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Paraguay: 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 Paraguay 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 June 21, 2006**.** The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of Paraguay or the Executive Board of the IMF.

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

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PARAGUAY

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

Prepared by the Statistics Department

Approved by Robert W. Edwards and Mr. Anoop Singh

June 21, 2006

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

The datasets covered in this report are national accounts, consumer and producer price indices, and monetary and balance of payments statistics, all compiled by the Central Bank of Paraguay (CBP). The mission also assessed the quality of government finance statistics compiled by the Ministry of Finance (MOF) and the Prerequisites of quality and Assurances of integrity of the Directorate General of Statistics, Surveys, and Censuses (DGSSC). However, the DGSSC does not compile or disseminate macroeconomic statistics assessed in this report.

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

- CBP website (http://www.bcp.gov.py)
- MOF website (http://www.hacienda.gov.py)
- DGSSC website (http://www.dgeec.gov.py)

This report is based on information provided prior to and during a staff mission from January 25–February 8, 2006 and publicly available information. The mission team was headed by Edgar Ayales, and also comprised José María Cartas, Eduardo Valdivia-Velarde, Rita Mesías, and Silvano Spencer (all STA), and Pablo Mandler and Gilda Salvato (external consultants).

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ABBREVIATIONS

1968 SNA	*System of National Accounts 1968*
1993 SNA	*System of National Accounts 1993*
BPM5	*Balance of Payments Statistics Manual*, fifth edition
CBP	Central Bank of Paraguay
BOP	Balance of Payments
COFOG	Classification of Functions of Government
COICOP	Classification of Individual Consumption by Purpose
CPC	Central Product Classification
CPI	Consumer Price Index
DC	Depository Corporations
DCS	Depository Corporations Survey
DGSSC	Directorate General of Statistics, Surveys, and Censuses
DMD	Domestic Market Division, CBP
DQAF	Data Quality Assessment Framework, July 2003
DSBB	Dissemination Standards Bulletin Board
GDP	Gross Domestic Product
GDDS	General Data Dissemination System
GFS	Government Finance Statistics
GFSM 1986	*A Manual on Government Finance Statistics*, 1986
GFSM 2001	*Government Financial Statistics Manual 2001*
HBS	Household Budget Survey
HS	Harmonized System of Commodity Description and Coding
IMF	International Monetary Fund
ISIC	International Standard Industrial Classification
ISWGNA	Inter-Secretariat Working Group on National Accounts
ITRS	International Transactions Reporting System
MFSM	*Monetary and Financial Statistics Manual*
MOF	Ministry of Finance
MSD	Monetary Studies Division
NSDP	National Summary Data Page
NSI	National Statistics Institute
NSS	National Statistical System
ODC	Other Depository Corporations
PPI	Producer Price Index
ROSC	Report on the Observance of Standards and Codes
SDDS	Special Data Dissemination Standard
STA	IMF Statistics Department

I. Overall Assessment

1. While noting some recent improvements, the mission that prepared this Report on the Observance of Standards and Codes (ROSC) identified shortcomings in Paraguay's statistical practices and databases that have the potential for detracting from the accurate and timely analysis of economic and financial developments, and the formulation of appropriate policies. The country lacks an integrated statistical framework that would take account of the various analytical and accounting linkages across macroeconomic statistics, and the relationships between regulatory tools, intermediate objectives, and policy goals. The weaknesses in the statistical legislation, as well as the scarcity of resources and low priority given to statistical work are important impediments to the production and dissemination of timely, methodologically sound, and reliable statistics.

2. The mission identified the main weaknesses and made recommendations to further enhance Paraguay's adherence to international statistical standards. In particular, (i) with the exception of the consumer price index, there is significant room to improve the methodological soundness of all official statistics, for example, by expanding their scope and adopting internationally accepted classification systems and basis for recording; (ii) the accuracy and reliability of the statistics also needs to be improved, for instance, by expanding the data sources for most sectors, as well as by strengthening data validation and statistical techniques for most datasets; (iii) the periodicity and timeliness of national accounts and government finance statistics do not fully meet international standards, and the intersectoral consistency of the macroeconomic statistics cannot be ascertained with the data disseminated to the public; and (iv) there are opportunities to improve the access to official statistics and metadata, as well as the services offered to the users by the data-compiling agencies.

3. Paraguay participates in the GDDS since September 21, 2001 and meets the recommendations for the coverage, periodicity, and timeliness of most data categories. However, there are some important exceptions, including (i) the ***lack*** of production indices and data on public and publicly guaranteed debt service schedule; (ii) limitations in the ***coverage*** of national accounts (data on national income and savings are not compiled), general government operations (data on local governments are not available), public and publicly guaranteed external debt (excludes short-term debt of the nonfinancial public sector), and monthly data on foreign trade (excludes goods not recorded by Customs); (iii) the ***periodicity*** of data for the consolidated central government operations (data on nonbudgetary operations are only disseminated on an annual basis); and (iv) the ***timeliness*** of annual GDP (data are disseminated only when data based on the income approach becomes available) and data on the consolidated central government operations. Only data for budgetary central government are disseminated on a monthly basis. Appendix I provides an overview of Paraguay's dissemination practices compared to the GDDS.

4. In applying the IMF's Data Quality Assessment Framework, July 2003 (DQAF), the remainder of this section presents the mission's main conclusions. The presentation is done at the level of the DQAF's quality dimensions, by agency for the first two dimensions and across datasets for the remaining four. Section II provides a summary assessment by agency and dataset based on a four-point scale. This is followed by staff recommendations in

Section III. Practices compared to the GDDS are summarized in Appendix I. The authorities' response to this report and a volume of detailed assessments are presented in separate documents.

5. **Prerequisites of quality and assurances of integrity:**

- The compilation of statistics by the **Central Bank of Paraguay** (CBP) is based on a legal framework that broadly supports mandatory data reporting and the confidentiality of the reported data. While the resources are minimally adequate for the current statistical programs, they are insufficient to support important developmental work. The concentration of work in macroeconomic statistics at the CBP puts pressure on its resources and raises a fundamental issue of the appropriateness of a central bank to compile price statistics. The CBP maintains some informal contacts with data users, but there are no formal consultations with users to monitor the relevance of the statistics or to identify emerging data requirements. CBP authorities are aware that continued efforts are needed to improve the quality of the statistics, but more systematic data quality verification procedures need to be established. The CBP is a technical institution that has administrative autarky and normative autonomy, and CBP staff are independent in their choice of data sources, methods, and data dissemination policies, within the limits of available resources. Processes and activities in the workplace promote a culture of professionalism. The CBP is authorized to comment, clarify, and correct erroneous interpretations or misuse of statistics by users or by the media. The terms and conditions for compiling statistics are specified in the relevant laws, which are available to the public. Government officials outside the CBP have no access to the information until it is released to the general public. CBP regulations, which are well known by the staff, clearly specify the rights and responsibilities of CBP staff, including rules of conduct and disciplinary sanctions.

- The legislation supports the collection, compilation, and dissemination of government finance statistics (GFS), budget, and accounting data by the **Ministry of Finance** (MOF). Nonetheless, the institutional responsibility for collecting, compiling, and disseminating GFS by a unit in the MOF is only defined by an internal provision. The laws also protect the confidentiality of the data and specify the obligatory character of data reporting. However, some decentralized entities and public corporations report data to the MOF with delays and the municipalities do not report data. Also, procedures for data sharing and coordination within the MOF and between the MOF and other data-producing agencies need to be improved. While there is some room to make more efficient use of the existing resources, these are clearly insufficient to compile comprehensive and timely fiscal data, especially if the MOF decides to migrate to the *Government Finance Statistics Manual 2001(GFSM 2001).* Also, regular procedures to consult with data users and to monitor the quality of the statistics need to be established. No official agency outside the MOF has access to data prior to publication, and there is no evidence of political influence on the selection of compilation methods or data output. However, the terms and conditions under which fiscal data are compiled are not made known to the public. The legislation provides clear guidelines on staff behavior and administrative procedures, which are made known to the staff.

- The Statistical Law of 1942 created the organizational structure of the official statistical services and identified the **Directorate General of Statistics, Surveys, and Censuses** (DGSSC) as the principal statistical agency, with the responsibility for coordinating and integrating all official statistical activities. The Law specifies the mandatory character of data reporting and the confidentiality of the data. However, the central role that the Law confers to the DGSSC has not been put into effect due to its lack of autonomy and the low priority given to statistical activities by the national authorities. The scarcity of resources is so severe that most censuses and surveys are mainly financed by international agencies. The DGSSC concentrates mainly on the production of basic demographic and social statistics and indicators. The DGSSC authorities are aware that it is necessary to organize a national statistical system that is technically and operationally sound and efficient, and produces and disseminates objective and timely information. Their efforts focus on the adoption of a new National Statistics Law establishing the National Statistical System (NSS) and creating the National Statistics Institute (NSI).[1]

6. The methodologies for price indices and, to a lesser extent for monetary and balance of payments statistics, broadly follow international standards. However, there are important shortcomings in the **methodological soundness** of national accounts and government finance statistics. In general, there is room for improving the scope of all macroeconomic statistics. For example, the geographic coverage of the CPI and the coverage of economic activities in the PPI need to be expanded. For national accounts, the sequence of accounts for the total economy and the rest of the world account need to be compiled, and the scope of monetary statistics should be broadened significantly by including data for credit unions, a rather large and rapidly growing sector. The basis for recording national accounts, balance of payments, and GFS should be improved by, for example, fully adopting accrual accounting. Classification and sectorization systems, in general, do not follow rigorously international standards.

7. **Accuracy and reliability** elements are, for the most part, appropriately treated in the monetary statistics, but there is significant room for improvement in all other datasets. Source data are reasonably available for monetary statistics, but are not sufficiently developed for the national accounts, government finance, and balance of payments statistics. Despite recent improvements in data sources for national accounts, including the ongoing household survey, data for construction, a significant part of nonfinancial services, household consumption, and changes in inventories are insufficient. Also, the PPI basket is not fully representative of current national output. With the exception of data on budgetary operations, source data for fiscal statistics has limitations. Source data from customs and surveys are

[1] The issues described in this paragraph do not affect the rating of dimension 0.1 (Legal and institutional environment) of National Accounts, since these are compiled by the Central Bank of Paraguay.

insufficient for the balance of payments. Validation of source data is adequate only for national accounts, monetary, and balance of payments statistics, while statistical techniques need to be improved for most datasets, in particular for national accounts. For example, the reference year for national accounts (1994) has become obsolete and there is excessive use of fixed intermediate consumption/output coefficients; CPI weights have not been updated during the past 13 years; sampling and nonsampling errors are not calculated and missing prices are not imputed in price statistics; and there is a need to monitor more closely the impact of informal activities. Except for prices and national accounts, the procedures for validating intermediate and final data are weak, and revision studies and analysis are mostly incipient in all statistical agencies.

8. **Serviceability** of the assessed macroeconomic statistics is broadly satisfactory, as confirmed by the results of a user survey conducted in the context of this assessment. With the exception of national accounts and GFS, data in all other assessed areas are compiled and disseminated with the periodicity and timeliness recommended by the GDDS. However, publicly available information does not permit the reconciliation of the statistics across sectors and there is some room to improve the consistency of data within each dataset and over time. Regular procedures and closer interagency coordination will be required to enhance the intersectoral consistency of macroeconomic statistics. While statistical agencies have well established revision policies and practices for most datasets, these are not communicated to the public. Preliminary and revised data are not always identified in all publications.

9. There are opportunities to improve **accessibility** of all official statistics, for example, by adopting advance release calendars and making the download of statistics from the official websites more user friendly. Metadata are adequate for most datasets, but the information posted on the DSBB for national accounts needs to be updated and the metadata for GFS need to be enhanced. The metadata posted on the IMF's DSBB should be updated more regularly. Statistics are released simultaneously to all users, and unpublished nonconfidential data are made available upon request. Assistance to users could also be improved for most datasets, for example, by providing sector-specific contact information.

10. At the request of the authorities, Paraguay's current data dissemination practices were also reviewed against the requirements of the **Special Data Dissemination Standard** (SDDS).[2] The following points about the coverage, periodicity, and timeliness prescriptions of the data dimension highlight some significant issues to be addressed prior to Paraguay's subscription to the SDDS:

- In the **real sector**, (i) national accounts need to be compiled with quarterly periodicity and disseminated no more than three months after the end of the reference period; (ii) production indices need to be compiled with monthly periodicity and timeliness; (iii) labor statistics (employment, unemployment, and wages/earnings), currently

[2] A detailed description of the SDDS can be found on the IMF's Data Standards Bulletin Board (DSBB) on the Internet at http://www.dsbb.imf.org. A summary is presented in Appendix II of the accompanying Detailed Assessments document.

compiled only on an annual basis and disseminated with a five-month lag, need to be compiled with quarterly periodicity and disseminated no more than three months after the end of the reference period.

- In the **fiscal sector**, (i) data on the operations of the consolidated general government needs to be compiled on an annual basis and disseminated within six months of the end of the reference period; (ii) data on consolidated central government operations needs to be compiled on a monthly basis and disseminated not later than one month after the end of the reference period; (iii) data on central government debt needs to be compiled on a quarterly basis and disseminated within three months of the end of the reference period. Currently, only data for the budgetary central government are compiled on a monthly basis and data on central government debt are compiled only on an annual basis.

- Most data categories in the **financial sector** meet the SDDS coverage, periodicity, and timeliness prescriptions. The only exception is the timeliness of data on the analytical accounts of the central bank, which are disseminated four weeks after the end of the reference period, instead of the two weeks required by the SDDS.

- In the **external sector**, most data categories also meet the coverage, periodicity, and timeliness requirements of the SDDS. The exceptions are the timeliness of (i) balance of payments statistics, currently six months vis-à-vis the required three months; (ii) data on official reserve assets, currently disseminated four weeks after the end of the reference month, against the one week required by the SDDS; and (iii) external debt data, currently disseminated with a lag of six months instead of the required three months. Furthermore, the CBP would need to compile the Template on International Reserves and Foreign Currency Liquidity with a monthly frequency and disseminate it not more than a month after the end of the reference period.

11. Appendix III in the accompanying document presents a more detailed description of Paraguay's practices regarding coverage, periodicity, and timeliness of data compared to the SDDS. By developing and forcefully implementing an action plan, Paraguay should be able to meet most, if not all, of the remaining requirements for SDDS subscription within two to three years. A priority should be to advance the level of GDDS participation by updating and expanding the metadata on compilation and dissemination practices, as well as the plans for improvement, posted on the IMF's Dissemination Standards Bulletin Board (DSBB).

II. Assessment by Agency and Dataset

12. Assessment of the quality of six macroeconomic datasets—national accounts, consumer price index, producer price index, government finance, monetary, and balance of payments statistics—were conducted using the DQAF July 2003. In this section, the results are presented at the level of the DQAF elements and 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–c. 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–f.

13. In order to complement the Fund's assessment of the quality of official statistics produced by Paraguay, the mission conducted an informal survey of key users of macroeconomic statistics. Questionnaires were sent to a broad range of users who were asked to evaluate the coverage, periodicity, timeliness, dissemination practices, accessibility, and overall quality of the official statistics. Half of the 80 targeted users submitted responses.

14. On a five point scale (1 = poor and 5 = excellent), the average rating for the overall quality of official statistics for all sectors was 3.0. A majority of the respondents felt that the statistics were reliable, expressed satisfaction with their methodological soundness, and believed that Paraguay's statistics were comparable to statistics disseminated by neighboring countries. Respondents also indicated that they were generally satisfied with the level of coverage and detail as well as the periodicity. However, most felt that timeliness needed to be improved and advance release calendars made public.

15. Several respondents suggested that the range of economic statistics be expanded by compiling, for example, short-term indicators of economic activity and statistics on tourism. Also, it was suggested that economic censuses be conducted on a more frequent basis, while others expressed the desirability of having more frequent data on labor statistics and a CPI with broader coverage.

16. A more detailed analysis of the Users' Survey and the tabulated results are included in Appendix V of the accompanying document *Detailed Assessments Using the Data Quality Assessment Framework (DQAF).*

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

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

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

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. Paraguay: Assessment of Data Quality—Dimensions 0 and 1—Central Bank of Paraguay

0. Prerequisites of quality	1. Assurances of integrity
Legal and institutional environment The compilation of statistics by the CBP is supported by the Law 489/95 *(Central Bank of Paraguay Law)*, which includes: (i) provisions for mandatory data reporting by public and private entities to the CBP for performing its functions (Article 80); (ii) provisions governing the preparation and publication of monetary and financial data, external payments, domestic prices, output and income (Article 82); and (iii) provisions establishing the obligation to maintain the secrecy and confidentiality of the requested data (Articles 6, 7, and 8, as well as the CBP's *Information Security Regulations* of 1997.) In cases of noncompliance, the law contemplates sanctions and fines for financial institutions and their managers (Articles 94, 95, and 96.) No penalties are foreseen for nonreporter units in the nonfinancial private sector, which affects in particular the quality of balance of payments and national accounts statistics. **Resources** The resources allocated to the compilation of macroeconomic statistics are minimally sufficient for undertaking ongoing tasks, with the exception of national accounts, where resources are insufficient. Also, resources are lacking for supporting important developmental work, such as the full adoption of the *1993 SNA*, the conduct of surveys for the balance of payments, the compilation of quarterly national accounts, the improvement of source data and estimation techniques, and data quality verification and analysis. While work facilities are satisfactory, computer equipment and software need to be upgraded. **Relevance** The CBP maintains some informal contacts with users and promotes the participation of staff in international seminars and conferences. However, with the exception of price statistics, there are no formal mechanisms to consult with users to monitor the relevance of the statistics and to identify emerging data requirements. **Other quality management** CBP authorities are aware that continued efforts are needed to improve the quality of the statistics, as evidenced, for example, by their participation in the GDDS, the establishment of a unit (Coordination of Programs and Projects Unit) to coordinate the technical assistance and financial support provided in the framework of cooperation and donation programs, and the consideration of data quality issues in the planning process. However, in terms of resource allocation, the statistical functions are given low priority. More systematic data quality verification procedures need to be established, in particular for the PPI and monetary and BOP statistics.	**Professionalism** The CBP is a technical institution that has administrative autarky and normative autonomy. Technical criteria alone are applied by compilers and they are totally independent in their choice of data sources, methods, and data dissemination policies, within the limits of available resources. Processes and activities in the workplace promote a culture of professionalism. The CBP is authorized to comment, clarify and correct erroneous interpretations or misuse of statistics by users or by the media. **Transparency** The broad legal terms and conditions for compiling statistics are specified in the relevant laws, which are available to the public. Government officials outside the CBP have no access to the information until it is released to the general public. The CBP's statistical products are clearly identified as such and advance notice is given of major changes in the conceptual framework, source data, and statistical techniques, such as the introduction of the new reference year for the national accounts and the adoption of the *1993 SNA*. **Ethical standards** The *Information Security Regulations*, approved by the CBP Board in July 1997, establishes rules of conduct designed to minimize the risk of human error, theft, fraud, or misuse of information. The *Regulations* impose disciplinary sanctions against officials who fail to comply with these provisions. The *Personnel Statute* and its *Regulation*, approved by the CBP Board in September 1989 and February 1990, respectively, establish the rights and responsibilities of CBP staff, including the selection process, promotions, performance reviews, and confidentiality. Management reminds staff of these regulations periodically.

Table 2b. Paraguay: Assessment of Data Quality—Dimensions 0 and 1—Ministry of Finance

0. Prerequisites of quality	1. Assurances of integrity
Legal and institutional environment The MOF has a legal and institutional environment that supports its responsibility for the collection, compilation, and dissemination of government finance statistics (GFS), budget, and accounting data. This responsibility, except for GFS, is assigned to the MOF by law Nº 1535 (*Government Financial Administration Law*) and its subsequent bylaws. The responsibility for GFS collection, compilation, and dissemination is only clearly specified in an internal provision of the MOF. The MOF shares with the CBP the responsibility for compiling public debt data. However, mechanisms for data sharing and coordination within the MOF and between the MOF and other data-producing public entities need to be improved. The confidentiality of data reported to the MOF is protected by the *Law on Civil Servants*, and procedures are in place to prevent unauthorized data disclosure. The current legislation requires that each public entity (except for municipalities) submit to the MOF a report on budgetary and financial transactions. Penalties for noncompliance exist, but some decentralized entities and public corporations report data to the MOF with delays. **Resources** Additional and more qualified personnel, computing, and financing resources are needed to improve the GFS compilation and to perform new compilation tasks, especially if the MOF decides to migrate to the *GFSM 2001.* The *Law on Civil Servants* stipulates actions and policies to promote administrative efficiency. However, in practice, the MOF has not estimated the costs or carried out budgeting exercises associated to the compilation of GFS. **Relevance** The MOF has not undertaken research to help identify new and emerging data requirements. There are no surveys for obtaining feedback on the relevance and practical utility of fiscal data. **Other quality management** Efforts are made to compile and disseminate fiscal data with increased coverage of institutions, and improved timeliness and periodicity. However, while there are some monitoring mechanisms to promote data consistency, no formal processes to assess the quality of the GFS exist, nor medium term plans to improve data quality.	**Professionalism** Although there are no specific laws that establish the professional independence of GFS compilers, there is no evidence of political influence in the choice of data source, methods, or dissemination policies. Efforts are made to promote professionalism by sending staff to training courses abroad and contracting experts to provide on-the-job training. **Transparency** The MOF does not make available to the public the terms and conditions under which this institution collects, compiles, and disseminates GFS. No official agency outside the MOF has access to data prior to publication. The fiscal data compiled and disseminated on the MOF website are clearly identified as such. Advance notice is given to the public on some major changes in the methodology or other relevant changes that materially affect the GFS. **Ethical standards** Staff behavior is guided by Law Nº 1626/00 and administrative procedures of the civil service, which are made known to the staff.

Table 2c. Paraguay: Assessment of Data Quality—Dimensions 0 and 1—Directorate General of Statistics, Surveys, and Censuses

0. Prerequisites of quality	**1. Assurances of integrity**
Legal and institutional environment Law 11126/42 establishes the organizational structure of the official statistical services, and identifies the DGSSC as the principal statistical agency, with the responsibility of coordinating and integrating the statistical activities of all government agencies. The DGSSC has a mandate to conduct national surveys and censuses, and to compile and publish a statistical yearbook and other statistical publications. The Law also establishes the obligation of public and private entities to provide the information requested by the DGSSC. The Law includes specific legal provisions establishing the obligation to maintain the secrecy and confidentiality of the information received. Decree 15415/70 establishes provisions for creating a national statistics commission, whose functions would include assigning responsibility for certain statistical information to particular statistical agencies. In practice, the role given by the statistical laws to the DGSSC has not been enforced, due to the weakness of the institutional and political support and the low priority given to the statistical functions by the national authorities. Furthermore, the legislation does not provide DGSSC with the required degree of autonomy. **Resources** Resources available are very limited (in terms of staff, computing resources, and financing) and not commensurate with the statistical program. The censuses and most important surveys carried out by the DGSSC are mainly financed by international agencies. **Relevance** The DGSSC concentrates mainly on the production of demographic and social basic statistics and indicators. Inter-institutional committees are established to analyze the questionnaires and other related aspects of some important statistical activities, such as censuses, households surveys, the 2002 industrial economic survey, and others. **Other quality management** The DGSSC authorities are aware that it is necessary to organize a national statistical system that will be technically and operationally sound and efficient, and will also produce and disseminate objective and timely information. Their efforts focus on the adoption of a new National Statistics Law establishing the National Statistical System (NSS) and creating the National Statistics Institute (NSI).	**Professionalism** No outside influences are brought to bear on the process of compiling the statistics. Technical criteria alone are applied in the compilation of national surveys, censuses, and publication of statistics. The compilers are independent in their choice of data sources and methods, within the limits of available resources. The DGSSC is authorized to comment, clarify, and correct erroneous interpretations or misuse of statistics by users or by the media. **Transparency** The terms and conditions under which statistics are collected, processed, and disseminated are available to the public. Disseminated data are identified as the product of the DGSSC. Government officials outside the DGSSC have no access to the information until it is released to the general public. Advance notice is given of major changes in the conceptual framework, source data, and statistical techniques. **Ethical standards** Staff behavior is guided by the *Statute on Public Servants*, which is well known to the DGSSC personnel. The regulation imposes disciplinary sanctions against officials who fail to comply with the provisions.

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

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
Concepts and definitions The national accounts are compiled in broad accordance with the *System of National Accounts 1993* (*1993 SNA*). **Scope** The CBP compiled Production and Generation of Income accounts for years 1991 to 2004, and GDP by expenditure and production approaches at current and constant 1994 prices and at current prices for income components. Supply and use tables for years 1991-1997 with 33 economic activities and 46 groups of products were also compiled. Production boundary is broadly in line with the *1993 SNA* framework. However, two accounts that are part of the minimum requirements established by the Inter-Secretariat Working Group on National Accounts (ISWGNA) are not generated, although required inputs are available. Also, the national component of binational hydroelectrical enterprises is treated as nonresident. Quarterly accounts are not compiled. Institutional sector accounts will be compiled in a second stage of the *1993 SNA* implementation process. **Classification/sectorization** National classifications of economic activities and products are linked through correspondence tables to the international ISIC Rev. 3 and CPC classifications. Neither COFOG nor COICOP are applied in the national accounts. Gross fixed capital formation classified by type of asset, but not by economic activity. **Basis for recording** Transactions are generally recorded on accrual basis. Exceptions are the recording of government's and some of the rest of the world flows, which are recorded on a cash basis.	**Source data** Although a comprehensive data collection program for national accounts compilation is not in place, the supply of statistics has increased significantly in last years through the conduct of a Population Census, an Industrial Survey, annual Households Surveys, and a new comprehensive Households Survey. There is, also, better access to administrative sources. However, there is insufficient data for some industrial activities, a significant part of services, households consumption, and changes in inventories. **Assessment of source data** Accuracy of source data is assessed against available information when received and along the revision cycle of the accounts. **Statistical techniques** Some sound techniques are applied. However, due mainly to data scarcity, (i) the 1994 reference year is becoming obsolete; (ii) excessive use is made of fixed coefficients for value added and households consumption; (iii) changes in inventories are obtained as residuals; (iv) the importance of informal activities is not monitored; and (v) supply and use tables were compiled only until 1997. Although expenses of nonresidents in the economy are included in exports, they are not excluded from households final consumption. **Assessment and validation of intermediate data and statistical outputs** Intermediate data and outputs are assessed and validated against available information. **Revision studies** Analysis of revisions are carried out on an ad-hoc basis, and the results are used to inform the compilation process.	**Periodicity and timeliness** Periodicity of annual GDP meets GDDS recommendations, but not timeliness, because the data are disseminated with a 11-month lag. **Consistency** Internal and intertemporal consistent estimates are reached by obtaining some components as residuals, using SNA accounting relations. Discrepancies with GFS regarding the sectorization of employment insurance schemes exist. In national accounts, they are included in the financial sector, as recommended by *1993 SNA;* however, in GFS they are included in the government sector. **Revision policy and practice** A schedule for the revision cycle has been prepared and followed, but not made known to the public. Preliminary data are clearly identified, but not revised data. The analysis of causes of differences between currently revised and preliminary data is not made public.	**Data accessibility** National accounts disseminated in a clear manner and with various levels of detail, easily accessed on the CBP website. A release timetable exists for internal use, but it is not made public. Data are made available to all users simultaneously. Nondisseminated statistics are provided upon request; however, this possibility has not been notified to the public. **Metadata accessibility** Metadata are disseminated with different levels of detail, through various publications, and also on the CBP website. GDDS metadata should be updated, as they still correspond to an outdated national accounts series. **Assistance to users** Users are offered a consultation service, but a specific contact point for national accounts is not provided. Assistance to users is not monitored. National accounts publications and a list of papers (some of them related to the national accounts) are available on the website and in the CBP's library. Publications are free of charge.

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

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
Concepts and definitions The CPI follows the *1968 SNA* household consumption concept and uses sufficiently detailed expenditure data from the 1990/1991 Household Budget Survey (income and expenditure). There is an adequate level of detail for both goods and services. **Scope** The CPI is calculated for the metropolitan area of the capital. The CPI weights are representative only of consumption by urban households. Goods and services produced for own consumption by households, gifts in-kind received, social benefits, imputed rentals of owner-occupied dwellings, and purchases of new vehicles are missing from the CPI. The share of consumption expenditure not covered by the index is 24 percent. **Classification/sectorization** The CPI basket of goods and services are classified using an adaptation of the classification of consumption expenditure of households by purpose, in accordance with the *1968 SNA*. The index is calculated for seven principal groups of products. **Basis for recording** The prices used correspond to market prices paid by households at the different points of sale at which transactions are conducted, and are inclusive of all taxes on goods and services, which is the international standard.	**Source dat**a The III Households Budget Survey (1990/1991) was used for the CPI weights, and some 6,000 monthly prices from 293 products (goods and services) are collected in direct interviews at different points of sale, representing the places where consumers do their purchases. **Assessment of source data** Data are checked for logical consistency using manual and automated editing methods, including routine checks for extreme values. In some cases, the informants are consulted again. Sampling and nonsampling errors are not calculated. **Statistical techniques** CPI uses the modified Laspeyres formula. Missing prices are not imputed, affecting comparability of elementary prices. Weights have not been updated in the last 13 years. Response rates to price surveys and editing rates are not calculated. A new household income and expenditure survey is being undertaken in 2005-2006. **Assessment and validation of intermediate data and statistical outputs** The CPI is subject to validation with respect to primary data from individual price observations and to the different levels of aggregation. **Revision studies** Data are disseminated as final. Periodic weight revisions are not undertaken to determine the bias of the CPI.	**Periodicity and timeliness** Periodicity and timeliness meet GDDS recommendations. The index is released on the last day of the month. **Consistency** The CPI is consistent over time. Also, the all-items index tabulations are consistent with the aggregations made by category of expenditure. **Revision policy and practice** The monthly CPI is not revised; data are final when released.	**Data accessibility** The CPI data are disseminated through press releases and also posted on the CBP website. Detailed tables contain indices, by main group, and percentage changes at different levels of aggregation. An analysis of the major price changes is included. There is an internal calendar for the dissemination of the CPI, which is well known to the public. **Metadata accessibility** Methodologies on the CPI and the III Household Budget Survey (1990/1991) are available to users in the CBP's publication, *Indice de Precios – Metodología.* **Assistance to users** Only a general contact point at the CBP is provided. The Domestic Market Division provides assistance to users by responding to queries and providing photocopies and printouts of tables, at the request of public and private institutions and individuals. The data are also available to the public at the CBP's library.

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

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
Concepts and definitions The PPI weights of domestic goods are based on the value of gross output, excluding intermediate inputs. The weights of imported goods correspond to the concept of the supply of goods in the domestic market, which is consistent with international standards. **Scope** The PPI includes producer prices for domestic goods (agriculture, forestry, mining and quarrying, and manufacturing), and import prices for goods produced by the same industries, with the exception of agriculture and forestry. Electricity, water, gas, and services prices are missing from the PPI. The share of goods output by economic activity not covered by the index is 11.6 percent. **Classification/sectorization** The product classification corresponds to the UN's *Central Product Classification (CPC)*. The *International Standard Industrial Classification of All Economic Activities* (ISIC rev.2) is used for classifying domestic goods-producing establishments. The index is disaggregated by individual items, subgroup, group, section, and class. **Basis for recording** The prices of domestic goods are market prices, excluding the value added tax. Import prices correspond to the market prices at which goods are sold by importers, and include all import taxes, except the value added tax, which is consistent with international standards.	**Source data** The principal sources for constructing PPI baskets were: the Agricultural Census 1991, the National Forestry Census 1992, and the Industrial Census 1962, supplemented by a limited census of member firms (1994). The PPI basket (150 items) is still not fully representative of current national output Monthly prices are collected through direct interviews to principal producers of the products in the basket. **Assessment of source data** The data are checked for logical consistency using manual and automated editing methods, including routine checks for extreme values. Sampling and nonsampling errors are not calculated. **Statistical techniques** PPI uses the modified Laspeyres formula. Missing prices are not imputed, affecting comparability of elementary prices. No new products are introduced. Weights have not been updated in the last 10 years. **Assessment and validation of intermediate data and statistical outputs** The PPI is subject to validation with respect to both primary data from individual price observations and to the different levels of aggregation. **Revision studies** Data are disseminated as final. Revision studies and analyses are not conducted.	**Periodicity and timeliness** Periodicity and timeliness meet GDDS recommendations. The PPI is published in the last week after the end of the reference month. **Consistency** The latest methodological change in the PPI compilation was introduced in 1995. Price statistics are consistent over time, and all-items index tabulations are consistent with the different aggregations. A chained index between old and new series is not available. **Revision policy and practice** There is no regular program for updating the PPI; data are final when released. The results of weights change for the PPI are published.	**Data accessibility** The PPI data are disseminated through press releases and also posted on the CBP website. Detailed tables contain indices, by seven groups of local products and four groups of imported products. An analysis of the major price changes is included in the CBP's monthly *Informe Económico*. There is an internal schedule, which is well known to the public. **Metadata accessibility** Methodologies on the PPI are available to users in the CBP publication, *Indice de Precios: Metodologías, Volumen Uno, Mercado Interno*. This document is available to the general public and can be requested from the DMD. **Assistance to users** Only a general contact point at the BCP is provided. The DMD provides assistance to users by responding to queries and providing photocopies and printouts of tables upon request. The data are also available to the public at the CBP's library.

