process for use in compiling the general government accounts.

Data for extrabudgetary units (including NPIs) also are covered by administrative records, supplemented by standardized financial reports and by questionnaires designed by the CBS for statistical purposes, as relevant. Questionnaires also are sent to the smaller extrabudgetary units in selected branches (education, health, R&D, culture, and environmental protection services) on an annual basis. In addition, the CBS staff collect annual financial reports to derive data or the necessary estimates, as relevant. Any changes in the NPIs subsector are found by examining the number of NPIs included in the VAT files of the Treasury and wages and salaries files of the NII. The CBS has the authority to collect accounting data with sufficient quality and details, although this function could be more clearly articulated in the Statistical Ordinance.

Government debt data are mainly derived from administrative records held by the MOF and BOI. These sources of data are not complete (data on extrabudgetary operations, maturities, and short-term debt are not provided), some definitions vary, and they are not always provided on a timely basis, which causes the CBS to employ its own data collection, compilation, and reconciliation techniques.

Recommendation: *The CBS should establish and lead an interagency working group to identify deficiencies in data collection programs for government finance statistics source data and propose recommendations and an action plan, as relevant, and coordinate activity.*

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

The Accountant General's annual budget execution reports, along with complementary data from the Ministries of Finance and Defense, provide the CBS with sufficiently detailed source data for statistical purposes covering the budgetary central government (in a national accounts context).⁴⁷ The data, received on a monthly basis by the CBS, allow the CBS to monitor budgeted receipts, expenditure, and, to a lesser degree (due to the lack of a bank/nonbank breakdown), financing for compiling the aggregates presented for SDDS purposes. The reports are arranged in accordance with the government budget framework and

⁴⁷ *GFSM 2001* codes have been incorporated in the budget execution reports by the CBS.

recording rules. The MOF's Budget Department determines the structure of the reports, the level of the transaction specification, and the economic classification codes. The main drawbacks of the budget framework, in respect of the consistency with internationally accepted definition and good practices, are as follows:

- *Coverage*: Only budgetary activity is covered; the extrabudgetary transactions are not included. Transactions in kind (i.e., U.S. government grants in defense equipment) are also not included.
- *Recording of economic transactions*: The transactions are mainly recorded on a cash basis, and, in some cases, net basis recording is used.
- *Content of transactions and their economic classification*: The economic classification system used by the treasury is not consistent with any internationally accepted classification system. As a result, many budgetary items are not homogeneous even at the lowest level of specification and include transactions of different economic types.

The source data on the local authorities and NPIs have a number of drawbacks similar to those of the Treasury's data, as noted above. These shortcomings have required the CBS to increasingly engage resources in reverting to the original sources—the existing detailed files of the financial reports in conjunction with supplementary data. The CBS is also required to seek clarification of transactions' content to achieve the required classification for properly consolidating the general government accounts.

Recommendation: *The MOF should collaborate with the CBS—through formalized and regular contacts—to improve the coverage, classification, and recording of the data on central government units in line with international standards.*

3.1.3 Source data are timely

Data sources for compiling the annual central government subsector could be more comprehensive and timely, so as to eliminate the need to employ estimations. Data for budgetary central government operations (including the NII) are available annually as well as quarterly, albeit with incomplete detail.⁴⁸ The source data for the annual government accounts—audited budget execution reports—are submitted to the MOF's Accountant General Department within six months for annual data from the end of the reference period, and plans are in place to improve the timeliness to three months within 2007. Also, preliminary central government data, currently provided to the CBS on a cash basis, need to be adjusted to an accrual basis, although this is expected to change when the MOF completes its implementation of accrual based accounting, expected by end-2006.

⁴⁸ The MOF indicated that the computerized reporting system being implemented under the Economic Resources Planning initiative is aimed, in part, at providing the needed additional detail.

Data for extrabudgetary central government operations (including NPIs), where not covered by administrative records, are provided through the CBS estimates, based on quarterly and annual surveys carried out by units within the CBS. Preliminary annual data are generally provided within twelve months after the end of the reference year and cover 80 percent of the total expenditure of this subsector. Final annual data for extrabudgetary central government units are provided between two to three years after the end of the reference year. This delay is due to problems in collecting complete data on NPIs, particularly for those outside the four main branches (education, health, culture and recreation, and research and development).

Data for local government operations are obtained through an analysis of their financial and budget reports. The first preliminary data—for the 70 municipalities that comprise approximately 80 percent of this subsector—are generally available from the CBS's Infrastructure and Economic Department within 15 to 18 months after the end of the reference year. Owing to nonstandardized reporting formats and a lack of electronic means for transmitting data, considerable delays occur for the local and regional councils' data. Final data for all the local authorities are provided up to two years after the end of the reference year. More timely sources are derived from estimates developed by the CBS's Macro Economics Department from payroll data, etc.

The source data for financing and debt data are available for budgetary central government within three months after the reference period. For other subsectors, substantial delays may occur. Moreover, data are often provided in hard-copy format through informal mechanisms.

***Recommendation:** Compilers of source data, in collaboration with CBS, should improve and formalize source data provision procedures and protocols so as to improve timeliness while also reducing the need for estimations.*

3.2 Assessment of source data

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

To the greatest extent possible, the final source data are based on audited accounts of all the general government units. The trade-off between timeliness and accuracy of source data is well recognized and balanced. During the current year, assessments of source data are made on an ongoing basis, as necessary. The strategy adopted is to compile and publish preliminary data as soon as reasonably complete and accurate data become available and to replace the preliminary data by revised data or final data after audited accounts have been produced. The status of the data and any major quality reservations that compilers have about the data are routinely identified for follow-up when the data are compiled and disseminated. Assessments of past years' annual and quarterly data also are made once a year, at the time the IMF's *GFS Yearbook* questionnaire is compiled.

3.3 *Statistical techniques*

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

The use of statistical techniques is sound, and material differences in preliminary data and revised/final data are regularly studied and analyzed for further improvements. For the general government as a whole, procedures are in place to estimate missing data and to minimize the processing errors. These procedures are based on accepted statistical processes. Preliminary data are replaced by revised data or final data, and data are corrected with more accurate data when available, if there are material differences. Staff identify and reconcile discrepancies between flows and stocks, like in the net lending/borrowing approached from the real and financial sides.

Final annual data are generally collected from the administrative records and do not require estimation. If large units fail to report within the requested time, they are reminded. Only in cases of the smaller NPIs outside of the four main branches, are the last year's reports, supplemented by other sources, used as a basis for deriving estimates for use in compiling the preliminary data. As in the national accounts, the perpetual inventory method is used to estimate the written-down replacement costs of fixed assets, including infrastructure assets, to calculate the consumption of fixed capital. The value of the stocks is based on acquisitions and disposals that have been accumulated and revalued over a very long period. The value of the assets is the original acquisition value adjusted by an allowance for price changes (assumptions are made regarding the remaining service life of each asset) and written down for the accumulated consumption of fixed capital.

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

The CBS seeks to use appropriate techniques when adjusting or transforming data. Any estimations employed (e.g., imputed pension contributions) are undertaken through well-established procedures, using constant price data that are known to source data providers. Appropriate bridge tables have been developed between the MOF's, NPIs' and local authorities' accounting systems and the CBS national accounts databases.

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

3.4.1 *Intermediate results are validated against other information where applicable*

The Macroeconomic Department staff regularly analyze the source data (to ensure accurate and consistent time series) to confirm that accurate data are used. The consistency of the government finance statistics data with the national accounts aggregates is checked, for example, the government consumption and net acquisition of fixed assets (even though they are compiled from the same data sources). The consistency with other related data sources is checked. Controls are made regarding reported data on, among other things, taxes and transfers between general government sectors, as well as with the banking statistics, balance

of payments statistics, data on foreign assets and liabilities, and the administrative register of securities, etc.

Some problems related to the coverage of data in the central government sector have been encountered, particularly in the extrabudgetary sector. Comparisons cannot be made between net lending/borrowing (derived from the nonfinancial accounts) and changes in net financial assets/liabilities because the CBS has not yet completely compiled the financial account.⁴⁹

Recommendation: *The CBS should accelerate ongoing work aimed at compiling the financial account of the general government so as to allow for improved validation of the data derived from the nonfinancial accounts of the consolidated general government sector. This work should be coordinated with the activities of the MOF in this area.*

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

Over the past few years and owing to, among other things, an evolving budget structure and changes to definitions and classifications (e.g., institutional units, current and capital expenditures, and certain taxes) at the MOF, the CBS uses extensive plausibility checks to ensure that the statistics comply with specific regulations concerning timing, recording, and classification. Also, it checks data against corresponding data of other institutions (NPIs and local authorities) and its own units (e.g., data on conditional grants from the U.S. government maintained by the BOP unit). Comparison with previous years' data is carried out on the data reported by the various entities. Different categories of expenditure and revenue are compared. Direct contacts with counterparts of reporting entities are made, as needed.

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

All time series are checked for consistency by monitoring the trend of the time series, and any out-of-trend data are examined. If no explanation is found as regards the processing of the data, economic causes are examined. The identification of discrepancies leads to discussions with source data reporters and with the CBS compilers.