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

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
Concepts and definitions Broadly consistent with the recommendations of *A Manual on Government Finance Statistics 1986 (GFSM 1986)*. The authorities have not yet prepared a plan to migrate to the *Government Finance Statistics Manual 2001 (GFSM 2001)*. **Scope** Data on the operations of the local governments are not included in GFS. **Classification/sectorization** Sectorization is not consistent with the international recommendations because consolidated data for the central government are not compiled, and some financial institutions are included in the nonfinancial public sector. Classification is broadly in accordance with the *GFSM 1986*, except for financing and debt. The functional classification of expenditures is not compiled. **Basis for recording** GFS are compiled using different bases of recording: revenues are recorded on a cash basis, expenditures are recorded on an accrual proxy basis, and financing is on a payment date basis for debt service and creditor's disbursement date basis for disbursement. Most transactions are shown on a gross basis, in line with the *GFSM 1986*.	**Source data** Data for all public sector units, except for local governments and two nonfinancial public corporations, are obtained from a comprehensive data collection program. These data sources are recorded in the Integrated Financial Management System (IFMS) and its subsystems. The IFMS classification is broadly in line with the *GFSM 1986*. More automation of the reporting systems is needed. The timeliness of source data for some extra budgetary and nonfinancial public corporations operations needs to be improved. **Assessment of source data** Source data are not assessed to avoid or monitor response errors or misreported data. The results of data assessment in the IFMS are not monitored to guide statistical planning. **Statistical techniques** GFS compilation is strictly based on comprehensive administrative records. **Assessment and validation of intermediate data and statistical outputs** Some validation procedures are in place. However, intermediate results for financing and debt are not validated against other information, and statistical discrepancies in intermediate data are not assessed nor investigated. **Revision studies** Revisions are conducted, but studies are not carried out.	**Periodicity and timeliness** Only central administration operations and central government debt are disseminated following GDDS recommendations for periodicity and timeliness. **Consistency** Overall deficit/surplus and financing are not consistent owing to a number of factors. The GFS are not reconciled with the national accounts, balance of payments, and monetary statistics. **Revision policy and practice** The first published annual GFS data are preliminary, and final data are published following revisions. Preliminary and final data are adequately noted in the publications. Some assessments are performed to the data, but they are not made public.	**Data accessibility** The disseminated GFS permit identification and comparison of major aggregates of flows and stocks, detailed underlying data and time series are presented. GFS are not disseminated according to a preannounced schedule. **Metadata accessibility** GFS metadata are only available on the DSBB, with an electronic link to this information posted in the MOF website. **Assistance to users** Contact information and a list of publications is provided in the MOF website.

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

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
Concepts and definitions Paraguay's monetary statistics are broadly consistent with the methodology of the *Monetary and Financial Statistics Manual* (*MFSM*). **Scope** The depository corporations survey covers the CBP, the 13 commercial banks, and the 14 finance companies operating at end-2005. Credit cooperatives, which are growing rapidly and whose assets and liabilities account for more that 20 percent of assets and liabilities of the banking sector, are not included in the depository corporations survey (DCS). The accounts of banks in liquidation are also excluded. **Classification/sectorization** The classification and sectorization of financial instruments follow the *MFSM*, with three exceptions: i) no breakdown between other nonfinancial corporations and households, ii) classification of the national component of two binational entities as nonresidents, and iii) nonsectorization of accrued interest by ODCs. **Basis for recording** The DC survey is produced on an accrual basis, which is consistent with the *MFSM*. Financial instruments are recorded at market value, with the exception of some government bonds, which are valued at amortized cost because they are held to maturity.	**Source data** The DCS is based on the consolidated balance sheets of the CBP, commercial banks, and finance companies. ODCs report to the Bank Superintendence (BS) of the CBP, which transmits a hardcopy of the aggregated data to the Monetary Studies Division (MSD). **Assessment of source data** The reporting system is based on a common chart of accounts introduced in 1995, which follows international accounting standards. **Statistical techniques** Sound statistical techniques are used. Monetary data are based strictly on the balance sheets of the CBP and ODCs. **Assessment and validation of intermediate data and statistical outputs** Verifications are performed when inconsistencies are observed. The MSD does not check the consistency of the interbank position, nor of the domestic public debt. Consistency checks performed for international reserves and foreign assets and liabilities against balance of payments data. **Revision studies** The CBP does not have a policy of regular revision studies to monitor monetary statistics. Improvements have been introduced in response to requests by users.	**Periodicity and timeliness** Monthly monetary statistics meet the GDDS recommendations. **Consistency** Monetary and financial data published by the CBP are released in consistent historical series. Data reported by ODCs are consistent with CBP's accounting records. Monetary data are consistent with balance of payments data and with the CBP's debt registry data. Discrepancies exist between monetary and fiscal data. **Revision policy and practice** The CBP does not have a regular revision schedule, because data are released as final. Revisions are infrequent and noted with the disseminated data.	**Data accessibility** Data are presented in an aggregated form with detailed explanatory notes. There are no preannounced release schedules, but monetary data are regularly posted on the CBP's website by the 25th day of the month following the reference month. **Metadata accessibility** Paraguay has posted comprehensive monetary metadata on the DSBB, which is referred to and hyperlinked on the CBP website. Methodological notes accompany the tables published in *Informe Económico*. **Assistance to users** Contact information specifically for monetary statistics is not available on the CBP website. As a service to users, time series are available on the CBP website in Excel format, although they need to be updated. Upon request, the MSD copies data onto CDs. A free-of-charge subscription service informs users when the latest data become available, with a link to download them.

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

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
Concepts and definitions Paraguay's BOP statistics broadly follow the guidelines of the fifth edition of the *Balance of Payments Manual* (*BPM5*). Resident units are defined in broad conformity with *BPM5*. Binational hydroelectrical enterprises treated as nonresidents. **Scope** The scope of Paraguay's BOP is broadly consistent with the *BPM5*. Estimates are made for unrecorded foreign trade, workers' remittances, profits, and private deposits abroad. Data on some services, direct and portfolio investment abroad, and real estate (of relatively minor importance) are not available. **Classification/sectorization** Classification and sectorization systems are broadly in line with *BPM5*, with few exceptions, such as the treatment of goods for processing. **Basis for recording** Data are mostly valued at market prices. Two main departures from accrual basis: interest on public sector debt and on official reserve assets. Some services (e.g., telecommunication) are recorded on a net basis.	**Source data** Obtained from data collection programs that are broadly adequate. However, source data from customs and surveys are insufficient. The main data sources include administrative records, surveys, and direct reports from nonfinancial enterprises. Source data are timely, except for data from surveys. **Assessment of source data** Data are routinely checked and analyzed. **Statistical techniques** Estimates of unrecorded trade, travel, transport, other services, grants, and workers' remittances are made. Some indicators and statistical techniques need to be updated/reviewed. **Assessment and validation of intermediate data and statistical outputs** Survey data are regularly validated against balance sheets of the nonfinancial private enterprises received from the MOF. The item *errors and omissions* is monitored. Bilateral data reconciliation with partner countries and international agencies are not conducted (except for goods trade data within MERCOSUR). **Revision studies** Revisions inform statistical processes but formal studies are not conducted.	**Periodicity and timeliness** Quarterly periodicity of the balance of payments (BOP) and the international investment position (IIP) meets international standards. Timeliness of BOP and IIP data meets GDDS recommendations. **Consistency** BOP and IIP data are consistent. A reconciliation table (transactions and other changes) is disseminated regularly. Consistent series are available since 1995. The item *net errors and omissions* is relatively unstable over time, and sizeable in some years. During 1998-2004, they are larger than in other MERCOSUR countries (as a percentage of GDP, goods trade, and current account). BOP statistics are consistent or reconcilable with merchandise trade, monetary statistics, national accounts, and external debt data. There are differences with GFS, whose concepts, scope, classification, and recording basis are not consistent with *BPM5* guidelines. **Revision policy and practice** The revision cycle is predetermined (data are preliminary for the new quarter and for the previous seven quarters) but this revisions policy is not made public.	**Data accessibility** Detailed data are disseminated on the CBP website and in hardcopy publications. Formats are fully in line with *BPM5* components; however, additional summary tables are needed. Data are disseminated in a clear manner, but neither charts nor commentaries are prepared to facilitate analysis. Data are disseminated in annexes of CBP documents (pdf format). Electronic tables/databases are not available. The CBP webpage does not provide time series of sufficient length. Data are released to all users at the same time, but there is no preannounced schedule. **Metadata accessibility** Concepts, methodology, and data sources for balance of payments compilation are available on the CBP website, as well as on the IMF's DSBB, and other IMF balance of payments publications. **Assistance to users** Publications on BOP data (including quarterly specialized reports on external debt and direct investment) provide contact points for BOP, external debt, and direct investment, respectively. Contact information is also provided on the DSBB.

III. Staff's Recommendations

Based on the review of Paraguay's statistical practices, discussions with the data producing agencies, and responses from data users (see Appendix V of the Detailed Assessments volume), the mission presents a set of recommendations. They are designed to further increase Paraguay's adherence to internationally accepted statistical practices and would, in the mission's view, enhance the analytical usefulness of Paraguay's statistics. The recommendations are subdivided into "High priority" and "Other key recommendations." While all the high priority actions listed below should be treated as such, the cross-cutting recommendations need to be addressed with the greatest priority. More detailed technical suggestions are included in the Detailed Assessments volume for each dataset.

Cross-cutting Recommendations

High Priority

- Give higher priority to statistical functions in the data-compiling agencies, and promote actively the adoption of a new National Statistics Law and a national statistical plan.
- Provide adequate financial, staff, and computer resources, as well as targeted training, for statistical activities.
- Strengthen data sources across all datasets, including through the conduct of surveys and censuses.

Other key recommendations

- Establish regular mechanisms for enhancing intersectoral data consistency.
- Establish regular procedures to consult with users to help identify emerging data requirements and to obtain feedback on the relevance of official statistics.
- Adopt advance release calendars for all statistics.
- Strengthen data revision policies and practices and make them known to the public.
- Enhance data and metadata accessibility of all datasets, including the formats for disseminating the data.
- Provide sector-specific contact information for all datasets.
- Reassess the treatment of multiterritory enterprises (e.g., Itaipú and Yacyretá) in line with the ongoing discussions in the context of the *1993 SNA/BPM5* review.[3]

National Accounts

High Priority

- Advance the project to compile quarterly national accounts at current and constant prices.

[3] The *BPM5* update, planned for 2008, will recommend splitting multiterritory enterprises (single enterprises with large operations in two or more territories but with unidentifiable branches) into separate units, prorated on the basis of equity shares and other factors.

- Compile a Volume Index of Industrial Production and improve the coverage and quality of volume measures for construction, commerce and service activities.
- Conduct the programmed economic census and establish a regular program of economic surveys covering manufacture, trade, and service activities.
- Program and conduct the special economic surveys required for updating the national accounts 1994 reference year.
- Compile in the medium term the *1993 SNA*'s institutional sector accounts.
- Estimate the level of generated income of the informal sector and changes in its relative importance. Assess the usefulness of the annual household survey for this purpose.
- Improve the timeliness of GDP to less that nine months, as recommended by the GDDS.

Other key recommendations

- Compile, in the short term, an integrated economic account for the total economy and the rest of the world account, in order to meet the minimum requirements established by ISWGNA.
- Resume the compilation of supply/use tables, discontinued in 1997

Consumer Price Index

High Priority

- Update the CPI basket on the basis of the results from the 2005/2006 HBS.
- Formulate a general plan for compiling a new reference base, following international standards.

Other key recommendations

- Improve statistical techniques for the imputation of missing prices.
- Assess CPI data sources and calculate the variance or sampling errors to guide the new CPI sample design.

Producer Price Index

High Priority

- In the short term, update the PPI using data from the supply and use tables for the most recent year, based on the new national accounts series.
- Formulate a general plan to expand industrial activity coverage, compiling updated weights and reference base following international standards.
- In the future, base PPI updates on the results of a program of regular censuses and surveys.

Other key recommendations

- Improve statistical techniques for the imputation of missing prices.
- Assess PPI data sources and calculate the variance or sampling errors to guide the new PPI sample design.

Government Finance Statistics

High priority

- Ensure data reporting by local governments and all nonfinancial public corporations.
- Compile and disseminate GFS for the consolidated central government and the general government with the breakdown recommended by the international guidelines.
- Ensure that the ISFM produces all data and detail required to compile timely GFS.
- Establish mechanisms for assessing and monitoring response errors and misreported data in the data sources.

Other key recommendations

- Establish a plan and timetable for adopting the *GFSM 2001*.
- Prepare and disseminate metadata for GFS.

Monetary Statistics

High Priority

- Implement the Data Integration Project, which will allow electronic transmission of data from the Bank Superintendence and Accounting Department to the Monetary Studies Division.
- Expand the coverage of the ODC survey by including deposit-taking cooperatives.

Other *key recommendations*

- Update on a regular monthly basis the time series posted in an Excel format on the CBP website.
- Accelerate the dissemination of monetary data by posting them on the CBP website as soon as they become available, in advance of the publication of *Informe Económico*.

Balance of Payments Statistics

High Priority

- Design and conduct sample surveys (based on a comprehensive business register) to capture data for items currently excluded in balance of payments statistics.
- Review and update the statistical technique to estimate unrecorded trade. Seek advice from experts with broad experience in the calculation of unrecorded trade.

Other

- Sign an agreement with Customs to facilitate access to freight data by carriers' residence and related data included in SOFIA (fiscal customs database).
- Reclassify exports and imports of the maquila sector from merchandise goods to goods for processing, and assess whether source data are in line with *BPM5* guidelines for adequate classification and valuation.
- Compile data on interest on public sector external debt on an accrual basis rather than on a due-for-payment basis, including adequate counter-entries in the financial account.

Paraguay: Practices Compared to the GDDS Coverage, Periodicity, and Timeliness of Data

GDDS Data Category	Coverage (meets GDDS)	Periodicity		Timeliness	
		GDDS	Paraguay	GDDS	Paraguay
COMPREHENSIVE FRAMEWORK					
Real sector: National Accounts	No[1]	A	A	10–14 months	11 months
Fiscal sector: Central govt. operations *General govt. operations* Central govt. debt	Yes[2] *No[3]* Yes[4]	A *A* A	A[5] *N/A* A	6–9 months *6–9 months* 6–9 months	4 months *N/A* 4 months
Financial sector: Depository Corporations Survey	Yes	M	M	2–3 months	1 month
External sector: Balance of payments *International Investment Position (IIP)*	Yes *Yes*	A *A*	Q *Q*	6–9 months *6-9 months*	6-7 months *6-7 months*
DATA CATEGORIES AND INDICATORS					
Real Sector					
National accounts aggregates: GDP (nominal and real) *Gross national income, capital formation, saving*	 Yes *No*	 A *(Q)* *A*	 A *N/A*	 6–9 months *6–9 months*	 11 months[6] *N/A*
Production index/indices Manufacturing or industrial production index/indices Primary commodity, agricultural, or other indices, as relevant	 N/A N/A	 M As relevant	 N/A N/A	 6–12 weeks 6–12 weeks	 N/A N/A
Price indices: Consumer price index *Producer price index*	 Yes[7] Yes[8]	 M *M*	 M *M*	 1–2 months *1–2 months*	 1 day *4 weeks*
Labor market indicators: Employment Unemployment Wages/earnings (all sectors)	 Yes Yes Yes	 A A A	 A A A	 6–9 months 6–9 months 6–9 months	 5 months 5 months 5 months
Fiscal Sector					
Central government aggregates: Central govt. budgetary aggregates: revenue, expenditure, balance, and financing with breakdowns (debt holder, instrument, currency) *Interest payments*	 Yes *Yes*	 Q *Q*	 M *M*	 1 quarter *1 quarter*	 2 months *2 months*
Central government debt: Central govt. debt: domestic and foreign debt, as relevant, with appropriate breakdowns (debt holder, instrument, currency) *Government guaranteed debt*	 Yes[1] *Yes[9]*	 A *(Q)* *A (Q)*	 A *A*	 1–2 quarters *1–2 quarters*	 4 months *4 months*
Financial Sector					
Broad money and credit aggregates	Yes[10]	M	M	1–3 months	1 month
Central bank aggregates	Yes	M	M	1–2 months	1 month
Interest rates: Short- and long-term government security rates, policy variable rate *Money or interbank market rates and a range of deposit and lending rates*	 Yes *Yes*	 M *M*	 M *D*	 [11] *[10]*	 1 month *1 day*

GDDS Data Category	Coverage (meets GDDS)	Periodicity		Timeliness	
		GDDS	Paraguay	GDDS	Paraguay
Stock market: *Share price index, as relevant*	*N/R*	*M*	*N/R*	[10]	*N/R*
External Sector					
Balance of payments aggregates	Yes	A *(Q)*	Q	6 months	6-7 months
Public and publicly guaranteed external debt outstanding, with maturity breakdown	Yes[12]	Q	Q	1–2 quarters	1-2 quarters
Public and publicly guaranteed debt service schedule	N/A	6 M	N/A	3–6 months	N/A
Private external debt not publicly guaranteed	*Yes*[13]	*A*	*Q*	*6–9 months*	*1-2 quarters*
International reserves: Gross official reserves denominated in U.S. dollars *Reserve-related liabilities*	 Yes *Yes*	 M *M*	 M *M*	 1–4 weeks *1–4 weeks*	 4 weeks *4 weeks*
Merchandise trade: Total exports and total imports *Major commodity breakdowns with longer time lapse*	 Yes[14] *Yes*	 M *M*	 M *M*	 8-12 weeks *8-12 weeks*	 4 weeks *4 weeks*
Exchange rates: spot rates	Yes	Daily	Daily	[10]	1 day

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

Italics indicate encouraged categories.

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[1] National income and savings are not compiled.
[2] Data for subsectors of central government are available, but not consolidated.
[3] Data for local governments are not compiled.
[4] Data for subsectors of central government are available, but not consolidated. A detailed breakdown is available only for external debt data, which are compiled on a monthly basis and disseminated two months after the end of the reference period.
[5] Monthly information are compiled only for the central administration. The data are disseminated two months after the end of the reference period.
[6] Data for GDP by production and expenditure approaches are available not later that nine months after the end of the reference period, but are only disseminated when data for the income approach are available.
[7] Coverage is limited to the metropolitan area of Asuncion.
[8] Coverage of industries is limited.
[9] Data are compiled and disseminated in the financial report prepared by the Accounting Unit of the MOF.
[10] The coverage excludes data of credit unions.
[11] Dissemination as part of a high-frequency (e.g. monthly) publication.
[12] With partial coverage. Excludes nonfinancial public sector short-term debt (not included in the DMFAS database).
[13] Partial coverage of the nonfinancial private sector debt.
[14] Partial coverage. Excludes goods not recorded by Customs (e.g., energy, smuggling, and shuttle trade).

INTERNATIONAL MONETARY FUND

PARAGUAY

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

Response by the Authorities

June 21, 2006

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I. Introduction

1. We appreciate the opportunity to provide comments on the ROSC data module. We collaborated closely with the data module ROSC mission and agree with the thrust of the mission's recommendations. Bellow are comments from the Central Bank of Paraguay (CBP) and the Ministry of Finance (MOF) on the five datasets assessed during the mission.

II. Response to the Mission's Assessment and Recommendations

A. National Accounts Statistics

2. Regarding the **prerequisites of quality,** we agree with the mission's assessment that more human and computational resources are needed for an efficient conduct of the work being carried out in national accounts.

3. With respect to the **methodological soundness**, we share the mission's view on the need to estimate quarterly GDP and to compile an integrated economic account for the whole economy and the rest of the world accounts, in order to meet the ISWGNA's minimum requirements for the implementation of the *1993 SNA*. We want to highlight that the Central Bank's division responsible for national accounts has asked for internships with the Brazilian Institute of Geography and Statistics (IBGE), in order to get acquainted with their experience in compiling quarterly GDP. Work is already in progress to compile basic statistics to obtain an integrated economic account. To reactivate the compilation of supply and use tables, it is necessary first to improve the basic statistics through an economic census and annual surveys, as well as increase the human resources.

4. We agree with the mission's recommendation to conduct the programmed economic census and establish a regular program of economic surveys covering manufacture, trade, and service activities to improve the **accuracy and reliability** of the national accounts.

5. Finally, regarding **serviceability** and **accessibility**, we agree with the mission's recommendations to improve the timeliness of data dissemination, make public a release calendar, and update the metadata available on the CBP's website and the IMF's Data Standards Bulletin Board (DSBB). We plan to implement these recommendations in the short-run.

B. Price Statistics

6. We broadly agree with the mission's assessment for all data quality indicators of the consumer price index and the producer price index, as well as with its recommendations to improve their compilation.

7. We have some comments regarding the statistical techniques described under **accuracy and reliability**. As the mission points out, missing prices are not imputed and the CPI weights exclude the imputed rent of owner-occupied dwellings or dwellings used by third parties for which no payments are made. The mission's recommendation to impute missing prices aims at adjusting the average price, which is a by-product that

needs not to be published, and perhaps to adjust price relatives when an item has temporarily disappeared from the market. Regarding imputed rent of owner-occupied dwellings, the concept was excluded from the calculation because the objective of the CPI is to measure inflation from a monetary point of view; a criterion also followed by other countries of MERCOSUR and also by Chile.

C. Government Finance Statistics

8. We agree in general with the content of the section on government finance statistics. Regarding the **prerequisites of quality**, we want to highlight weaknesses in the statistical legislation, which are important obstacles to obtain better GFS.

9. The report indicates that the **methodological soundness** is affected because data on the operations of the local governments are not included in GFS. This situation arises from a constitutional issue, since the article 166 of the Constitution grants the municipalities with autonomy and autarky in the management of their resources. This constitutional concession is used by the local governments to exclude themselves from the national budget administered by the MOF; this way the gathering of local governments' data result being negatively affected.

D. Monetary Statistics

10. We share the thrust of the mission's assessment on monetary statistics, which was written in close consultation with staff of the Monetary Studies Division of the CBP. We acknowledge the mission's recommendation to hire a research assistant at the Monetary and Financial Studies Department in order to ensure efficient use of resources as one **prerequisite of quality**.

11. Moreover, we agree with the mission that the lack of coverage of deposit-taking cooperatives (credit unions and production cooperatives) greatly impairs the **methodological soundness** of monetary statistics and underestimates broad money. In this respect, we want to point out that the CBP is currently in consultations with the National Institute of Cooperatives (INCOOP) to request regular reporting from the twenty largest credit unions and the twenty largest production cooperatives, which together account for approximately 85 percent of the assets and liabilities of the deposit-taking cooperatives.

E. Balance of Payments Statistics

12. We fully agree with the content of the mission's assessment on balance of payments statistics and, therefore, do not have any specific comment on any of the six data dimensions.

III. ACTION PLAN

13. Based on the ROSC's recommendations, and in collaboration with the mission, we have designed an action plan to further increase the analytical usefulness of Paraguay's statistics. This plan will be very useful to guide the future work in the national compiling agencies and also to guide the work of international organizations and donors in the statistics field. In particular, we count with the support of the IMF—among other international organizations and donor countries—to carry out the proposed actions.

14. A detailed action plan is presented in the attached tables, which include cross-cutting actions as well as measures specific to each data set. It should be noted that not all actions included in this plan have the same importance or priority, and that at times they are conditional upon the reassignment of resources, funding, training, or technical assistance.

15. The most immediate tasks that would require technical assistance from the IMF encompass actions to: (i) compile an integrated economic account for the total economy and the rest of the world accounts according to ISWGNA; (ii) formulate a plan to update the national accounts' reference year; (iii) update the CPI and PPI basket of goods; (iv) prepare a plan to compile a new CPI with 2007 as the reference year; (v) reconcile fiscal and monetary statistics; (vi) include the savings and loan cooperatives in the other depository corporations survey; (vii) design and conduct sample surveys to capture data for items currently excluded from balance of payments statistics or items not appropriately covered; and (viii) review and update the statistical techniques to estimate unrecorded trade.

A. Cross-cutting Actions

High Priority Actions

- Give higher priority to statistical functions in the data-compiling agencies, and promote actively the adoption of a new National Statistics Law and a national statistical plan.
- Provide adequate financial, staff, and computer resources, as well as targeted training, for statistical activities.
- Strengthen data sources across all datasets, including the conduct of surveys and censuses.

Other Key Actions

- Establish regular mechanisms for enhancing intersectoral data consistency.
- Establish regular procedures to consult with users to help identify emerging data requirements and to obtain feedback on the relevance of official statistics.
- Adopt advance release calendars for all statistics.
- Strengthen data revision policies and practices and make them known to the public.
- Enhance data and metadata accessibility of all datasets, including the formats for disseminating the data.
- Provide sector-specific contact information for all datasets.
- Reassess the treatment of multiterritory enterprises (e.g., Itaipú and Yacyretá) in line with the ongoing discussions in the context of the *1993 SNA/BPM5* review.

B. National Accounts Statistics		
DQAF Code	**Planned Actions**	**Timing**
	Prerequisite of Quality	
0.2.1	• Evaluate the resources required to strengthening the National Accounts Division (NAD), to accomplish the actions mentioned in this Plan. • Assign additional and upgrade computer equipment and software.	Short term Short term
0.3.1	• Establish a mechanism to contact users and identify their opinion on the usefulness of the national accounts and their new and emerging data requirements.	Medium term
	Methodological Soundness	
2.2.1	• Review the recommendation and practical implication in the external sector and national accounts of splitting multiterritory enterprises (single enterprises—such as hydroelectric schemes on border rivers—with large operations in two or more territories but with unidentifiable branches) into separate units prorated on the basis of equity shares and other factors (recommended by the BOP Technical Expert Group working on the *1993SNA* and *BPM5* update). Collaboration between compilers of the territories concerned is needed. • Formulate a project to compile the set of institutional sector accounts as a second stage of the *1993 SNA* implementation process.	Medium term Medium term
2.3.1	• Compile an integrated economic account for the total economy and the rest of the world accounts (until net lending), attending the minimum requirements established by ISWGNA to consider that the *1993 SNA* is being implemented. • Reactivate the discontinued supply and use tables, incorporating the presently compiled aggregates and some additional available information, in order to use them as an internal consistency compilation tool. • Apply to the government consumption expenditures a functional classification. Apply a classification by purposes (COICOP) to households consumption expenditure, once data from the income and expenditure survey, being jointly conducted by the CBP and the DGSSC, will be available .	Short term Medium term Medium term
2.4.2	• Assess the recording of government's expenditures on an "*obligado*" basis, and evaluate how adequate it is as a *proxy* for an accrual basis.	Short term

	Accuracy and Reliability	
3.1.1	• Formulate a comprehensive data collection program of economic censuses and surveys. • Conduct the programmed economic censuses, covering industry, trade and service activities.	Short term Short term
3.3.2	• Formulate and implement a project to update the national accounts' reference year. • Assess the possibility of applying the perpetual inventory method to estimate consumption of fixed assets. • Compile a Volume Index of Industrial Production and improve the coverage and quality of volume measures for construction, commerce and service activities. • Assess the possibility of compiling directly the changes in inventories for some important products. • Evaluate the requirements and availability of basic data for the compilation of quarterly GDP accounts and prepare an implementation plan. • Assess the possibility of using the DGSSC's permanent households survey, and other sources, whereas available, to estimate the participation of the informal sector in GDP, and changes through time in employment and income generation. • Apply a better method for the recording of consumption expenditure of nonresident visitors.	Medium term Short term Medium term Short term Short term Short term Short term
	Serviceability	
4.1.2	• Disseminate GDP by production and expenditure approaches, without waiting to complete the income approach, in order to better attend users improve timeliness.	Short term
4. 2.3	• Prepare and disseminate a bridge table, showing how to reconcile the national accounts and GFS figures.	Short term
4.3.2	• Disseminate a schedule for the revision cycle of the national accounts and explain reasons for its adoption. • Identify revised data in the publications and explain the revisions.	Short term Short term
	Accessibility	
5.1.1	• Inform the public about the possibility and procedures to get access to data that not disseminated.	Short term
5.1.2	• Disseminate a preannounced schedule with the dates the statistics will be released, and release statistics according to the preannounced schedule.	Short term
5.2.3.	• Prepare the metadata for the new national accounts series for inclusion in the GDDS website.	Short term
5.3.1	• Provide the users a specific point of contact for national accounts.	Short term

C. Consumer Price Index		
DQAF Code	**Planned Actions**	**Timing**
	Prerequisite of Quality	
0.2.1	• Upgrade computer equipment and software. • Provide adequate staff, as well as targeted training, for additional planned tasks, such as updating the CPI, based on the supply table by product.	Short term
0.3.1	• Conduct a structure/periodic process of consultation with data users to obtain their views on the relevance and practical utility of the data.	Medium term
0.4.2	• Prepare monthly reports to inform management of the quality of surveys' data (surveys' response rate, coverage, response errors, etc.).	Short term
0.4.3	• Prepare a plan to compile a new CPI with updated weights and 2007 as the reference year.	Short term
	Methodological Soundness	
2.1.1	• Follow the recommendations of the IMF's *Consumer Price Index Manual 2004*, the ILO, and the *1993 SNA/1995 ESA* for the definition of all monetary household consumption expenditures.	Medium term
2.2.1	• Compiling a new CPI with broader share of consumption expenditure and geographic coverage.	Medium term

2.3.1	• Define the basket of a new CPI using systems broadly consistent with internationally accepted standards, in accordance with:
	  • *1993 SNA;*
	  • Classification of Individual Consumption by Purpose (COICOP); and
	  • Central Products Classification (CPC).
		Medium term

	Accuracy and Reliability	
3.1.1	• Update the new CPI basket of goods and the system of weights, using data from the 2005/2006 Household Budget Survey.	Short term
3.2.1	• Asses CPI data source and calculate the variance or sampling errors to guide the new CPI sample design. • Asses CPI data source and calculate response rate, coverage, response errors, etc.	Short term Short term

3.3.1	• Employ better statistical techniques to improve treatment of seasonal products, missing items, quality changes, and introduction of new products.	Short term
3.3.2	• Adopt the following *1993 SNA* and the new *CPI Manual 2004* recommendations: • Include Imputed Rentals of owner-occupied dwellings in the CPI weights. • Use of the geometric mean for price changes. • Calculate retroactive index series using chain linking, between old a new series.	Medium term
3.5.1	• Process the HBS 2005/2006 to update the index base weights.	Short term
	Accessibility	
5.1.3.	• Disseminate a preannounced schedule with the dates the statistics are to be released, and release statistics according to the preannounced schedule.	Short term
5.3.1	• Improve the dissemination of contact points by e-mail and on the web page.	Short term

D. Producer Price Index		
DQAF Code	**Planned Actions**	**Timing**
	Prerequisite of Quality	
0.2.1	• Upgrade computer equipment and software. • Provide adequate staff, as well as targeted training, for additional planned tasks, such as updating the producer price index, based on the supply table by product.	Short term
0.3.1	• Conduct a structure/periodic process of consultation on data users' views on the relevance and practical utility of price statistics (preferably through users' surveys).	Medium term
0.4.2	• Prepare monthly reports to inform management of the quality of surveys' data (surveys' response rate, coverage, response errors, etc.).	Short term
0.4.3	• Prepare a plan to improve the quality of the PPI, using data from the supply/use tables based on the new national accounts series.	Short term
	Methodological Soundness	
2.1.1	• Adopt the concepts and definitions following the *1993 SNA*, such as the inclusion of new PPI weights, changes in inventories, and own-account production for final use.	Medium term
2.2.1	• Change the base year of the PPI, updating its weights by using output by industry including all goods producing activities.	Medium term
	Accuracy and Reliability	
3.1.1	• Update the PPI basket of goods and the system of weights in order to improve the coverage of current national output, using data from the supply/ use tables based on the new national accounts series.	Short term
3.2.1 3.2.1	• Assess PPI data source and calculate the variance or sampling errors to guide the new PPI sample design. • Assess PPI data source and calculate response rate, coverage, response errors, etc.	Short term Short term
3.3.1	• Employ better statistical techniques to improve treatment of seasonal products, missing items, quality changes, and introduction of new products.	Short term

3.3.2	• Adopt the recommendations in the *1993 SNA* and the new *PPI Manual 2004*, including: • Inclusion of work in progress in the in the agricultural PPI weights; • Use of the geometric mean for price changes; and • Calculation of retroactive index series using chain linking, between old a new series.	Medium term
3.5.1	• Base PPI updates on a program of regular censuses and surveys.	Long term
	Accessibility	
5.1.2	• Disseminate electronic tables and longer time series in addition to “pdf” formats.	Short term
5.1.3.	• Disseminate a preannounced schedule with the dates the statistics are to be released, and release statistics according to the preannounced schedule.	Short term
5.3.1	• Improve the dissemination of contact points by e-mail and on the web page.	Short term

E. Government Finance Statistics		
DQAF Code	**Planned Actions**	**Timing**
	Prerequisite of Quality	
0.1	• Establish a MOF/BCP working group to reconcile GFS data classified above-the-line with those below-the-line. • Establish a working group in the MOF, including staff of the FPD, accounting and public credit and debt units to improve data sharing and coordination.	Short term Short term
0.2	• Attend courses offered by the IMF and other organization on GFS methodology.(Two economists, one from the MOF and other from the CBP, will attend to the 2006 GFS course based on the *GFSM 2001* methodology.)	Short term
0.3	• Establish mechanisms to obtain feedback from GFS users regarding relevance and practical utility of fiscal data.	Short term
0.4	• Establish mechanisms, legal and technical, to audit data reporting and cross-checking in the compilation of GFS.	Short term
	Assurances of integrity	
1.2	• Complete and update terms and conditions of GFS compilation and make them public. • Provide advance notice to the public about all changes in the methodology and others that affect the GFS.	Short term Short term
	Methodological Soundness	
2.1	• Improve data reporting to STA for publication in the GFS Yearbook using the GFSM 2001 framework. • Prepare a migration plan to the *GFSM 2001* analytical framework.	Short term Medium term
2.2	• Prepare a comprehensive data set of GFS, including local government and all government operations. • Create, legal and technical mechanisms, to include all short-term domestic and external public debt operations (e.g., accounts payable of ANDE and PETROPAR). • Include in the ISFMED all liabilities of the ANDE with Argentina and Brazil to capitalize the binational enterprises Itaipú and Yacyretá.	Short term Medium term Medium term

2.3	• Compile and disseminate data for central government as defined by the international best practices. • Compile GFS for central administration excluding operations of the Postal Service Directorate (PSD). The PSD should be sectorized as a nonfinancial public corporation. • Compile GFS for nonfinancial public sector excluding operations of four employer social insurance schemes. These social insurance schemes should be treated as financial corporations. • Classification all the transactions of central administration following international standards, especially those related to external debt and financing. In other words, make the necessary changes in recording the operations of public institutions in the balance sheet, budget execution statements, and GFS, to meet international standards for recording external financing operations and non-guaranteed direct debt, for which disbursements and/or service has been transferred to another entity under an internal arrangement. • Revise financing and debt classifications aligning them to the international recommendations. External debt and financing categories should be compiled by financial instrument and maturity, and internal debt and financing should be compiled by debt holder. • Prepare a bridge table between financial information in the chart of account and balance classification as recommended in the *GFSM 2001*.	Short term Short term Short term Short term Medium term Medium term
2.4	• Prepare complete GFS datasets on accrual and cash basis. • Value debt securities with coupons and with zero coupons at their present value in the AS and the ISFMED.	Medium term Medium term