3.5 Revision studies

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

Revisions are minimal due to the extensive use of accounting data as the source for compiling results, even at the preliminary stage. The actual revision practice of general

⁴⁹ The CBS plans to complete the compilation of the financial account in the next few months.

government account statistics is the same as that adopted for all the national accounts. Nonetheless, the reliability of the data sources and statistical techniques used for making estimates, as relevant, are regularly reviewed by staff of the CBS (Macro Economics Department). The reasons for any resulting revisions are accounted for and analyzed by staff.

4. Serviceability

4.1 Periodicity and timeliness

4.1.1 Periodicity follows dissemination standards

Israel meets the periodicity standard of the SDDS, as follows:

- General government operations data are published annually. They are recorded on an accrual basis (except for taxes and transfers, and purchases of goods and services for the budgetary central government, which are partly recorded on a cash basis).
- Central government operations data, on a cash basis, are published monthly.
- Central government debt data are published quarterly and are distinguished between foreign and domestic and maturity and currency.

4.1.2 Timeliness follows dissemination standards

Israel meets—or exceeds—the timeliness standard of the SDDS, as follows:

- General government operations data exceed the timeliness standard of the SDDS, because they are published, as part of the national accounts, within three months after the end of the reference year.
- Central government operations data (i.e., budgetary central governments) are disseminated within six business days after the end of the reference month, which is well within the SDDS timeliness requirement.⁵⁰
- Central government debt data are disseminated three months after the end of the reference quarter.

⁵⁰ Further to the Fifth Review of the IMF Data Standards Initiatives as related to the SDDS requirements for the fiscal sector, the standards will take account of how the methodology of the *GFSM 2001* affects the SDDS reporting requirements for the central government operations (CGO) and the general government operations (GGO) data. The intention is to achieve the quality improvements that are facilitated by accrual reporting, under the *GFSM 2001* or *ESA 95* standards, while improving timeliness of reporting. Under the new arrangement, if a subscriber disseminates, with one quarter lag, quarterly GGO data in line with the *GFSM 2001* or equivalent standard, a targeted timeliness flexibility option would be allowed for monthly CGO data (on cash, accrual, or modified cash/accrual basis, consistent with current SDDS requirements). Compiling accrual data is significantly more resource intensive than preparing information solely on a cash basis. The delays involved are most severe at the turn of the fiscal year.

4.2 Consistency

4.2.1 Statistics are consistent within the dataset

As stated above, the annual government finance statistics stock and flow data follow the standards of the 1993 SNA and therefore the GFSM 2001 and are internally consistent for most of the accounts. Subannual government finance statistics are not yet implemented in the CBS. Aggregates are consistent with their components, and balances are consistent with the aggregates. The sum of the data for the subsectors, after appropriate consolidation, is consistent with consolidated general government. The sum of the transaction data for subsectors is consistent with data on the general government, taking into account intergovernmental payments. Weaknesses appear on the financial side, where the reconciliation between stocks and flows could be improved. Transactions in financial assets, as well as balance sheet items, are not yet compiled in the CBS government finance statistics framework because satisfactory information is not readily available from the MOF, local governments, and NPIs on the financial transactions.

For CGO, the cash surplus/deficit is equal to financing, and the major aggregates are the sum of their components. The monthly, quarterly, and annual cash data follow the same national classification for revenue and expenditure and use the same recording basis. The difference between the sums of the monthly, quarterly, and the annual data is due to differences in recording.⁵¹ A detailed set of tables that reconciles fully the monthly data with the annual data is prepared but not published.

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

For general government statistics in the context of national accounts, changes are explained that arise from major methodological improvements or changes in the statistical system, concepts, etc. Also, the time series are revised, such as, for instance, when carrying out main revisions. Time series of general government accounts data, which largely match those prepared using the GFSM 2001 framework, are checked for consistency on an annual basis in the context of preparing the *Statistical Abstract of Israel*. Also, past government finance statistics reports to the IMF are kept in the sector's archives for future reference and comparison.

Breaks in series due to methodological changes or changes to the statistical system of the national accounts are footnoted in tables and clearly identified and explained in the publications. In the case of significant deviations from the long-term trend, explanations are

⁵¹ As already indicated, the monthly statistics are derived from cash flows, and annual data are derived from detailed budget execution data.

made in the relevant national accounts press release and/or in the *Statistical Abstract of Israel*.

Also, some brief explanations are provided on the CBS website or in paper publications to explain, for instance, significant increases in gross fixed capital formation, changes in tax revenue, transfers, etc. Such information will usually be drawn from final budget execution data in the MOF, local authorities, and NPIs.

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

The general government sector compiled by the CBS is consistent with the national accounts aggregates. In particular, *1993 SNA* general government sector national accounts are consistent with related national accounts aggregates, such as saving, net lending/borrowing, government consumption, gross fixed capital formation, and consumption of fixed capital. Also, grants and other transactions are consistent with balance of payments data compiled by the CBS, because the same source data are used, and these data are an integrated part of the national accounts.

The *1993 SNA*-based financial balance sheets and government financial assets and liabilities held by other sectors are, where reported (2003), broadly consistent with annual monetary statistics. This is ensured by the system of financial sector balance sheets being developed (by the CBS) for use by the BOI in its work on financial stability indicators.

For data on central government, the Accountant General's management information system ensures that the reconciliation of commitments, budgetary appropriations, payments, and bank account transactions is effective and timely. In addition, the prepared balance sheet permits a reasonable reconciliation of the cash deficit with the financing and changes in the government's assets and liabilities.

Cash data on central government provided by the MOF are reconcilable with the corresponding sector in the national accounts,⁵² as well as with other statistical frameworks, such as monetary statistics and balance of payments, because cash-based central government statistics constitute a data source for these other frameworks as well.

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

With regard to government sector national accounts, the publication of general government data follows a regular and well-understood pattern, whereby initial data are preliminary and

⁵² A bridge table linking the two sets of data exists but is not published.

are subsequently replaced by final data. Revisions take place at the same time as revisions for other national accounts aggregates. As a rule, such revisions may take place with every quarterly publication for the current and for previous years in June/July, based on the availability of new data. Revisions to align the data more closely to the *1993 SNA* go back until 1995. Modifications due to revisions are published in *Current Statistics* with the differences explained. The revisions policy is not stated.

4.3.2 Preliminary and/or revised data are clearly identified

Preliminary data are identified. Revised data are disseminated with the same level of detail as preliminary data. The coherence between preliminary and final data is sufficient to allow the preliminary data to be used with confidence for policy determination and analysis.

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

With regard to government sector national accounts, current revisions are explained briefly in press releases (in Hebrew) and in the publication *Current Statistics*, as relevant. In addition, revisions, should they occur, are explained every year in the *Statistical Abstract of Israel*.

For the monthly central government data provided by the MOF, no specific studies or analyses of routine revisions, which are normally quite small, are made public.

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 general government operations data are sourced from the national accounts meaning that a dedicated government finance statistics publication does not currently exist.⁵³ The general government summary tables are published in the *Statistical Abstract of Israel*, while the CBS national accounts, disseminated in *Current Statistics*, include major aggregates and balancing items accompanied by more detail and longer time series. Data for the subsectors of the general government sector and a consolidation for general government at the various levels of government are published in both sources. The presentation also includes analysis of developments in the form of highlights intended to convey significant findings, comparisons, and trends to assist the reader in understanding and using the data published.

Detailed tables on central government along with commentary are disseminated by the MOF monthly. The tables are broadly consistent with the recommendations of the *GFSM 1986*.

⁵³ A dedicated publication is under preparation.

However, expenditure is presented by functional classification only, that is, no expenditure data by economic classification are disseminated.

Recommendation: *The CBS should publicly disseminate general government finance statistics according to the presentation outlined in the GFSM 2001.*

5.1.2 Dissemination media and format are adequate

The CBS's products are available in both Hebrew and English, simultaneously. In addition to the national accounts data releases, summary general government sector statistics are available on the CBS Internet website without charge and for a charge in hard copy. Special (in electronic format on demand basis) data services are available on request through the relevant Information Units, which also determine charges, where relevant. In addition to publishing the annual figures compiled in accordance with 1993 SNA, the CBS publishes—in the IMF's *GFS Yearbook*—annual data on the consolidated general government according to the classification used in the *GFSM 2001*.

The monthly, quarterly, and annual CGO data releases are posted on the MOF's website. Time series and more detailed breakdowns of the data are available on request either in paper or electronic formats. The MOF also publishes quarterly and annual data on the budgetary central government debt on its website. There are also annual publications in the NII and the local governments in the framework of national financial statements.

Recommendation: *Supplement the 1993 SNA-based presentation through government finance statistics time series for the consolidated general government according to the presentation prescribed in the GFSM 2001 in publications and on the CBS website.*

5.1.3 Statistics are released on a preannounced schedule

All statistics are released according to publicly preannounced dates, and checks are made to ensure that these dates are adhered to. A calendar of data release is published on the CBS website that covers the next four months and is updated routinely. Furthermore, the weekly CBS press release, "An Update of the CBS's Press Releases' Publication Calendar for the Week of --," provides additional notification of pending releases. National accounts release dates are preannounced, and, as the general government operations data are sourced from the national accounts, the SDDS requirement for advance release calendars is met.