	Accuracy and Reliability	
3.1	• Apply penalties in accordance with Law No.1535 to ensure data provision. • Continue expanding the coverage of units which report data on line to the AS. • Include data for local governments in the AS. • Include all nonfinancial public sector data in the AS, especially data of ESSAP and COPACO.	Short term Short term Medium term Medium term
3.2	• Monitor response errors and misreported data through a follow-up of the report processing for a sample of central government units. • Establish the main shortcomings in the report processing. • Train fiscal data compilers on how to report financial data (budgetary execution and balance) in a more accurate manner using the information obtained in from the previous actions.	Short term Short term Medium term
3.4	• Create a working group to assess and establish differences between data recording in the AS and the ISFMED. • Investigate statistical discrepancies between deficit/surplus and financing, and between financing and changes in debt stocks.	Short term Short term
3.5	• Prepare studies and analyses of data revisions.	Short term
	Serviceability	
4.1	• Compile GFS for central government following the recommendations of the GDDS. • Compile GFS for general government following the recommendations of the GDDS.	Short term Medium term
4.2	• Working groups (those recommended in 0.1 and 3.4 above) will promote internal consistency of GFS and their consistency with other datasets.	Short term
4.3	• Document and formalize data revision processes.	Short term
	Accessibility	
5.1	• Prepare and disseminate advance release calendars.	Short term
5.2	• Update metadata and include it in the MOF set of publications.	Short term

F. Monetary Statistics		
DQAF Code	**Planned Actions**	**Timing**
	Prerequisite of Quality	
0.2.1	• Assign staff to the Monetary and Financial Studies Department (MFSD) to assist with data entry and processing, to improve the productivity of the professional staff.	Medium term
0.2.2	• Implement the data integration project that will allow electronic transmission of data between CBP's departments and between the CBP and outside sources.	Short term
	• Introduce electronic data transmission from the Bank Superintendence (BS) and the Accounting Department (AD) to the Monetary Studies Division (MSD).	Short term
0.3.1	• Establish a system of regular consultation on data users' views on the relevance and practical utility of monetary data.	Medium term
0.4.2	• Introduce regular procedures for revisions of the monetary data.	Medium term
	Assurance of Integrity	
1.2.4	• Announce in advance any major changes in the compilation of monetary statistics (e.g., the expansion of the coverage to include deposit-taking cooperatives).	Short term
	Methodological Soundness	
2.2.1	• In coordination with the INCOOP, expand the coverage of the ODC survey with the inclusion of deposit-taking cooperatives. In a first stage, estimate the accounts of the sector based on a sample of monthly data from the 20 largest credit unions and the 20 largest production cooperatives (which also receive deposits).	Medium term
	• Obtain data for the entire cooperative sector on a quarterly basis, which could be used to verify the estimated monthly data.	Long term
	• Include the accounts of banks in liquidation in the ODC survey, but show their position separately in the analytical accounts.	Short term

2.3.1	• Reclassify the national component of the binational entities Itaipú and Yacyretá from nonresident units to public nonfinancial corporations. • Split the accounts of "Other resident sectors" into "Other nonfinancial corporations", "Households," and "Nonprofit institutions serving households" (NPISHs). • Sectorize accrued interest of ODCs and report it together with the underlying instruments.	Medium term Long term Long term
2.4.3	• Reclassify "Provisions for loan losses" from "Capital accounts" to "Other accounts payable."	Short term
	Accuracy and Reliability	
3.2.1	• Transmit—in an electronic format—monthly data for individual commercial banks and finance companies, from the BS to the MSD. This would allow the MSD to verify the quality of the source data of individual institutions.	Medium term
3.4.1	• Introduce systematic validation procedures for monetary data: (i) ODCs position with the CBP against CBP's accounting records, (ii) interbank position at the level of the individual institution, (iii) ODCs reporting of government securities holdings against CBP's debt registry, (iv) banking sector records on credit to government and government deposits against fiscal data, and (v) monetary data on international reserves and foreign assets against data from external sector (already performed).	Short term
3.4.3	• Keep systematic records of detected problems in monetary data to help improve the statistical process.	Short term
	Serviceability	
4.1.2	• Speed the dissemination of monetary data through the posting of the monetary tables of *Informe Económico*—in an Excel format—on the CBP website as soon as they become available, without waiting for the publication of the *Informe Económico*.	Short term
4.2.3	• Reconcile monetary statistics with fiscal data.	Short term
4.3.3	• Publish studies and analyses of revisions.	Short term
	Accessibility	
5.1.1	• Update on a regular monthly basis the time series posted in an Excel format on the CBP website.	Short term
5.1.3	• Introduce and make public an advance release calendar for monetary statistics.	Short term
5.3.1	• Provide detailed contact information for users of monetary statistics.	Short term

G. Balance of Payments Statistics		
DQAF Code	**Planned Actions**	**Timing**
	Prerequisite of Quality	
0.1.3 and 0.1.4	• Include in quarterly questionnaires for compiling balance of payments (BOP) and international investment position (IIP) data references to the CBP Law 489 (CBP's responsibility for collecting and disseminating BOP data, confidentiality of reported data, and legal mandate for statistical reporting).	Short term
0.2.1	• Assign to the Balance of Payments Division additional staff with appropriate training in statistics, accounting, and finance, and a predisposition for survey work. • Upgrade computer equipment and software.	Short term Medium term
0.2.2	• Secure funds for supporting developmental work (surveys on travel services and conduct/update specialized studies).	Medium term
0.3.1	• Conduct a structure/periodic process of consultation on data users' views on the relevance and practical utility of BOP/IIP data (preferably through users' surveys).	Medium term
0.4.2	• Prepare weekly/monthly reports to inform management of the quality of surveys' data (surveys' response rate, coverage, response errors, etc.).	Short term
	Methodological Soundness	
2.1.1	• Review the recommendation and practical implication in the external sector (BOP, IIP, and external debt) and national accounts of splitting multiterritory enterprises (single enterprises—such as hydroelectric schemes on border rivers—with large operations in two or more territories but with unidentifiable branches) into separate units prorated on the basis of equity shares and other factors (recommendation made by the BOP Technical Expert Group working on the *BPM5* update, which emphasized the need for collaboration between compilers of the territories concerned).	Medium term
2.2.1	• Design and conduct sample surveys (based on a comprehensive business register) to capture data for items currently excluded from BOP statistics (some services, direct and portfolio investment abroad, real estate, and other private sector transactions).	Medium term

2.3.1	• In line with *BPM5*, reclassify goods for processing ("maquila") and nonmonetary gold as separate goods categories, instead of aggregating them under merchandise.	Short term
2.3.1	• Review data availability and analyze customs' recording practice of goods for processing for adequate classification and valuation of associated transactions in the current and financial account of the balance of payments.	Medium term
2.3.1	• Review data compilation procedures to improve the maturity split (short vs. long term) of external assets and liabilities of the nonfinancial private sector.	Medium term
2.4.2	• Compile interest on public sector external debt on an accrual basis rather than on a due-for-payment basis, including adequate counter-entries in the financial account. • Compile interest on official reserves assets on an accrual basis, including adequate counter-entries in the financial account.	Medium term Short term
2.4.3	• Compile communication services on a gross basis (credit and debit) rather than on a net basis.	Medium term
	Accuracy and Reliability	
3.1.1	• Subscribe a formal agreement with Customs to facilitate the CBP's access to data on freight by carriers' residence and other related information included in SOFIA (fiscal database on customs tariffs). • Prepare a comprehensive and up-to-date business register as the basis for sample surveys of business units. • Conduct surveys on services (passenger transportation, computer and information services, government services), grants and other current and capital transfers, and private sector financial transactions (based on the business register), for which data are currently based on estimation techniques rather than source data. • Survey questionnaires should follow sound design principles, for which relevant CBP staff would need special training. Seek advice from specialists in sampling techniques and other issues related to the different stages of the survey process. • Conduct a new travel survey (the latest was conducted in 2000) in order to obtain information on expenditures of incoming and outgoing travelers for BOP and national accounts statistics. • Coordinate with MOF the inclusion in DMFAS of medium- and long-term external debt liabilities (transactions and stocks) of ANDE with banks (arising from the financing of its capital share in the binational hydroelectrical enterprises). Currently, these data are included in the BOP, IIP, and external debt statistics compiled by the CBP.	Short term Short term Medium term Short term Medium term Short term

	• Coordinate with the MOF the inclusion in DMFAS of short-term debt liabilities of the nonfinancial public sector enterprises (e.g., accounts of ANDE and PETROPAR payable to their suppliers of energy and petroleum products, respectively). Currently, these data are included in the BOP, IIP, and external debt statistics compiled by the CBP.	Short term
3.1.3	• Identify and employ more rigorous follow-up procedures (including closer contact with respondents) to ensure the timely receipt of respondents' data.	Medium term
3.3.1	• Employ better statistical techniques to adjust data for missing observations.	Medium term
3.3.2	• Review and update, to the extent possible, the statistical techniques to estimate unrecorded trade (smuggling and shuttle trade), for example, by including the results of the ongoing household survey. Seek advice from experts with broad international experience in the calculation of unrecorded trade. • Assess the current methodology of estimating workers' remittances based on the initial results of data collected from direct reporting of money carriers and other private sector financial intermediaries. Improve the reporters' response and explore additional data sources for workers' remittances.	Medium term Medium term
3.4.2	• Assess regularly the behavior of travel series and passenger transportation data series.	Short term
3.4.3 4.2.1	• Monitor closely the developments in the errors and omissions item.	Short term
3.4.3	• Reconcile on a regular basis the bilateral data with the data of partner countries and international agencies (e.g. BIS, IMF, and OECD).	Short term
3.5.1	• Document analysis of revisions of balance of payments data and use these results to inform the statistical process.	Short term
	Serviceability	
4.1.1	• Initiate the compilation and dissemination of the public and publicly guaranteed external debt service schedule, as recommended by the GDDS. • Initiate the compilation and dissemination of the SDDS prescribed external debt data category. • Assess the viability of accepting the World Bank's invitation to participate in its quarterly external debt statistics (QEDS) database. • Continue with the preparatory work for the compilation of the reserves template.	Short term Short-term Short-term Short term
4.1.2	• Report quarterly balance of payments and IIP data to STA for publication in IMF documents within six months after the end of the reference period. • Improve gradually the timeliness of BOP/IIP data (moving from 6-7 months to three months after the reference quarter).	Medium term Medium term

4.2.3	• Initiate a process of quarterly reconciliations of flows and stocks of medium- and long-term external public debt with the MOF. Currently, the methodology for the compilation of the MOF's public sector external debt data (scope, classification, and recording basis) is not in line with *BPM5*. • Disseminate on the CBP website the results of applying the "Table of outstanding balances by debtor/payer" designed by the 2001 multisector mission (and included in the mission's report, Appendix V, Annex 3). These table will facilitate data reconciliation by users.	Short term Short term
4.3.1	• Disseminate policies and practices governing the revisions of BOP and IIP data. • Review and modify, as necessary, the current revision policy and practice to reduce the frequency of revisions. Currently, new quarterly data release are subject to revisions during seven consecutive quarters.	Short term Short term
4.3.3	• Formal studies and analysis of revisions should be conducted and disseminated to the public.	Medium term
	Accessibility	
5.1.1	• Disseminate additional summary tables, charts, and commentaries to facilitate users' analysis.	Medium term
5.1.2	• Disseminate electronic tables and longer time series in addition to "pdf" formats.	Short term
5.1.3.	• Disseminate a preannounced schedule with the dates the statistics are to be released, and release statistics according to the preannounced schedule.	Short term

INTERNATIONAL MONETARY FUND

PARAGUAY

Detailed Assessments Using the Data Quality Assessment Framework (DQAF)

Prepared by the Statistics Department

Approved by Robert W. Edwards and Anoop Singh

June 21, 2006

This document contains a detailed assessment by dataset of the elements and indicators that underlie the data quality dimensions discussed in Paraguay's Report on the Observance of Standards and Codes (ROSC)—Data Module. It also includes, as appendices, (i) summaries of the General Data Dissemination System (GDDS) and the Special Data Dissemination Standard (SDDS), (ii) a summary table of Paraguay's data dissemination practices compared to the SDDS Coverage, Periodicity, and Timeliness of Data, (iii) the DQAF generic framework, and (iv) the results of the users' survey.

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ABBREVIATIONS

1968 SNA	*System of National Accounts 1968*
1993 SNA	*System of National Accounts 1993*
AD	Accounting Department
AS	Accounting System
BIS	Bank for International Settlements
BLADEX	Latin-American Export Bank (Banco Latinoamericano de Exportación)
BPD	Borrowing Policy Directorate
BPM5	*Balance of Payments Manual*, fifth edition
BS	Bank Superintendence
CBP	Central Bank of Paraguay
CEMLA	Center for Latin American Monetary Studies (Centro de Estudios Monetarios de Latinoamérica)
COPACO	Paraguayan Corporation of Communications (Corporación Paraguaya de Comunicaciones)
CPI	Consumer Price Index
CPIS	Coordinated Portfolio Investment Survey
DGSSC	Directorate General of Statistics, Surveys, and Censuses
DMFAS	Debt Management and Financial Analysis System
DOTS	Direction of Trade Statistics
DQAF	Data Quality Assessment Framework
DSBB	Dissemination Standards Bulletin Board
ESSAP	Sanitary Services Enterprise of Paraguay (Empresa de Servicios Sanitarios de Paraguay)
FPD	Fiscal Policy Department
GDDS	General Data Dissemination System
GDP	Gross Domestic Production
GDPA	General Directorate of Public Accounting
GDPCD	General Directorate of Public Credit and Debt
GFS	Government Finance Statistics
GFSM 1986	*A Manual on Government Finance Statistics*, 1986
GFSM 2001	*Government Financial Statistics Manual 2001*
GFSY	*Government Finance Statistics Yearbook*
IDB	Inter-American Development Bank
IFMS	Integrated Financial Management System
IIP	International Investment Position (IIP)
IMF	International Monetary Fund
INCOOP	National Institute of Cooperativism (Institución Nacional de Cooperativismo)
IOD	International Operations Department
IT	Information & Technology

LIBOR	London Interbank Offered Rate
MERCOSUR	Southern Common Market (Mercado Común del Sur)
MES	Office of the Manager of Economic Studies
MFSM	*Monetary and Financial Statistics Manual*
MOF	Ministry of Finance
MSD	Monetary Studies Division
NDC	National Directorate of Customs
NPISH	Nonprofit Institutions Serving Households
NSDP	National Summary Data Page
ODCs	Other Depository Corporations
OECD	Organization for Economic Co-operation and Development
PDMD	Public Debt Management Department
PPI	Producer Price Index
ROSC	Report on the Observance of Standards and Codes
SB	Superintendence of Banks
SDDS	Special Data Dissemination Standard
SDR	Special Drawing Rights
SI	Superintendence of Insurance
STA	Statistics Department, IMF
UNCTAD	United Nations Conference on Trade & Development
UNDP	United Nations Development Program
VTR	Vice ministry of Tax Revenues

DETAILED ASSESSMENT USING THE DATA QUALITY ASSESSMENT FRAMEWORK (DQAF)

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

I. NATIONAL ACCOUNTS

0. Prerequisites of Quality

0.1 Legal and institutional environment

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

The national accounts of Paraguay are compiled and disseminated by the National Accounts and Domestic Market Department (NADMD) of the Office of the Manager for Economic Studies of the Central Bank of Paraguay (CBP). The authority for collecting, processing, and disseminating statistics is provided by the CBP's charter (*Central Bank of Paraguay Law*, 489/95), which contains, among others: (i) general provisions empowering it to request information from public institutions, banks, finance companies and other entities engaged in financial intermediation, and private sector enterprises or institutions, and establishing the confidential nature of such information (Article 80), as well as from the Ministry of Finance (Article 81); and (ii) provisions governing the preparation and publication of monetary and financial data, and information on external payments, domestic prices, product and income data, and credit institutions subject to its supervision (Article 82). Product and income data was an expression referring specifically to the national accounts, as basically covered by the *1953 SNA*.

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

The Bank maintains contacts with other main data producing agencies to promote a proper understanding of data requirements, to avoid duplications and to take into account the reporting burden (e.g., by discussing the questionnaires to be applied in important surveys, such as the Households Integrated Surveys and the 2002 Industrial Survey, carried out by the DGEEC); participating in technical inter-institutional ad-hoc committees and maintaining other informal contacts.

The CBP has also established formal agreements and arrangements with other producing institutions to provide for an effective and timely flow of source data for the compilation of the national accounts. From the Ministry of Finance, the CBP receives (i) data on monthly levels of aggregate sales by economic activity of medium and large size firms and monthly data for the Central Government; and (ii) annual data for the General Government. The CBP also receives data from the Ministry of Agriculture on agriculture products crops and prices, livestock data, etc.

At the technical level, inter-institutional formal contacts should also facilitate the harmonization of statistics through the application of consistent data definitions, classifications, valuation basis and others, where common objectives on the produced statistics allow. For example, the same ISIC Rev. 3 classification should be applied by the most important producers of statistics to facilitate the use of data on production, remuneration of employees, employment, collected taxes and other statistics classified by economic activity.

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

The Charter of the CBP establishes the obligation to maintain the secrecy and confidential nature of information requested by the Bank, including provisions for supplying information on the economic and financial situation of finance companies, with express prior authorization of the entity concerned, to the authorities responsible for supervising entities of this nature in foreign countries (Articles 6, 7 and 8).

Also, the *General Law on Banks, Finance Companies, and other Credit Institutions* specifies: (i) the type of information and periodicity of its submission by financial institutions (Article 55); (ii) provisions related to the submission of information to the public by directors, administrative and supervisory bodies, and workers of financial institutions, <u>including the CBP</u> (underlying added) and the Superintendence of Banks (Article 84); (iii) exceptions to the secrecy requirements, especially in judicial or administrative cases in the process of which information on operations protected by bank secrecy has been used; and (iv) sanctions for failure to comply with the provisions of this law. Furthermore, these provisions are public knowledge and the law does not admit exceptions on grounds of ignorance thereof.

Respondents are informed in surveys and other statistical inquiries of their rights and obligations with regard to the provision of information. Particular emphasis is put on the confidential nature of the information they provide and that it will be used for the purpose of producing statistics.

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

As stated under 0.1.1, the CBP's Charter provides the legal authority to collect data required by the Bank. However, no penalties are established for not responding or providing false information, which implies a lower rate of response and the need to introduce more data imputation. The *General Law on Banks, Finance Companies, and other Credit Institutions* specifies sanctions for failure to comply with the provisions of this law, but they do not apply to private nonfinancial entities, which for the national accounts are specially important. As a result, filling-in forms of Bank's surveys by these entities is done, in practice, on a voluntary basis.

The CBP seeks to secure cooperation by providing information to the respondents on the objectives of the survey and the use it will give to the data received, in a note to which the questionnaire is attached. Assistance provided to respondents in completing and submitting the questionnaires takes the form of a point of contact. Careful consideration is given to the response burden, relying as much as possible on administrative sources (e.g., enterprises' financial statements attached to the tax forms).

0.2 Resources

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

The National Accounts and Internal Market Department comprises three divisions: the National Accounts, the Internal Market (in charge of the CPI) and an Administrative Support divisions.

The National Accounts Division (NAD) has 12 employees, most of whom have university degrees. The average staff seniority is approximately seven years. The allocation of employees by areas of national accounts compilation is the following: (i) statistics on production of goods, four employees; (ii) statistics on services, three employees; (iii) institutional sector accounts, one employee; and (iv) short term indicators, four employees (from which three are involved in surveys conducted by the Division).

Employees have a good level of professional training, particularly due to the implementation of the *1993 SNA* and change of the reference year of the national accounts, which implied that various courses and workshops on the *1993 SNA* and its implementation were organized in the last years. Nine employees have participated in short courses abroad; most of them in courses offered by the Spanish National Statistical Institute and one in an IMF course, in Brasilia, on quarterly accounts. Employees have also benefited from on-the-job training, by working with national accounts experts visiting the CBP on technical assistance missions.

Salaries received by employees of the NAD are competitive with the ones paid by the public administration for a similar types of jobs.

To make up for the lack of basic statistics (see below section 3.1.1), the compilers of the national accounts must make special efforts to collect and process source data, either through business surveys or on the basis of administrative records. This work leaves little time for analyzing the information and developing the national accounts.

The current number of the NAD's employees should be increased to strengthened the quality and scope of the accounts. There is an urgent need to conduct surveys to cover certain specific activities and to compile supply and use tables as part of the current scope of the disseminated national accounts. Also, there are not sufficient staff to accomplish a much needed broadening of the scope of national accounts. This would imply the sequence of accounts for the total economy (up to financial accounts) and the rest of the world accounts (until net lending), the general government sector's current and capital accounts and quarterly GDP estimates need to be compiled. The compilation of the supply and use table was discontinued mainly because of human resource limitations.

Regarding computing resources, the NAD has nine computers, from which the best four are Pentium 2, with 64000 kb RAM. Computing resources need to be updated and improved. In connection with other physical resources, building facilities are quite good and adequate to perform the required tasks. However, transportation arrangements to carry out surveys and administrative data collection could be improved.

Domestic financial resources assigned to the NAD are limited. The migration to the *1993 SNA* and the updating of the reference year benefited from the financial support of the Inter-American Development Bank (IDB) in the framework of the Support Program for Strengthening National Statistics. An extension of the financial IDB support in order to expand the implementation of the System by compiling institutional sector accounts has still to be arranged.

0.2.2 Measures to ensure efficient use of resources are implemented

In order to ensure that resources are used efficiently, a review and evaluation of the CBP staff performance are conducted annually by the Department of Human Resources. Also, the CBP is externally audited, at least every two years, in relation to its administrative, financial and operative management, as required by its Charter, Article 37.

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

Although users have not been formally consulted on their needs, and although mechanisms to identify new and emerging data requirements are not in place, the recent change of national accounts reference year and the implementation in stages of the *1993 SNA* have notably expanded the usefulness of the national accounts. Subject to budget constrains, national accounts officials regularly participate in international courses, meetings and seminars, organized by ECLAC, MERCOSUR and other organizations.

0.4 Other quality management

0.4.1. Processes are in place to focus on quality

The CBP authorities are aware that quality is an important aspect of national accounts statistics, and they have tried, within existing budgetary limits, to introduce improvements. Important steps in this direction have been: (i) the establishment by the CBP of the Coordination of Programs and Projects Unit (CPP) to coordinate the technical assistance and financial support provided by national and international institutions; (ii) the participation in the IMF's General Data Dissemination System (GDDS); (iii) the Support Program for Strengthening National Statistics. This program, financially supported by the IDB, includes a component for improving the national accounts that originated the new national account series, with the *1993 SNA* as its conceptual framework and 1994 as its reference period; and (iv) the Project for Strengthening the Economic Financial Statistics.

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

The implementation process of the *1993 SNA* gave the compilers the access to expert guidance of international consultants on the analysis of source data, application of compilation methods and the assessment and validation of intermediate data and statistical outputs. Also, the compilation and revision cycle of the national accounts constitutes in itself a mechanism to monitor the quality of the national accounts. In addition, the CBP has established an administrative supporting unit to better organize the use of available resources. The Bank has recently adopted a new special promotion system for employees, based on merit, including, for example, (i) assessment of high level performance; (ii) participation in projects to make working processes more efficient; (iii) participation in training activities; (iv) publication of research and other papers on subject matters linked to the staff duties.

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

An annual work-plan is established and carefully monitored to make a more efficient use of the resources. In planning the activities, trade-offs among different dimensions of quality are taken into account, e.g., resources availability, timeliness, and accuracy.

1. Assurances of integrity

1.1 Professionalism

1.1.1. Statistics are produced on an impartial basis.

No outside influences are brought to bear on the process of compiling the national accounts statistics.

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

Technical criteria and cost considerations alone are applied by the compilers in their choice of data sources, statistical techniques and dissemination decisions.

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

The CBP is authorized to comment on the interpretation or use given to the statistics and has made comments in the past, e.g., responding to criticisms and doubts on some estimates of the old national accounts series through a published document, also disseminated on the CBP website.

1.2 Transparency

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

The Charter of the CBP and other regulations, including the terms and conditions under which the CBP's statistics are compiled and disseminated, are posted on the CBP website. Specific information on confidentiality an use of individual reporters' data is included in the presentation note attached to questionnaires.

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

Government officials outside the CBP have no access to the information until it is released to the general public.

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

Data released to the public are clearly identified as generated by the CBP, by showing the name and logo of the CBP. In the case of joint publications, the name and logo of the data producing agencies are shown.

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

Major changes in the conceptual framework, source data and statistical techniques of the national accounts, such as the introduction of the new reference year 1994 and adoption of the *1993 SNA*, were announced to the public in advance.

1.3 Ethical standards

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

The *Information Security Regulations* approved by the CBP Board of Directors Resolution No. 5 of July 15, 1997, establishes rules of conduct for the purpose of reducing to an acceptable level the risk of human error, theft, fraud or misuse of information. The regulations impose disciplinary sanctions on officials who fail to comply with these provisions. Personnel engaged in compiling the national accounts are aware and periodically reminded of the existence of these rules.

2. Methodological soundness

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

2.1 Concepts and definitions

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

The Bank undertook a project to update the reference period for its national accounts and to implement the *1993 SNA* in stages. The new series were released in 2005, replacing the old ones, which were based on the outdated *1953 SNA* conceptual framework and had an obsolete reference year (1982).

The concepts and definitions used to compile the new series are broadly consistent with the guidelines of the *1993 SNA*, with exceptions that are due more to lack of data than to conceptual considerations.

2.2 Scope

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

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

From the *1993 SNA* tables and accounts that the ISWGNA[1] determined as *minimum requirement* for its implementation, the following ones are compiled on a regular basis:

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

- annual value added and GDP at current and 1994 constant prices by activity;
- annual expenditures of GDP at current and 1994 constant prices;
- annual value added components at current prices by activity.

However, the sequence of accounts for the total economy (up to financial accounts) and the annual rest of the world accounts (until net lending), that are part of the mentioned *minimum requirement*, are not compiled, although the required inputs are available.

From the *1993 SNA* tables and accounts that the ISWGNA determined as *recommended* for its implementation, the following are not compiled:

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

Previously disseminated quarterly data on GDP were basically annual GDP allocated to each quarter on the basis of the quarterly accumulated changes of the MEAI. The NAD has interrupted the dissemination of these “quarterly GDP” figures. Annual supply and use tables were disseminated for period 1991–1997, covering 33 economic activities and 46 groups of products. However, their compilation has also been suspended due to lack of resources.

The delimitation of the constituent units of the economy is generally in accordance with the *1993 SNA*. Because of the importance of the binational hydroelectric enterprises, it would be convenient to analyze the implications for the national accounts of a change in its treatment. At present, the enterprises are considered a non-resident units; however, the *1993 SNA* update, planned for 2008, will recommend splitting multiterritory enterprises (single enterprises with large operations in two or more territories but with unidentifiable branches) into separate units, prorated on the basis of equity shares and other factors.

The production boundary is not in full accordance with the *1993 SNA*. Output measurement includes goods produced for own final consumption, but the following items are excluded, due to lack of data sources:

- research and development on own account;
- mineral exploration;
- production of entertainment, literary, or artistic originals;
- production of computer software;
- illegal output sold to willing buyers.

The assets boundary is defined, in practice, as in the *1968 SNA*. Intangible assets such as mineral exploration; patented entities; entertainment, literary or artistic originals—included in the *1993 SNA*—are not in the scope for determining the assets boundary. However, it is assumed that their relative importance for Paraguay is low. Among tangible assets: defense related assets that could be used for civilian purposes and valuables and historical monuments are also excluded from the national accounts. Institutional sector accounts will be produced in a second stage of the *1993 SNA* implementation process.

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 the compilation of national accounts are partially consistent with internationally recommended systems.

As for the classification of institutional units, non profit institutions serving households (NPISH) are not separated from households (e.g., when estimating their final consumption expenditure).

Classification of transactions broadly follows the *1993 SNA*.

Establishments and enterprises are classified by economic activity using a national industrial classification, which is compatible with the International Standard Industrial Classification of All Economic Activities (ISIC Rev.3). Data recorded in the production and generation of income accounts are disseminated for 33 economic activities. Products are classified according to the National Product Classification (CPP) that is compatible with the Central Product Classification (CPC): it distinguishes 268 groups of products at a working level, that are aggregate into 46 when generating supply and use accounts. Correspondence tables have been prepared, linking the national activity and product classifications to ISIC Rev.3 and CPC, respectively. Gross fixed capital formation is classified by type of asset, but not by economic activity. The Classification of Individual Consumption by Purpose (COICOP) is not applied to households final consumption expenditure. Although a classification by function is applied by the Ministry of Finance to the government expenditures, the NAD does not disseminate final consumption expenditure classified by COFOG, as recommended by the *1993 SNA.*

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

The valuation rules used for recording transactions and stocks are broadly in accordance with the *1993 SNA.* Market output is valued preferably at basic prices. Output for own use is valued at equivalent market prices when feasible, otherwise it is measured at costs, being this the second-best valuation consistent with the *1993 SNA.*

Value added, sales, and excise taxes are included in the valuation of intermediate consumption, but the deductible part of the value added taxes is excluded. The deductible part of the value added taxes is excluded from the valuation of final uses, when data sources allow.

Transfer prices in domestic transactions have not been detected; consequently, corrections are not made. Also in transactions with the rest of the world, no adjustments are made to correct for possible over- or under-valuation of the amounts declared on exports and imports in the Customs forms.

Total imports and exports are valued on an f.o.b. basis. Transactions in foreign currency are converted using the monthly mid-point exchange rate prevailing in the market to record transactions accumulated with monthly periodicity.

2.4.2 Recording is done on an accrual basis.

While most transactions are recorded on an accrual basis, government's transactions are recorded on a cash basis. Work-in-progress, where available data exist, is recorded in the period in which production takes place.

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.

3. Accuracy and reliability

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

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

The major weakness with Paraguay's national accounts lies in the absence of an statistical system that would provide the annual current statistics based on regular and continuous surveys and recent economic censuses needed for the compilation of good quality annual accounts. Main data problems are found, particularly for some manufacturing activities, a significant part of nonfinancial services, household consumption expenditure, and changes in inventories.

Nevertheless, the supply of statistics has increased significantly in the last years through the conduct of a Population Census, an Industrial Survey, annual Households Surveys, and a new comprehensive Expenditure and Income Households Survey. There is, also, a better access to administrative sources. An updated Directory of Establishments was generated when preparing the cartography for the Population Census. An Agriculture Census will be conducted in 2006 and an Economic Census covering manufacture, trade and service activities has been also programmed.

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

A regular annual economic survey program to collect statistics from enterprises and establishments does not exist. The latest economic and industrial census dates back to 1963, except for the agricultural census that was conducted in 1991. Nevertheless, the DGEEC conducted in 2002 its first industrial survey with reference year 2001. The collected data have been divulgated in the DGEEC website (www.dgeec.gob.py). The industrial directory of enterprises/establishments—updated in 1997 and in 2001—provides a sample framework for this survey. Enterprises were stratified by economic activity, at 2 digits of ISIC rev. 3, and by size, into four strata by number of employed persons. The firs strata included enterprises with one to10 employed persons and the fourth all the enterprises with 50 or more employed persons. A sample of 1632 enterprises were selected from the 3,698 enterprises included in the sample framework.

iii. Monthly Index of Economic Activity (IMAE)

The CBP has compiled a Monthly Index of Economic Activity (IMAE) since 1991 and has been conducting monthly surveys for this purpose. In addition to the administrative sources used to construct the index, a small group of leading enterprises that generates a significant part of the total production in their respective economic activities, are surveyed every month. The index is used in the preliminary estimates of GDP by economic activity. The index was revised and the base year updated to 1994, with national accounts' economic activity composition, 1994 weights, and a wider statistical basis. The revised index is in the process of consolidation and will be published in the near future. (probably in March 2006). A preliminary version has been disseminated in the CBP's *Monthly Bulletin*.

iv. Household surveys are conducted on a regular basis.

Two types of household surveys are conducted: a comprehensive income and expenditure survey and a permanent one. The latest comprehensive household survey was conducted in 1990/91 and a new one is being jointly conducted by the CBP and the DGSSC during 2006. Based on the permanent household survey, the CBP disseminated data on employment, income, and salaries with a yearly periodicity and a five months timeliness. The survey covers all geographic areas (except regions difficult to access, with a population of about two percent of the total) and socio-economic groups. A two-stage stratified random sampling technique is applied, and proper imputation methods are used to deal with non-responses. Grossing-up factors are derived scientifically.

v. Comprehensive government finance statistics are available regularly.

Good information is available for government units, except for the operations of the local government. Although the most important local governments are included, the coverage is incomplete. The data cover, in particular, operation of extrabudgetary funds and all defense-related expenditures. Data on investment projects are checked to reclassify current expenditure (e.g., training). Detailed data permit the measurement of output, intermediate consumption, fixed capital formation, and final consumption expenditure of government services. However, data on capital stocks are not available.

vi. Price statistics used to derive price estimates are adequate

Price statistics are available at a good level of detail for agriculture products. Prices of numerous agriculture products are collected by the Ministry of Agriculture and provided on a monthly basis to the CBP. The Consumer Price Index (CPI) is a modified Laspeyres index with base year 1992. It covers a basket of 293 products that represented approximately 76 percent of the households consumption expenditure. The Producer Price Index (PPI) is a modified Laspeyres index with base year 1995. It has a basket of 150 domestic and imported products. Unit values are used to value at reference period prices exported and imported products. The prices for products are generally consistent with the variables being deflated in terms of price concept (except the mentioned unit values), coverage, and reference.

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

Source data generally approximate the definitions, scope, classifications, valuation, and time of recording required to compile the national accounts. Some sources have their own classification systems, but the national compilers establish, as much as possible, their correspondences with the national accounts classifications (e.g., per diem expenditure of employees in work related travels are recorded sometimes as compensation of employees by some sources, but reclassified by compilers to intermediate consumption, when detected). Current surveys cover a relatively small percentage of total economic activities (in terms of value added). The rest is covered using mainly administrative sources. Agriculture, financial institutions, central government and public non financial enterprises are relatively well covered. However, coverage of some manufacturing activities and an important part of services is not sufficient.

3.1.3 Source data are timely

Compilers employ rigorous follow-up procedures to ensure the timely receipt of source data, particularly for the monthly data required by the MIEA. In the case of the surveys, visits are made to collect the questionnaires. Special arrangements have been agreed with the Ministry of Finance, the Ministry of Agriculture, and other institutions providing data from administrative records and the information is received on time. However, data on compensation of employees, required as a key component of GDP by income approach, is available with delays, generating a lag in the dissemination of the GDP data, as data on expenditure, production and income approaches are released simultaneously.

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 from the CBP's surveys is well assessed. The accuracy of other surveys and administrative sources are analyzed in the context of revisions. All significant changes from available up-to-date data are incorporated into the national accounts statistics, according to the revision cycle, preventing the accumulation of revisions over long periods of time. The results of the 2002 Agriculture Survey were incorporated. The results of the 2002 Industrial Survey were also assessed and used. Data on exports and imports are revised when new figures are received from the CBP's International Economy Department. The data received from the different sources are analyzed to check for temporal consistency and also checked with other related source data. For example, the production of agriculture goods that are significant inputs of industrial activities are compared with the intermediate consumption/production of the corresponding industrial activity.

3.3 Statistical techniques

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

Data compilation procedures are adequate in the case of the survey conducted by the NAD, for use in the MIEA. The validation and verification process is carried out directly by the NAD. As explained below, adjustments to unit records are made only when clearly warranted, for which purpose historic information is compared with secondary or indirect data. Imputation for nonresponse is based wherever possible on data for similar type of enterprises. For some major businesses, an attempt is made to persuade the respondents to provide information at least on certain relevant variables.

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

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

Production approach procedures

Output estimates are compiled for 33 activities of the national activity classification, which has correspondence with ISIC rev.3. Output at constant prices is obtained by extrapolation, using volume indices. For most activities, a volume index of sales is constructed by deflating the value index of sales by activity based on sales data from the VAT forms using an appropriate price index. For construction, a volume index of main inputs is applied.

Intermediate consumption is presented for the same 33 activities. However, for most activities, fixed 1994 intermediate consumption/output coefficients are applied to output at constant prices, to derive intermediate consumption at 1994 prices, with gross value added obtained by difference. An excessive use is made of fixed coefficient more than 10 years old. The reference period 1994 is obsolete.

As for data at current prices: The composition by products of the intermediate consumption of a given activity, at constant prices, is calculated by using the activity's column of 1994 technical coefficients. The most appropriate available price indices are used to pass to current prices the activity's intermediate consumption vector. Price indices are used to value gross output at current prices. Gross value added at current prices is obtained as a difference.

Informal activities are not independently followed in the time series, which implies maintaining constant the relative participation they had in the reference 1994 year. Special efforts were made to incorporate informal activities through ad hoc surveys and using every additional available source. In connection to illegal activities, estimates are made for smuggling in the balance of payments, which are also included in the national accounts estimates.

The following techniques are used to deal with some specific issues of GDP compilation:

- For *owner-occupied dwellings*, output is valued as the estimated rentals that tenants would pay for a similar dwelling. The stock of dwellings and its classification by type, are based on the 1992 Population and Housing Census. The time series is constructed by extrapolating the stock by the volume index of the construction activity and applying the rentals sub index of the corresponding components of the CPI.
- *Growing crops* are treated as work-in-progress on the basis of the time distribution of the corresponding costs.
- The data of *consumption of fixed capital* recorded in the accounts are based on depreciation figures obtained from enterprises' and institutions' financial statements.
- Although data on *government transactions* are available in cash and accrual basis, they are recorded on cash basis in the national accounts. The logic behind the adoption of this recording criteria was that the data based on "*obligado*" (an approximation to a strict accrual basis) does not reflect adequately accrual recording, as the sums registered as "*obligado*" will not be expensed at the time effective economic activity is taking place. In addition, the time series constructed by taking this basis of recording showed very irregular movements.
- *FISIM domestically produced* is allocated to resident users on the basis of the distribution of credits provided by the banks, without making use of a reference rate of interest mentioned by the *1993 SNA*. The FISIM allocation to households does not

distinguishes between households as producers or final consumers. No allocation is made to the government.

Regarding procedures for compiling volume measures of GDP, the following issues are noted:

- As explained above, extrapolation by single volume indicators of output (or sales at constant prices, in various cases) are used to estimate output at constant prices. Fixed reference year coefficients are applied to derive value added. Double deflation is used for government and financial activities.
- Taxes on products are estimated at constant prices by extrapolating the reference year taxes by a volume index of the supply of goods to domestic users (as a *proxy* to volume indices of sales subject to corresponding taxes).
- Output volume of trade margins is estimated by extrapolating the 1994 year-trade margins with volume indices of sales or output of tradable goods, if only the later are available.

Expenditure approach procedures

When applying the expenditure approach, the following aggregates are independently estimated: government final consumption expenditure, gross fixed capital formation, exports and imports.

Household final consumption expenditure at constant prices is obtained for each year by applying to the total supply of each of the 46 products at constant prices , the percentage represented by the households consumption in the 1994 supply and use table. This implies an excessive use of fixed coefficients more than five years old. Adequate price indices are applied to obtain current value measures.

Changes in inventories are obtained as residuals.

Concerning classifications applied to final expenditure components:

Households consumption is not compiled by purpose.

- Government final consumption expenditure is generated at an aggregate level, and consequently not classified by function, although a functional classification of government expenses is done in the Ministry of Finance.
- *Gross-fixed capital formation* is compiled by type of assets (construction and machinery and equipment), but not by activities, since the commodity flow method is applied to estimate its value.
- *Exports and imports* are consistent with balance of payments data, which include major estimates for unrecorded foreign trade. Unit value indices are applied for most of the items to estimate flows at constant prices.

- *Changes in inventories* are obtained at current and constant prices as residuals in a supply and use aggregate framework.

In relation to the techniques used to address specific issues of the expenditure approach, the following are noted:

- Government final expenditure excludes incidental sales.
- Expenditures of residents abroad are included in household final consumption expenditure and in imports. However, expenditures of nonresidents in the economy are included in exports, but not excluded from household final consumption expenditure.
- Expenditures on items that are considered stores of wealth (such as jewelry, works of art) continue to be recorded as in the outdated series, as separate data are not available.

Regarding the volume measures of the expenditure components of GDP, the following is noted:

- Household consumption implicit deflator is consistent with the CPI.
- Government final consumption expenditure is derived by deflating cost components of output for final use, with the exception of compensation of employees, which are extrapolated by a volume index of government's employment.

Specific quarterly compilation techniques

The DCNMI produced and disseminated a quarterly estimate of GDP at constant prices, which, in effect, was a quarterly distribution of annual data, proportionate to the quarterly distribution of the MIEA. Data for the first three quarters were generated by extrapolating with MIAE the last quarter of the previous year. The publication of the extrapolated quarterly GDP was suspended and proper quarterly GDP estimates will be produced in the mid-term.

The MIEA is a weighted index of physical/volume indicators by economic activity. The weighting basis used is value added by economic activity for the national accounts reference year. The MIEA has been recently revised and a revised index will be disseminated. It will be published on the basis of original data and also seasonally adjusted by using the X-12 software for this purpose. The index is used to generate inter-annual estimates of GDP for the CBP's internal use in March and June of each year. The first disseminated preliminary estimate, is disseminated in December, on the basis of data available through September.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Intermediate results are validated against other information where applicable

Data compiled from the main national accounts sources are validated against other available independent data sources. Enterprises surveys' information is assessed against enterprises financial statements, other administrative sources and information obtained from producers' associations. Data on production of crops that are mainly exported are obtained from the Ministry of Agriculture and validated against foreign trade statistics. However, information available on independent optional sources is limited.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

Detected discrepancies in intermediate data are assessed, investigated and reconciled or removed, according with available information.

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

The supply and use framework was used to investigate discrepancies and make the national accounts aggregates consistent for the period 1991–1997. For the following years, given the calculation method used, as explained under 3.3.2, there are no discrepancies between GDP by economic activity and GDP by expenditure categories, as they are not estimated independently.

Unofficial estimates on GDP aggregates that could be used to assess the official ones are not available.

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)

Upon production of the new series, a careful analysis of causes of differences between the data of the new and the old series was carried-out for data at current prices of the new reference year 1994. Although documentation on the analysis has not been published, it has been presented in various seminars and in a press conference. After publishing the series for 1991-2002, they were revised and new data included in the publication *System of National Accounts of Paraguay, base year 1994, series 1991–2003.*

4. Serviceability

4.1 Periodicity and timeliness

4.1.1 Periodicity follows dissemination standards

Annual GDP estimates are compiled with the periodicity recommended by the General Data Dissemination System (GDDS).

4.1.2 Timeliness follows dissemination standards

The annual GDP estimates have been disseminated no later than nine months after the end of reference year in the past. However, the annual new series GDP estimates for 2003 and 2004, were released eleven months after the end of the corresponding reference year, thus not meeting the GDDS recommendations. The delay is explained by the fact that data on compensation of employees may be presented to the Ministry of Labor until six months after the end of the calendar year and it takes two to more months to process them and make them available to the CBP. The GDP data is released only after the GDP estimates by the production, expenditure and income approaches are available. However, GDP by production and expenditure approaches are ready for dissemination no later than nine months after the end of the reference year.

4.2 Consistency

4.2.1 Statistics are consistent within the dataset

A consistent set of GDP estimates by activity and expenditure components at current and constant 1994 prices, as well as by income components at current prices, was generated for years 1991 to 1997 in the framework of supply and use tables. For the following years, consistent estimates for GDP components by expenditure, production, and income approaches have been generated by obtaining some of the components as residuals in a less detailed framework, by using the accounting relations linking GDP aggregates (e.g., changes in inventories and operating surplus/mixed income).

As a result of obtaining consistent GDP estimates by expenditure and production approaches at current and constant prices, consistent growth rates are also obtained from the corresponding GDP series. For the same reason, GDP estimates at current prices, volume measures, and implicit deflators are consistent within the “value = volume × price” framework.

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

Consistent time series for national accounts data, with 1994 reference year, were produced for the period 1991–2004. The GDP time series has been retropolated back to 1962, by applying the growth rates of the previous 1982 reference year series.

As for previous series, a consistent extended time series, with reference year 1982, covering the period 1950–2004 has been constructed.

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

The national accounts statistics are generally consistent with balance of payments, government finance statistics, and other related statistical frameworks. Most discrepancies can be reconciled. For example, (i) investments in public finance statistics may contain current expenditures, such as training, which national accounts compilers exclude to calculate the value of investments in gross fixed capital formation; (ii) employment insurance schemes are included in the financial sector for the national accounts purposes, but GFS include them in the government sector. These discrepancies could be eliminated if separate information is provided for employment insurance schemes.

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

The regular revision cycle of the national account is as follows: two preliminary non disseminated GDP estimates for the CBP's internal use are made in March and June of each year. They cover the first quarter and half year period, respectively, mainly on the basis of the MIEA. GDP for the current year is estimated in December and included in the CBP's annual *Preliminary Economic Report*. This first disseminated estimate is based on the MIEA and additional data available until September. In March, a revised figure is disseminated, but still shown as preliminary GDP data. The next revised data should have been released not later than nine months after the end of the reference year, but in practice it has been disseminated 11 months after, for reasons explained under 4.1.2. This last GDP estimate is reported as "provisional data, subject to change." It is revised again and disseminated together with the preliminary GDP estimate for a new year. The revised nature of the data is not identified in the publications. The revision cycle has been established taking into account timeliness of data sources and timing of the preparation of economic policy documents and the CBP's *Annual Report*. The revision cycle is not made known to the public.

4.3.2 Preliminary and/or revised data are clearly identified

Users are informed about the preliminary nature of the estimated aggregates at the time of data dissemination, but not on the nature of revised data.

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

On the occasion of a major change, such as the recent adoption of the *1993 SNA* and a new reference year, detailed explanations on the differences between the new and the old series were prepared. Although documentation on the analysis of the revision has not been published, they have been presented in various seminars and in a press conference.

Documentation on analysis of the assessment of revisions and the reasons for differences between the revised and preliminary data is prepared, but has not been provided to the public. Revised series for 1991-2002 have been published, without analysis of revisions.

In relation with studies of revisions, as noted under 3.5.1, no revision studies have been done; consequently, no results have been disseminated.

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 statistics are disseminated on the CBP website and in the annual *National Accounts Bulletin* (See 5.1.4), in a clear manner, including charts, tables and a summary analysis of the data. However, the last publication covering the period 1991–2003 did not include an analysis. Data are disseminated with different levels of aggregation. Also, the monthly *Economic Bulletin* publishes tables with national account statistics including time series of GDP for 17 activities, at current and constant prices, GDP *per capita*, and other tables.

5.1.2 Dissemination media and format are adequate

As noted above, national accounts statistics are disseminated in hardcopy publications, which are also posted on the website, with different levels of details. In the more comprehensive publications, detailed time series from 1991 until the current year are included.

5.1.3 Statistics are released on a preannounced schedule

An advance release schedule for the data is not made public, although it exists for internal use.

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

National accounts statistics are made available to all interested users simultaneously through the website and published documents (*Economic Report*, *Statistical Bulletin*, *Annual Report*, and specialized national accounts publications).

5.1.5 Statistics not routinely disseminated are made available upon request

Additional and more detailed statistics than the disseminated ones are provided to users upon request when available. Confidentiality of individual data is protected. However, this possibility is not disclosed to the public.

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 was published on the occasion of the dissemination of the new series, which is also accessible through the CBP website. As noted above, and specially in relation to Dimensions 2 and 3, various differences exist with internationally accepted standards; however, only a few of them have been annotated in the documentation. The GDDS metadata need to be updated, as the ones shown in the IMF website are still related to the previous 1982 GDP series.

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

The disseminated documentation attends the needs of different types of users. Two technical documents containing metadata are *Productive structure of Paraguay-the production matrix* and *Basic Directory of information sources.* However, they do not add much more detailed information to the disseminated metadata. Detailed and updated documentation for more specialized users and for the own compilers needs to be developed.

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

Prompt and knowledgeable service and support are available to users of national accounts statistics. There is general contact information on the CBP website and publications, but not an specific contact point for national accounts (name, phone, fax and /or e-mail address) or with the NAD.

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

Lists of publications, papers, press releases and other documents are available on the CBP website. The publications of the CBP' Office of the Manager for Economic Studies are made available to the public free of charge; they may also be downloaded from the website or consulted at the CBP's library.

Table 1. Paraguay: Data Quality Assessment Framework (July 2003): Summary of Results for National Accounts

(Compiling Agency: Central Bank of Paraguay)

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 on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
0. Prerequisites of quality							
0.1 Legal and institutional environment			X			The CBP's Charter provides the authority for requesting information; however, it does not contemplate sanctions for failure to comply, which for the national accounts is specially important in the case of private non-financial units.	
0.2 Resources				X		Staff number and computing resources are insufficient, affecting the scope and quality of the national accounts, e.g., the compilation of the supply and use table was discontinued mainly because of resource limitations.	Evaluate the resources required to strengthen the NAD.
0.3 Relevance			X			Although the wider coverage of the new national accounts series increases its relevance for users, and informal contacts are maintained with them, the establishment of adequate mechanisms to contact compilers and users would be convenient to identify users new and emerging data requirements.	Establishment of a periodic consultation process to the main users of the national accounts that could take the form of a user survey.
0.4 Other quality management		X					
1. Assurances of integrity							
1.1 Professionalism		X					
1.2 Transparency		X					
1.3 Ethical standards		X					

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Element	NA	Assessment				Comments on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
2. Methodological soundness							
2.1 Concepts and definitions		X					
2.2 Scope			X			Two accounts, part of the *minimum requirements* established by the Inter-Secretariat Working Group on National Accounts (ISWGNA) to consider that the *1993 SNA* is being implemented are not compiled; however, required inputs for their compilation are available. Supply and use tables were compiled for years 1991-1997, not since then. Institutional sector accounts will be produced in a second stage of the *1993 SNA* implementation process. Quarterly GDP is not estimated.	Evaluate the availability of basic data for the compilation of quarterly accounts in the short term. Finish the compilation and divulgate the sequence of accounts for the total economy and the rest of the world accounts (until net lending. Reactivate the compilation of the supply and use table, to be used as a consistency framework for the national accounts compilation.
2.3 Classification/sectorization			X			Household final consumption is not classified by purposes. Government's expenditures are not classified by functions. Gross fixed capital formation classified by type of asset, but not by economic activity.	The SEN should norm the implementation of classifications to be applied by the most important producers.
2.4 Basis for recording			X			Government flows and some of the rest of the world flows are recorded on a cash basis.	Assess the recording of government expenditures on an "*obligado*" basis, and evaluate how good is it as a *proxy* for an accrual basis.

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Element	NA	Assessment				Comments on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
3. Accuracy and reliability							
3.1 Source data			X			No comprehensive data collection program of economic censuses and surveys exists. Last industrial census conducted in 1963. Nevertheless, an industrial survey was conducted in 2002. Insufficient source data, particularly for some manufacturing activities, a significant part of nonfinancial services, households consumption and changes in inventories. Data on income components of GDP are not timely.	An Agriculture Census will be conducted in 2006. An Economic Census, covering manufacture, trade, and service activities, has been also programmed.
3.2 Assessment of source data		X					
3.3 Statistical techniques				X		Informal activities not monitored in the time series, maintaining the relative participation they had in the reference year. The 1994 reference year is becoming obsolete. Excessive use of fixed coefficients more than 10 years old. Consumption of fixed capital is based on financial statements. Changes in inventories are obtained as residuals. Although expenses of nonresidents in the economy are included in exports, they are not excluded from households final consumption.	Assess the possibility of using the DGSSC's permanent households survey, and other sources, whereas available, to estimate the participation of the informal sector in employment and income generation. Prepare a mid-term project to up-date the accounts' reference year. Assess the possibility to follow changes in inventories for some important non perishable products. Adjust household consumption by expenditures of non resident visitors.
3.4 Assessment and validation of intermediate data and statistical outputs		X					

Table 1. Paraguay: Data Quality Assessment Framework (July 2003): Summary of Results for National Accounts

(Compiling Agency: Central Bank of Paraguay)

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 on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
3.5 Revision studies				X		A detailed analysis of reasons for differences between current price data of previous and new series was conducted for reference year 1994. Ad-hoc studies are carried out to inform the compilation process. However, although the main aggregates' time series for years 1991 to 2002 have been revised, longitudinal studies of revisions have not been carried out.	
4. Serviceability							
4.1 Periodicity and timeliness	LO		X			GDP disseminated 11 months after the end of the year simultaneously by production, expenditure and income approaches, although GDP estimates by production and expenditure approaches are ready two months earlier, meeting GDDS requirements.	Disseminate GDP by production and expenditure approaches, meeting GDDS requirements, without waiting for the basic data to compile also GDP by income approach.
4.2 Consistency	LO		X			Employment insurance schemes are included in financial sector by national accounts, as recommended by *1993 SNA;* however, in GFS they are included in the government sector.	Prepare and disseminate a bridge table, showing how to reconcile the national accounts and GFS figures.
4.3 Revision policy and practice	LO		X			A schedule for the revision cycle has been prepared and it is followed, but not made known to the public. Preliminary data are clearly identified, but not the revised ones. Although changes resulting from the adoption of the *1993 SNA* and new reference year were explained at seminars and press conferences, the analysis of causes of differences between currently revised and preliminary time series data is not provided to the public.	To better attend users: (i) disseminate a schedule for the revision cycle of the national accounts and explain reasons for adopting the schedule; and (2) identify which data are being revised when disseminating the accounts. Along the revision cycle, (3) include in the disseminated accounts a short explanation of the revision made and the reasons for doing them.

Table 1. Paraguay: Data Quality Assessment Framework (July 2003): Summary of Results for National Accounts

(Compiling Agency: Central Bank of Paraguay)

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 on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
5. Accessibility							
5.1 Data accessibility			X			A schedule for the national accounts release has been prepared and is followed, but not made known to the public. Nondisseminated statistics are provided upon request; however this possibility has not been notified to the public.	Disseminate a schedule of dates for national accounts release. Inform the public about the possibility and procedures to get access to not disseminated data.
5.2 Metadata accessibility			X			The GDDS metadata need to be updated, as they still correspond to the previous national accounts series.	Prepare the metadata corresponding to the new national accounts series and send it to the IMF, to replace the presently posted ones
5.3 Assistance to users			X			A specific contact point for national accounts is not provided in the national accounts publications or CBP website. Assistance to users is not monitored.	Specify a contact point that could assist national accounts users. Monitor assistance provided to users in order to get information that could help to improve it.

II. PRICE STATISTICS (CONSUMER PRICE INDEX)

0. Prerequisites of quality

0.1 Legal and institutional environment

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

The Price Statistics of Paraguay are compiled and disseminated by the National Accounts and Domestic Market Department (DCNMI) of the Office of the Manager for Economic Studies (GEE) of the Central Bank of Paraguay (CBP). The preparation of statistics by the BCP is covered by its Law (489/95), which contains: (1) general provisions authorizing it to request information from public institutions, banks, and other entities involved in financial intermediation, as well as private sector enterprises or entities; (ii) provisions to ensure the confidential nature of such information; (iii) provisions on the preparation and publication of monetary and financial statistics and statistics on external payments, domestic prices, output, and revenue, and on the credit institutions subject to its supervision (Article 82); and (iv) specific legal provisions regarding the obligation to maintain the secrecy and confidentiality of the information requested, including provisions on furnishing information on the economic situation and net worth of financial companies, with the express approval of the entity concerned, to the authorities charged with the supervision of comparable entities in foreign countries (Articles 6, 7, and 8).

The law clearly assigns to the CBP the function of compiling the price indicators on the domestic market and that this has been the practice since the CPI was first compiled in 1938. However, a decree-law remains in force (No. 11126 of February 1942) which assigns to the current Directorate-General of Statistics and Census (DGEEC) the functions of organizing and coordinating statistical services and the responsibility for compiling consumer prices, among others.

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

The household budget surveys conducted to select the market basket and determine the CPI weights use the Sample Framework on Census Areas (AEs) developed by the DGEEC. The Fourth Household Budget Survey (HBS 2005-2006) is currently being carried out pursuant to an agreement delegating CBP tasks to the DGEEC.

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

Article 82 of the Law on the Central Bank of Paraguay stipulates that statistics must be published in aggregated form without making individual references. Personnel employed by the CBP who, by virtue of their duties, have access to confidential and privileged information, are obligated to exercise full discretion. Failure to observe this rule is regarded as a serious matter under the disciplinary system of the CBP (Article 88 of Law No. 861/96, the General Law on Banks, Financial Companies, and Other Credit Institutions).

When an establishment is included in price investigations, it is provided with a letter signed by the DCNMI Director in the CBP which identifies the price collector, describes the objective of the investigation, and states that the information provided will be treated in a confidential manner. A comparable procedure is used when households selected for the HBS are visited.

The forms identify, at the very top, the institution and subunits responsible for the study (CBP /GEE/DCNMI), the name of the statistical program (CPI, HBS), the date of data collection, the names and signatures of those responsible for field operations (price collector and supervisor), and the code of the establishment investigated.

Access to the individual data is restricted to the specialists responsible for their compilation, who are assigned a code for this purpose. These specialists have been informed of the Information Security Regulation (Resolution 5, Minute 136) in writing and via the CBP website, as well as of the penalties applicable for failure to observe this regulation.

Results are published in aggregated tables which do not permit the identification of reporting units. Once the information has been transcribed, the forms are filed for a period of approximately five years, after which they are moved to the CBP general archives.

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

Article 80 of the Law on the CBP establishes that public institutions, banks, companies and other entities involved in financial intermediation, as well as private sector enterprises, shall be obligated to provide the information needed by the CBP in the performance of its functions, and shall be guaranteed that the confidentiality of the information provided will be preserved. No penalties are applied for failure to comply with requests for information.

When CPI and HBS studies begin, an introductory letter is drafted and sent to each reporter selected. The purpose of the message is to encourage voluntary cooperation, explain the purpose of the study, and thank the recipient for responding. In the event of a refusal to do so, the supervisor conducts a special visit, and the reporter is replaced if the refusal persists. In consumer price surveys the proportion of non respondents is minimal, whereas a sample of replacement households is prepared to cover non respondents to the HBS.

The HBS forms are filled out by the price collector along with a reporter suitable for providing the information requested (housewife, household head or member who knows the information).

The forms for collecting prices (70 forms) are adapted to each type of establishment so that they include only those products (goods or services) regularly sold by the type of establishment concerned. For each good only one variety per establishment is investigated (one that is customarily and widely consumed, permanently on the market, with readily observable prices). Varieties are described in terms of brand name, unit of measure, and form of presentation. Services are described according to typology, with an effort made to generate complete information that does not raise doubts on the part of the price collector when the information is collected. The price collector personally records the prices, with the prior authorization of the individual in charge of the establishment (except in the case of prices of goods or services provided by another public institution, as in the case of power and water services and gas-oil, which are modified by decree).

When a household budget survey is started, it is announced to the public on radio and television and in press notices. The response rate to the HBS 1990–1991 was ultimately 89 percent of the households queried.

0.2 Resources

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

The Domestic Market Division (DMD) has a total staff of 17 (a division chief, three section chiefs, four supervisors, and nine price collectors) responsible for the monthly compilation of the CPI and PPI, as well as a half-yearly wage index. Compilation of the CPI accounts for 75 percent of the total hours worked by the DMD.

Currently, the DMD is also engaged in other special studies, such as the International Comparisons Program (ICP) of the World Bank and participation in the development and monitoring of the CBP─DGEEC agreement on conducting the HBS 2005–2006.

The price collectors not only collect prices, but input and verify the data transcribed. The supervisors conduct oversight over price collection, produce reports on primary data, validate prices and price changes, and verify outlying prices. The section chiefs coordinate the field work, process data, and prepare tables featuring indices and changes. The division chief and the chief of the Analysis Section formulate study methodologies, analyze the indicators, and write the monthly reports and presentations. The staffing level is considered minimally adequate for handling the current workload, but insufficient to undertake developmental work. In order to cover the vacancies occasioned by the assignment of staff to special projects, it would be necessary to expand the team by adding one supervisor and three price collectors.

DMD staff have received professional training, especially in the area of CPI compilation, through their participation in courses, seminars, and workshops organized within the framework of the Program for the Improvement of Surveys and Measurement of Living Conditions in Latin America and the Caribbean (MECOVI), as well as in courses organized by Eurostat. A further contribution to the training of the professional staff was made by the work carried out in the context of harmonizing the CPIs of the member countries of MERCOSUR (1999–2004) and under the International Comparisons Program.

The expert staff (division chief and section chiefs) for the CPI have professional university degrees with training in economics and statistics. Price collectors must hold bachelor's degrees with introductory studies in economics. Supervisors must have a minimum of three years' experience as price collectors.

The compensation of CPI personnel is competitive by comparison with other public sector employees. The average length of service for the division chief and section chief positions exceeds 15 years. In the case of field staff (supervisors and price collectors), turnover to other CBP units is high, for which reason the average length of service is three to four years.

The promotion system in place in the CBP provides for increases every two years within the job category scale. By decision of the Board of Directors, beginning in 2006 these increases will be based on a merit-testing basis coordinated by the Office of the Manager for Institutional Development and Management, based on a staff appraisal using a system which considers the following qualifications: extraordinary production, honesty, loyalty, dedication, seniority, and completion of a program of studies at a recognized university.

The computer resources used for CPI compilation and processing are insufficient. A computer is assigned to each professional, while a shared computer is assigned for every three technical staff. Most of the hardware lacks sufficient capacity. The database is designed in FoxPro, version 2.2, running on Novell NetWare version 3.1, and has the capacity to process large volumes of information. The strengths of the processing system are that it: (i) permits simultaneous operation by operators-analysts; (ii) includes a backup system defined on the general network; (iii) allows for information queries directly on screen or through the generation of files and printing of reports; (iv) has a communications interface with analysts featuring messages, windows, and online help; (v) includes a security system for controlling access; and (vi) has a built-in auditing system which records user operations. The computer programs were developed by four specialists, one of whom has continued to perform regular maintenance. The professional staff have been trained in using all modules of the Price Indices System, whereas the supervisors and price collectors are trained in data input and generating price reports. Staff have also been trained in the use of software packages (Excel, Word, and PowerPoint). For the forthcoming change in the CPI base, there are plans to develop a new database system in SQL Server, Oracle, or Sybase.

The premises and office equipment assigned to the specialists who compile the CPI are appropriate.

The number of vehicles assigned for price collection work (for the CPI and PPI) is less than required (5), and the vehicle fleet is 15 years old. Replacement of the fleet is programmed in the budget for the current year.

On data collection days, the price collectors receive bonuses for special services in Greater Asunción.

The HBS 1990-1991 was conducted with participation from 40 persons: one general coordinator, five supervisors, 25 price collectors, and nine professionals in various other specialties. The same staff was subsequently involved in CPI updating activities.

The HBS 2005-2006 is now under way pursuant to a CBP—DGEEC agreement and with assistance from the IDB. The methodology proposed was developed with assistance from an international consultant and with the active participation of four CBP staff. The field work is coordinated by the Economic Research Directorate of the DGEEC.

0.2.2 Measures to ensure efficient use of resources are implemented

The expert staff of the DMD have established procedures for planning and assessing field operations subject to resource availability. To this end, they have prepared a bi-monthly schedule of visits by geographical areas and distributed the workload among price collectors, depending on the number of visits and travel distances required for each data collection area. A comparable process is used for assigning vehicles.

The inputting of prices is carried out throughout the month, so as to prevent the accumulation of forms and avoid having too many price collectors devoted to the task at the same time owing to the limited number of available computers. This ensures that the workload for prices can be handled in keeping with the schedule for processing and presenting results (on the 16th and on the last business day of the reference month).

The performance of CBP staff is appraised every half-year. Each employee is evaluated by his or her immediate supervisor and must be informed of the results of this appraisal. The appraisal system is currently being revised. As part of the appraisal process, the Office of the Manager for Institutional Development maintains a systematic record of staff arrivals and departures. This system reports the number of hours worked by each staff member, and those meeting the established minimum are granted five days of leave.

The CBP Finance Department monitors execution of the GEE's budget and expenditure.

0.3 Relevance

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

The CPI is the official inflation indicator in Paraguay and is widely used. While it has not established a formal mechanism for the participation of various economic sectors in the discussion of the requirements for price information at the national and international levels, in recent years the GEE has held forums with academics and university students, ministries, labor unions, and professional associations in order to address users' doubts and explain the major methodological aspects of the CPI as well as its results, applications, and restrictions.

Concerns expressed through the media are passed forward by a press unit and subsequently addressed by the DMD.

In 2005, a statistical information workshop on the CPI was given especially for journalists, covering the sources of economic information. The workshop contents were focused largely on concepts relating to inflation, the measurement of inflation using the CPI, preparation of the current CPI, the estimation of core inflation index, and recent trends for inflation. A workshop on the methodology of compiling the CPI was conducted in January 2006, with participation from reporters from supermarkets, consumer protection organizations, the Ministry of Industry and Trade, and the Municipality of Asunción.

The DMD invites user requests (by phone or e-mail) for information on average prices and for explanations of the indices and changes published on the Internet. Requests are frequently received from the financial sector (banks and finance companies), other public entities, communications agencies, binational entities, students, and national and foreign analysts.

The harmonized CPI for the countries of the expanded MERCOSUR (1999–2004) has been produced and published on the CBP website.

0.4 Other quality management

0.4.1. Processes are in place to focus on quality

The authorities are well aware of the fact that maintaining the quality of these statistics requires constant effort. To this end, in 2003 two international experts were hired to plan and design a new household budget survey and to update the CPI basket and weights. Another major effort made was the incorporation of Paraguay into the harmonized CPI of MERCOSUR countries and Chile, for which the methodological documentation, basket, weights, and monthly results are published for the 1999–2004 series on the CBP website.

The process of selecting and determining the weights for the current CPI basket was subject to an external audit when it was updated. This audit was requested by the CBP authorities and was conducted by an expert from Spain's National Statistics Institute (INE).

The coordinators in the National Accounts and Domestic Market Department (DCNMI) have documented the CPI methodology and prepared instruction manuals for price collectors and supervisory staff. In addition, expert staff have been trained in all phases of CPI compilation and introductory workshops have been provided for price collectors.

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

DCNMI expert staff have established processes for monitoring the quality of the CPI in the various stages of preparation: planning and supervision of price collection, oversight of completed forms, daily inputting of prices collected, analysis of prices by establishment for two consecutive periods (*t* and *t-1*), comparison of prices and changes across establishments, computerized identification of outlying prices, revisits and verification of the causes of changes, verification of inter-month changes at the product level, evaluation of aggregated changes, and comparison of price changes using information from other sources.

The section chiefs and supervisors organize and distribute work to the price collectors (three per supervisor) and verify that the visits to reporting establishments are carried out within the established collection dates and norms. Joint supervisor/price collector work makes it possible to identify errors and inconsistencies in the data gathered, clarify doubts, and correct omissions. As necessary, special field visits can be conducted in order to evaluate the price collector's activities.

The establishments assigned to each price collector and the date of his or her visit are monitored, which makes it possible to check the results of the field work. Moreover, the processing system makes it possible to monitor the lack of responses by product and establishment, as well as the causes for same (seasonal product, definitive absence, temporary absence, change in quality).

Since 1992, the CPI compilation professionals have participated in 10 international seminars organized by experts from ECLAC, the World Bank, and the European Union, which provided technical advice on the harmonization of the consumer price indices for the countries of MERCOSUR and Chile, with particular attention to the application of common methodologies and classification systems in the participating countries and the application of strategies aimed at improving the compilation of indices.

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

The DCNMI, working with the DGEEC, has begun conducting a household budget survey (HBS) aimed at updating the basket and weights for the CPI, using as reference household income and expenditure for the 2005–2006 period and following the concepts and definitions of household consumption expenditure from the *System of National Accounts 1993 (1993 SNA).* The new CPI will use base year 2007 and will be in line with the definitions of the *Consumer Price Index Manual* (2004).

For purposes of HBS development, the services of an expert from INDEC in Argentina have been contracted. In addition, for updating the CPI, in 2006 there are plans to carry out internship programs with the Brazilian Geography and Statistics Institute (IBGE) and the National Institute of Statistics and Census (INDEC) of Argentina.

1. Assurances of integrity

1.1 Professionalism

1.1.1 Statistics are produced on an impartial basis

In Paraguay, price statistics are compiled in accordance with strictly technical criteria, and compilers are independent in choosing sources of information and processing methods.

The DCNMI of the CBP is empowered to comment on the interpretation or use given to the statistics, through the Office of the President of the CBP.

The length of service of the incumbent division chief and section chief responsible for CPI compilation exceeds 15 years. They rose through the ranks through the application of a promotion system which calls for increases every two years within the job category scale.

The CPI coordinators have taken specialized courses in price indicators, statistical techniques, sampling, and predictive models, offered by international organizations such as Eurostat, Spain's INE, ECLAC, CEMLA, and others.

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

The choices of sources as well as methodologies, concepts, and statistical procedures used in compiling the CPI are based on international standards, which were adopted by the CBP without regard to considerations that were not strictly statistical in nature. Similarly, results are disseminated in a manner consistent with the recommendations of international organizations, and the methodological documentation has been prepared and made available to the user public.

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

The CBP monitors the media coverage of the indicators that are published and provides the relevant explanations of erroneous interpretations of these indicators through explanatory reports, press releases, and explanatory notes on its website.