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

The CBS's statistical publications are available to users simultaneously on a preannounced date and time, subject to well defined preembargo access arrangements. The Internet is the main channel for the CBS's dissemination of statistics, and the statistics are released at 1:00 p.m. Representatives of the press do not obtain any information before the press release is actually disseminated. The BOI and the MOF, as compiling agencies, may receive data before publication to enable them to prepare statements for their internal purposes.

5.1.5 Statistics not routinely disseminated are made available upon request

Nonpublished data (but nonconfidential) are made available on request for free or sometimes for a charge. The availability, terms, and conditions are published on the CBS website (<http://www.cbs.gov.il/freeinfo06.pdf>).

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

Quite extensive methodological notes are published in the annual national accounts section of the *Current Statistics*, released by the CBS in December each year. The information contains material on concepts, definitions, classifications, data sources, compilation methods, statistical techniques, and other relevant methodological aspects and procedures.

Methodological descriptions are also available in the *Statistical Abstract of Israel*, issued in September/October each year and available on the CBS website. Further methodological information is available upon request.

Very limited documentation on concepts, sources, and methods is provided with tables published by the MOF, although commentary on developments is included in the annual budget publication. Users may have difficulties linking these tables on central government finances with similar tables published by the CBS on its website.

The summary methodology for the fiscal sector data that is posted on the Dissemination Standards Bulletin Board (DSBB) is reviewed and updated regularly, and differences from internationally accepted standards (*GFSM 2001*) are annotated.

Recommendation: *In parallel with recommendations under 5.1.1 and 5.1.2, above, and as a tool for guiding future development work, the CBS should prepare documentation explaining the concepts, scope, classifications, basis of recording, data sources, and statistical techniques used in compiling the annual general government accounts, as well as differences from internationally accepted standards and guidelines.*

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

The descriptions given under *National Accounts* for each quarter and in *Current Statistics* on the CBS website are intended to be thorough enough to provide adequate information for users to assess strengths and weaknesses of the general government accounts. This site is also intended to provide transparent and understandable information about the statistics to a wide variety of users.

The level of detail in the MOF's monthly releases appears to meet the needs of most users.

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

Each CBS publication, including the press releases, contains contact information on where to seek further information, including the name, telephone number, and e-mail address of the person to contact. For each dataset, queries are answered by a staff member of the relevant division—in most cases, by the head of the section or a senior executive officer.

In addition, individual queries can be directed to the information units at the CBS by phone or by mail. Assistance to users is monitored and reviewed periodically. The number and nature of user queries is recorded and analyzed by the CBS.

Information on contact persons for central government operations and debt is published by the MOF.

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

The CBS maintains a comprehensive catalog of its products and services, detailing how to obtain the product or service and its price if there is a charge. The CBS website indexes the current and previous issues of the quarterly and annual releases of national accounts, including general government accounts, and related tabulations of longer time series. The website includes information on publication prices and charging policy for obtaining nonpublished data.

Table 5. Israel: Data Quality Assessment Framework (July 2003): Summary of Results for Government Finance Statistics
(*Compiling Agency: Central Bureau of Statistics*)

Element		NA	Assessment				Comments
			O	LO	LNO	NO	
0. Prerequisites of quality							
0.1	Legal and institutional environment		X		X		Decreasing budget, hiring freeze, outdated IT, and inflexible budget mechanisms.
0.2	Resources		X				
0.3	Relevance		X				
0.4	Other quality management		X				
1. Assurances of integrity							
1.1	Professionalism		X				
1.2	Transparency		X				
1.3	Ethical standards		X				
2. Methodological soundness							
2.1	Concepts and definitions		X				Deficiencies in coverage of central government. Stocks data on financial assets for the general government sector and its subsectors, while now compiled, are not yet disseminated by the CBS. Value all flows and stocks at market prices consistent with <i>GFSM 2001</i> .
2.2	Scope			X			
2.3	Classification/sectorization		X				
2.4	Basis for recording			X			
3. Accuracy and reliability							
3.1	Source data				x		The CBS must revert to the original sources and seek clarification of transactions' content in order to achieve the required classification. Substantial delays in extrabudgetary and local government data.
3.2	Assessment of source data		X				
3.3	Statistical techniques		X				
3.4	Assessment and validation of intermediate data and statistical outputs		X				
3.5	Revision studies		X				
4. Serviceability							
4.1	Periodicity and timeliness		X				
4.2	Consistency		X				
4.3	Revision policy and practice		X				
5. Accessibility							
5.1	Data accessibility				X		<i>GFSM 2001</i> framework compiled but not disseminated.
5.2	Metadata accessibility		X				
5.3	Assistance to users		X				

VI. MONETARY STATISTICS

0. Prerequisites of quality

0.1 *Legal and institutional environment*

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

The current Bank of Israel (BOI) Law was adopted in 1954 and since then has been amended to the most recent version as of April 1988. The BOI Law does not explicitly mention the monetary statistics as one of the areas of responsibility for the central bank. Nonetheless, the BOI actually compiles the Israeli monetary statistics mainly based on source data collected by some of its departments: Monetary Department (MD), the Banking Supervision Department (BSD), and the Foreign Exchange Activity Department (FXAD). Together with the BOI, the Central Bureau of Statistics (CBS) contributes to the dissemination of monetary statistics.

Within the BOI, two departments, the MD and Research Department (RD), are in charge of compiling monetary statistics. Owing to poor coordination and other issues, some components of monetary statistics are compiled twice from different data sources and with different outputs. This is the case particularly for money stock M2, given that there is no common view on its components between the RD and MD. This sharing of responsibilities, which in many cases results in discrepancies in the reporting of the same aggregate, has also contributed to the perception of diminished relevance of monetary statistics within BOI.

Recommendation: *The responsibility for the compilation of monetary statistics should be unequivocally reassigned to a single unit in the BOI. In most central banks, this responsibility is assigned to a research department or to a statistics department. Such a reassignment would not curtail access of the MD to all available data at all stages of collection and compilation. To the contrary, an efficient statistics unit would facilitate early monetary indicators needed for the monetary policy decision making. For the sake of transparency, the set of monetary indicators compiled by the MD should be designated, for instance, “high-frequency monetary data.” Only statistics compiled in accordance with internationally accepted standards, such as those set forth in the Monetary and Financial Statistics Manual, 2000 (MFSM), should be designated as “monetary statistics.”*

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

Source data for the compilation of monetary statistics are collected by BOI departments (MD, BSD, and FXAD) and do not involve other data-producing agencies. For the purpose of some financial statistics, the BOI obtains reports submitted by institutional investors from the Ministry of Finance (MOF). Contacts of the BOI with the MOF are not made regularly but are maintained efficiently when issues, especially methodological questions, arise.

Within the BOI, scope exists for improving coordination on data collection from banks between MD and RD on one side and BSD on the other side. Particularly, additional breakdowns on data reported by banks to the BSD would be necessary to bring methodology applied to Israeli monetary statistics closer to internationally accepted standards.

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

All individual reports from respondents are kept confidential. Confidentiality requirements are not stated specifically in laws but are specified in internal procedures. Such procedures include limited access to individual data by staff in charge of collecting and checking reports from respondents. When needed, staff in charge of the compilation of monetary statistics can also access individual data. Appropriate security procedures are in place at the BOI. Staff can access the computer network with a personal user identification and password. Network access to specific databases is limited to authorized individuals or groups of staff. The perimeter of BOI premises is secured. All visitors are screened and phone contact is established with visited staff before access is granted.

As is commonplace for the compilation of monetary statistics, source data are not collected for statistical purposes only. Source data collected by the BSD are primarily for the enforcement of bank supervision, and source data collected by the MD are primarily for the determination of the level of compulsory reserves on bank deposits and banks liquidity monitoring. As concerns monetary statistics, only aggregated data are disseminated to the public, except those pertaining to the transactions of the central bank.

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

Two clauses of the BOI Law empower the central bank to collect data returns from banking institutions. Under Part Nine, entitled Regulation of the Liquidity of Banking Corporations of the BOI Law, pursuant to clause 50 (a), "A banking corporation shall...submit to the BOI a report containing particulars of its liabilities and assets as required for calculating the amount of liquid assets to be held by it and particulars on the liquid assets actually held by it." Further, under Part Ten, entitled Regulation of Bank Credit of the BOI Law, pursuant to clause 56A-Duty of reporting, "The Governor of the BOI may prescribe by order that banking corporations shall report to the BOI on their assets, liabilities and capital at such times and in such manner as he may prescribe." It is on the basis of clause 56A that the BSD collects monthly balance sheets and pertinent supplementary reports from commercial banks (other depository corporations).

However, the authorities declare that they do not cite explicitly the abovementioned clauses to get data from banks. They claim that data collection from banks is supported rather by a genuine mutual interest in the sharing of information between the BOI and the banks. Other

financial institutions that are not under the supervision of the BOI are generally cooperative in reporting some balance sheet information on an informal basis.

Banks have sometimes contended that the reporting burden to the BOI is too costly. However, they have generally reported the requested data on a timely basis.

0.2 Resources

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

Staff available for compiling of monetary statistics are generally commensurate with the statistical program; however, a vacancy that appeared three months ago has not been filled to date. Facilities and computing resources are deemed adequate in both quality and quantity for the collection of source data, compilation, and dissemination of monetary statistics. The provision of computing resources is under the responsibility of the BOI's Information Technology Department (ITD). Scope exists for improving the cooperation between the various departments, particularly as regards the design and timely updating of the BOI website for the posting of monetary statistics. The BOI's budget is revised and updated annually according to the priorities identified by departmental managers.