1.2 Transparency

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

The CBP website includes a section on its economic research and publications, including the major methodological aspects relating to compilation of the CPI base 1992. Also available are documents relating to the third Household Budget Survey (HBS 1990-1991), the statistical study used as the basis for selecting the basket of products and their weights. Yet another document included on the website is the methodology for the harmonized CPI of the MERCOSUR countries and Chile.

In the past five months, the Economic Research Manager has explained the CPI to the media at a press conference, with an analysis of the results for the period, changes from month to month, cumulative changes, changes by grouping, underlying inflation, main changes by product group, and trends in other related variables.

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

As noted in earlier paragraphs, the terms and conditions under which price statistics are prepared are covered by the CBP Law. No government officials outside the CBP have access to the information prior to its release to the general public. Although price statistics are published in a timely manner, there is no data dissemination timetable released in advance. Nevertheless, users are aware of the dissemination schedule.

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

The methodological documents for the HBS 1990-1991 and the change in CPI base year are published in printed documents which are clearly identified with the CBP logotype and identification of the DCNMI. Similarly, the monthly results and the detailed report on CPI behavior are published on the aforementioned website. Press releases identify the information source as the CBP. The agreement on responsibility for tasks between the CBP and the DGEEC establishes that the CBP has intellectual property rights over all documents, records, and reports produced under that contract and the DGEEC may make use of the data with the express authorization of the CBP. Similarly, the CBP must acknowledge and mention the participation of the DGEEC in all publications which use this information source.

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

Before publication of the CPI (base 1992) began, a press conference was held with the print media, radio, and television, to inform journalists covering economic issues that a new series was being introduced for that indicator and to explain the major changes in methodology. Similarly, users were informed of the major technical aspects and the printed methodological document and the initial results were distributed.

1.3 Ethical standards

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

The Information Security Regulation approved by Resolution 5 of July 15, 1997 of the CBP Board of Directors establishes guidelines for behavior, fundamentally with the objective of reducing the risk of human error, theft, fraud, or misuse of information to an acceptable level.

The regulation in question includes disciplinary measures for officials who fail to comply with its provisions.

The CBP personnel regulations govern working relationships and define the duties and obligations of staff. They further stipulate that the director of the department of assignment must inform the staff member, upon his or her joining the CBP, of the organization, functioning, powers, duties, and responsibilities inherent to the position he or she will carry out in the institution (Article 44.2 of the regulations dated 9/14/89).

The price collector manuals (HBS-CPI) highlight the legal principles that impose the duty to observe discretion and confidentiality on the officials, employees, auditors, and price collectors designated to carry out statistical investigations. The experts who perform data analysis are not authorized to modify the original data provided by reporters.

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

Both the conceptual framework for the HBS 1990–1991 and the basket of goods and services and weights for the CPI (base 1992) adhere to the concepts and definitions of household consumer spending of *SNA 1968*.

The concepts and definitions used in the CPI generally follow internationally accepted standards, in accordance with the definitions of the *Consumer Price Index Manual*.

The prices collected are the market prices paid by households at the various points of sale where they engage in transactions and include all the taxes levied on the goods and services traded.

Products are classified using an adaptation of the classification of household consumption expenditure by purpose (HCEP) in accordance with *SNA 1968*. The index is calculated for seven main groupings of goods and services: (i) food; (ii) clothing and footwear; (iii) housing, including household equipment; (iv) healthcare; (v) transportation; (vi) education and reading material; and (vii) sundry expenditure. The indices are calculated at the item, subgroup, group, grouping, and total levels.

The basket of goods and services for the CPI is sufficiently disaggregated and allows for monitoring price trends at the level of seven major groupings, 39 groups, 93 subgroups, and 293 goods and services (representative of 75.8 percent of household expenditure according to the HBS). For each good, various varieties are researched (commonly consumed, permanently on the market, readily observable prices). Varieties are generally described in terms of the principal characteristics of the product as regards generic description, quality, and unit of measurement. Open specifications are also included to allow for adjustment to the particular presentations of each establishment (brand name, weight, and origin: domestic or imported). Services are described in a comparable manner, with an effort made to provide complete information that does not raise doubts on the part of the price collector when the information is collected. The system allows for the replacement of varieties or specifications when and as they cease to be available on the market.

2.2 Scope

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

The consumer price index is calculated for the Asunción metropolitan area. The national CPI was compiled up until 2001 and was suspended owing to budget constraints and because it had been demonstrated that there were no significant differences between price trends shown by the national index and those for the metropolitan area. The indices are representative of the consumption of the urban population only. The coverage of products corresponds with the concept of household consumption expenditure used in the national accounts.

The domain of study of the CPI, in terms of both geographic coverage and the basket and its weights, is based on the HBS conducted by the CBP in the period June 1990-June 1991. The coverage includes all resident households situated in the Asunción metropolitan area, which represented 73.4 percent of the urban population in 1990 according to DGEEC estimates. In turn, the urban population constitutes 47 percent of the total population.

The HBS was applied to a representative sample of individual households (2,500 households nationally and 1,460 households in the metropolitan area) and captured information on consumer expenditure and expenditures not relating to consumption, both monetary and nonmonetary, in accordance with the conceptual framework of *1968 SNA*.

Consumer expenditure includes the goods and services acquired by the household that do not increase the net worth of the household and are not obtained for purposes of engaging in a productive activity. Goods and services produced by the household and intended for own consumption are not included, nor are wages paid in kind.

In addition to capital expenditures, certain other expenditures are excluded, such as those for dwelling remodeling and expansion, participation in games of chance, donations, theft, losses, transfers to third parties, and the purchase of vehicles. The latter were excluded because, at the time of the survey, the majority of vehicles were purchased on the secondary market or were illegal in origin, which made it difficult to track prices.

Insurance is not included in the CPI basket. The CPI weights also exclude the imputed rent of owner-occupied dwellings or dwellings used by third parties without payments; this differs from the previous CPI series (base 1980), which did include this concept.

Similarly, and consistent with the recommendations of *1968 SNA*, the CPI does not include expenditures not imputable to consumption, such as those for financial services, legal and notarial services, contributions, and transfers to third parties. The social transfers from the government to households (health and education) are also not included.

2.3 Classification/sectorization

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

Products are classified using an adaptation of the classification of household consumption expenditure by purpose (HCEP) in accordance with *SNA 1968*. The index is calculated for seven main groupings of goods and services: (i) food; (ii) clothing and footwear; (iii) housing, including household equipment; (iv) healthcare; (v) transportation; (vi) education and reading material; and (vii) sundry expenditure. The indices are calculated at the item, subgroup, group, grouping, and total levels.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

The prices collected in the CPI are the market prices paid by households at the various points of sale where they engage in transactions and include all the taxes levied on the goods and services traded. The prices of merchandise in liquidation, special discounts, and subsidies are excluded.

The consumption values used to determine the CPI weights (HBS 1990-1991) were valued at purchase price, including merchandising and shipping markups and taxes, minus the subsidies applicable to the products.

2.4.2 Recording is done on an accrual basis

The measurement of final consumption expenditure of households uses the method of what is purchased or accrued, that is, it includes the goods and services received in the reference period of the HBS, regardless of whether payment has been completed or whether the goods and services were used during the same period or thereafter.

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

For household purchases of automobiles on the secondary market, the HBS records the net value resulting from offsetting purchases of sales of the same kind of property. However, as mentioned previously, automobiles were not included in the CPI basket.

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

In Paraguay, the consumer price index is compiled using adequate procedures and methodologies. The basket of goods and the weights are derived from probabilistic surveys of household income and expenditure which use concepts consistent with international standards. The samples are selected from updated frameworks. The methods used for collecting and processing information and the formulas for calculating the indices are generally consistent with international standards for the compilation of such indices.

Although there is a program of regular household surveys conducted by the DGEEC, it does not provide sufficient information on household spending to update the CPI goods basket. For this reason, in the past the CBP has conducted other household income and expenditure surveys for purposes of the CPI and the national accounts.

Currently, as part of the Program on Strengthening Economic and Financial Statistics (ATN-7622-PR) and in coordination with the DGEEC and assistance from the IDB, the CBP has launched a new household budget survey with a new reference period 2005-2006.

The basket of goods and the weighting structure for the CPI (base 1992) was constructed using the results of the household income and expenditure survey (Third Household Budget Survey—HBS) carried out by the DCNMI in
1990–1991. The reference period of this survey ran from June 20, 1990 to June 19, 1991. The framework for sample selection for the HBS 1990–1991 is derived from the Sample Framework on Census Areas (AEs) prepared by the DGEEC, which was updated in order to identify dwellings occupied by individual households. Five hundred AEs were selected and subdivided into four stages (with 125 AEs in each stage).

The design of the household sample for the HBS 1990–1991 was the two-stage probabilistic type for the auto represented stratum of Asunción (first stage: selection of AEs, and second stage: equal probability selection of households), and three-stage for the stratum Rest of Greater Asunción (first stage: selection districts, second stage: selection of AEs, and third stage: equal probability selection of households). Districts were selected in light of their importance within the total number of households estimated for 1990. The final size of the sample was 2,500 households distributed between the two domains with probability proportional to population (Greater Asunción: 1,460 households and Interior: 1,040 Households). This sample represents 47 percent of the total estimated population for 1990.

Of the 2,500 goods and services identified in household consumption in 1990–1991, the basket used 293 products representing 75.8 percent of household expenditure. The criterion used for the selection was based on their relative incidence within total household spending, resulting in the selection of all those products with a relative share equal to or exceeding 0.1 percent and/or products that were consumed by at least 15 percent of households. The expenditure corresponding to the remaining products not included in the basket (24.2 percent) was distributed among similar products or proportionally among the groups, subgroups, and products investigated.

Establishments were classified by types and according to the locations where households regularly purchase goods and services. The sample of establishments by type was selected with the following criterion in mind: stable establishments that have a high probability of remaining on the market, in light of the level of activity (sales volume) of the enterprise. No unstable or informal establishments are included.

For purposes of selecting product varieties, a pilot study was conducted in business establishments, aimed at identifying varieties that meet the following conditions: customary consumption by the population, reasonable expectations of remaining on the market, and readily observable prices. The prices of the varieties are investigated, incorporating the specifications as to brand name, weight, and unit of measure of the good or service within each establishment. The CPI methodology allows for replacement by similar establishments in the same zone in the event an establishment closes, ceases to be representative, or is unwilling to report.

Prices are investigated by means of direct interviews at various points of sale (588 points) representative of the locations where consumers make their purchases. Approximately 6,000 price observations are made per month. The data are verified for logical consistency by means of month-to-month comparisons within the same establishment and among establishments of the same type, using computerized tools that generate on-screen reports or printouts. Monthly price fluctuations which fall outside a predetermined interval lead to repeat consultations with reporters.

The price of rent is investigated by means of a survey of 100 rented dwellings, which are divided into two panels of 50 dwellings each. Each panel is rerun every other month. In January, the entire sample may be investigated, particularly in years when many contracts are updated. In months when the panel is not rerun, the immediately preceding price is maintained.

The prices of gas-oil, of power, water, and telephone services, and of fares for transport are observed by reviewing Executive Branch decrees or decisions announced by the entities responsible for administration of the product or utility.

The questionnaires used for collecting prices allow for recording the prices of the product varieties and their individual specifications within each individual establishment.

CPI consistency analysis entails the use of data on average prices from other official sources, such as the Ministry of Industry and Commerce, the Ministry of Agriculture and Livestock, and the Directorate of Supply of the Municipality of Asunción.

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

The HBS 1990-1991 was planned as part of a wide-ranging program that pursued multiple objectives, such as: (i) updating the basket of goods and services representing household consumption, its weightings, and the reference strata for preparing the CPI; (ii) learning the general structure of household budgets, providing information on consumption expenditure and on income sources, by origin and type; (iii) estimating the final consumption of households; (iv) supporting the estimates of the institutional sector account of households; and (v) providing guidance for social welfare and income distribution policies. From this perspective, the HBS provided sufficient information for selecting the CPI basket and determining its weighting structure, adhering to the classification and valuation systems established by *1968 SNA* and with household representative for all the domains of study. It also made it possible to examine the principal establishments in which households purchase their goods and services and with what frequency, thus facilitating the selection of the units to be investigated for tracking prices for the CPI. The HBS 2005–2006, for which information is now being gathered, will be used as the basis for updating the CPI basket and weights and for developing the index methodologically in keeping with the classification and valuation systems established in *1993 SNA*.

Prices are investigated daily for the first 28 business days of the month under study, making it possible to estimate the index in accordance with the established periodicity.

3.1.3 Source data are timely

The processes of collecting, reviewing, inputting, validating, processing, and producing CPI results are carried out in accordance with a monthly timetable which is adapted to the following deadlines: (i) complete collection, inputting, and validation within the first 28 business days of the month under study; (ii) process the index on the 16^{th} and 28^{th} business day of the month; (iii) produce the tables for presenting results; and (iv) publish the CPI on the website and in a press release on the last day of the reference month or the first business day of the following month.

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 response rate for the HBS 1990–1991 was 89 percent. The processing system for the CPI makes it possible to monitor the lack of responses by product and establishment, as well as the causes for same (seasonal product, definitive absence, temporary absence, change in quality). This information is used solely for reaching decisions on replacements, deactivation, or activation for calculation purposes. The percentage of non-responses is very low (estimated at under 5 percent). No record is maintained of the number of prices collected for each product, meaning that coverage monitoring is incomplete.

The design of the prices sample for the CPI is not based on analysis of standard errors or coefficients of variation. The processing programs do not include calculations of relative errors.

The CPI processing programs generate reports showing outlying prices. The analyst evaluates the flagged prices daily, critically assessing and validating them. Outlying prices and atypical situations are verified through supervision visits. The prices confirmed or modified by this review are recorded on the form with the relevant observations.

The final household consumption expenditure not covered by the CPI basket is approximately 24.2 percent. The amount corresponding to products not investigated is distributed among the products that are selected in accordance with the criteria referred to above.

3.3 Statistical techniques

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

The consumer price index is calculated in accordance with internationally recommended practices, using the modified Laspeyres formula.

The base period for the CPI is the year of 1992, and accordingly the weights from the HBS conducted in 1990–1991 were updated to reflect price changes from the survey period to the mean for 1992.

The CPI is subject to a validation process at the level of the primary data from individual price observations, and also at the various aggregation levels of the indices.

The indices for the individual products are calculated on the basis of the averages of observed prices. Instances of non-response are minimal (temporary or definitive absence, nonresponse, seasonality), and when they occur the procedure followed is to eliminate them from calculation of the index for the corresponding period. This ensures that information is included for the establishments investigated in the period for both *t* and *t-1,* so as to guarantee the comparability of the elementary price index. The price is reincorporated when the product appears for two consecutive months.

Product varieties which disappear permanently from the market are replaced after two consecutive months for which prices are lacking; this process is carried out by the supervisors and section chiefs devoted to the validation process.

The forms used for collecting prices have the reporter's code preassigned. The coding is performed by the supervisor and verified by the section chief. Similarly, the data input module displays a screen which establishes the link between the reporter and the products in the basket for which the reporter provides information, as well as the immediately preceding price and the corresponding collection code so as to facilitate the identification of special situations, such as changes in brand name, unit of measurement, or origin. In addition, the data input module helps add new reporters and assign related products. This considerably reduces input time as well as coding and input errors.

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

Both the conceptual framework of the HBS (1990–1991) and the goods and services basket and weights of the CPI (base 1992) are in keeping with the conceptual and methodological guidelines of *1968 SNA*. The weights include households' purchases in all markets (including the informal market) for the goods and services included in consumption expenditure.

The CPI weights exclude the imputed rent of owner-occupied dwellings or dwellings used by third parties for which no payments are made; the CPI also excludes housing construction or remodeling.

The recorded value of goods and services represents the economic cost to the consumer at the moment of purchase, whether the payment has or has not been completed and regardless of whether the good or service is used in the same period or subsequently.

Goods and services produced by the household for its own consumption are excluded, for example, primary products (from agriculture, hunting, fishing) and their processing, in-kind withdrawals or self-supply, grants in kind received, and social benefits.

The formula used to calculate the indices at the elementary level (items) is the ratio of average prices, with short-term relatives, so as to measure changes in the averages prices of the current month in terms of those for the preceding month.

The method used for integrating the elementary indices and arrive at the aggregated levels of subgroups, groups, and grouping, and at the general level, is based on a modified Laspeyres formula.

The index weights have not been updated in the past 13 years. However, the HBS 2005–2006 has been started with a view to selecting 2007 as a new base year for the CPI.

When the new CPI series begins, coefficients will be determined to chain it with prior series. The annual series covering 1950–2005 is available at the general level and for four groupings. The monthly series were chained for the four main coincident groupings starting from 1964 and for the seven main groupings starting from 1990. This task was accomplished in December 2004.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Intermediate results are validated against other information where applicable

The intermediate results for the CPI are validated against those reported for the PPI for products appearing in both.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

The section chief validates the primary data, reviews the average prices for each product, compares them for two successive periods (*t* and *t-1*), evaluates outlying prices, checks the explanations provided by the reporter, makes the necessary adjustments in that prices are not properly justified, recalculates the average price, and checks the impact of the adjustment. The analysis is supplemented by information from the press on prices as well as other sources of price data, such as reports from the Directorate-General of Consumer Protection in the Ministry of Industry and Commerce. Discrepancies are analyzed and the reasons for them explained.

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

There is no evaluation of the discrepancies produced by the inclusion and removal of missing prices in the calculation of average prices.

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 CPI figures are final when first published. Analysis of the results of the HBS 1990–1991 led to appraisal of the new consumption structure and the changes in the main coincident groups. The most relevant changes were checked and the reasons for them determined. All this analytical work was carried out in the preparatory phase for the change in CPI base year.

No periodic reviews are carried out to assess the possible effects on the CPI of changes in the weighting structure. Nor are special studies carried out to investigate the sources of price collection errors.

4. Serviceability

4.1 Periodicity and timeliness

4.1.1 Periodicity follows dissemination standards

The collection and compilation of prices for the CPI are carried out daily in order to ensure that the index is produced half-monthly and monthly in accordance with the Special Data Dissemination Standard (SDDS) and the General Data Dissemination System (GDDS). While the CPI is also compiled half-monthly, it is disseminated on the last day of the reference month or the first business day of the following month.

4.1.2 Timeliness follows dissemination standards

CPI compilation begins in the first week of the month and ends on the last business day of the reference month, in accordance with a work timetable that stipulates that the CPI must be published not later than the first day of the following month. Publication is both by press release and on the website of the CBP, which adheres to SDDS and GDDS standards.

4.2 Consistency

4.2.1 Statistics are consistent within the dataset

CPI estimates use various types of classification, such as: (i) groupings of goods and services; (ii) domestic goods and imported goods; and (iii) tradable and nontradable products. The aggregated indices for each of these classifications are the same.

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

The current CPI series began in December 1994 and to date has been published on a regular monthly basis. In addition, this new series of the index is chained with other prior series, both at the general level and for coincident groupings (annual series covering 1950–2005 and monthly series for 1964─2005). The chained series are published on the CBP website. It is important to stress that the chained series do not replicate the use of base 100 = 1992. This is because there are no coincident series both using a base of 1992, for which reason chaining begins in December 1994 with the month-to-month changes of the prior series being maintained.

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

The CPI results are reconciled with those reported for the PPI for products appearing in both. In addition, an index for core inflation and a harmonized index for MERCOSUR and Chile are both calculated. All of these indicators may be reconciled with the CPI.

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

CPI figures are not subject to revision following their publication. The household income and expenditure survey, used as the basis for the CPI calculation basket, is conducted at intervals of more than 10 years. The documented entitled *Metodología del Cambio de Año Base* [methodology for the change in base year] compares the baskets for 1980 and 1992 and analyzes the major changes occurring at the grouping level.

4.3.2 Preliminary and/or revised data are clearly identified

As noted in the item above, CPI figures are not subject to revision. However, in the event that an error is identified, the relevant explanations are provided and the corrected data are clearly identified.

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

The documented entitled *Metodología del Cambio de Año Base* [methodology for the change in base year], published by the CBP when the new CPI series began, compares the baskets for 1980 and 1992 and analyzes the major changes occurring at the grouping level. The aforementioned document covers the major methodological issues for both the CPI and the HBS 1990–1991, and is published in print form for distribution among the major users. Copies are available for consultation in the CBP library.

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)

Data accessibility in Paraguay is good, either in published form or through direct services to users rendered by the compilers. The methodology for both the CPI and the PPI has been disseminated in a special CBP publication entitled *Índices de Precios—Metodología* [methodology of price indices].

The CBP publishes the monthly CPI in tabular and graphic forms consistent with internationally accepted presentations, facilitating analysis from both the domestic perspective and by comparison with other countries. The monthly publications include monthly CPI series and the changes vis-à-vis the month prior to the reference month, December of the preceding year, and the same month of the previous year. These indicators are disaggregated by groupings and groups of goods and services. Other classifications are also presented, such as domestic goods and imported goods, tradable and nontradable goods, and core inflation. A monthly press brief is published providing the CPI results with tables and charts, as well as an explanation of the major changes and impacts on the behavior of the general index. This brief is also posted on the website.

5.1.2 Dissemination media and format are adequate

The results are disseminated by means of a press release in the various print media, in the *Informe Mensual sobre el Comportamiento del IPC* [monthly report on CPI developments], and on the CBP website. Both recent data and the most extensive time series may be obtained in Excel format files maintained on the Internet by the CBP.

5.1.3 Statistics are released on a preannounced schedule

There is no preannounced schedule for CPI publication dates. The CPI for Metropolitan Asunción is released on the last business day of the reference month or the first business day of the following month. Statistics are released simultaneously to all users, and no government officials outside the CBP have access to the information prior to its release to the general public.

5.1.5 Statistics not routinely disseminated are made available upon request

The DMD also provides user services in the form of addressing queries and providing photocopies and printouts of tables at the request of public and private institutions as well as private individuals. All data are available to users at the CBP library. Special requests for statistics or supplementary explanations are handled by fax, electronic mail, or in writing.

5.2 Metadata accessibility

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

The methodological documentation for the HBS 1990–1991 and the change in base year of the CPI are published in printed form by the CBP. These documents cover the major methodological issues surrounding compilation of the CPI, the calculation formula, the basket, and the weightings used. For the HBS 1990-1991, there is discussion of the methodological framework (*1968 SNA*), information collection instruments, the design of the household sample, domains of study, response rates, and results and the comparative analysis of results against the previous revenue and expenditure survey.

The methodological document on the Harmonized CPI for MERCOSUR and Chile includes an annex on the major methodological aspects of Paraguay's CPI and draws comparisons with the indices from the other countries covered by the Harmonized CPI.

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

The CBP's website and library both provide user access to publications on the CPI such as methodological documents, monthly bulletins, and press releases. At the DMD, users may consult the reference documents used in formulating the indicator, such as the ILO Consumer Price Index Manual, the *System of National Accounts 1968*, the *System of National Accounts 1993*, and the various classification systems (ISIC, CPC).

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

Users have a single contact point (electronic, fax, or mail) with the CBP, but not with the individuals with direct responsibility for each statistical program. Requests reaching any of the aforementioned individuals through any of the channels mentioned are subsequently distributed to the DMD specialists designated by them for addressing same. No systematic controls are used to measure the time required to respond to requests made. The majority of queries are dealt with by electronic mail, which speeds processing time. Information on time series and other public data are addressed in less than a week. Formal requests requiring the approval of the institution's authorities require additional time.

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

The publications *Índices de Precios—Metodología del CBP* [price indices—CBP methodology], *Informe CPI*, *Índice de Precios al Consumidor 1950-2005* [report on the CPI—Consumer Price Index 1950-2005], and *CPI Armonizado MERCOSUR y Chile* [harmonized CPI for MERCOSUR and Chile] are available to users in the CBP library. Some of these documents are also accessible in the publications section of the CBP website.

Table 2. Paraguay: Data Quality Assessment Framework (July 2003): Summary of Results for Price Statistics (Consumer Price Index)

(Compiling Agency: Central Bank of Paraguay)

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 on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
0. Prerequisites of quality							
0.1 Legal and institutional environment		X					
0.2 Resources			X			The human resources are sufficient for CPI compilation, but not for additional planned tasks, such as preparing a new CPI with updated weights. Computing resources are inadequate.	Technical assistance will be needed to evaluate the Household Budget Survey 2005/2006 as the source data for the new the CPI weights. Financing will also be needed. Training of staff of the National Accounts and Domestic Market Department is needed.
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			CPI weights are representative only of consumption by the urban households of Asunción. Imputed rentals of owner-occupied dwellings and purchases of new vehicles are missing from the CPI. The share of consumption expenditure not covered by the index is 24 percent.	Compiling a new CPI with broader share of consumption expenditure and geographic coverage.
2.3 Classification/sectorization		X					
2.4 Basis for recording		X					

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Element	NA	Assessment				Comments on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
3. Accuracy and reliability							
3.1 Source data		X					
3.2 Assessment of source data			X			Sampling and nonsampling errors are not calculated.	Asses CPI data source and efficiency of sampling techniques.
3.3 Statistical techniques				X		Missing prices are not imputed. Quality adjustments and seasonal products are excluded from the index for the month in question and are reincorporated once they have returned to the market for two consecutive months. Imputed rentals of owner-occupied dwellings are missing. Weights have not been updated in the last 13 years.	Improvement the efficiency of the CPI collection and processing procedures, specific topics such as, the scope, product classification, price collection, treatment of seasonal products, missing items, quality changes, and introduction of new products.
3.4 Assessment and validation of intermediate data and statistical outputs		X					
3.5 Revision studies			X			Periodic weight revisions are not undertaken to determine the bias of the CPI. The CPI bias may increase as the weights become out of date.	Process the Household Budget Survey 2005/2006 to update the index base weights Update of the new basket of the index.
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			There is an internal schedule, but is not announced to the public. However, the public is aware of this schedule.	The BCP will prepare and publish advance release calendars in accordance with the recommendations of the GDDS.
5.2 Metadata accessibility		X					
5.3 Assistance to users			X			Only a general contact point is provided for the BCP.	Improvement in the dissemination of contact points by e-mail and on the web page.

III. Price Statistics (Producer Price Index)

0. Prerequisites of quality

0.1 Legal and institutional environment

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

The Price Statistics of Paraguay are compiled and disseminated by the National Accounts and Domestic Market Department (DCNMI) of the Office of the Manager for Economic Research (GEE) of the Central Bank of Paraguay (CBP). The preparation of statistics by the BCP is covered by its Law (489/95), which contains: (1) general provisions authorizing it to request information from public institutions, banks, and other entities involved in financial intermediation, as well as private sector enterprises or entities, and establish the confidential nature of such information; (ii) provisions on the preparation and publication of monetary and financial statistics and statistics on external payments, domestic prices, output, and revenue, and on the credit institutions subject to CBP supervision (Article 82); and (iii) specific legal provisions regarding the obligation to maintain the secrecy and confidentiality of the information requested, including provisions on furnishing information on the economic situation and net worth of financial companies, with the express approval of the entity concerned, to the authorities charged with the supervision of comparable entities in foreign countries (Articles 6, 7, and 8).

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

The frameworks used for selecting the sample of products and estimating weights for the PPI come from various administrative records, censuses, and directories prepared by other public or private entities, such as the Paraguayan Industrial Union (UIP), the Directorate-General of Customs, the Under Secretariat of Mines and Energy of the Ministry of Public Works and Communications (MOPC), the Ministry of Agriculture and Livestock (MAG), and the National Accounts Division of the CBP.

Most of the information on the prices of agricultural goods is provided by the Directorate of Agricultural Economy and Marketing of the Ministry of Agriculture and Livestock and by the Directorate of Supply of the Municipality of Asunción (DAMA).

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

Article 82 of the Law on the Central Bank of Paraguay stipulates that statistics must be published in aggregated form without making individual references. Personnel employed by the CBP who, by virtue of their duties, have access to confidential and privileged information, are obligated to exercise full discretion. Failure to observe this rule is regarded as a serious matter under the disciplinary system of the CBP (Article 88 of Law No. 861/96, the General Law on Banks, Financial Companies, and Other Credit Institutions).

When an establishment is included in price investigations, it is provided with a letter signed by the DCNMI Director in the Office of the Manager, Economic Research, which identifies the price collector, describes the objective of the investigation, and states that the information provided will be treated in a confidential manner.

The forms identify the institution and subunits responsible for the study (CBP/GEE/DCNMI), the name of the statistical program, the date of data collection, the names and signatures of those responsible for field operations (price collector and supervisor), and the code of the establishment investigated.

Access to the individual data is restricted to the specialists responsible for their compilation, who are assigned a code for this purpose. These specialists have been informed of the Information Security Regulation (Resolution 5, Minute 136) in writing and via the CBP website, as well as of the penalties applicable for failure to observe this regulation.

Results are published in aggregated tables which do not permit the identification of reporting units. Once the information has been transcribed, the forms are filed for a period of approximately five years, after which they are moved to the CBP general archives.

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

Article 80 of the Law on the Central Bank of Paraguay establishes that public institutions, banks, companies and other entities involved in financial intermediation, as well as private sector enterprises, shall be obligated to provide the information needed by the CBP in the performance of its functions, and shall be guaranteed that the confidentiality of the information provided will be preserved.

When studies begin (selection of the basket and recording of prices for the PPI) a letter introducing the price collector is prepared and sent to each establishment selected. The purpose of the message is to encourage voluntary cooperation, explain the purpose of the study, and thank the recipient for responding. In the event of a refusal to do so, the supervisor conducts a special visit, and the reporter is replaced if the refusal persists.

The forms for collecting prices are adapted to each establishment so that they include only those products (goods) regularly produced and/or sold by the establishment concerned. For each good, the principal varieties are researched (greatest sales volume, permanently on the market, readily observable prices). Varieties are described in terms of brand name, unit of measure, and form of presentation of the establishment.

The updating of the PPI (base December 1995) was announced on radio and television and in press notices. Upon conclusion of the study, the methodology and initial results were published. The response rate for this study was 98 percent of the establishments queried.

0.2 Resources

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

The Domestic Market Division (DMD) has a total staff of 17 (a division chief, three section chiefs, four supervisors, and nine price collectors) responsible for the monthly compilation of the CPI and PPI, as well as a half-yearly wage index. Compilation of the PPI accounts for 22 percent of the total hours worked by the DMD.

Currently, the DMD is also engaged in other special studies, such as the International Comparisons Program (ICP) of the World Bank and participation in the development and monitoring of the CBP-DGEEC agreement on conducting the HBS 2005–2006.

The price collectors not only collect prices, but input and verify the data transcribed. The supervisors conduct oversight over price collection, produce reports on primary data, validate prices and price changes, and verify outlying prices. The section chiefs coordinate the field work, process data, and prepare tables featuring indices and changes. The division chief and the chief of the Analysis Section formulate study methodologies, analyze the indicators, and write the monthly reports and presentations. The staffing level is considered minimally adequate for handling the current workload, but insufficient for developmental work. In order to cover the vacancies occasioned by the assignment of staff to special projects, it would be necessary to expand the team by adding one supervisor and three price collectors.

The expert staff (division chief and section chiefs) for the PPI have professional university degrees with training in economics and statistics. The price collectors must hold bachelor's degrees with introductory studies in economics. Supervisors must have a minimum of three years' experience as price collectors.

The compensation of PPI personnel is competitive by comparison with other public sector employees. The average length of service for the division chief and section chief positions exceeds 15 years. In the case of field staff (supervisors and price collectors), turnover to other BCP units is high, for which reason the average length of service is three to four years.

The promotion system in place in the CBP provides for increases every two years within the job category scale. By decision of the Board of Directors, beginning in 2006 these increases will be based on a merit-testing basis coordinated by the Office of the Manager for Institutional Development and Management, based on a staff appraisal using a system which assigns weights to extraordinary productivity, honesty, loyalty, devotion, seniority, and the completion of a course of study at a recognized university.

The computer resources used for PPI compilation and processing are insufficient. A computer is assigned to each professional, while a shared computer is assigned for every three technical staff. Most of the hardware lacks sufficient capacity. The database is designed in FoxPro, version 2.2, running on Novell NetWare version 3.1, and has the capacity to process large volumes of information. The strengths of the processing system are that it: (i) permits simultaneous operation by operators-analysts; (ii) includes a backup system defined on the general network; (iii) allows for information queries directly on screen or through the generation of files and printing of reports; (iv) has a communications interface with analysts featuring messages, windows, and online help; (v) includes a security system for controlling access; and (vi) has a built-in auditing system which records user operations.

The computer programs were developed by two specialists, one of whom has continued to perform regular maintenance. The professional staff have been trained in using all modules of the Price Indices System, whereas the supervisors and price collectors are trained in data input and generating price reports. Staff have also been trained in the use of software packages (Excel, Word, and PowerPoint).

The premises and office equipment assigned to the specialists who compile the PPI are appropriate.

The number of vehicles assigned for price collection work (for the CPI and PPI) is less than required (5), and the vehicle fleet is 15 years old. The expenditure budget for 2006 includes resources for renewing the fleet.

On data collection days, the price collectors receive bonuses for special services in Greater Asunción.

The updating of the basket and weights, as well as the methodological development of the PPI (December 1995 base) involved, in the preliminary phase, the participation of two professional staff charged with designing the basket and determining the weights. The computer system was designed by adapting the system for the CPI, and the selection of the sample of establishments, products, and specifications was performed by a team of DCNMI personnel, made up of one project coordinator, one supervisor, one price collector, and two DCN professionals. The study benefited from the services of an international consultant.

0.2.2 Measures to ensure efficient use of resources are implemented

The expert staff of the DMD have established procedures for planning and assessing field operations subject to resource availability. To this end, they have prepared a monthly schedule of visits by geographical areas and distributed the workload among price collectors, depending on the number of visits and travel distances required for each data collection area. A comparable process is used for assigning vehicles.

The inputting of prices is carried out throughout the month, so as to prevent the accumulation of forms and avoid having too many price collectors devoted to the task at the same time owing to the limited number of available computers. This ensures that the workload for prices can be handled in keeping with the schedule for processing and presenting results (on the 10th to 15th of the following month).

The performance of BCRD staff is appraised every half-year. Each employee is evaluated by his or her immediate supervisor and must be informed of the results of this appraisal. The appraisal system is currently being revised. As part of the appraisal process, the Office of the Manager for Institutional Development maintains a systematic record of staff arrivals and departures. This system reports the number of hours worked by each staff member, and those meeting the established minimum are granted five days of leave.

0.3 Relevance

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

Concerns expressed through the media are passed forward by a press unit and subsequently addressed by the DMD.