0.2.2 Measures to ensure efficient use of resources are implemented

Every year, performance of each staff is assessed by two immediate in-line supervisors. This assessment is conducted during a meeting, and a form is completed, in which key features of the year under review as well as staff's desiderata and comments are recorded. This form is an input to the BOI annual procedure on compensation increases and promotions.

Training seminars are offered to staff on interpersonal communication, conflict mediation and resolution, writing skills, etc. Heads of units and departments' deputy directors attend courses on management. It is intended that, in the near future, such courses also target department directors. Within the BOI, a unit "Organization and Methods" can provide advice and recommendations on work procedures and organizational changes to department directors upon request. Internal auditors routinely control sound application of accounting and other formal work procedures. The BOI, like other public entities in Israel, is subject to accounting audit by a designated governmental body.

Recommendation: *Staff resources should be kept commensurate with the workload generated by the compilation and dissemination of monetary statistics.*

0.3 Relevance

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

Specific credit indicators and monetary data are adequate, or even more advanced, in meeting the BOI's needs in a framework of inflation targeting regime chosen for the Israeli monetary policy. For the actual conduct of the monetary policy, there is a permanent review of the source data collected and indicators compiled.

There is no periodic survey or other formal mechanism for consulting actively external users, such as other government agencies, private sector, and academics, to monitor more closely their needs.

There is, in Israel, a national Public Council for Statistics where statistical programs presented by data-producing agencies should be discussed and, possibly, prioritized.

Recommendation: *Surveys on the needs of monetary statistics users outside the BOI or meetings with such users should be conducted periodically, for instance every year. Specific requests on monetary statistics from users should also be analyzed and findings drawn upon to improve the statistical program and dissemination formats of monetary statistics.*

0.4 Other quality management

0.4.1 Processes are in place to focus on quality

In the BOI, particularly in the MD and RD, a strong awareness exists of monetary statistics quality as a contribution to the effectiveness of monetary policy formulation. This is confirmed by the constant adaptation of the monetary statistics to this purpose. Quality awareness is less observed, for instance, as regards consistency of monetary statistics with other macroeconomic datasets or dissemination of monetary statistics.

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

The BSD performs internal consistency checks on monthly reports from banks. Current data are also compared to data reported from the previous period to identify abnormal fluctuations from one period to the next. On-site inspections are conducted in banks to ensure that data reported fully reflect actual transactions performed by respondents.

The RD and MD regularly review monetary statistics time series to assess their relevance for the formulation of monetary policy and to help identify out-of-trend data.

The BOI does not solicit expertise from external bodies that would provide guidance on the quality of monetary statistics.

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

Monetary statistics components (early monetary indicators) compiled by the MD are based on high-frequency source data; typically they are monthly averages of daily data reported by banks. According to internationally accepted standards, monetary statistics should be compiled from comprehensive balance sheets of depository corporations (including the central bank) established on the basis of actual end-of-month data. The monetary statistics compiled by the RD are mainly based on end-of-month data. The RD staff are sensitive to the MD's reluctance to revise its indicators that are produced earlier and thus sometimes differ. The understandable willingness of reconciling both approaches results however in costly trade-offs when facing the choice of which data series should be used for some research on issues other than the formulation of the monetary policy. Further, so doing, the BOI deprives itself of compiling genuine monetary statistics in accordance with internationally accepted standards. The timeliness required for early monetary indicators and for full-fledged monetary statistics are intrinsically different and nonreconcilable.

Recommendation: *The BOI should make it clear that the MD compiles early monetary indicators in accordance with a national methodology for monetary policy purposes within a framework of inflation-targeting regime. A designated unit should be established in the BOI for compiling official Israeli monetary statistics in accordance with internationally accepted standards. This unit should be equipped with a series of professional and technical skills: economics, statistics, accounting, and database management.*

1. Assurances of integrity

1.1 Professionalism

1.1.1 Statistics are produced on an impartial basis

The governor of the BOI is appointed by the president of the state on the recommendation of the government. The governor shall manage the BOI and advise the government on currency and other economic matters. The BOI Law does not state that the governor should not seek, or accept, any advice from the government. The appointment of the governor is for five years, and he may be reappointed. The government cannot dismiss the governor. The government may accept the resignation of the governor after he has notified the government that in view of disagreement between him and the government on basic questions of policy relating to the functions of the BOI, he sees no possibility of efficient cooperation. The BOI has an Advisory Committee and an Advisory Council, which both advise the governor on any matter relating to the functions of the BOI and to which the governor reports on the shaping of the monetary policy and on all important steps to be taken to implement such policy. A state employee cannot be a member of the Committee or the Council. As a whole, these arrangements promote the independence of the BOI from the government and impartiality in the performance of its duties.

The BOI has a reputation of professionalism. Recruitments and promotions are based on professional aptitudes primarily relating to areas of economic analysis. There is no specific recruitment for applicants equipped with statistical backgrounds. No BOI staff working in the compilation of monetary statistics has attended courses or seminars on monetary statistics proposed by the IMF, whereas staff assigned to the compilation of other macroeconomic statistics, balance of payments statistics in particular, have attended such courses or seminars relevant to their functions.

Recommendation: *Monetary statistics compilers should be encouraged by BOI management to participate in courses or seminars on monetary statistics conducted by the IMF. Participation of staff in BOI departments providing source data for monetary statistics should also be considered.*

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

Data sources for the monetary statistics are selected on the basis of their capacity to provide primary data that support the relevance of monetary statistics for their intended uses. No particular statistical technique is applied for the compilation of monetary statistics since the source data collected are comprehensive from the limited number of reporting entities. In particular, all resident depository corporations report daily, weekly, monthly, and yearly, as requested by the BOI. With regard to dissemination, the BOI releases to the public data on the aggregated balance sheet of the banking system, on monetary and credit aggregates, on institutional investors, and also on monetary policy decisions. For example, the monthly press release is issued before the internal BOI meetings on interest rates decisions so that the public can access data that are part of the decision-making process.

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

Every month, the BOI issues a press release offering comments on monetary policy decisions, supported by an analysis of the recent changes in monetary aggregates and market-based inflation expectations; such comments are a contribution to the proper interpretation of monetary statistics by the public. The BOI does not systematically monitor media coverage of its data. The BOI indirectly comments on erroneous interpretation and misuse of monetary statistics by ongoing discussion of policy issues related to monetary policy and financial stability.

Recommendation: *The governor and other BOI spokespersons should proactively discuss erroneous interpretations and, among other things, clarify the BOI's role in the compilation and dissemination of high-quality monetary statistics.*

1.2 Transparency

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

The responsibility for collecting source data is set forth in the BOI Law and subsequent bank supervision regulations. The BOI Law is posted on the BOI website. However, the BOI Law does not explicitly mention the monetary statistics as one of the areas of responsibility of the central bank. This shortcoming is not offset by clear and specific information prepared by the BOI for the public on the reasons why monetary statistics should be compiled, the conditions under which they are compiled (independence, confidentiality of individual data, approval process), or the actual practices that govern their dissemination (statistical secret, available media, timeliness, assistance to users).

Recommendations:

- *Ensure that the draft BOI Law provides a clear mandate for the central bank to compile and disseminate monetary statistics.*
- *Enhance the authority of BOI to collect data from all resident financial institutions — as defined in both the 1993 SNA and MFSM— for statistical purposes. The latter will permit the BOI to undertake the compilation of the financial sector survey as recommended in the MFSM.*

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

Government officials have no access to monetary statistics prior to their release to the public.

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

In dissemination media other than those directly published or managed by the BOI, the source of monetary statistics is not systematically indicated. For instance, the CBS website has no indication that the BOI is the source of the monetary statistics.

Recommendation: *The CBS and the BOI should agree to attribute the relevant data-producing agency—and whenever possible, the relevant dataset—when redisseminating statistics compiled outside the BOI. Further, the same rule should apply internally at the department level in BOI dissemination media, not only as a courtesy, but also to streamline users' search in making their requests directly to the relevant department.*

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

Generally, the BOI provides advance notice of changes in methodology. Due to manpower shortages, full explanation of changes in methodology sometimes lags behind implementation.

1.3 Ethical standards

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

Most guidelines for BOI staff behavior are set out in the BOI Law, the labor constitution covering BOI employees (the Constitution), internal work procedures, and an information booklet for employees.

The BOI Law includes, in particular, rules on prohibition of other employment (section 13), secrecy (section 65), and restrictions after retirement (section 66).

Employment positions at the BOI are classified in security terms in accordance with the security rating of the information and intensity of the employee's contact with it. The rating of a position is sometimes determined on the basis of its security classification or the sensitivity of the site where the employee works, irrespective of the classified information with which he or she comes in contact. Every new employee accepted by the BOI must submit a document testifying that he or she has no criminal record by the means of a certificate of honesty issued by the police (General Secretariat, Personnel Department regulations, Administration of employees, chapter 2).

A BOI employee must discharge loyally and to the best of his or her ability the task with which he or she is charged by virtue of the position, in accordance with the instructions of the superiors and in accordance with the Constitution. The employee will do his or her best to acquire professional and general know-how to discharge the work and gain promotion (Constitution, section 25).

Pursuant to the BOI Law (section 65), banking ordinance (provision 15a), and Israeli penal law, every employee is bound by the obligation not to transmit information and to maintain official secrets, and must sign a "declaration of observance of secrecy." No employee may pass on secrets to other employees of the BOI if this information is not directly associated with their work.

A BOI employee is required by law to preserve and not to transmit information that has reached him or her by virtue of his or her position, and not to be negligent in guaranteeing and keeping classified information and documents. The law imposes serious penalties on anyone contravening these provisions (Procedure, Guaranteeing records, March 3, 2003). Employees in open spaces, such as work stations, shall be especially careful not to leave documents on their desks when leaving, even if only for a short while. At the end of the working day all the material should be locked in the designated desk drawers and closets (Information booklet, Securing information, section 3a, October 1997). If a site is designated as secure, access to it is prohibited and limited to authorized employees only (ditto, section 3b). Classified or sensitive documents should not be thrown into wastepaper baskets, and should be shredded. Documents that are not classified or sensitive should be collected in special receptacles placed on the premises (ditto, section 3c).

If an employee infringes the regulations or the discipline of the BOI, or commits abuse of position, disciplinary actions may be taken against him or her, such as issuance of a letter of reprimand, suspension of employee from work, or dismissal from the BOI (Constitution, sections 32 and 33).

A BOI employee is prohibited from engaging in commerce, from being a partner in a business, from serving for remuneration any person who comes into contact with the BOI within the framework of the functions of the central bank, or from undertaking any other additional work that may adversely affect the employee's ability to discharge his or her duties within the BOI. A BOI employee may engage in private work provided he or she has received permission to do so from the management of the BOI (Constitution, section 34).

Summary of Recommendations

- The responsibility for the compilation of monetary statistics should be unequivocally reassigned to a single unit in the BOI. In most central banks, this responsibility is assigned to a research department or to a statistics department. Such a reassignment would not curtail access of the MD to all available data at all stages of collection and compilation. To the contrary, an efficient statistics unit would facilitate early monetary indicators needed for the monetary policy decision making. For the sake of transparency, the set of monetary indicators compiled by the MD should be designated, for instance, "high-frequency monetary data." Only statistics compiled in accordance with internationally accepted standards, such as those set forth in the *MFSM*, should be designated as "monetary statistics."
- Staff resources should be kept commensurate with the workload generated by the compilation and dissemination of monetary statistics.
- Surveys on the needs of monetary statistics users outside the BOI or meetings with such users should be conducted periodically, for instance every year. Specific requests on monetary statistics from users should also be analyzed and findings drawn upon to improve the statistical program and dissemination formats of monetary statistics.
- The BOI should make it clear that the MD compiles early monetary indicators in accordance with a national methodology for monetary policy purposes within a framework of inflation-targeting regime. A designated unit should be established in the BOI for compiling official Israeli monetary statistics in accordance with internationally accepted standards. This unit should be equipped with a series of professional and technical skills: economics, statistics, accounting, and database management.
- Monetary statistics compilers should be encouraged by BOI management to participate in courses or seminars on monetary statistics conducted by the IMF.

Participation of staff in BOI departments providing source data for monetary statistics should also be considered.

- The governor and other BOI spokespersons should proactively discuss erroneous interpretations and, among other things, clarify the BOI's role in the compilation and dissemination of high-quality monetary statistics.
- Ensure that the draft BOI Law provides a clear mandate for the central bank to compile and disseminate monetary statistics.
- Enhance the authority of BOI to collect data from all resident financial institutions — as defined in both the *1993 SNA* and *MFSM*— for statistical purposes. The latter will permit the BOI to undertake the compilation of the financial sector survey as recommended in the *MFSM*.
- The CBS and the BOI should agree to attribute the relevant data-producing agency— and whenever possible, the relevant dataset— when redisseminating statistics compiled outside the BOI. Further, the same rule should apply internally at the department level in BOI dissemination media, not only as a courtesy, but also to streamline users' search in making their requests directly to the relevant department.

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 overall structure of Israeli monetary statistics does not follow concepts and definitions set out in the *MFSM*. Nor do they follow the concepts and definitions previously set out in the *Guide on Money and Banking Statistics Published in International Financial Statistics (Guide)*. Monetary statistics compilers in the BOI are not aware of the terminology used in the *MFSM* as regards generic names of financial institutions, sectors and subsectors of the economy, and classes of financial assets. Monetary statistics are not systematically prepared in the form of a set of comprehensive and balanced balance sheets and surveys, aggregated or consolidated. For instance, no survey of depository corporations similar to that presented in the *MFSM* is available.

The current monetary statistics available for Israel are more in the form of a set of selected data series, which do not allow for standard checks of accuracy that should be routinely applied on the magnitude of “other assets,” “other liabilities,” and “other items net” in sectoral surveys.

2.2 *Scope*

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

The scope of monetary statistics covers the BOI (central bank) and commercial banks (other depository corporations)—coverage that is broadly consistent with the *MFSM* methodology. Offshore banks, almost exclusively engaged in transactions with nonresidents, located in the national territory are not currently in the scope of monetary statistics, whereas the *MFSM* recommends their inclusion. To date, possible extension of the scope of monetary statistics to developing money market mutual funds has not been examined by the BOI.

Data on other financial intermediaries are made available to the BOI by the MOF, but these data are not used at present towards the compilation of a financial sector survey as recommended by the *MFSM*.

One of the credit aggregates include credits obtained by resident nonfinancial corporations from nonresident banks, while the *MFSM*, as well as any internationally accepted standard, recommends that the coverage of monetary statistics be strictly limited to positions, and at a later stage to transactions, of **resident** financial institutions.

2.3 *Classification/sectorization*

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

In monetary statistics, financial assets are not classified in accordance with the classification proposed in the *MFSM*. The main classification featured in monetary statistics, particularly as regards deposits and credits, is currently on the basis of type of indexation.

Monetary statistics aggregates are in most cases not presented with the breakdowns recommended by the *MFSM* with regard to the sectorization of the economy. Whereas transactions with nonresidents are correctly identified, data on central government especially are not singled out, but maintained within the general government category.

Recommendations:

- *Source data for monetary statistics should be improved significantly to meet the classification/sectorization systems recommended in the MFSM.*
- *The BOI should include in its statistical program, with the highest priority, a project for (1) the compilation of comprehensive monetary statistics in accordance with the MFSM methodology and (2) the use of the new standardized report forms (SRFs) designed by STA for the submission to the IMF of monetary statistics published in International Financial Statistics and used by other IMF departments. SRFs are not country-specific and are fully consistent with the MFSM classification/sectorization*

principles; thus, they are a powerful tool, providing clear guidance and longer-term quality objectives for the future compilation of monetary statistics by the BOI.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

Stocks are valued at market prices when applicable. Fair value is being adopted in accordance with accounting standards for nontraded financial assets similar to negotiable assets.

2.4.2 Recording is done on an accrual basis

The BOI and commercial banks use accrual accounting when establishing their balance sheets, and accrued interests are recorded under separate accounts. In the monetary statistics, accrued interests are not broken down with their underlying instrument, whereas the *MFSM* recommends including accrued interest with underlying instruments.

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

In conformity with *MFSM* guidelines, the BOI and commercial banks record most transactions on a gross basis. There is no netting of liabilities to and claims on the same entity. On balance sheets, loans are reported net of specific loan loss provisions whereas the *MFSM* recommends that monetary statistics be compiled on the basis of gross loans. However, the reports to the MD on credit include specific loan loss provisions.

3. Accuracy and reliability

3.1 Source data

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

For monetary statistics, source data are collected from all depository corporations every month (balance sheets to the BSD) and on a daily basis (liquidity reports to the MD). Collection of source data on other financial institutions is also comprehensive as regards their financial assets.

The accounting records currently used for compiling monetary statistics do not contain sufficient details to classify data by financial instrument and economic sectors as defined in the *MFSM*.

Developments in the financial sector are carefully monitored by the MD and BSD; data sources as well as source data collection are revised as needed.

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

For the establishment of their balance sheets or other reports to the BOI, resident financial institutions apply the more current international accounting standards.

3.1.3 Source data are timely

Source data are generally timely enough for allowing, after they are processed, dissemination of monetary statistics in conformity with Special Data Dissemination Standard (SDDS) requirements.

3.2 Assessment of source data

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

Accuracy of source data reported by commercial banks is checked on an ongoing basis by the BSD.

3.3 Statistical techniques

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

The compilation of monetary statistics does not call on use of particular statistical techniques because source data are collected from the entire targeted population of financial institutions.

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

In the RD, some monetary statistics data series are seasonally adjusted through well-established techniques.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Intermediate results are validated against other information where applicable

In the absence of comprehensive sectoral surveys, standard checks usually applied to intermediate and statistical outputs in monetary statistics cannot be undertaken.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

In the absence of comprehensive sectoral surveys, standard checks usually applied to intermediate data and statistical outputs in monetary statistics cannot be undertaken.

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

In the absence of comprehensive sectoral surveys, standard checks usually applied to intermediate and statistical outputs in monetary statistics cannot be undertaken.