Along with the CPI, the PPI is an official indicator of price trends in Paraguay and is widely used, as a deflator in estimates of the national accounts at constant prices and for adjustments in the values of certain fixed assets by enterprises. While it has not established a formal mechanism for the participation of various economic sectors in the discussion of the requirements for price information at the national and international levels, in recent years the GEE has held forums with academics and university students, ministries, labor unions, and professional associations in order to address users' doubts and explain the major methodological aspects of price indices, as well as their results, applications, and restrictions.

The DMD invites user requests (by phone or e-mail) for information on the indices and changes published on the Internet. Requests are frequently received from the financial sector (banks and finance companies), other public entities, communications agencies, binational entities, students, and national and foreign analysts.

0.4 Other quality management

0.4.1 Processes are in place to focus on quality

The PPI (December 1995 base) was developed to replace the earlier MPI indicator (base 1972), which had become outdated. The updating of the indicator involved serious limitations owing to the lack of recent censuses and economic surveys, thus obligating the compilers to use other types of information to configure the basket and the index weights.

The coordinators in DCNMI have documented the PPI methodology and prepared instruction manuals for price collectors and supervisory staff, have provided training to all expert staff in all phases of PPI compilation work and given introductory workshops to price collectors.

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

DCNMI expert staff have established processes for monitoring the quality of the PPI in the various stages of preparation: (i) planning and supervision of price collection; (ii) oversight of completed forms; (iii) daily inputting of prices collected; (iv) analysis of prices by establishment for two consecutive periods (*t* and *t-1*); (v) comparison of prices and changes across establishments; (vi) computerized identification of outlying prices; (vii) revisits and verification of the causes of changes; (viii) verification of inter-month changes at the product level; (ix) evaluation of aggregated changes; and (x) comparison of price changes in specific areas of study (domestic products and imported products).

The section chiefs and supervisors organize and distribute work to the price collectors (three per supervisor) and verify that the visits to reporting establishments are carried out within the established collection dates and norms. Joint supervisor/price collector work makes it possible to identify errors and inconsistencies in the data gathered, clarify doubts, and correct omissions. As necessary, special field visits can be conducted in order to evaluate the price collector's activities.

The establishments assigned to each price collector and the date of his or her visit are monitored, which makes it possible to verify the results of the field work. Moreover, the processing system makes it possible to monitor the lack of responses by product or establishment, as well as the causes for same (seasonal product, definitive absence, temporary absence, change in quality).

The computer system facilitates the printing of questionnaires and the inputting of prices by establishment or product, as well as the generation of reports for validating the data transcribed.

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

As part of the implementation of the Paraguayan System of National Accounts (SCNPY), and with the cooperation of the Inter-American Development Bank (IDB), the CBP has been developing a medium-term program for implementing the *SNA 1993*, which in an initial stage will include the development of supply and use tables covering a seven-year period (1991-1997) at current and constant prices. These supply and use tables could be used as additional sources of information for purposes of addressing weaknesses and omissions in the basic statistics. Among the basic applications is the definition of a basket of broad-based products and the determination of the corresponding PPI weights in accordance with *1993 SNA*.

DGEEC projects include conducting a national economic census, for which purpose steps have been taken to arrange a special loan from the IDB. Yet another DGEEC project is to provide technical assistance to the Ministry of Agriculture and Livestock for the conduct of an agricultural census.

1. Assurances of integrity

1.1 Professionalism

1.1.1 Statistics are produced on an impartial basis

In Paraguay, price statistics are compiled in accordance with strictly technical criteria, and compilers are independent in choosing sources of information and processing methods.

The DCNMI of the CBP has the authority to comment on the interpretation or use of the statistics, through the Office of the President of the CBP.

The length of service of the incumbent division chief and section chief responsible for PPI compilation exceeds 15 years. They rose through the ranks through the application of a promotion system which calls for increases every two years within the job category scale.

The PPI coordinators have taken specialized courses in price indicators, statistical techniques, sampling, and predictive models offered by Eurostat, Spain's INE, ECLAC, CEMLA, and others.

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

The choices of sources as well as methodologies, concepts, and statistical procedures used in compiling the PPI are based on international standards. Technical criteria alone are applied by compilers and they are totally independent in their choice of data sources, methods, and data dissemination policies, within the limits of available resources. Similarly, results are disseminated in a manner consistent with the recommendations of international organizations, and the methodological documentation has been prepared and made available to the user public.

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

The CBP monitors the media coverage of the indicators that are published and provides the relevant explanations of erroneous interpretations of these indicators through explanatory reports, press releases, and explanatory notes on its website.

1.2 Transparency

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

The CBP website includes a section on its economic research and publications, including the major methodological aspects relating to compilation of the PPI (base December 1995). Also available is the document on the central framework of the Paraguayan System of National Accounts (SCNPY), a practical case study on the preparation of supply and use tables, and an introduction to the new Paraguayan national accounts (base 1994).

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

As noted in earlier paragraphs, the terms and conditions under which price statistics are prepared are covered by the CBP Law. No government officials outside the BCP have access to the information prior to its release to the general public. Although price statistics are published in a relatively timely manner, there is no data dissemination timetable released in advance.

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

The methodological documents for the PPI (base December 1995) are published in printed documents which are duly identified with the CBP logotype and identification of the DCNMI. Similarly, the month-to-month changes in the PPI by sections are published in the monthly economic report, and the half-yearly report includes the monthly indices for domestic products and imported products, classified by grouping and for the grand total.

1.3 Ethical standards

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

The Information Security Regulation approved by Resolution 5 of July 15, 1997 of the CBP Board of Directors establishes guidelines for behavior, fundamentally with the objective of reducing the risk of human error, theft, fraud, or misuse of information to an acceptable level. The regulation in question includes disciplinary measures for officials who fail to comply with its provisions.

The CBP personnel regulations govern working relationships and define the duties and obligations of staff. They further stipulate that the director of the department of assignment must inform the staff member, upon his or her joining the CBP, of the organization, functioning, powers, duties, and responsibilities inherent to the position he or she will carry out in the institution (Article 44.2 of the regulations dated 9/14/89). The functions of the GEE and its units of assignment are delineated in detail in the Functions Manual of the Office of the Manager for Economic Research, approved by Resolution 12 of May 27, 1996 of the CBP Board of Directors.

The price collector manuals highlight the legal principles that impose the duty to observe discretion and confidentiality on the officials, employees, auditors, and price collectors designated to carry out statistical investigations. The experts who perform data analysis are not authorized to modify the original data provided by reporters.

2. Methodological soundness

2.1 Concepts and definitions

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

The concepts and definitions used in the PPI generally follow internationally accepted standards, in accordance with the definitions of the *Producer Price Index Manual*.

The producer price index includes two subsystems of indices: (i) producer price indices of domestic goods intended for the domestic market; and (ii) import price indices. This procedure is consistent with international practices of considering only production that is likely to be sold on the domestic market.

The PPI does not include exports of goods or production for own consumption (basically in the case of agricultural goods).

In the case of goods of domestic origin, the weights are based on the gross value of output at producer prices. Similarly, the weights of the imported goods indices correspond to the concept of the supply of goods on the domestic market and are determined by the value of the imports (c.i.f. plus import duties).

The products investigated at the level of each establishment are accurately thoroughly described in terms of quality, unit of measurement, and forms of presentation and transaction.

The prices measured are those received by the producer or importer at the first stage of marketing, and do not include distribution markups or taxes on the products.

PPI estimates are aggregated by products: (i) agricultural products; (ii) livestock products; (iii) forestry and logging products; (iv) minerals; (v) food, beverages and tobacco, textiles, wearing apparel and leather goods; (vi) nonmetallic transportable goods; and (vii) metal products, machinery, and equipment.

The products are disaggregated in accordance with the Central Product Classification (CPC) of the United Nations to five digits (Grouping, Section, Group, Subgroup, and Product).

2.2 Scope

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

The producer price indices for goods of national origin measure the changes in prices on the domestic market for all goods produced by the following economic activities: agriculture, forestry, mining and quarrying, and manufacturing. Analogously, the price indices for imports cover imported goods originating in the same activities, with the exception of agricultural and forestry products.

The PPI does not include activities in respect of power, water, construction, commercial services, or other services.

The sample of establishments investigated for obtaining the prices for the PPI includes those enterprises which account for a high percentage of the production of the good in question and whose production is primarily intended for the domestic market, and also are considered leaders within the goods market. Small enterprises (whether or not incorporated) are not included, nor are illegal markets.

The methodological notes for the PPI (December 1995 base) are explicit as regards the scope of coverage of the weights for the indicator and the prices investigated. The limitations in its scope in relation to *1993 SNA* are not mentioned; however, reference is made to the usefulness of having had supply and use tables for the selection of the basket and determination of PPI weights. At the time of the selection, the preparation of these tables had not been completed, and they constitute part of the program for changing the base year of Paraguay's national accounts.

2.3 Classification/sectorization

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

The product classification used corresponds to the Central Product Classification (CPC) of the United Nations. Domestic goods are grouped into the following seven groupings of products: (i) agricultural products; (ii) livestock products; (iii) forestry and logging products; (iv) minerals; (v) food, beverages and tobacco, wearing apparel and leather goods; (vi) nonmetallic transportable goods; and (vii) metal products, machinery, and equipment. The indices are calculated at the Product, subgroup, group, section, grouping, and total levels. The index excludes imports of agricultural, livestock, and forestry and logging products. The establishments producing domestic goods are classified by major economic activity in accordance with the International Standard Industrial Classification of all Economic Activities (ISIC rev. 2).

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

The value of output, a weighting variable used for the domestic products index, is expressed in producer prices, whereas the value of imports, used as a weight for imported products, is expressed in c.i.f., prices plus import duties.

The prices collected correspond, in the case of goods of domestic origin, to the producer's sale prices ex-establishment, excluding value-added tax. This price concept is consistent with international practices for the valuation of output. The prices of imported goods correspond to the market prices at which they are sold by importers, that is, they include all import taxes plus the distribution markups of the importer as well as other taxes affecting transactions, with the exception of value-added tax.

2.4.2 Recording is done on an accrual basis

The weighting variables (value of output and import value) come from the system of national accounts, where transactions are accounted for at market prices and on an accrual basis.

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

As indicated above, the prices investigated for the PPI for goods of domestic origin are the producer's sale prices ex-establishment, and do not record transactions between establishments in the same enterprise.

The valuation of output corresponding to transactions between establishments in the same enterprise is recorded at transfer prices.

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

There is no regular program of surveys of enterprises and establishments used as a basis for devising the basket and estimating weights for the PPI. Moreover, there have been no recent economic censuses. The DCNMI conducts some special surveys based on sample frameworks that have not been updated, which limits their coverage and representativeness.

This limitation in the basic statistics became clear with the efforts made by CBP experts to compile information from various sources and with different reference periods, with a view to estimating the weighting variables and selecting the main domestic and imported goods sold on the domestic market. The sources used were: (i) national accounts estimates; (ii) the 1991 agricultural census; (iii) the 1992 national forestry census; (iv) the mine and quarry census conducted by the DCNMI; (v) national accounts estimates for manufacturing, based on the 1963 industrial census and supplemented by other special studies on selected branches of activity, as well as information from a 1994 survey of a reduced number of enterprises (141) associated with the Paraguayan Industrial Union; and (vi) import records from Customs for the 1990–1992 period.

Once the basket of domestic goods by economic activity was selected, the output values were adjusted in keeping with the share of such activities in the gross value of output for 1995, using the estimates from the system of national accounts.

Similarly, the weights for the imported goods selected were adjusted using the import values for 1995.

The activities selected to make up the domestic goods basket represent 88.4 percent of the goods GDP in 1995 (at constant 1982 prices). Goods production in turn represents 47.1 percent of total GDP for 1995. Accordingly, the activities included in the domestic PPI represent 41.7 percent of GDP for 1995.

The goods selected (150 products) for both the basket of domestic products (125 products) and the basket of imported products (25 products) represent 70-80 percent of the production value or import value of the corresponding economic activity for the reference year of the source data.

The sample framework used as a basis for selecting the sample of establishments for the PPI is not updated for all economic activities, especially manufacturing, which limits the application of suitable methods for selecting samples and calculating sampling errors.

The sample of establishments investigated is made up of 185 producing establishments and 74 importers. It was selected in an opinion-based manner, using the following selection criteria: (i) significant importance of the enterprise in terms of production volume of the good; (ii) stability of the enterprise in the economic activity in question; (iii) recognized leadership among all the enterprises producing (importing) the good; and (iv) an enterprise whose production is intended mainly for the domestic market.

The prices of agricultural products are taken from the administrative records of official sources, such as the Ministry of Agriculture and Livestock (16 products). These products are collected daily in the main storage and distribution centers located in Encarnación, Ciudad del Este, and Asunción, which supply approximately 80 percent of the population.

The prices of products and of agro industrial inputs are also gathered from agricultural producers' cooperatives and from other municipal markets.

The prices for the remainder of the basket (643 prices per month) are sufficiently detailed to allow for estimating changes in the PPI at the two-digit level of ISIC Rev. 2 (for the activities selected) and at the four-digit level of the CPC. The prices of agricultural products are averages derived from a database.

PPI consistency analysis entails the use of data on average prices from other official sources, such as the Ministry of Industry and Commerce and the Directorate of Supply of the Municipality of Asunción.

The new producer price index (base December 1995) represents an improvement over the previous index (base 1972) because of the updating of the basket and the weightings. However, it still has limited representativeness of national production owing to the lack of economic censuses and surveys, as well as updated directories of enterprises and establishments.

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

For purposes of implementing *SNA 1993* and changing the base year, the DCNMI has broadened the source data base, making better use of the structural statistics (censuses) available; it also conducts special studies on the production and preparation of supply and use tables. This information could be used to bring about considerable improvement in the scope and classifications of the PPI, as well as the valuation of its weights.

3.1.3 Source data are timely

The prices of agricultural products are recorded daily at stocking and distribution facilities [*centros de acopio*] and processed by the source organizations (Ministry of Agriculture and Livestock, Municipality of Asunción, and agricultural producers' cooperatives) before being finalized in the second week of the month following the reference month.

The processes of collecting, reviewing, inputting, validating, processing, and producing PPI results are carried out in accordance with a monthly timetable which is adapted to the following deadlines: (i) complete collection in the fourth week of the month under study; (ii) incorporate the information on agricultural prices and complete processing in the second week of the month after the reference month; and (iii) publish the data in the economic report and on the website in the final week of the month following the reference month. Users requiring information before its publication in the economic report request it from the DMD.

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 sample framework used as a basis for selecting the sample of establishments for the PPI is not updated for all economic activities, especially manufacturing, which limits the application of suitable methods for selecting samples and calculating sampling errors.

The PPI processing programs generate reports showing outlying prices. The analyst evaluates the flagged prices daily, critically assessing and validating them. Outlying prices and atypical situations are verified through supervision visits. The prices confirmed or modified by this review are recorded on the form with the relevant observations.

The data from the various administrative records are compared with those from other sources and with CPI prices.

The activities making up the domestic goods basket for the PPI represent a low percentage of 1995 GDP (41.6 percent).

3.3 Statistical techniques

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

The forms used for collecting prices have the reporter's code preassigned. The coding is performed by the supervisor and verified by the section chief. Similarly, the data input module displays a screen which the link between the reporter and the products in the basket for which the reporter provides information, as well as the immediately preceding price and the corresponding collection code so as to facilitate the identification of special situations, such as changes in brand name and unit of measurement. In addition, the data input module helps add new reporters and assign associated products. This considerably reduces input time as well as coding and input errors.

Instances of non-response are minimal (temporary or definitive absence, non-response, seasonality), and if they occur the missing prices are not input. The procedure used consists in eliminating them from calculation of the index for the corresponding period. To guarantee the comparability of elementary price index, checks are performed to ensure that the establishments investigated in period *t* provided information in period *t-1* and vice versa. The product is reincorporated when it appears for two consecutive months. This procedure produces biases in the estimation of average prices owing to the constant recomposition of the set of product varieties involved in the calculation throughout the series.

Product varieties that disappear permanently from the market are replaced after two consecutive months for which no prices are provided. This is the responsibility of the supervisors and section chiefs.

Outlying prices are verified by revisiting the reporting establishment.

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

The weights for goods of domestic origin are based on the gross value of output at producer prices. Similarly, the weights of the imported goods indices correspond to the concept of the supply of goods on the domestic market and are determined by the value of the imports (c.i.f., plus import duties).

The PPI weightings exclude domestic goods intended for export, as well as goods intended for own consumption.

Work in progress is not valued, nor are data on stocks used for the estimates of the production of goods of domestic origin.

As noted in earlier items, the gross value of production of goods of domestic origin was determined on the basis of national accounts estimates for 1995. This entailed the use of indirect estimation methods, which at the time were affected by the absence of representative indicators for many activities, as well as by the omission of new activities that were gaining importance in the economy.

The price recorded for goods is the producer price at the time of sale, and does not include distribution costs or surcharges for sales on credit or VAT-type taxes.

The PPI is calculated in accordance with international standards, using the modified Laspeyres formula with short-term relatives.

The formula used to calculate the indices at the elementary level (prices) is the ratio of average prices, with short-term relatives, which measure changes in the averages prices of the current month in terms of those for the immediately preceding month. At the more aggregated level (subgroup, group, section, grouping, and general) the elemental short-term indices are integrated using the base-period weights updated to prior-month prices. At the global level, a national index is calculated using a weighted average of the indices for domestic goods and imported goods.

In the case of heterogeneous products, the average price is affected by outlying values, which may generate biases in the estimation of the elementary price relatives.

The base period for PPI prices is December 1995, and the prices for December 1995 were not adjusted. For subsequent periods the weights were adjusted in light of price changes. The reference period for the weights of the index has not been updated in the last 10 years.

There are no combined PPI series with the earlier series of the index (MPI base 1972)

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Intermediate results are validated against other information where applicable

The intermediate results for the PPI are validated against those reported for the CPI for products appearing in both.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

The analysts validate the primary data, review the prices, compare average prices for two successive periods (*t* and *t-1*), evaluate outlying prices, check the explanations of price changes provided by the reporter, make the necessary adjustments, recalculate the average price, and check the impact of the adjustment. The analysis is supplemented by information from the press on prices and other sources of price data.

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

To evaluate the statistical discrepancies between the various domains of study of the PPI, the experts compare the changes in the index at the subgroup, group, section, grouping, and general levels of each domain (domestic and imported) and analyze the impact of the changes on the corresponding aggregated total. There is no evaluation of the discrepancies produced by the inclusion or removal of missing prices in the calculation of average prices.

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 PPI figures are final when first published. Analysis of the basket and weights for the new index (base December 1995) against those corresponding the former MPI (1972 base) evaluated the changes made in the main overlapping groups. The most relevant changes were checked and the reasons for them determined. All this analytical work was carried out in the preparatory phase for the change in PPI base year.

No periodic reviews are carried out to assess the possible effects on the PPI caused by changes in the weighting structure. Nor are special studies carried out to investigate the sources of price collection errors.

4. Serviceability

4.1 Periodicity and timeliness

4.1.1 Periodicity follows dissemination standards

The collection and compilation of prices for the PPI is carried out daily in order to ensure that the index is produced monthly in accordance with the Special Data Dissemination Standard (SDDS) and the General Data Dissemination System (GDDS). The PPI is available on the 10^{th} to 15^{th} of the month following the reference month, and is published in the *Informe Económico* in the fourth week of the same month.

4.1.2 Timeliness follows dissemination standards

PPI compilation begins in the second week of the month under study and is completed in the second week of the month after the reference month, in accordance with a preannounced work timetable. Publication is by press release and on the website of the CBP, which adheres to SDDS and GDDS standards.

4.2 Consistency

4.2.1 Statistics are consistent within the dataset

PPI estimates are made for the domains under study (domestic goods and imported goods) and for the national total. Each domain has its own basket and weights. The combined national figures are the result of weighted aggregation of the indices for both baskets and the results are identical regardless of the form of integration.

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

The current PPI series began in December 1995 and to date has been published on a regular monthly basis. There are no chained series.

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

The PPI results are reconciled with those reported for the CPI for products appearing in both indices.

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

PPI figures are not subject to revision following their publication. The study used as the basis for selection of the basket and calculation of the PPI is conducted at intervals exceeding 10 years. The document entitled *Metodología del Cambio de Año Base* [methodology for the change in base year] compares the baskets for 1972 and 1995 and describes the major conceptual and methodological differences. There is no program for the regular updating of the PPI.

4.3.2 Preliminary and/or revised data are clearly identified

As noted in the item above, PPI figures are not subject to revision. However, in the event that an error is identified, the relevant explanation is provided and the corrected data are clearly identified.

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

No periodic reviews are carried out to assess the possible effects on the PPI caused by changes in the weighting structure. Nor are special studies carried out to investigate the sources of price collection errors.

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)

Data accessibility in Paraguay is good, either in published form or through direct services to users rendered by the compilers. The methodology for both indices (PPI and CPI) has been disseminated in a special CBP publication entitled *Índices de Precios—Metodología* [methodology of price indices].

The CBP publishes the monthly PPI in tabular form consistent with internationally accepted presentations, facilitating analysis from both the domestic perspective and by comparison with other countries. The monthly publications include: Monthly disaggregated series by domains (domestic goods, imported goods, general index), groupings, and sections. Both the index and the changes are included in the *Informe Económico Mensual* [monthly economic report] and on the CBP website.

5.1.2 Dissemination media and format are adequate

The results are disseminated in the *Informe Económico Mensual* which is available in PDF format on the CBP website. Both recent data and the time series since 1996 may be obtained in Excel format files maintained on the same website by the CBP.

5.1.3 Statistics are released on a preannounced schedule

There is no preannounced schedule for PPI publication dates. The PPI is disseminated in the fourth week after the end of the reference month. Statistics are disseminated simultaneously to all users.

No government officials outside the CBP have access to the information prior to their release to the general public. Although price statistics are published in a relatively timely manner, there is no data dissemination timetable released in advance.

5.1.5 Statistics not routinely disseminated are made available upon request

The DMD also provides user services in the form of addressing queries and providing photocopies and printouts of tables at the request of public and private institutions as well as private individuals. All data are available to users at the CBP library. Special requests for statistics or supplementary explanations are handled by fax, electronic mail, or in writing.

5.2 Metadata accessibility

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

The Methodology of the PPI (base December 1995) was published in September 1997 in the document entitled *Índices de Precios: Metodologías, Volumen Uno, Mercado Interno* [price indices: methodologies, Volume I, domestic market]. This document is available to the public at the DCNMI and in the CBP library. It covers the conceptual framework, background on the indicator, information sources, the activities and products investigation, classification, the IT system, and initial results (1996–1997 series).

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

The CBP website includes a section on its economic research and publications, such as the *Marco Central del Sistema de Cuentas Nacionales del Paraguay (SCNPY)* [central framework for the Paraguayan System of National Accounts], a practical case study on the preparation of supply and use tables, and an introduction to the new Paraguayan national accounts (base 1994). The methodological document on the PPI may be consulted at the CBP library.

At the DMD, users may consult the reference documents used in formulating the indicator, such as the ILO *Consumer Price Index Manual*, the *System of National Accounts 1968*, the *System of National Accounts 1993*, and the various classification systems (ISIC, CPC).

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

Users have a single contact point (electronic, fax, or mail) with the CBP, but not with the individuals with direct responsibility for each statistical program. Requests reaching any of the aforementioned individuals through any of the channels mentioned are subsequently distributed to the DMD specialists designated by them for addressing same. No periodic controls are used to measure the time required to respond to requests made. This said, in general most requests are sent via electronic mail. When requests are not formal in nature (that is, requiring the approval of CBP authorities) and when the data requested are public information (historical data), requests are attended to rapidly.

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

The publication entitled *Índices de Precios—Metodología del CBP* [price indices—CBP methodology] and related publications are available to users at the CBP library.

Table 3. Paraguay: Data Quality Assessment Framework (July 2003): Summary of Results for Price Statistics (Producer Price Index)

(Compiling Agency: Central Bank of Paraguay)

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 on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
0. Prerequisites of quality							
0.1 Legal and institutional environment		X					
0.2 Resources			X			Human resources are adequate for PPI compilation, but not for additional planned tasks, such as updating the producer price index based on the supply table by product for the most recent year. Computing resources are inadequate.	Technical assistance will be needed to evaluate the data from the supply/ use tables as the source data for the new the PPI weights and financing will be needed to carry it out. Training of staff of the National Accounts and Domestic Market Department.
0.3 Relevance		X					
0.4 Other quality management			X			There is no plan to incorporate data from the supply and use tables to the PPI at short term.	Prepare a short term plan to improve the quality of the PPI, using data from the supply/ use tables based on the new national accounts series, with a view to updating the basket of goods and the system of weights.
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			Electricity, water, gas, and services prices are missing from the PPI. The share of goods production not covered by the index is 11.6 percent.	Formulate in the medium-term a general plan for expanding industrial activity coverage, and updating weights and the reference base, following international standards.
2.3 Classification/sectorization		X					
2.4 Basis for recording		X					

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Element	NA	Assessment				Comments on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
3. Accuracy and reliability							
3.1 Source data			X			The PPI basket (150 items) is still not fully representative of current national output.	Formulate in the medium-term a general plan for increasing the basket of goods coverage.
3.2 Assessment of source data			X			Sampling and nonsampling errors are not calculated.	Asses PPI data source and sampling techniques.
3.3 Statistical techniques				X		Missing prices are not imputed. Quality adjustments and seasonal products are excluded from the index for the month in question and are reincorporated once they have returned to the market for two consecutive months. No new products are introduced. There is no regular program for updating the PPI. Weights have not been updated in the latest 10 years.	Improvement the efficiency of the PPI collection and processing procedures, specific topics such as, the scope, product classification, price collection, treatment of seasonal products, missing items, quality changes, and introduction of new products.
3.4 Assessment and validation of intermediate data and statistical outputs		X					
3.5 Revision studies			X			Revision studies and analyses are not conducted. Periodic weight revisions are not undertaken. The PPI bias increase as the weights become out of date.	Base PPI updates, in the long term, on a program of regular censuses and surveys.
4. Serviceability							
4.1 Periodicity and timeliness		X					
4.2 Consistency			X			PPI series are available monthly since December 1995. A chained index between old a new series is not available.	
4.3 Revision policy and practice			X			Revisions studies and analyses are not conducted.	

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(Compiling Agency: Central Bank of Paraguay)

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 on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
5. Accessibility							
5.1 Data accessibility			X			There is an internal schedule, but is not announced to the public. However, the public is aware of this schedule.	The BCP will prepare and publish advance release calendars in accordance with the recommendations of the General Data Dissemination System (GDDS).
5.2 Metadata accessibility		X					
5.3 Assistance to users			X			Only a general contact point is provided for the BCP.	Improvement in the dissemination of contact points by e-mail and on the web page.

IV. GOVERNMENT FINANCE 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

Government finance statistics (GFS)[2] are collected, compiled, and disseminated by the Ministry of Finance (MOF). The MOF's data collection, compilation, and dissemination responsibilities are in accordance with the terms and conditions stated by: (1) the *Law of the Financial Administration of the State* (Law No. 1535 of December 31, 1999) and its regulation decree (No. 8127/200 of April 1, 2000); (2) the *Law that establishes functions and organizational structure of the MOF* (Law No. 109/91 of December 13, 1991); (3) the manuals of functions of the MOF units (see www.hacienda.gov.py); (4) the *Law that approves the national general budget for the 2006 fiscal year* (Law No. 2869 of December 30, 2005); (5) the *Decree-Law that organizes and coordinates statistical services of the Republic* (Law No. 11.126 of February 20, 1942); and (6) the *Constitution* of June 20, 1992. These laws and formal provisions provide adequate support for the compilation of fiscal data by the MOF. However, the responsibility for GFS collection, compilation, and dissemination is only assigned to the Fiscal Policy Department (FPD) in the MOF by an internal provision in the manual of functions for the MOF units.

Law No. 1535 regulates the Integrated Financial Management System (IFMS), which comprises the systems (budget, investment, treasury, credit and public debt, accounting and control systems), basic standards, and administrative procedures that every public entity takes into account to program, manage, record, monitor, and assess its revenue and expenditure. The IFMS was developed, among other, to produce timely and reliable data of public sector operations, and it is the primary source of information for the compilation of GFS. Article 47 states that the MOF and other entities, such as the Central Bank of Paraguay (CBP), responsible for public debt should record loan operations with information about disbursements, amortizations, and stocks of debt. Article 54 states that the public accounting unit should collect, assess, compile, record, control, and report data on revenue, expenditure, costs, net worth, and other economic operations of public entities. Also, this article states that data from the financial, economic, and net worth accounting will support the fiscal policy decisions; facilitate the compilation of GFS, national accounts, and other datasets; and support the compliance of constitutional requirements for data reporting. Article 77 states

[2] GFS refers to fiscal data compiled and disseminated, for analytical purposes, according to internationally accepted standards, such as *A Manual on Government Finance Statistics 1986 (GFSM 1986)* and the *Government Finance Statistics Manual 2001 (GFSM 2001)*. Fiscal data refers to GFS, accounting, and budgetary data.

that the General Directorate of Public Credit and Debt (GDPCD) is responsible for the administration of public credit and debt systems. Likewise, this directorate is in charge of recording and monitoring public debt. Article 78 states that the General Directorate of Public Accounting (GDPA) is in charge of the implementation of the accounting system, the preparation and dissemination of balances and financial reports.

Law No. 109/91 states that, within the Undersecretariat of State of Economy and Integration of the MOF, the performance and assessment of revenue and expenditure has been assigned to the FPD, and the formalization of credit and borrowing policy has been assigned to the Borrowing Policy Directorate (BPD).

The manual of functions establishes that, in the FPD, the unit Analysis of Fiscal Short-term Indicators and Follow-up Division (AFFD) compiles daily, weekly, monthly, quarterly, and annual reports of revenue, expenditure, surplus/deficit, and financing data. This manual also establishes, among other, that the AFFD has dissemination responsibilities for quarterly data in the *Boletín Fiscal*[3]; monitors accounting records to obtain timely and reliable data; prepares and updates a database according to the financial report which is prepared by the accounting unit; and has regularly communications with the providers of source data. The AFFD regularly provides GFS to the IMF for publication in the *Government Finance Statistics Yearbook (GFSY)* and to the Western Hemisphere Department for surveillance purposes. Additionally, the FPD compiles and disseminates monthly GFS, including those data that may be used to fulfill the General Data Dissemination Standards (GDDS) recommendations, and prepares fiscal analysis reports that include tables and graphics. The FPD disseminates this information through the MOF website. Within the Undersecretariat of State of Financial Administration, the Public Debt Management Department (PDMD) in the GDPCD is in charge of the compilation of debt statistics (flows and stocks). This responsibility is shared with the International Operations Department (IOD) in the Central Bank of Paraguay (CBP). The PDMD records general loan information and disbursements. The IOD is responsible for the compilation of debt service. External and internal debt data (flows and stocks) are stored in the Accounting System (AS), and the Integrated System of Financial Management of External Debt (ISFMED).[4] The AS is managed by the MOF and the ISFMED by the MOF and the CBP.

Law No. 2869 provides the definitions of budget classifications. A single set of budget classifications is used for compilation, approval, and execution of the central administration, decentralized entities, departmental governments, local governments, and public corporations. The budget classifications include (i) institutional classification; (ii) purpose and function classification; (iii) program classification; (iv) financing source classification; (v) revenue classification by origin; (vi) economic classification of revenue; (vii) expenses

[3] Currently this document is not prepared.

[4] The domestic financing and debt data are also recorded under this system.

classification by object; (viii) economic classification of expense; and (ix) classification of financing by origin and by creditor.

Decree-law No. 11.126 states that the General Directorate of Public Accounting (GDPA) and the Directorate of the Treasury are the statistical units responsible for the compilation of annual financial data, public debt, and others related statistics, which are the data sources for GFS compilation.

Finally, Article 8 in the Constitution states the Paraguayan citizen rights to be informed on the financial situation of the State. Through this article, the Constitution recognizes that the citizen should receive accurate and responsible information. Public data sources are free to all users. Article 166 states that the local governments (municipalities) are public entities with political, administrative, and legal autonomy, and independence with regard to the management (collection and investment) of their resources. These characteristics, the autonomy and independence in the management of their resources, have hindered the collection of fiscal data from the municipalities.

Working arrangements for compilation of GFS in the MOF are consistent with the assignment of collection, compilation, and dissemination responsibilities.

The CBP compiles financing data for the central administration. These data are used for internal purposes and are not disseminated to the public, and are reported to the MOF. Two divisions in the Fiscal Division of the CBP are involved in the compilation of GFS: the Fiscal Statistics Section and the Fiscal Analysis and Studies. Additionally, the CBP compiles data on external public debt service. In the CBP, the IOD is responsible of the recording of debt service, and the International Economy Department is responsible for debt data dissemination.

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

At present, the AS records all operations of the central administration and most of the decentralized entities operations on line. The records for the rest of operations are provided by some decentralized entities and public corporations to the MOF in diskettes or hard copies. Therefore, data sharing and coordination between these public entities and the MOF are adequate. This is not the case for local government data, because the municipalities do not report data to the MOF.

Data sharing and coordination between the MOF and the CBP could be improved. No formal working arrangements to ensure regular reconciliation of monetary and fiscal data and financing data compiled in both institutions are in place. Similar situations are observed for the reconciliation of GFS with balance of payments and national accounts statistics.

Upon request, the MOF provides methodological and statistical information, though there are no formal mechanisms to ensure close contact between GFS compilers and users. The MOF maintains routine communications with international agencies that use its statistics.

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

The confidentiality of data reported to the MOF is protected by the *Law on the Civil Service Functions* (Law No. 1626 of July 5, 2000), which states, in its article 57, that, among the obligations of civil service, civil servants must not disseminate confidential information entrusted to them and that the disclosure of this information could result in their suspension of promotion, suspension from their working functions, or dismissal from the civil service.

The access to the IFMS data sources is restricted to MOF staff who use this information for performing their statistical duties. The staff obtain access to the data through the use of some security mechanisms, such as a password provided by the unit in charge of the IFMS. This access is only to use the data available in the IFMS but not to modify these data. Similar security mechanisms are in place in the FPD, to avoid unauthorized data disclosure.

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

Article 66 of Law No.1535 requires all public units and entities to report budgetary, financial, and non financial data to the MOF fifteen (15) days after the end of the reference month, for analysis and for preparation of the financial statements and reports. The failure to report data to the MOF carries legal sanctions. Also, articles 93 and 94 of Decree No. 8127 establish a list of reports to be provided to the MOF. The list includes balances, budget execution of revenue and expenditure, banking reconciliation, statements of results, inventories of uses of goods, and statement of budget execution, among other. Article 107 of this decree also establishes sanctions for not reporting. These sanctions include the suspension of funds provided by the Treasury and/or of administrative procedures with the MOF. The existence of these sanctions avoid the noncompliance of data reporting but not its delays.