3.5 Revision studies

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

Monetary statistics are not subject to formal revision cycles because most data are deemed final when released.

4. Serviceability

4.1 Periodicity and timeliness

4.1.1 Periodicity follows dissemination standards

Periodicity of Israeli monetary statistics components compiled by the BOI meets the requirements of the SDDS. Collection of source data by the MD on the central bank and “banking sector,” and the compilation of monetary aggregates, are mostly daily and monthly. Many of the aggregates that constitute the Israeli monetary statistics are compiled more frequently by the MD based on higher frequency returns, such as those implemented for monitoring the “banking sector” liquidity for monetary policy decision-making. These high-frequency returns are weekly or, even, daily. However, these high-frequency data are established for internal use at the BOI and are not disseminated to the public. Only monthly monetary statistics components are disseminated to the public.

4.1.2 Timeliness follows dissemination standards

Dissemination of monetary data on the BOI often occurs more than two weeks after the end of the reference month and, consequently, does not meet the two-week SDDS requirement. Dissemination of monetary data on the “banking sector” occurs generally within one month after the end of the reference month and, thus, meets the SDDS requirement.

Besides dissemination of monetary statistics components by the BOI, some data pertaining to monetary statistics are disseminated in the government official gazette and in the *CBS Monthly Bulletin*.

The government official gazette, *Reshumot*, publishes the BOI monthly balance sheet for the reference month and the BOI annual financial statement for the reference year.

The *CBS Monthly Bulletin*, available in hard copy and posted on the CBS website, presents:

- the BOI monthly balance sheet (the most recent posted on the website being as of August 2005);
- a quarterly aggregated balance sheet for the “banking sector” prepared by the BOI BSD (the most recent being as of September 2005, quarter 3);
- a large set of data series on the means of payments and other deposits of the public with the “banking system” prepared by the MD (the most recent data being as of May 2005); and
- a large set of data series on the credits granted to the public by the “banking system” also prepared by the MD (the most recent being as of July 2005).

4.2 *Consistency*

4.2.1 *Statistics are consistent within the dataset*

As monetary statistics components compiled by the MD are not derived from comprehensive balance sheets prepared by depository corporations (central bank and commercial banks), the internal consistency of components cannot be assessed through the standard checks that are generally performed for this purpose. For instance, it is not straightforwardly possible to verify through comprehensive sectoral surveys whether the central bank’s and other depository corporations’ records for claims on, and liabilities to, are consistent between each other. Further, because no comprehensive monetary survey is established, it is not possible to gauge the magnitude of the “other items net” herein.

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

Most monetary statistics data series are readily available from 1988 on a daily basis and on a monthly basis even earlier. Some data series are also disseminated with seasonal adjustment. Long-term time series are annotated to indicate changes in methodology, particularly those series available in the CBS monthly bulletin.

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

Consistency of foreign assets and foreign liabilities of other commercial banks in the monetary statistics is ensured with the corresponding data in the international investment position because the latter are directly used as source data for the monetary statistics.

The net position of the government in the monetary statistics is broadly of the same magnitude as the bank financing in the government finance statistics.

Consistency checks on foreign assets and liabilities are not carried out between monetary statistics and balance of payments statistics.

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

Monetary statistics as compiled by the MD are deemed final when published. Only the most recent monthly data are estimates and become final the next following month. There is no need for a regular and permanent revision schedule or implementation of a revision policy.

4.3.2 Preliminary and/or revised data are clearly identified

The most recent monthly monetary indicators compiled by the MD that are estimates are clearly identified as such by an asterisk in the binder, *Current Information on the Money and Capital Markets (the Binder)*.

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

Monetary statistics are not subject to formal revision cycles because most data are deemed final when released.

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)

Monetary statistics are disseminated monthly only in the form of numerical tables presenting time series with monthly and annual data. Month-to-month and year-to-year changes are also presented as a percentage. Numerical tables are accompanied neither with charts nor with commentaries or explanations on the evolution of the aggregates. Numerical tables are documented by footnotes providing some refinements on the definitions of aggregates. Most recent data are identified with an asterisk when provisional. However, in the *Inflation Report* and in the *Annual Report*, charts are presented followed by commentary and explanations.

In the *Annual Report of the Bank of Israel*, the volume prepared by the MD includes a monetary statistics table accompanied with a chart on main components for M2 by their degree of liquidity (short-, medium-, and long-term).

5.1.2 *Dissemination media and format are adequate*

High-frequency dissemination of monetary statistics is made through two media: the loose-leaf *Binder* and the BOI's website.

The *Binder* includes a section prepared by the MD. This section, "Current Data on the Money Market," comprises four tables in both Hebrew and English:

- Table A-1: Monetary and Credit Aggregates presents two money aggregates, M1 and M2, and one credit aggregate, C3. Data series begin in 1991;
- Table A-2: Monetary and Credit Aggregates—Principal Components presents breakdowns of aggregates presented in Table A-1. Data series begin in 1991;
- Table B-1: Bank of Israel Sources and their Cost presents, by types, the outstanding amounts of loans granted by the BOI for the refinancing of commercial banks, and the nominal effective interest rates weighted by amounts for each type of loan. Data series begin in 1991; and
- Table B-2: Monetary Deposits in Bank of Israel and their Cost presents, by types, the outstanding amounts of deposits held by commercial banks with the BOI, and the nominal effective interest rate weighted by amounts for each type of deposit. Data series begin in 1996 (the data begin from this date).

No sectoral balance sheet (for central bank and for other depository corporations) and no sectoral survey (central bank survey, other depository corporations survey, and depository corporations survey also known as monetary survey) are presented in the *Binder*.

The *Binder* is available via an annual subscription fee. The *Binder* is updated monthly.

The BOI's website presents a number of time series under the heading "Series database."

In the "Monetary" section, 10 data series relate to the BOI's balance sheet, but in a noncomprehensive manner. For instance, for the "money in circulation," only monthly changes are presented, whereas outstanding amounts are not proposed. SDR holdings and allocations, as well as "other assets" and "other liabilities," are not available.

In the "Assets and Deposits" section, 21 data series are presented, but they apparently cover the "banking sector" only and not the data from the BOI. For instance, there is a "Money Supply" data series, which does not include the currency in circulation. Further, the last available data for the "Money Supply" are as of July 2005. The money stock M1, considered as prominent for the monetary policy decision making by the BOI, is not available in the "Series Database."

In the "Credit" section, nine data series are presented with a breakdown with main types of credit (indexed, nonindexed, directed, granted against earmarked deposits, etc.).

In the “Series Database,” there is often a discrepancy between the last update indicated in data series descriptors and the actual reference period for the last available data. The latter is generally more current than stated in the relevant descriptor.

Recommendation: *Revise the design of the BOI and CBS websites, as well as other dissemination media, including the posting and publication of methodological notices and clear warnings, to help users access monetary statistics easily and prevent any confusion on which dataset better meets their needs; especially, designate only one comprehensive and internally consistent dataset as “monetary statistics” and adopt other names for the other datasets.*

5.1.3 Statistics are released on a preannounced schedule

No preannounced schedule for the dissemination of monetary statistics is posted on the BOI’s website or advertised directly by the BOI in any other media within the country; such a preannounced schedule is posted on the IMF’s Dissemination Standards Bulletin Board (DSBB) and on the CBS website.

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

Monetary statistics are made available to all users at the same time. In particular, government officials have no access to monetary statistics prior to their release to the public.

5.1.5 Statistics not routinely disseminated are made available upon request

Under the Israeli Freedom of Information Act, the BOI has to provide data at the request of any users of monetary statistics. Requests for monetary statistics are made mainly by academics and bank economists. In some cases, users are redirected to the BOI website or to the IMF’s DSBB. In other cases, when requested data series are not routinely disseminated, customized tabulations or spreadsheets are prepared by the MD and sent to users at no cost. The availability of additional statistics and the procedure for obtaining them are not 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

A summary methodological notice on the analytical accounts of the “banking sector” is prepared by the MD and forwarded to the IMF for its posting on the DSBB. In this summary methodological notice, differences from internationally accepted standards, guidelines, or good practices are not annotated. No methodological notice on monetary statistics is routinely disseminated to the public directly by the BOI within the country. As a service to the public, the BOI website redirects users to the IMF’s DSBB.

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

The methodological notice on monetary statistics is not available in various versions presenting different levels of details adapted to the needs of intended audiences.

5.3 *Assistance to users*

5.3.1 *Contact points for each subject field are publicized*

An MD staff is indicated in the IMF's DSBB as the contact person for the analytical accounts of the "banking sector." No contact person is posted on the BOI website or in its hard-copy publications.

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

The BOI does not make available to the public in hard copy any catalog of its publications. The BOI website offers, in both Hebrew and English, two catalogs of publications. One catalog lists most BOI periodical and nonperiodical (press releases, research papers, lectures, and addresses by BOI's officials) publications. From this catalog, documents can be downloaded and printed by users. Another catalog, managed by the BOI Publications Unit, lists those publications available in hard copy against a fee that is indicated for each publication. The *Binder* is mentioned in the version in Hebrew of this catalog but not in the version in English, while monetary statistics tables presented in the section "Current Data on the Money Market" in the *Binder* are bilingual. Subscriptions to the *Binder* are against a NIS 265 one-time fee, plus a NIS 190 annual fee for the monthly updates. There are 167 subscribers, of which 27 actually pay the subscription fees; the other subscribers receive the *Binder* as a courtesy from the BOI.

There is no hyperlink available to help to navigate from one catalog to the other. The BOI does not publish a monthly statistical bulletin that would provide comprehensive monetary statistics; only the CBS monthly bulletin provides for such monetary statistics, and the BOI website does not advertise the CBS monthly bulletin.

Table 6. Israel: Data Quality Assessment Framework (July 2003): Summary of Results for Monetary Statistics
(Compiling Agency: Bank of Israel – BOI)

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria						
Element	NA	Assessment				Comments
		O	LO	LNO	NO	
0. Prerequisites of quality						
0.1 Legal and institutional environment			X			The BOI Law does not mention the responsibility for monetary statistics. Different monetary statistics datasets are compiled by the MD, RD, and CBS.
0.2 Resources			X			There is human resource shortage for monetary statistics compilation in the MD.
0.3 Relevance				X		Needs of users outside the BOI are not monitored.
0.4 Other quality management			X			The BOI shows insufficient awareness with regard to the consistency of monetary statistics with other macroeconomic datasets or dissemination of monetary statistics.
1. Assurances of integrity						
1.1 Professionalism			X			BOI staff have not attended courses or seminars offered by the IMF on monetary statistics.
1.2 Transparency			X			Incomplete documentation of terms and conditions under which source data are collected and processed, and statistical outputs disseminated. Monetary statistics posted on the CBS website are not identified as produced by the BOI. Advance notice of major changes in methodology, source data, and statistical techniques is not systematic.
1.3 Ethical standards		X				
2. Methodological soundness						
2.1 Concepts and definitions				X		Concepts and definitions follow neither the <i>MFSM</i> nor the predecessor <i>Guide</i> (SDDS countries are expected to apply <i>MFSM</i>).
2.2 Scope			X			Credit granted by nonresident banks to resident nonfinancial corporations is included in credit aggregates. Possible inclusion of money market mutual funds has not been examined. Data on offshore banks are not included.
2.3 Classification/sectorization					X	Financial instruments classification and economic units sectorization according to internationally accepted systems are not applied.
2.4 Basis for recording			X			Monetary statistics are overly aggregated. Accrual accounting is applied, but accrued interests are not reported with the underlying instrument. Loans are reported net of specific provisions for loan losses.

Table 6. Israel: Data Quality Assessment Framework (July 2003): Summary of Results for Monetary Statistics
(*Compiling Agency: Bank of Israel – BOI*)

Element		NA	Assessment				Comments
			O	LO	LNO	NO	
3. Accuracy and reliability							
3.1	Source data		X				In the absence of comprehensive sectoral surveys, standard checks usually applied to intermediate and statistical outputs in monetary statistics cannot be undertaken. Monetary statistics are not subject to formal revision cycles because most data are deemed final when released.
3.2	Assessment of source data		X				
3.3	Statistical techniques		X				
3.4	Assessment and validation of intermediate data and statistical outputs	X					
3.5	Revision studies	X					
4. Serviceability							
4.1	Periodicity and timeliness			X			Timeliness often does not meet SDDS requirements, particularly for the analytical accounts of the central bank. There are some inconsistencies with government finance statistics. Consistency check with balance of payment statistics has not yet been carried out.
4.2	Consistency			X			
4.3	Revision policy and practice			X			
5. Accessibility							
5.1	Data accessibility			X			Monetary statistics are not available in the form of comprehensive surveys and tables that would balance assets and liabilities. There are few charts and comments. Preannounced schedule is not posted on the BOI website. No methodological notice available other than on the DSBB. Methodological information is not available with different levels of details. Contact point for monetary statistics is not publicized on BOI dissemination media.
5.2	Metadata accessibility				X		
5.3	Assistance to users				X		

Summary of the Special Data Dissemination Standard (SDDS)

The SDDS prescribes the following practices under each of the identified dimensions:

Data dimension (coverage, periodicity, and timeliness)

- the dissemination of 18 data categories, including component detail, covering the four main sectors (real, fiscal, financial, and external) of the economy, with prescribed periodicity and timeliness.

Access dimension

- the dissemination of advance release calendars providing at least one-quarter advance notice of approximate release dates, and at least a one-week advance notice of the precise release dates; and
- the simultaneous release of data to all users.

Integrity dimension

- the dissemination of the terms and conditions under which official statistics are produced and disseminated;
- the identification of internal government access to data before release;
- the identification of ministerial commentary on the occasion of statistical release; and
- the provision of information about revision and advance notice of major changes in methodology.

Quality dimension

- the dissemination of documentation on statistical methodology and sources used in preparing statistics; and
- dissemination of component detail and/or additional data series that make possible cross-checks and checks of reasonableness.

SDDS subscribers are required to:

- post descriptions of their data dissemination practices (metadata) on the IMF's Dissemination Standards Bulletin Board (DSBB). Summary methodologies, which describe data compilation practices in some detail, are also disseminated on the DSBB; and

- maintain an Internet website, referred to as the National Summary Data Page (NSDP), which contains the actual data described in the metadata and to which the DSBB is electronically linked.

The IMF staff is monitoring observance of the standard through NSDPs maintained on the Internet. Monitoring is limited to the coverage, periodicity, and timeliness of the data and to the dissemination of advance release calendars.

Source: <http://dsbb.imf.org>

**DATA QUALITY ASSESSMENT FRAMEWORK—GENERIC FRAMEWORK
(JULY 2003 FRAMEWORK)**

Quality Dimensions	Elements	Indicators
<p>0. Prerequisites of quality</p>	<p>0.1 Legal and institutional environment—<i>The environment is supportive of statistics</i></p> <p>0.2 Resources—<i>Resources are commensurate with needs of statistical programs.</i></p> <p>0.3 Relevance—<i>Statistics cover relevant information on the subject field.</i></p> <p>0.4 Other quality management—<i>Quality is a cornerstone of statistical work.</i></p>	<p>0.1.1 The responsibility for collecting, processing, and disseminating the statistics is clearly specified.</p> <p>0.1.2 Data sharing and coordination among data-producing agencies are adequate.</p> <p>0.1.3 Individual reporters' 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, facilities, computing resources, and financing are commensurate with statistical programs.</p> <p>0.2.2 Measures to ensure efficient use of resources are implemented.</p> <p>0.3.1 The relevance and practical utility of existing statistics in meeting users' needs are monitored.</p> <p>0.4.1 Processes are in place to focus on quality.</p> <p>0.4.2 Processes are in place to monitor the quality of the statistical program.</p> <p>0.4.3 Processes are in place to deal with quality considerations in planning the statistical program.</p>
<p>1. Assurances of integrity</p> <p><i>The principle of objectivity in the collection, processing, and dissemination of statistics is firmly adhered to.</i></p>	<p>1.1 Professionalism—<i>Statistical policies and practices are guided by professional principles.</i></p> <p>1.2 Transparency—<i>Statistical policies and practices are transparent.</i></p> <p>1.3 Ethical standards—<i>Policies and practices are guided by ethical standards.</i></p>	<p>1.1.1 Statistics are produced on an impartial basis.</p> <p>1.1.2 Choices of sources and statistical techniques as well as decisions about dissemination 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>

Quality Dimensions	Elements	Indicators
<p>2. Methodological soundness</p> <p><i>The methodological basis for the statistics follows internationally accepted standards, guidelines, or good practices.</i></p>	<p>2.1 Concepts and definitions—<i>Concepts and definitions used are in accord with internationally accepted statistical frameworks.</i></p> <p>2.2 Scope—<i>The scope is in accord with internationally accepted standards, guidelines, or good practices.</i></p> <p>2.3 Classification/sectorization—<i>Classification and sectorization systems are in accord with internationally accepted standards, guidelines, or good practices.</i></p> <p>2.4 Basis for recording—<i>Flows and stocks are valued and recorded according to internationally accepted standards, guidelines, or good practices</i></p>	<p>2.1.1 The overall structure in terms of concepts and definitions follows internationally accepted standards, guidelines, or good practices.</p> <p>2.2.1 The scope is broadly consistent with internationally accepted standards, guidelines, or good practices.</p> <p>2.3.1 Classification/sectorization systems used are broadly consistent with internationally accepted standards, guidelines, or good practices.</p> <p>2.4.1 Market prices are used to value flows and stocks.</p> <p>2.4.2 Recording is done on an accrual basis.</p> <p>2.4.3 Grossing/netting procedures are broadly consistent with internationally accepted standards, guidelines, or good practices.</p>
<p>3. Accuracy and reliability</p> <p><i>Source data and statistical techniques are sound and statistical outputs sufficiently portray reality</i></p>	<p>3.1 Source data – <i>Source data available provide an adequate basis to compile statistics.</i></p> <p>3.2 Assessment of source data—<i>Source data are regularly assessed.</i></p> <p>3.3 Statistical techniques—<i>Statistical techniques employed conform to sound statistical procedures</i></p> <p>3.4 Assessment and validation of intermediate data and statistical outputs—<i>Intermediate results and statistical outputs are regularly assessed and validated.</i></p> <p>3.5 Revision studies—<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 obtained 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 Source data—including censuses, sample surveys, and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and nonsampling error; the results of the assessments are monitored and made available to guide statistical processes.</p> <p>3.3.1 Data compilation employs sound statistical techniques to deal with data sources.</p> <p>3.3.2 Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques.</p> <p>3.4.1 Intermediate results 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 or problems in statistical outputs are investigated.</p> <p>3.5.1 Studies and analyses of revisions are carried out routinely and used internally to inform statistical processes (see also 4.3.3).</p>