Decree No. 7070 of January 10, 2006 states that the MOF will issue the certificate of compliance for reporting financial information. Currently, this certificate is required to request a modification in the budget presented by any public entity.

In addition, Article 56 of Law No. 2869 on the budget system states that the MOF has the obligation to restrict and suspend the financing of local government expenditures in the event that recipients fail to provide information.

The law on accounting states that the MOF outlines the types of reports, data reporting requirements (including periodicity), a calendar for reporting, and penalties for not reporting the information requested by this institution. These reports and formats are defined by two main types, execution reports and balances.

0.2 Resources

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

GFS are compiled by two staff, one permanent and one contractual, in the AFFD of the MOF. Their GFS compilation work is supervised by the head of the AFFD and is done in addition to their other regular tasks. Although their skills are adequate to perform the current compilation tasks, additional and more qualified personnel will be required to improve the GFS compilation and to perform new compilation tasks, especially if the MOF decides to migrate to the *GFSM 2001* analytical framework. MOF staff have participated in GFS courses held at the IMF headquarters and also in regional courses based on the *GFSM 2001*. Additional training in GFS methodology is provided internally. There are non-formal measures in place to encourage the retention of experienced staff, and there are constraints on promotions and merit increases within the civil service system. The AFFD does experience a complete staff turnover, more or less, every two years. Salaries of the managers and technicians are on average similar to those received in other public institutions. The low salaries are compensated by bonuses awarded for working overtime.

Available computer resources are reasonable; each official has its own computer. Computers have access to Internet and the available software, such as Excel and Word, is adequate for current needs. The MOF has a unit in charge of information and computing issues for the entire institution. This unit provides anti-virus software and keeps back-up of the GFS and other fiscal data produced in the MOF.

Although physical facilities appear to be adequate for current GFS collection, compilation, and dissemination, funding may be insufficient for the improvement of these activities. The funding restriction will be more evident with increased future GFS activities such as for migration to the *GFSM 2001*.

0.2.2 Measures to ensure efficient use of resources are implemented

Article 90 of Law No.1626 states that the Executive Branch will carry actions and policies in the organization and operational work of the public entities to enhance administrative efficiency and professionalism. The organizational structure of the public entities will face continuous assessment and analysis in order to adapt the public services to their functions and requirements. In practice, the MOF has not calculated the costs or carried out budgeting exercises associated to the GFS compilation. The MOF assesses staff performance for promotion and salary increases.

0.3 Relevance

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

The MOF does not undertake research to help identify new and emerging data requirements. There are no surveys for obtaining feedback on the relevance and practical utility of fiscal data for analytical purposes.

0.4 Other quality management

0.4.1 Processes are in place to focus on quality

The MOF is fully aware that quality should be the cornerstone of the budgetary, accounting and statistical processes. To this end, major efforts have been put in place during the last years to compile and disseminate a more complete set of fiscal data (GFS, budgetary and accounting data) with increased coverage of institutions and transactions. There is recognition of the trade-off involved in the data compilation, such as between timeliness and accuracy.

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

Some mechanisms are in place to ensure increasing quality in the compilation of the GFS, such as the review and revision of preliminary data and the use of IMF technical assistance. Shortcomings in the reporting of primary data and difficulties in assessing and cross-checking data sources in the first stages of collection and compilation (in the IFMS) by the internal and external auditing offices affect the reliability of the GFS. Also, no mechanisms enforce legal requirements on the reporting of detailed and timely financial information from all public entities, especially the local governments and some public corporations. In addition, no systematic arrangements are in place to obtain feedback from users of GFS.

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

There are no formal processes to assess the quality of the GFS and no medium term plan to improve data quality. However, efforts are made to ensure the internal consistency of the data and to improve quality. For instance, (i) the fiscal data compiled in the MOF have extended its institutional coverage to include all decentralized entities operations; and (ii) there is ongoing familiarization with the *GFSM 2001* analytical framework for compiling GFS through the participation in training activities.

1. Assurances of integrity

1.1 Professionalism

1.1.1 Statistics are produced on an impartial basis

Although the impartial compilation and dissemination of GFS are not supported by specific laws or provisions, there is no evidence that such data are not compiled on an impartial basis. A culture of professionalism is clearly recognized as essential to the credibility of statistical results in the internal provisions of the MOF and in the principles of Law No. 1626.

The choice and tenure of the managers are based on an independent process. Thus, the possibility for interference is highly limited. More importantly, professionalism is a key factor in the recruitment and promotion of staff. Articles 15 and 35 of Law No. 1626 states that staff recruitment and promotion will be through a selection process involving interviews and competitive examinations.

Efforts are made to promote professionalism by sending staff to training courses abroad and by receiving technical assistance to provide on-the-job training. Also, professionalism is fostered by analytical work, publication of methodological papers, and organization of lectures and seminars. Research and analysis are encouraged and the result of these academic activities are published on the MOF website.

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

No evidence exists of political interference in the choice of data sources and statistical methods. Data sources are selected according to the usefulness and availability of the information to compile sound GFS. Also, changes to the analytical framework are made solely for statistical reasons.

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

The MOF is empowered to respond to misinterpretation/misuse of fiscal data. In case of misinterpretation or misuse, the MOF prepares and disseminates explanatory notes to help correct the mistakes/misuses of fiscal data and provides an account of recent developments in annual and sub-annual reports.

1.2 Transparency

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

Although the public has unimpeded access to the broad legal framework for collection, compilation, and dissemination of the fiscal data, comprehensive terms and conditions under which the MOF collects, compiles, and disseminates GFS are not available to the public.

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

No official agency outside of MOF has access to data prior to publication; however, this practice is not publicly announced. Procedures for authorizing dissemination of GFS, deemed to be internal, are made public only in a limited manner. The minister of the MOF authorizes the release of GFS.

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

All fiscal data products that are disseminated through the MOF website, clearly identify the producing agencies and data sources.

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

Advance notice is given to the public about major changes in the methodology or other relevant changes that materially affect the GFS, such as the implementation of the IFMS. No explanatory notes are provided when the changes are introduced in publications.

1.3 Ethical standards

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

The ethical standards guiding staff behavior are contained in Law No. 1626 and administrative procedures in the MOF. The law requires civil servants to observe adequate conduct in accordance with his/her working responsibilities and internal regulations and work procedures, especially with those related to confidential information. MOF staff are generally aware of ethical provisions that regulate their work. Article 60 states that civil servants are prohibited to use, for non official purposes, materials and technical, financial, and information resources and state property. Article 73 stipulates that a civil servant may face disciplinary, administrative, criminal, or other penalties for nonexecution or improper execution of his official responsibilities, for violation of labor discipline, or violation of restrictions associated to the civil service.

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

GFS concepts and definitions are generally consistent with the recommendations of the *GFSM 1986.* Since the authorities have not yet taken the decision to migrate to the *GFSM 2001* analytical framework, they have not prepared a plan to migrate to this methodology. The MOF has received technical assistance[5] that has prepared bridge tables between the budgetary national classifications and those specified in the *GFSM 2001*.

2.2 Scope

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

The scope of the currently disseminated GFS covers the operations of the public sector and its subsectors (central administration, general government─as defined by the Paraguayan authorities, and the nonfinancial public sector). This scope is not in line with the recommendations of the GFS manuals because it does not include local government operations.

The data of local government operations are not reported to the MOF because their budgets[6] are not included in the national budget. The 2006 Budget Law No. 2869 has included specific provisions to collect data from the local governments, and to make official the data reporting of two nonfinancial public corporations, the Paraguayan Corporation of Communications (COPACO) and the Sanitary Services Enterprise of Paraguay (ESSAP).[7]

The domestic debt (flows and stocks) that decentralized entities and public corporations contract with the central administration using external resources (e.g., loans from abroad to the central administration) is not always recorded because the SA records external financing by payer instead of debtor.

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[5] A multisector and a GFS technical assistance missions visited Paraguay in 2001 and 2003, respectively.

[6] See article 168 in the Constitution.

[7] See the *Decree for which it is established the incorporation of the corporations, where the Paraguayan government is the principal shareholder, in the IFMS of the MOF* (Decree No. 4851 of February of 2005) for additional information for this data reporting.

The presentation of GFS compiled by the FPD closely follows the Summary Table of Major Components in the *GFSM 1986*. In addition, disseminated tables for the central administration and nonfinancial public sector follow the format of tables A (government revenue and grants) and C (economic classification of expenditures and lending minus repayment). There are no tables for functional classification of expenditures, and financing by type of debt instrument (tables B and E). Debt data cover external and domestic debt. The external debt is presented by debtor and payer; and domestic debt is presented by security holder.

2.3 Classification/sectorization

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

For compilation of GFS, the FPD prepares the sectorization of the public sector operations at three levels: central administration, general government, and nonfinancial public sector, as follows: (i) the central administration includes units of the legislative, the executive, and the judicial branches, General Comptroller, Ombudsman office, Public Treasury, National Treasury, and other units of the central administration; (ii) the general government consolidates data of central administration and decentralized entities (except public corporations) operations; and (iii) the nonfinancial public sector consolidates data of general government and nonfinancial public corporations operations.

The decentralized entities (except public corporations) include data of 17 departmental governments, 13 autonomous entities, and five social security schemes (Social Security Institute (IPS) and four employer social insurance schemes).

Contrary to recommendations in the GFS manuals, (i) statistics on the consolidated central government and general government are not prepared; (ii) statistics on the central administration include data of the Postal Service Directorate, a nonfinancial public corporation; and (iii) statistics on the nonfinancial public sector definition includes data of financial public corporations (four employer social insurance schemes).[8] These social insurance schemes are treated as financial corporations in the monetary and financial accounts. The GFS manuals recommend the compilation of statistics on (i) the central administration, excluding all public corporations; (ii) the consolidated central government, including the central administration, social security schemes, and decentralized entities (except public corporations); (iii) the consolidated general government including the consolidated central government and local governments; and (iv) the consolidated

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[8] The four employer social insurance schemes are for public banking employees, local government employees, public electricity enterprise (National Administration of Electricity public enterprise-ANDE) employees, and railway employees and workers.

nonfinancial public sector, including the consolidated general government and the consolidated nonfinancial public corporations.

Compiled and disseminated expenditure data are classified as: (i) current expenditure, (ii) capital expenditure, and (iii) net lending. Likewise, the current expenditure is classified by personal services, good and services, contractual interests, current transfers, and other expenditures capital expenditure; and capital expenditure is divided in physical investment, financial investment, and transfers. Current transfers are disaggregated by recipient: nonfinancial public sector, financial public sector, private sector, and to abroad institutions.

The external and domestic financing of the central administration and nonfinancial enterprises are classified by (i) disbursements and (ii) amortizations. Additionally, for domestic financing by (iii) floating debt and (iv) change in deposits. Likewise, external disbursement and amortization are classified by creditors. In the case of the domestic disbursement and amortization, the data are classified by the incurrence and recovery of liabilities issued by the Treasury. The floating debt includes (i) the difference between expense on accrual basis and expense on a cash basis; (ii) data related to the complementary period, i.e., payments that belong to the previous fiscal year; and (iii) rescheduled debt created for unpaid current and capital expenditures. Finally, change in deposits shows a breakdown for domestic and foreign currency deposits in the CBP and in the commercial banks. In addition to external and domestic financing, data below-the-line include a category, namely, recording period difference, which covers the unexplained discrepancies between the data above-the-line and below-the-line.

External debt is classified by debtor and payer, identifying breakdowns for the nonfinancial public sector and the financial public sector. The NFPS includes a breakdown for central government, local governments, and nonfinancial public corporations. Additional breakdowns for these sublevels are provided. The MOF also prepares a table for external debt by creditors, i.e., international organizations and foreign governments.

The GDPA disseminates monthly external and domestic debt data in the Financial Report for the central administration. These data, which are compiled by the GDPCD, are classified by payer. The domestic debt is divided into direct debt of the National Treasury by loan and debt guaranteed of the National treasury by loan.

The CBP classifies financing as: (i) external or (ii) domestic. External and domestic financings refers to disbursements and amortization by debtor, and changes in deposits.

The classification of revenue and expenditure is mostly in accordance with the recommendations of the *GFSM 1986*. However, (i) tax refunds are included as expenditure; and (ii) domestic and external debt only partially follow international classification recommendations. There is no compilation for external debt data by financial instrument, or for domestic debt data by debt holder. In line with international recommendations, tax refunds should be recorded in their corresponding tax categories as negative revenue, and domestic and external debts by financial instruments and debt holders.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

All cash transactions reflect actual prices. In accordance with the *GFSM 1986*, debt is recorded at face value (i.e., the undiscounted amount of principal to be repaid at the end of the contract), or nominal value (i.e., the amount that the debtor owes to the creditor at any moment that reflects the value of the instrument at creation and subsequent economic flows), rather than market value.

2.4.2 Recording is done on an accrual basis

Article 22 of Law No.1535 establishes the budgetary execution stages. On the revenue side: (i) the assessment stage, when the financial sources to be collected as revenue are identified and quantified; and (ii) the collection stage (cash basis), when the financial sources are collected. On the expenditure side: (i) the earmarking stage, when the appropriation of the financial resources is determined; (ii) the obligation stage ("obligado" which is an accrual basis proxy), when the commitment for payments--which results from a contract between the government and good or service provider─is assumed by the government; (iii) and the payment stage (cash basis), when a partial or complete payment is carried out. The FPD compiles GFS on a mixed basis, revenue on a cash basis, expenditure on an accrual basis, and financing on a due date basis.

Outstanding debt balances are recorded in the ISFMED using the original currency and converted to U.S. dollars using the exchange rate at the end of the reference period. Disbursements are recorded at the date of the creditor's disbursement, and payments of the debt services are recorded at the date of the reception by the CBP of the debit note.

Outstanding debt balances are recorded in the AS in guaranís, using the exchange rate at the end of the reference period. Debt flows are also recorded in guaranís, using the exchange rate at the date when the transaction took place.

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

Most transactions are shown on a gross basis, in line with the *GFSM 1986*, including tax revenue and financing. Tax refunds should be deducted from tax revenue.

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 main data sources for compilation of GFS are the administrative systems and subsystems for monitoring the budget execution and debt management. These are the IFMS (controlled by the GDPA) and its subsystems, the Accounting System (AS) and the ISFMED.[9] These data sources provide financial information on a whole range of economic flows and stocks of the central administration, decentralized entities, and financial and nonfinancial public corporations. The AS produces *budgetary execution* reports and *financial information* (balance) reports. In the *budgetary execution* reports, the AS provides, on line, information for all central administration units and most of the decentralized entities. Data on other operations provided by some decentralized entities and public corporations are provided to the MOF in diskettes or hard copies.

For the *financial information* reports, the AS processes information of (i) units that use, on line, a unique and standardized format prepared by the GDPA; (ii) units that report data in diskettes using the same format of the units on line (the recording to the AS is manual); (iii) units that report in diskettes using a different format, because these units have different charts of accounts, but for which the AS has created a bridge table between the unit's chart of account and the chart of account used in the AS; and (iv) units that have a different chart of accounts and bridge tables that were not created by the AS (usually these units report in hard copy). Data of two public corporations, the ESSAP and the COPACO, belong to the (iv) type; the GDPA receives the data but they are not recorded in the AS. Data of local governments are also excluded from the AS. Data of local governments, ESSAP, and COPACO are expected to be collected during the 2006 budget execution.

The *financial information* formats used to collect data on line are comprehensive and include sufficient detail to enable a proper collection and classifications of fiscal data. The online and hard copy formats are easily accessible and provide clear instructions. Although there are no regular consultations between the MOF and the reporting units, the MOF is open to receive comments and suggestions to adapt the formats to users' needs. These formats may need to be adjusted to collect information to compile statistical data under the *GFSM 2001* analytical framework.

The AS is the main source used by the FPD for the compilation of above-the-line and below-the-line data. The two main formats of the *budgetary execution* reports are used, the *revenue execution* and the *expenditure execution by object*. The data sources in the ISFMED cover

[9] Also this subsystem records domestic financing and debt, but is not integrated with the AS.

detailed information on domestic and external debt and are shared by the MOF and the CBP. The GDPCP is responsible of the compilation and dissemination of the internal debt. This directorate records internal debt in the AS, and disseminates stocks and flows in the Financial Report. In addition to these data sources, the FPD uses the ESSAP and COPACO data directly from their reports provided to the GDPA.

The institutional coverage, the report formats, and classification systems such as the chart of accounts and budget classifications are kept up-to-date. In 2004, the chart of accounts was reviewed to include categories of current and capital expenditures.

In addition to the data sources mentioned above, the FPD use supplementary information on changes in deposits provided by the CBP. Also, additional information is provided in the explanatory notes prepared by the GDPA regarding the execution and financial information.

The compilation of GFS of any particular calendar year includes data that belong to the complementary period.

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

Scope

The MOF has two versions for the institutional sectorization, one prepared by the FPD for compilation of the GFS, as described in previous paragraphs, and the other included in the budget institutional classification. The second version prepares the sectorization of the public operations at three levels: central administration, decentralized entities, and local governments. The decentralized entities are broken-down in eight sublevels: central bank, departmental governments, autonomous entities, social security schemes, public corporations, mixed public corporations, public financial entities, and public universities. This institutional classification is used in the IFMS and it is adjusted for compilation of GFS by the FPD. Although this institutional sectorization includes local governments and all nonfinancial public corporations, the IFMS does not include data for municipalities, ESSAP, or COPACO.

Classification

The IFMS uses its own classifications, the budgetary classification, and the chart of accounts. The budgetary classification for revenue and expenditure—the source—is broadly aligned with the *GFSM 1986* (the main exceptions are the classification by instruments for the financing data). A similar situation is observed in the accounting classification in the AS, where these classifications follows broadly international accounting standards. For the compilation of internal and external debt, the ISFMED and the AS uses broadly the classifications established in the *GFSM 1986*. The FPD is aware of the different practices, i.e., basis of recording and institutional coverage, between primary sources of data.

3.1.3 Source data are timely

Article 66 of Law No. 1535 states that the public units should report financial data (i.e., budgetary, financial, and patrimonial data) to the MOF with a 15 day lag after the end of the reference period.

In practice, the data of units that are on line with the AS are timely because this recording is automated. For other units, mainly for some decentralized entities such as departmental governments and nonfinancial enterprises, the information is reported with delays. The FPD has implemented some administrative procedures to cope with these delays, and some improvements have been observed.

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

Some verification procedures are in place to assess the accuracy of the data in the IFMS, including the data from AS and the ISFMED. There is some control of the administrative process developed by the GDPA staff, including the review of data consistency in the IFMS. The results of assessments are not monitored or used to guide planning. The GDPA has not assessed the accuracy of the reported data. Therefore, the GDPA is not aware of the degree of underreporting or misreporting in the data sources. Generally, there is an appropriate balance between accuracy and timeliness in the production of data. GFS is affected by the lack of quality control of the primary data sources that could potentially be an important source for the discrepancies between deficit/surplus and financing information. The FPD publishes preliminary data as soon as the data are reasonably complete. Preliminary estimates are replaced with final data when these data have been produced. The status of the data used for each period is noted in the disseminated GFS.

3.3 Statistical techniques

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

GFS data are based on reported information; as a result, procedures are not needed for estimation of data omission. Budget execution reports are based on reported information.

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

Generally accepted statistical methods are used to adjust data sources to GFS compilation. For instance, expenses on goods and services used for public capital formation are excluded from the current expenses categories; reclassification of some revenue and expenditure categories to be placed as lending minus repayment categories; and financing categories of the revenue and expenditure budget classification are reclassified as categories below-the-line. Also, as it was mentioned above, the FPD complements the information in the AS with information from the CBP and some nonfinancial public corporations, the ESSAP, and COPACO.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Intermediate results are validated against other information where applicable

The GFS are based on budget and accounting data. Intermediate budgetary data are validated against accounting data. Banking statements are reconciled on a daily basis against the data prepared for this purpose in the MOF. Cross-checking with the CBP on changes in deposits is not performed. Financing and debt stock data compiled using information in the AS are not fully validated against the data in the ISFMED.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

All discrepancies between GFS and intermediate budgetary data, and those between the intermediate budgetary data and accounting series, are investigated. However, statistical discrepancies present in the financing and debt stock data with intermediate data (data in the ISFMED) are not assessed or investigated.

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

Statistical discrepancies between the deficit/surplus and financing, and between financing and changes in gross debt, are partially investigated. Additional efforts should be developed to reconcile these datasets.

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)

Findings of revision studies are taken into account to improve data compilation, but are not documented. For annual data, revisions mainly result from routine replacement of preliminary data with final data.

4. Serviceability

4.1 Periodicity and timeliness

4.1.1 Periodicity follows dissemination standards

Paraguay participates in the GDDS, which recommends that central government operations, general government operations, and central government debt data be disseminated on an annual basis, and some breakdowns such as, central government budgetary aggregates: revenue, expenditure, balance, and financing, on a quarterly basis. In the case of Paraguay, data on central administration (budgetary central government) operations and its breakdowns, as well as external debt data are disseminated on annual and monthly bases; and data on decentralized entities, nonfinancial public sector, and public sector general government are disseminated only on an annual basis. Data for central government operations and data for general government operations, except for debt data, are not consolidated. Therefore, only periodicity of the data disseminated on the central administration (budgetary central government) operations and for central government debt data meet GDDS recommendations.

4.1.2 Timeliness follows dissemination standards

The monthly data on the central administration operations and its breakdowns, and central government external debt data are published two months after the end of the reference month. Annual data on the central administration, decentralized entities and public debt are currently published four months after the end of the reference year. Annual and monthly data on the central administration operations are available on the MOF website. The timeliness of the data disseminated for the central administration and its breakdowns and for central government debt meet GDDS recommendations.

4.2 Consistency

4.2.1 Statistics are consistent within the dataset

The overall deficit/surplus and financing data are not consistent owing to a number of factors, including (i) the different basis of recording revenue (cash/collection basis) and expenditure (accrual/commitment basis); (ii) the lack of quality control in the primary data sources; (iii) the complementary period used to complete the payments of committed expenditure; (iv) the rescheduling of expenditure programmed for the previous fiscal year into the current fiscal year; and (v) financing reflecting the actual cash disbursements and payments.

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

GFS are consistent with expected trends and reflect discretionary changes, external shocks, and developments of economic activity. Consistent historical data (since 1980 for central administration and 1990 for public sector) are shown on the MOF website. The FPD is aware of the need to explain and document changes on the time series.

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

Even though the MOF is the main provider of fiscal data to the CBP for the preparation of the national accounts, no efforts are made to reconcile these two datasets. There are discrepancies due to differences in the basis of recording and institutional coverage. The SNA 1993 recommends to use expenditure on an accrual basis to compile national accounts, but the CBP uses, incorrectly, fiscal data on a cash basis, though the MOF compiles data on a cash and an accrual bases. Also, while the national accounts classifies the pension schemes as financial institutions, the GFS and monetary accounts include them, incorrectly, in the nonfinancial public sector.

The monetary accounts and GFS are not regularly reconciled. Currently, changes in nonfinancial public sector deposits are not cross-checked with deposits in depositary institutions. Other discrepancies could be explained by the differences in the time of recording of external public debt that are undertaken in the CBP and in the MOF. Domestic debt is produced and disseminated by the MOF and is not reconciled with the CBP.

Although the BOP and GFS use the same data source (the ISFMED), no formal reconciliation is undertaken by the CBP and the MOF. Key variables that should be reconciled include external transfers and capital and external financing.

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

The GFS published for the first time are preliminary, and final data are published following revisions. Generally, revised data are published in the next publication. Although revisions do not follow a schedule, there is a well established practice of revisions known by users.

4.3.2 Preliminary and/or revised data are clearly identified

Preliminary and final data are adequately noted in publications for flows and for external public debt. Both are disseminated with the same detail and through the same media.

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

Revisions consist mainly in replacing preliminary data with final data. Although no formal revision studies and analyses are undertaken, some assessments are performed to the GFS. Those assessments are not 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 disseminated GFS permit identification and comparison of major aggregates of flows and stocks. Detailed underlying data and time series are presented. The data disseminated on the MOF website present the coverage and detail set out in the *GFSM 1986,* and data are available for extensions in coverage and detail.

5.1.2 Dissemination media and format are adequate

The main statistical means of dissemination is the *Fiscal Stance Report*, which includes charts and tables to facilitate analysis on current period developments. There are also financial reports and time series of GFS. Sometimes, press releases accompany the GFS dissemination. Paraguay reports GFS data, for central administration, to the IMF for publication in the *GFS Yearbook*.

5.1.3 Statistics are released on a preannounced schedule

GFS are not disseminated according to a pre-announced calendar.

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

Fiscal data are made available to all users simultaneously.

5.1.5 Statistics not routinely disseminated are made available upon request

Nonpublished, nonconfidential, disaggregated data are made available upon request. The availability of nonpublished data and the terms and conditions under which such data are made available 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

Detailed metadata are posted only on the IMF's DSBB and an electronic link to this information is provided on the MOF website. Bridge tables showing the links between source data and GFS are not prepared. Differences from internationally accepted standards are not identified.

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

GFS metadata on the DSBB in the IMF website provides enough detail for the intended audience. This information can be accessed through the MOF website at http://www.hacienda.gov.py/sseei/sectorfiscal/SituacionFinanciera.htm.

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

A contact person is identified and his name, email, and telephone number are provided on the MOF website. The MOF provides support on technical matters to users requesting assistance.

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

The MOF website provides a list of available publications.

Table 4. Paraguay: Data Quality Assessment Framework (July 2003): Summary of Results for Government Finance Statistics

(Compiling Agency: Ministry of Finance)

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 on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
0. Prerequisites of quality							
0.1 Legal and institutional environment			LO			Only an internal provision specifies responsibilities for GFS collection, compilation, and dissemination to the MOF. Intra and interagency data sharing and coordination between the MOF and data-producing public entities should be improved.	Short-term • Establish working group with staff of MOF and BCP to reconcile GFS data classified above-the-line with those below-the-line. • Establish a working group in the MOF, including staff of the FPD, accounting, and public credit and debt units to improve data sharing and coordination.
0.2 Resources			LO			Additional and more qualified personnel, computing, and financing resources is required to improve the GFS compilation and to perform new compilation tasks, especially if the MOF decides to migrate to the *GFSM 2001* analytical framework. The MOF has not calculated costs or carried out budgeting exercises associated to the GFS compilation.	Short-term • Two economists, one from the MOF and other from the CBP, will participate in the IMF 2006 GFS course based on the *GFSM 2001* methodology. The MOF will review and revise the policy promotion and the merit increases and implement measures to encourage the retention of experienced staff.
0.3 Relevance				LNO		The MOF has not undertaken research to help identify new and emerging data requirements. There are no surveys for obtaining feedback about the relevance and practical utility of fiscal data.	Short-term • Establish mechanisms to obtain feedback from GFS users regarding relevance and practical utility of fiscal data.
0.4 Other quality management			LO			Some monitoring mechanisms are in place to ensure internal consistency of data, though there are no formal processes to audit and cross-check GFS. No medium term plans to improve data quality.	Short-term • Establish mechanisms, legal and technical, to audit data reporting and to improve cross-checking in the compilation of GFS.
1. Assurances of integrity							
1.1 Professionalism		O					
1.2 Transparency			LO			Comprehensive terms and conditions under which the MOF collects, compiles, and disseminates GFS are not available to the public. Advance notice is given to the public about major changes in the methodology or other relevant changes that materially affect the GFS.	Short-term • Complete and update terms and conditions of GFS compilation and make them public. • Provide advance notice and explanatory notes to the public about all major changes in the methodology and others that affect the GFS.
1.3 Ethical standards		O					

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Element	NA	Assessment				Comments on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
2. Methodological soundness							
2.1 Concepts and definitions			LO			A plan to migrate to the *GFSM 2001* analytical framework has not been developed because the authorities have not yet decided to migrate to this methodology.	Short-term • Improve data reporting to STA for publication in the *GFS Yearbook* using the *GFSM 2001* framework. Medium-term • Prepare a migration plan to *GFSM 2001* analytical framework.
2.2 Scope			LO			Scope of GFS not complete, since local government data are not included. Also, some transactions are excluded of the central administration because recording of external financing is by payer instead of debtor.	Short-term • Prepare a comprehensive data set of GFS, including local government and all central government operations.
2.3 Classification/sectorization			LO			Sectorization is not consistent with the international recommendations because consolidated central government data are not compiled, and some financial institutions are included in the nonfinancial public sector. Classification is broadly according to *GFSM 1986*, except for financing and debt, which are not classified in the case of external categories, by debt instrument, maturity, and in the case of domestic categories, by debt holders. Functional classification of expenditures is not compiled.	Short-term • Compile and disseminate data for consolidated central government and general government. • Prepare classifications for all the central administration operations, especially those related to external debt and financing, that follow international recommendations. Medium-term • Revise financing and debt classifications aligning them to the international recommendations. • Prepare a bridge table between financial information in the chart of account and balance classification as recommended in the *GFSM 2001*.
2.4 Basis for recording			LO			GFS are compiled using a mixed basis of recording; revenues are recorded on a cash basis and expenditures are recorded on an accrual proxy basis; and financing is on a payment date basis for debt service and creditor's disbursement date basis for disbursement.	Medium-term • Prepare complete GFS datasets on cash and accrual bases.

Table 4. Paraguay: Data Quality Assessment Framework (July 2003): Summary of Results for Government Finance Statistics

(Compiling Agency: Ministry of Finance)

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 on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
3. Accuracy and reliability							
3.1 Source data			LO			Source data for all public sector units, except for local governments and two nonfinancial public corporations, are obtained from a comprehensive data collection program. These data sources are recorded in the IFMS and its subsystems. More automation in the reporting systems is needed. Only central administration and some decentralized entities have broadly adequate source data in the ISFM to compile GFS in a timely manner.	Short-term • Apply penalties in accordance with the Law No.1535 to ensure timely data provision. • Continue expanding the coverage of units which report data on line to the AS. Medium-Term • Include local government data in the AS.
3.2 Assessment of source data				LNO		Data are not assessed to avoid or monitor response errors or misreported data.	Short-term • Monitor response errors and misreported data through a follow-up of the report processing for a sample of central government units. • Establish the main shortcomings in the report processing.
3.3 Statistical techniques		O					
3.4 Assessment and validation of inter-mediate data and statistical outputs			LO			Financing and debt stock data recorded in the AS are not fully validated against the data in the ISFMED. Statistical discrepancies present in the financing and debt stock data are not assessed or investigated. Partial investigation is performed on statistical discrepancies between deficit/surplus and financing, and between financing and changes in debt stocks.	Short-term • Create a working group to assess and establish differences between data recording in the AS and the ISFMED. • Prepare a complete investigation regarding statistical discrepancies between deficit/surplus and financing, and between financing and changes in debt stocks.
3.5 Revision studies			LO			Finding of studies on revisions are taken into account to improve data compilation, but these revisions studies are not documented.	Short-term • Prepare studies and analyses of data revisions.

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Element	NA	Assessment				Comments on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
4. Serviceability							
4.1 Periodicity and timeliness			LO			Periodicity and timeliness follow dissemination standards only for central administration (budgetary central government) operations and central government debt data.	Short-term • Compile GFS for consolidated central government operations following the recommendations of the GDDS. Medium-term • Compile GFS for general government operations following the recommendations of the GDDS.
4.2 Consistency				LNO		Overall deficit/surplus and financing are not consistent owing to a number of factors. No reconciliation is made between financing from the CBP and the MOF. Also, there are no reconciliations with BOP and national accounts datasets.	Short-term • Working groups (those recommended in 0.1 and 3.4 above) will promote internal consistency of GFS and their consistency with other datasets.
4.3 Revision policy and practice			LO			Assessments of revisions are not made public.	Short-term • Document and formalize data revision process.
5. Accessibility							
5.1 Data accessibility			LO			GFS are not disseminated according to a preannounced schedule.	Short-term • Prepare and disseminate advance release calendars.
5.2 Metadata accessibility			LO			Only metadata for budgetary and accounting data are made public. For GFS, metadata are only available to the public through the IMF Data Standards Bulletin Board (DSBB), an electronic link to this information is posted in the MOF website.	Short-term • Update GFS metadata and include in the MOF set of publications
5.3 Assistance to users		O					

V. Monetary Statistics

0. Prerequisites of quality

0.1 Legal and institutional environment

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

The Law 489/95 (*Central Bank of Paraguay Law*) establishes in its article 80 that "public institutions, banks, finance companies and other entities dedicated to financial intermediation, and private enterprises and entities shall provide to the Central Bank the data and information requested by it for the fulfillment of its functions, safeguarding the confidentiality of the information." Article 81 of such law establishes that, for the purpose of financial programming, "the Ministry of Finance shall provide to the Central Bank reports on fiscal income and expenditure, budget execution, and other information needed for the elaboration of such programming." Furthermore, article 82 establishes that the Central Bank of Paraguay (CBP) shall produce, among others, monetary and financial statistics, as well as data on credit institutions under its supervision.

The *Organization and Functional Manual* of the CBP endows the Monetary Studies Division (MSD), within the Office of the Manager of Economic Studies (MES), with the responsibility to "produce the monetary accounts on the basis of the consolidated balance sheets of the banking system, as well as reports on monetary variables, international reserves, short-term assets and liabilities of the banking system, and foreign exchange quotations."

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

Different departments of the CBP interact during the process of compiling monetary statistics. The Bank Superintendence (BS) collects data from commercial banks and finance companies for supervisory purposes, aggregates them and transmits a hard copy of the aggregated data to the MSD. The Accounting Department (AD) produces a daily trial balance of the CBP, and transmits to the MSD a hardcopy of the end-of-month trial balance. Informal coordination (based on interpersonal contacts) between the MSD, the BS, and the AD ensures a smooth flow of information.

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

Several articles of the Law 489/95 guarantee the confidentiality of the information reported to the CBP. As already mentioned in item 0.1.1, article 80 states that the confidentiality of the data provided to the CBP shall be safeguarded. Article 82 indicates that "statistics shall be published as aggregated data and omitting individual references, except for information included in balance sheets published for general knowledge by banks, finance companies, and other credit institutions." Article 6 of the law establishes that "the information, data, and documents from third parties received by the Central Bank of Paraguay while performing its functions are of a confidential nature, except for cases when the law establishes something different." The obligation to preserve the confidentiality of such information and documents also applies to CBP staff who have access to them, even after leaving the Bank. The law foresees penalties in case of breach of the confidentiality.