Quality Dimensions	Elements	Indicators
<p>4. Serviceability <i>Statistics, with adequate periodicity and timeliness, are consistent and follow a predictable revisions policy.</i></p>	<p>4.1 Periodicity and timeliness— <i>Periodicity and timeliness follow internationally accepted dissemination standards.</i></p> <p>4.2 Consistency— <i>Statistics are consistent within the dataset, over time, and with major datasets.</i></p> <p>4.3 Revision policy and practice—<i>Data revisions follow a regular and publicized procedure.</i></p>	<p>4.1.1 Periodicity follows dissemination standards. 4.1.2 Timeliness follows dissemination standards.</p> <p>4.2.1 Statistics are consistent within the dataset. 4.2.2 Statistics are consistent or reconcilable over a reasonable period of time. 4.2.3 Statistics are consistent or reconcilable with those obtained through other data sources and/or statistical frameworks.</p> <p>4.3.1 Revisions follow a regular and transparent schedule. 4.3.2 Preliminary and/or revised data are clearly identified. 4.3.3 Studies and analyses of revisions are made public (see also 3.5.1).</p>
<p>5. Accessibility <i>Data and metadata are easily available and assistance to users is adequate.</i></p>	<p>5.1 Data accessibility— <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></p> <p>5.2 Metadata accessibility— <i>Up-to-date and pertinent metadata are made available.</i></p> <p>5.3 Assistance to users— <i>Prompt and knowledgeable support service is available.</i></p>	<p>5.1.1 Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts). 5.1.2 Dissemination media and format are adequate. 5.1.3 Statistics are released on a preannounced schedule. 5.1.4 Statistics are made available to all users at the same time. 5.1.5 Statistics not routinely disseminated are made available upon request.</p> <p>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.</p> <p>5.3.1 Contact points for each subject field are publicized. 5.3.2 Catalogs of publications, documents, and other services, including information on any charges, are widely available.</p>

Results of Israel's Users' Survey

1. With the assistance of the Central Bureau of Statistics (CBS), and to complement the assessment of the quality of official statistics produced by Israel, the mission conducted an informal survey of key users of macroeconomic statistics. Questionnaires were sent to 40 users with 18 responses received from a broad range of users, including academics, banks, public and private sector analysts, and consulting companies. Users were asked to evaluate the coverage, periodicity, timeliness, dissemination practices, accessibility, and overall quality of the official statistics. Major and informed users were well represented among the respondents and in the follow-up discussions held in both Jerusalem and Tel Aviv.

2. Data users informed the mission that there had been recent improvements in data production and dissemination, particularly the CBS's website and the Bureau's timely responses to inquiries. However, they noted that there was room to improve the BOI and the MOF websites and the two agencies' services in response to inquiries. They were also concerned about the scope and dissemination of monetary, government tax, and expenditure data; the timeliness of the CPI and other real sector data; the unavailability of quality data on some service industries; and the large revisions in national accounts, including trade statistics. There was also a widespread view that given the substantial ongoing transformation of the Israeli and world economies, the CBS faced a daunting task to cope with the growing statistical demands, which is exacerbated by severe manpower and financial budget constraints. Respondents also indicated that while ad hoc funding arrangements with various national institutions had alleviated some of these constraints, the situation was not sustainable without a longer-term solution.

Table 7. Questionnaire Results Analyzed by Type of User
November 5, 2005

Type of Respondent	Total Sent	Total Received
Government	10	4
State-owned agencies (enterprises)	5	1
Banks	5	4
Other enterprises	5	1
Embassies	5	
Universities (researcher)	10	8
Media		
Supervisory, regulatory institutions (stock exchange)		
Total	40	18

Source: Survey carried out by the Central Bureau of Statistics.

Table 8. Results of Israel's Users' Survey, November 5, 2005

General Information about Uses of Official Macroeconomic Statistics of Israel	
	Total Number of Responses
3. Which official statistics do you use regularly?	# / 18
a. National accounts (NA)	17
b. Prices	16
c. Government finance statistics (GFS)	12
d. Monetary statistics (Monetary)	11
e. Balance of payments (BOP)	14
f. Other:	2
• Production indices	13
• Labor market	13
• Merchandise trade	12
• International reserves and foreign currency liquidity	6
• External debt	6
• International investment position	6
• Other	0
4. Where do you obtain the official statistics?	
a. Official press releases and publications on macroeconomic statistics	16
b. Private sector summaries and analyses	3
c. Official policy papers	9
d. Publications from international organizations about the country	5
e. Other sources	1
5. Do you refer to official descriptions of the sources and methods that were used to compile the official statistics?	
• Yes	16
• No	2
6. For what purposes do you use the official statistics?	
a. Analysis of current developments for short-term decision making	14
b. Analysis of trends for longer-term policy formulation?	12
c. Econometric model building and forecasting	13
d. Economic research	13
e. Comparison with economic developments in other countries	15
f. General economic background	12
g. Other	0

General Information about Uses of Official Macroeconomic Statistics of Israel						
	NA	Prices	GFS	Monetary	BOP	Other
7. Coverage and detail						
7.1 In general, are you satisfied with the coverage of official statistics?						
• Yes	15	16	13	10	14	3
• No	3	2	5	8	4	0
7.2 In general, are you satisfied with the official statistics in terms of their level of detail?						
• Yes	13	14	11	10	13	3
• No	5	4	7	8	5	15
8. Periodicity and timeliness						
8.1 Are you satisfied with the frequency of compilation of the official statistics (e.g., weekly, monthly, quarterly, annual)?						
• Yes	14	14	11	10	11	3
• No	4	4	7	8	7	14
8.2 In general, do you consider that the official statistics are disseminated with the appropriate timeliness (the time lag after the period to which they pertain, e.g., 60 days after the reference period)?						
• Yes	11	12	11	10	10	0
• No	7	6	7	8	8	0
9. Other dissemination practices						
9.1 Do you know if there is a publicly disseminated calendar that announces in advance the dates on which the various official statistics will be disseminated?						
• Yes	12	12	9	10	11	3
• No	6	6	9	8	7	14
9.2 If there is a calendar of release dates, in your experience, are the official statistics released on the dates announced?						
• Yes	13	13	10	6	8	2
• No	5	5	8	12	10	16
9.3 Is there enough information about revisions to official statistics?						
• Yes	6	10	8	6	5	0
• No	12	8	10	12	13	0
10. Accessibility						
10.1 Can you easily access the official statistics?						
• Yes	15	14	14	11	14	3
• No	8	4	4	7	4	15
10.2 Can you easily access information pertaining to official statistics you use (explanatory notes, methodological descriptions, reference concerning concepts, classification, statistical practice)?						
• Yes	11	11	10	6	9	1
• No	7	7	8	12	9	17

General Information about Uses of Official Macroeconomic Statistics of Israel										
	NA	Prices	GFS	Monetary	BOP	Other				
					Yes	No				
10.3	Is the above information on methodology sufficiently clear and at an adequate level of detail to be useful to you?				11	7				
10.4	How do you get access to official statistics?									
	<ul style="list-style-type: none"> • Official releases • Hard copy publications • Data specifically requested • Official website • Other • E-mail requests 				5 6 9 18 0 5	13 12 9 0 0 12				
	NA	Prices	GFS	Monetary	BOP	Other				
11.	Overall assessment									
11.1	In your opinion, is the underlying methodology of official statistics sound and appropriate?									
	<ul style="list-style-type: none"> • Yes • No 				15 3	14 4	14 4	11 7	11 7	2 16
11.2	In general, do you consider the official statistics to be unbiased and accurate?									
	<ul style="list-style-type: none"> • Yes • No 				13 5	12 6	11 7	10 8	11 7	0 0
11.3	How would you compare the quality of official statistics of the country with those of other countries in the region?									
	<ul style="list-style-type: none"> • Better • Same • Worse 				11 7 0	10 8 0	7 10 1	7 10 1	6 12 0	0 0 0
11.4	How do you assess the overall quality of the official statistics? (1 rated as poor and 5 as excellent)									
	5: 3	5: 10	5: 2	5: 0	5: 2	5: 0				
	4: 6	4: 2	4: 5	4: 0	4: 6	4: 0				
	3: 2	3: 0	3: 0	3: 1	3: 2	3: 0				
	2: 0	2: 0	2: 4	2: 0	2: 0	2: 0				
	1: 0	1: 0	1: 1	1: 0	1: 0	1: 0				
No Comment (N.C.)	N.C.: 6	N.C.: 6	N.C.: 6	N.C.: 9	N.C.: 6	N.C.: 0				

NA = National Accounts; Prices refers to: CPI (Consumer Price Index) and PPI (Producer Price Index);
GFS = Government Finance Statistics; Monetary = Monetary Statistics; and BOP = Balance of Payments Statistics