Moreover, the CBP's *Information Security Regulations* from 1997 deal in detail with issues related to data confidentiality, including the different levels of confidentiality of the data collected by the CBP (public, reserved, critical); responsibilities; access of third parties to data stored at the CBP; measures to reduce human error, fraud, or misuse of information; safeguard of the Bank's network; etc.

Access to the electronically stored data is restricted to authorized personnel of the CBP, protected through passwords and with different levels of access according to their responsibilities. The computer system of the Bank is protected by several levels of firewalls and software to detect intruders and to prevent attacks. Data stored in the mainframe are copied on magnetic supports and stored in a warehouse outside the CBP. According to the law, annual balance sheets must be kept during five years, while monthly balance sheets must be preserved during one year. After this period, back-up magnetic bands are overwritten, if needed.

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

Resolutions 1279 of the CBP's Board (1994) and 199 of the BS (2001) establish a time lag of 10 calendar days for commercial banks and finance companies to report their balance sheets to the BS in an electronic format.

Articles 88, 89, and 90 of the Law 489/95 foresee two levels of noncompliance: serious faults and minor faults. Not reporting timely and substantial correct data to the BS is considered a minor fault. Sanction for this kind of noncompliance include warnings, fines equivalent from 10 to 100 minimum wages for the institutions, and fines equivalent from one to 10 minimum wages for managers and auditors of the institutions.

In practice, other depository corporations (ODCs) report regularly to the BS within the prescribed time frame.

0.2 Resources

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

At end-2005, the Monetary and Financial Studies Department (MFSD), within the MES, had 15 staff in its three divisions and the front office. The MSD had three persons engaged full-time in the compilation of monetary statistics and another three responsible for analysis and monetary programming. This staffing is broadly adequate for the tasks performed by the division, although it sometimes faces work peaks. All six staff of the MSD have a university degree, and three of them have pursued postgraduate studies. All have a long experience in the subject, having worked continuously at the MSD from ten to fifteen years. Four staff have also participated in the IMF's Monetary and Financial Statistical Course. IMF courses are almost the sole source of external training on monetary statistics available to staff of the MSD.

Salary levels at the CBP are approximately one half of the salary for similar positions in the banking sector. Recently, they have even lost competitivity against other governmental agencies. Turnover is, nevertheless, low at the MSD, in part due to job specialization, job security, and incentives such as participation in international courses. However, the CBP is experiencing an important loss of personnel, triggered by low salaries and an early retirement program. Individual performance was formerly assessed twice a year, normally by the department director. Lately, the assessment cycle was reduced to once a year. A good evaluation helped staff advance in their career path at the Bank. In 2005, the assessments were restricted only to staff considered for special promotion. Within the promotion criteria for professional staff, training and publication of research articles had a weight of almost half of the evaluation.

Computer resources are adequate for the compilation of monetary statistics. Each staff has his/her own personal computer connected to the bank's network, with the usual office software, econometric packages, and broadband access to the internet.

0.2.2 Measures to ensure efficient use of resources are implemented

The statistical process at the MSD is basically a repetition of what has been done in previous years, lacking long-term planning. Often, last-minute "urgent" requests from the senior management forces the postponement of already planned work. Some longer term planning took place as a result of the two IMF's monetary and financial statistics missions in 2000, to implement their recommendations.

The transmission of data from the BS and the AD to the MSD needs to be improved. Currently, data are transmitted in hardcopy, and the MSD must enter them manually in an Excel format. Some incompatibilities in the systems used by the different departments have hampered the electronic transmission of data. However, the CBP has launched a project that will interconnect the different areas of the CBP involved in the collection and compilation of monetary data, allowing the electronic transmission of data between among and between the CBP and outside sources. The expected products of this project are, among others, an operative database containing the daily trial balance of the CBP and the balance sheets of commercial banks, finance companies, and credit unions; software that allows to transfer the information to the database from different storage systems; software that interconnects the database with the BS, the Ministry of Finance, and other operative areas of the CBP; and software that allows on-line access to staff of the MES to this database.

Professional staff of the MSD is involved in routine technical work. The hiring of a research assistant at the MFSD would increase the productivity of the professional staff of the division, freeing them to perform more analytical work.

0.3 Relevance

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

There is not a formal and structured process of consultation with monetary data provider and users. However, the MSD receives feedback from ODCs and users, and takes into account these comments and suggestions to improve the compilation and dissemination of monetary statistics. At the request of users, the MSD has modified some tables and also posted time series on the CBP website in an Excel format. Another source of monitoring the relevance of the monetary statistics was the technical assistance provided by the IMF.

0.4 Other quality management

0.4.1 Processes are in place to focus on quality

Staff of the MES, and the MSD in particular, are fully conscious of the importance of quality in building trust among monetary statistics users, and they are sensitive to the different dimensions of data quality. However, because monetary statistics are normally of a definite nature, and based on balance sheet data, the trade-off between timeliness and accuracy generally does not arise.

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

The CBP does not have an established process of systematically monitoring the quality of the statistical program. For external advice on monetary statistics, the CBP relies almost exclusively on the technical assistance provided by the IMF.

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

The CBP has not implemented formal processes to deal with quality considerations in planning the statistical program. However, the accuracy of monetary statistics can only marginally be affected by the timeliness of their dissemination, because they are based on accounting records. Data are published on a final basis, and very few revisions have occurred in the past.

1. Assurances of integrity

1.1 Professionalism

1.1.1 Statistics are produced on an impartial basis

Despite the lack of clear dispositions that ensure full operational autonomy to the CBP, monetary data are compiled following only technical criteria. Public employees in Paraguay become permanent staff after two years working continuously in the institution (art. 47, Law 1626/00). These contractual conditions protect staff at the CBP against undue pressures or interference by other government agencies, ensuring their professional independence.

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

The source data for monetary statistics are the balance sheets of the 13 commercial banks, the 14 finance companies, and the CBP. Other financial statistics not based on accounting records, such as interest rates, are produced using responses from all institutions of the system. For the classification of financial instruments and sectorization of the accounts, the MSD follows the *Monetary and Financial Statistics Manual* (*MFSM*).

The dissemination of monetary data follows an established procedure with internally set deadlines that, although not announced to the public, are consistently met. The periodicity and timing of data dissemination is never hampered by pressures from other government agencies.

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

In cases of misinterpretation of published data, the CBP provides comments through the Manager of Economic Studies. The last known cases of monetary data misinterpretation happened more than two years ago, and were duly addressed.

1.2 Transparency

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

Paraguay is a participant in the IMF's General Data Dissemination System (GDDS). Its metadata on monetary statistics are accessible on the IMF's Dissemination Standards Bulletin Board (DSBB), but the country has not updated the posted information since November 2004. The CBP website provides a link to the IMF's DSBB. The Law 489/95, posted on the CBP website, contains the legal terms and conditions for collecting monetary information. However, the relevant provisions are scattered throughout the law and are not easy to find to the general reader.

The CBP's monthly publication *Informe Económico*, posted on the Bank's website, contains explanatory notes that provide some information on the terms and conditions under which monetary statistics are compiled. Additionally, the CBP holds twice a year a seminar with the press to explain to journalists the methodology and concepts used in compiling monetary statistics.

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

Ten days before the first draft of *Informe Económico* is due, the MES presents to the Presidency and the Board of the Bank an advance of the publication, with preliminary monetary, fiscal, and financial data, as well as an analytical section. Once data on the banking sector and final fiscal data are available, the first draft of *Informe Económico*—which contains the monetary tables—is finalized. The draft is sent to the Board and the Presidency. The President of the Bank reviews the draft and approves the posting of the final version on the Internet.

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

Informe Econónico is available only through the CBP website. The first page clearly identifies the publication as a product of the MES, with the logo of the CBP, a photo of the CBP's building, and the address of the institution. All tables contain the source of the data. The CBP does not require attribution when its statistics or comments are reproduced elsewhere. Staff of the MSD regularly finds almost textual reproductions in newspapers and private sector reports, without citing the CBP as the source.

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

Advance notice is not given to the public when there are major changes in methodology. However, when in the past the MSD revised the data as a result of the implementation of the IMF missions' recommendations, a note was included to explain the break in the series.

The MSD is currently in the process of expanding the coverage of the other depository corporations survey through the inclusion of the largest credit unions and production cooperatives (which also accept deposits). This could be a good opportunity to inform the public in advance about the upcoming methodological change.

1.3 Ethical standards

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

The Law 1626/00, *Of the Public Function*, provides the general umbrella to regulate the legal situation of permanent and contractual public employees, including staff of the CBP. The law states rights, obligations, and incompatibilities of persons working for the public sector.

At the level of the CBP, its *Personnel Statute* from 1989 contains ethical rules for staff behavior. It specifically deals with the rights (arts. 44-47), obligations (arts. 48-54), and incompatibilities (arts. 55-63) of the CBP's staff, in a manner very similar to the Law 1626/00. The statute prohibits CBP staff to work anywhere else except as university professor, limits the personal debt that CBP staff may incur, prohibits to provide persons outside the bank with official documents without prior authorization by the Presidency or the department's director, etc.

The CBP's *Information Security Regulations*, approved by Board's Resolution Nº 5 from July 1997, establishes rules of conduct designed to minimize the risk of human error, theft, fraud, or misuse of information.

These laws and decrees are made known to the staff.

2. Methodological soundness

2.1 Concepts and definitions

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

The methodological framework used by the MSD to compile the central bank survey and the ODC survey is consistent with the guidelines of the *Monetary and Financial Statistics Manual* (*MFSM*). Some discrepancies from these guidelines were resolved when the MSD implemented the recommendations of the two 2000 IMF monetary and financial statistics missions.

A depository corporations survey (DCS) is compiled consolidating the central bank survey with the ODC survey. The main monetary and credit aggregates identified within this framework are: monetary base (currency issued plus bank reserves at the CBP), M1 (currency outside banks plus current account deposits of the private sector), M2 (M1 plus savings deposits, term deposits, and savings deposits certificates of the private sector), M3 (M2 plus foreign currency deposits of the private sector), CBP's net international assets, CBP's net credit to the public sector, CBP's net credit to the banking sector, and banking sector's credit to the private sector.

2.2 Scope

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

At end-January 2006, Paraguay's depository corporations sector comprised the CBP, 13 commercial banks, 14 finance companies, and around 500 credit unions (of which approximately 200 had liabilities in the form of deposits).

All commercial banks and finance companies submit their balance sheets to the BS on a regular monthly basis. Data reported cover the headquarters and the domestic branches. The BS transmits a hardcopy of the aggregated balance sheets of both kind of institutions to the MSD, which uses them to prepare the ODC survey. The central bank survey is prepared on the basis of the CBP's end-of-month trial balance, transmitted as a hardcopy by the AD to the MSD.

Credit unions experienced a rapid growth during the last decade, and currently account for around 25 percent of deposits and loans of the banking sector. They are not under the aegis of the CBP but supervised by the National Institute of Cooperativism (INCOOP). Therefore, they do not report to the BS and their data are missing from the ODC survey, something that constitutes a significant shortcoming in the coverage. Together with the INCOOP, the MSD is in the process of incorporating the cooperatives to the ODC survey. The project foresees, at a first stage, to collect data from the 20 largest credit unions and the 20 largest production cooperatives, three times a year in a format compatible with the presentation of commercial banks. These would cover around 90 percent of the assets and liabilities of all deposit-taking cooperatives. Once implemented, this will represent an improvement with respect to the present situation, but a comprehensive ODC survey needs monthly data from all deposit taking institutions.

2.3 Classification/sectorization

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

Sectorization of monetary statistics improved substantially after the introduction in 1995 of a common chart of accounts for commercial banks and finance companies. The chart of accounts follows international accounting standards and contains enough detail to allow a classification and sectorization of instruments consistent with the methodology of the *MFSM*. Following the recommendations of the two IMF monetary and financial statistics missions of 2000, the MSD revised some misclassified accounts.

Financial instruments are classified by type, maturity, and currency denomination (local and foreign). Account holders are separated into residents and nonresidents, in line with the principles of the *Balance of Payments Manual*, fifth edition (*BPM5*).

One exception to the sectorization recommended by the *MFSM* is the lack of distinction between resident nonfinancial corporations, households, and nonprofit institutions serving households (NPISHs). Like the *1993 SNA*, the *MFSM* recommends the identification of these three domestic subsectors. However, the chart of accounts used in Paraguay provides only for a category of "Other resident sectors", where all three subsectors are combined. This shortcoming does not affect the calculation of net domestic credit, but will constitute a problem when the country starts producing financial accounts.

Another shortcoming is the lack of sectorization of accrued interest by ODCs. The CBP and ODCs record on an accrual basis, but the latter do not report the accrued interest together with its underlying instrument. This forces the MSD to impute the total accrued interest among the different instruments and sectors.

Finally, the CBP considers two binational entities (Itaipú and Yacyretá) as extraterritorial enterprises, i.e., as nonresidents. Both enterprises were created to manage hydroelectric projects that utilize the river that delimit Paraguay from its neighboring countries Brazil and Argentina, respectively. The physical installations of both enterprises are located on the border between Paraguay and these countries, and the enterprises enjoy a special status, notwithstanding that they are government owned corporations. The criterion used by the MSD for the classification of these accounts is consistent with the approach used in balance of payments. However, the national component of these corporations should be classified as accounts of residents, more specifically, as accounts of public nonfinancial corporations.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

Foreign-currency-denominated financial assets and liabilities are converted first from the different foreign currencies into U.S. dollars. The balances in U.S. dollars are then converted into local currency using an “accounting” exchange rate. This accounting exchange rate is the average of the buying exchange rates at the closing of the previous day. The CBP does not have gold holdings, and therefore no adjustments are needed. SDR holdings and other IMF accounts denominated in SDRs are revalued by the AD once a year in April, when the Finance Department of the IMF provides the CBP with the information on exchange rates. When compiling the monthly central bank survey, the MSD adjusts the balances of SDR-denominated accounts using the end-of-month market exchange rate provided by STA.

Securities and other financial instruments are valued at market prices or fair values by the CBP and ODCs. However, some government securities and U.S. Treasury bonds held by the CBP (received under Laws 1093/97, 1186/97, and 1606/00) are valued at amortized cost (using the effective interest method). This treatment is consistent with IAS 39 and assumes that the securities will be held to maturity. Shares of the Latin-American Export Bank (BLADEX) held by the CBP are valued at the reference price informed by BLADEX.

2.4.2 Recording is done on an accrual basis

The CBP and ODCs record on an accrual basis. Accrued interest is reported together with its underlying instrument in the CBP’s trial balance, but not disaggregated by instrument or sector in the balance sheets of commercial banks and finance companies.

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

Assets and liabilities of the CBP and ODCs are presented on a gross basis, with no netting of claims of a particular transactor against the liabilities to that transactor or group of transactors. Accounts in overdraft are recorded and reported as loans to the corresponding sector. Loans are recorded on a gross basis, but the provisions for loan losses are reported as a negative asset subtracting from the total loans. When compiling the surveys, the MSD reclassifies these provisions to the liability side of the balance sheet, as part of the capital accounts. Although it is correct to reclassify the provisions to the liability side and present loans on a gross basis, it is incorrect to classify them as part of capital accounts. Provisions for loan losses must be classified as *Other accounts payable*.

When producing the "banking survey," the MSD consolidates the accounts of the commercial banks in other items net. The MSD also produces a "nonmonetary depository corporations" survey, where it consolidates the accounts of the finance companies. The MSD consolidates then both surveys into an ODC survey, netting the accounts of the commercial banks and the finance companies.

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

Commercial banks and finance companies transmit electronically their balance sheets to the BS, on a weekly and monthly basis, 10 calendar days after the reference month. The introduction of a common chart of accounts in 1995 represented a major improvement in the classification and sectorization of financial instruments. A 12-digit code identifies each account, indicating its grouping in the balance sheet, the chapters within each group, liquidity, risk, residency, and subaccounts. The accompanying manual of accounts contains detailed instructions on the use and recording of each account. Additionally, the CBP conducted seminars with staff of the ODCs, explaining the principles behind the sectorization and classification of instruments, and the criteria used to distinguish between residents and nonresidents. To avoid misclassifications, the CBP issued two circulars providing ODCs with the definition of resident and nonresident units (SG Nº 69/2001) and a comprehensive list of the nonfinancial public sector (SG Nº 70/2001). The chart of accounts has been amended, as needed, to reflect developments in the market.

After receiving the electronic submissions of the ODCs, the BS performs more than 100 automatic consistency checks, which range from detections of incorrect codes to missing information, differences between assets and liabilities, incorrect additions, etc. If the submitted data fail any of this consistency checks, they are returned to the reporting institutions for their revision. Complete and correct data must be received by the 10th calendar day after the reference month.

The CBP's financial statements are audited by an international accounting firm, which rotates every year (although legally it can be retained up to two years), by internal auditors, and also by the General Comptroller of the Republic. The 2004 annual balance sheet has been approved by the external auditors with a qualified opinion referring to the pending dispute for CBP's claims on the Finance Ministry.

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

The DC survey is based on actual accounting records of the CBP and the ODCs (except for the lack of coverage of credit unions already mentioned in item 2.2.1). Therefore, no sampling or estimations are employed by the MSD. The structure of the balance sheet permits an adequate sectorization and identification of the accounts of resident and nonresidents, and a proper sectorization of the resident accounts (except for the distinction within other resident sectors mentioned in item 2.3.1).

3.1.3 Source data are timely

The AD prepares the CBP's trial balance on a daily basis, and transmits a hard copy of the end-of-month trial balance to the MSD. The BS receives all balance sheets from commercial banks and finance companies by the 10th of the following month, and five days later transmits a hard copy of the aggregated balance sheets to the MSD. The lack of electronic transmission adds an additional day for data inputting, still allowing the MSD to finish the compilation process 20 days after the end of the reference month.

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

In addition to the automatic controls performed by the BS on the individual balance sheets, the MSD performs visual checks on the aggregated balance sheets to detect significant changes in the figures from month to month, or to confirm that new instruments or institutions are being captured in the reported data. When the MSD detects inconsistencies in the aggregated data, it investigates them with the BS and contacts the corresponding institution to clarify the situation.

3.3 Statistical techniques

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

Because the aggregated balance sheets of the ODCs and the CBP's balance sheet are inputted manually by the MSD, errors can occur when entering them. To eliminate these potential errors, the MSD carefully controls the processed information. Data reported by ODCs are complete and the MSD does not estimate missing information.

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

Some of the automatic checks performed by the BS focus on the conversion of foreign-currency-denominated assets and liabilities into local currency. The MSD does not seasonally adjust the monetary series.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Intermediate results are validated against other information where applicable

International reserves and foreign assets and liabilities of the CBP are systematically checked against balance of payments data. The MSD does not check the consistency of data on credit to government contained in the CBP's balance sheet with data of the Ministry of Finance. It does not check, either, the consistency of the CBP's debt registry with the data reported by banks on government securities holdings. Because the MSD does not receive individual banks' data, it cannot check the consistency of the interbank positions.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

When the MSD observes important changes in the aggregated data of the ODCs, it contacts the relevant institution to solve the issue. If needed, the MSD contacts the BS and asks it to instruct the institution to introduce the revisions.

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

The MSD follows only informal procedures to check the accuracy of the data reported by the ODCs. As already said, the controls are visual. The MSD does not keep a file where it documents the most common detected mistakes. The MSD conducted seminars after the introduction of the new chart of accounts in 1995, and also in 2001 to explain the concepts of the *MFSM*. However, it does not organize regular courses to instruct officers of the banks and finance companies on how to report to the CBP.

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 main source of revision of monetary data was the technical assistance provided by the IMF through its two monetary and financial statistics missions in 2000. The MSD showed its commitment to improve the monetary statistics of the country, implementing most of the missions' recommendations. Data were revised from January 1995 onwards and the revision in the time series was indicated in the explanatory notes that accompany the tables of *Informe Económico*. Findings of the revisions studies are used to improve the compilation process.

4. Serviceability

4.1 Periodicity and timeliness

4.1.1 Periodicity follows dissemination standards

As recommended by the GDDS, the broad money survey and other monetary data (e.g., monetary base, interest rates) are published on a monthly basis in *Informe Económico* and *Indicadores Financieros*, which are available on the CBP's website.

4.1.2 Timeliness follows dissemination standards

Monetary statistics are usually disseminated with less than one month lag through *Informe Económico* and *Indicadores Financieros*, exceeding the requirements of the GDDS. One exception to this timeliness was the December 2005 issue of *Informe Económico*, which was posted only in a preliminary version, with the analytical section but without the statistical tables. The monetary tables included in *Informe Económico* are available already by the 20th of the month after the reference month. However, they cannot be disseminated until the analytical section of the publication is prepared, delaying the publication by approximately five days.

4.2 Consistency

4.2.1 Statistics are consistent within the dataset

Although the MSD does not perform consistency checks, this ROSC mission could verify that monetary statistics are internally consistent. This includes the position of the CBP vis-à-vis the individual banks, and the aggregated interbank position. The mission detected some inconsistencies between the data reported by commercial banks and finance companies in their aggregated intersectoral positions.

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

Time series published in *Informe Económico* are consistent over time. The revision in the time series that followed the IMF missions' recommendations were highlighted in explanatory notes.

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

International reserves calculated from the CBP's balance sheet are consistent with balance of payments data. The same is true for foreign assets and liabilities of the CBP and the commercial banks.

This ROSC mission verified that data reported by banks on holdings of government securities are consistent with the data of the CBP's debt registry. Monetary data on credit to government are not consistent with the information produced by the Ministry of Finance, in part due to the BCP's claims on government for the Treasury Bonds Law 1093/97, not recorded by the Ministry of Finance. Discrepancies should also exist in government deposits due to the Ministry of Finance's misclassification of the pension funds as part of the central government.

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

Monetary data published in *Informe Económico* are of a final nature and only exceptionally subject to revision. The annual balance sheet of the CBP is published on a preliminary basis and subject to revisions. The public is informed that these data are preliminary. Another example of preliminary data subject to revision are the international reserves of the CBP.

4.3.2 Preliminary and/or revised data are clearly identified

Through the corresponding notes, the public is made aware of preliminary and revised data.

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

Studies and analyses of revisions are not 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)

Monetary statistics are disseminated through the CBP's *Informe Económico* and *Indicadores Financieros*, which are posted on the Bank's website. The tables present the information in a clear form and with an adequate level of detail. Explanatory notes are included in the publications, and analysis of macroeconomic trends accompany the monetary data.

At the request of users, time series contained in *Informe Económico* are now accessible in an Excel format on the CBP website. Although useful for operational purposes, these tables are posted only twice a year. Furthermore, the latest available data correspond to October 2004. To improve data accessibility, the CBP should update these time series on a monthly basis.

5.1.2 Dissemination media and format are adequate

Informe Económico and *Indicadores Financieros* are available only through the CBP website. No hardcopies of the bulletins are published. Upon request, the MSD copies the information contained in these publications onto CDs provided by users.

5.1.3 Statistics are released on a preannounced schedule

The MSD has an internal production cycle with specified deadlines, normally met, that aim to the posting of *Informe Económico* by the 25th of the month after the reference month. However, this internal deadline is not made available to the public through a preannounced release calendar. The public is aware of the publication date, and if the publication is delayed it calls the MSD asking for explanations.

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

Every month, *Informe Económico* and *Informe de Inflación* are presented in a press conference explaining the most relevant trends. A couple of hours after the press conference, the bulletins and the presentation are posted on the CBP's website. Data contained in *Informe Económico* are not made available to external agencies prior to their public release.

5.1.5 Statistics not routinely disseminated are made available upon request

The accessibility of monetary data in an Excel format through the CBP website has reduced significantly individual requests to the MSD. Upon request, the MSD provides nonpublished but nonconfidential information. The CBP does not indicate that additional information can be obtained, but the public is aware of this possibility.

5.2 Metadata accessibility

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

Metadata on monetary statistics are available through the IMF's DSBB, but metadata on the DSBB have not been updated since November 2004. The CBP website provides a link to the IMF's DSBB. *Informe Económico* contains explanatory notes and the Law 489-95 is posted on the CBP's website.

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

The level of disaggregation contained in the CBP's publication is sufficient to meet different audiences' needs.

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

Informe Económico does not contain names and telephones of the persons that can be contacted in relation with monetary statistics, but identifies it as a product of the MES. Although no telephone numbers are included in *Informe Económico*, they are available in the homepage of the CBP website.

The CBP offers a free-of-charge subscription service. Subscribers receive each month a notification via e-mail, with a link to download the pdf version of *Informe Económico*. The CBP provides an electronic address to request this service.

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

Because the CBP does not print hardcopies of its publications, but solely post them on its website, there is no catalog of publication, nor prices for the products. All publications can be downloaded from the internet. Upon request, they can be copied free of charge onto CDs provided by users.

Table 5. Paraguay: Data Quality Assessment Framework (July 2003): Summary of Results for Monetary Statistics
(Compiling Agency: Central Bank of Paraguay)

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 on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
0. Prerequisites of quality							
0.1 Legal and institutional environment		X					
0.2 Resources			X			Data transmitted in a hardcopy from the BS and the AD to the MSD. Need for a research assistant at the MFSD.	Project that will interconnect different areas of the CBP, allowing an electronic transmission of data.
0.3 Relevance			X			No formal consultation process with users of monetary statistics.	
0.4 Other quality management			X			Only informal processes in place to monitor the statistical program.	
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		Deposit-taking cooperatives not included in the ODC survey.	In coordination with INCOOP, data will be collected from the 20 largest credit unions and the 20 largest production cooperatives.
2.3 Classification/sectorization			X			No breakdown between other nonfinancial corporations, households, and NPISHs. Binational entities Itaipú and Yacyretá classified as nonresident units. No sectorization of accrued interest in the ODC survey.	
2.4 Basis for recording		X					

Table 5. Paraguay: Data Quality Assessment Framework (July 2003): Summary of Results for Monetary Statistics

(Compiling Agency: Central Bank of Paraguay)

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 on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
3. Accuracy and reliability							
3.1 Source data		X					
3.2 Assessment of source data		X					
3.3 Statistical techniques		X					
3.4 Assessment and validation of intermediate data and statistical outputs			X			No validation procedures for government debt to the central bank and ODCs. No cross-checking of interbank positions.	
3.5 Revision studies			X			No systematic revision studies, but improvements introduced at the request of users.	
4. Serviceability							
4.1 Periodicity and timeliness		X					
4.2 Consistency			X			Discrepancies between monetary and fiscal data for government debt.	
4.3 Revision policy and practice			X			No systematic revision studies. Revision studies not made public.	
5. Accessibility							
5.1 Data accessibility			X			There is an internal production cycle, with specified deadlines, but no preannounced release calendar. Nevertheless, the public is aware of the expected publication date.	The CBP will prepare a preannounced release calendar.
5.2 Metadata accessibility		X					
5.3 Assistance to users			X			Only a reference to the MSD as the unit producing monetary data, but no contact person.	

VI. Balance of Payments Statistics

0. Prerequisites of quality

0.1 Legal and institutional environment

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

The *Central Bank of Paraguay Law*, 489 of July 3, 1995, assigns primary responsibility and authority to the Central Bank of Paraguay (CBP) for the compilation, processing, and dissemination of balance of payments statistics. The balance of payments statistics (quarterly and annual) are prepared and disseminated by the CBP's International Economics Department. Article 82 of the CBP Law states that the CBP "shall prepare and publish statistics on monetary and financial issues, external payments, domestic prices, output and income, and on credit institutions subject to its supervision.". Article 72 establishes that the CBP "shall keep the Executive Branch and the Legislative Branch constantly informed of the behavior of prices, employment, external trade, balance of payments, and other economic indicators." Finally, Article 118 states that the CBP "shall publish an annual report, approved by its Board of Directors, that shall contain an analysis of the monetary, financial, and economic performance of the past fiscal year." Working arrangements are consistent with this assignment of responsibility.

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

The sharing of balance of payments data among official institutions is adequate. Procedures are in place to provide for an effective and timely flow of source administrative data. For example, the CBP has full on-line access (although not formally established) to the primary documentation on foreign trade from the National Directorate of Customs (NDC). The CBP also shares with the Ministry of Finance (MOF) the same medium- and long-term external public debt database—Debt Management and Financial Analysis System (DMFAS). For information on the external assets and liabilities of the financial system and insurance companies, as well as their corresponding yields, the CBP uses information from the databases maintained by the Superintendence of Banks (SB) and the Superintendence of Insurance (SI), respectively. The MOF's Vice ministry of Tax Revenues (VTR), as established in its Resolution 115/03, provides to the CBP a copy of the annual balance sheets, income statements, and related documents reported by the nonfinancial private enterprises to support the compilation of balance of payments and national accounts statistics. The CBP maintains regular contacts with these agencies, although there is no provision for regular meetings to coordinate and evaluate statistics.

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

The CBP Law guarantees the confidentiality of data. Articles 6, 7, and 8 set out legal provisions establishing the obligation to maintain the secrecy and confidentiality of the requested data. Article 82 establishes that "the statistics shall be published in the form of aggregate data, with no individual references, except with respect to accounting data published for general information purposes by banks, finance companies, and other credit institutions." Furthermore, documents submitted to the CBP from official surveys and/or reports are duly safeguarded to ensure their confidentiality. *The Information Security Regulations*, approved by the CBP Board in July 1997, establishes rules of conduct designed to minimize the risk of human error, theft, fraud, or misuse of information. The *Code of Conduct for CBP Staff* and its *Regulation*, approved by the CBP Board in September 1989 and February 1990, respectively, establish the rights and responsibilities of CBP staff, including confidentiality issues.

The annual letter to reporters requesting their participation in CBP surveys for compiling balance of payments data includes references to the legal framework underlying the preparation of statistics and the confidentiality of information. However, no references to these issues are made in the quarterly questionnaires.

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

Article 80 of the CBP Law establishes that "Public institutions, banks, finance companies, and other entities involved in financial intermediation, and private sector enterprises or entities shall provide to the central bank any data and information that it may request in the performance of its duties, preserving the confidentiality of the information". Legal sanctions and fines are foreseen in case of noncompliance by financial institutions with their responsibilities under the CBP Law. However, there are no penalties for noncompliance (including misreporting) by nonfinancial private sector units.

Among other measures to encourage response, the CBP seeks to reduce response burden by including in surveys data previously submitted (for reporters' review) as well as adapting questions to reporters' terminology and accounting codes.

0.2 Resources

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

The Balance of Payments Division of the CBP's International Economic Department is responsible for collecting, processing, and disseminating balance of payments statistics and the international investment position (IIP) data. The Balance of Payments Division is currently comprised of eight professionals (including the division chief) and composed by three sections: Balance of Payments Section (two staff), Surveys Section (three staff), and Exchange Balance Section (two staff). Staff qualifications are adequate, with most professional having a bachelor degree in economics. Human resources available for working with surveys are insufficient. Salaries and benefits are above those offered by the central government, but in line with other public sector institutions. Most staff have participated in training in balance of payments courses organized by the IMF (both at headquarters and at the Brazilian Regional Training Center) and by the Center for Latin American Monetary Studies (CEMLA). The International Economics Department comprises two other divisions: the External Trade Division (four staff) and the Economic Integration and External Debt Division (three staff), mainly involved in the preparation of merchandise trade statistics and external debt statistics, respectively. These data are also used for balance of payments compilation.

Working space, computer resources, and equipment are adequate to perform required tasks (although computer equipment and software need to be upgraded). Each staff member has his/her own computer connected to a main server with backup and system protection procedures. All staff has access to email and Internet. The CBP's IT Department provides good support on technical matters.

The financial resources allocated to the compilation of balance of payments statistics are not sufficient for supporting developmental work. For example, since 2001, travel surveys and specialized studies (e.g., on unrecorded trade) have not been conducted.

0.2.2 Measures to ensure efficient use of resources are implemented

Staff responsible for compiling balance of payments statistics have a good understanding of the concepts, procedures, and methods recommended by the *BPM5*. For the most part, staff demonstrate dedication and initiative in their work. Generally speaking, the CBP encourages its staff to keep themselves up-to-date with international data recording and processing practices. When possible, the CBP has sought outside expert assistance (mainly from CEMLA, European Union, IDB, and IMF) to evaluate statistical methodologies and compilation systems. Currently, the CBP evaluates staff performance only for promotion purposes.

0.3 Relevance

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

Data users are not consulted or kept informed on the relevance and practical utility of existing data (e.g., usefulness in terms of detail, periodicity, and timeliness). The CBP does not have established procedures to consult with users (e.g., user surveys, seminars, advisory committees), where feedback from data users is sought to review the usefulness of balance of payments data and to identify emerging data needs, but informal contacts with data users take place.

Nevertheless, the CBP officials participate from time to time in regional and international statistics meetings and seminars hosted by international institutions such as CEMLA, European Union, IMF, and the UNDP. These meetings are highly important in helping balance of payments compilers to evaluate the usefulness of the information they produce.

0.4 Other quality management

0.4.1 Processes are in place to focus on quality

The CBP authorities are aware that continued efforts are needed to improve the quality of statistics produced by the bank. The various levels of management within the CBP recognize and promote that quality builds trust and it is the cornerstone of statistical work. The CBP conducts special seminars on the importance of quality for CBP staff qualified for promotion.

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

Monitoring processes (although no systematic) are conducted within the CBP to inform managers on the quality achieved for ongoing statistical activities (for example, surveys' response rates, timeliness evaluations, intersectoral consistency). The CBP has recently initiated the preparation of a comprehensive on-line database that would also produce automated report forms on balance of payments and international investment position.

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

Some quality issues are addressed and taken into account in the work program planning process (for example, trade-offs among timeliness and accuracy/reliability).

1. Assurances of integrity

1.1 Professionalism

1.1.1 Statistics are produced on an impartial basis

Professionalism is clearly recognized as essential to the credibility of statistical outputs. Processes and activities in the workplace promote a culture of professionalism, including the recognition of authors of methodological papers, peer review of statistical work, and organization of lectures and conferences. Professionalism is also promoted by encouraging formal training (using internal and outside experts) and on-the-job training in the balance of payments methodology and compilation methods. The CBP does not have internal rules that ensure an impartial selection of managers, nor prevent external interferences during the compilation process; however, according to CBP officials no such interferences have occurred. The CBP has encouraged the publication of methodological research and economic analysis documents on certain balance of payments items. Documents on the *Commercial and Financial Movement of Ciudad del Este*; *International Transmission of Instability:*

Exchange Market Pressures in Brazil and their Effects on Paraguay; *Managing the Export Sector: the Challenge of Integration*; and *Paraguayan Workers' Remittances from Argentina and the United States* have been published by the CBP during 1998–2000.

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

The choice of data sources, methodologies, and statistical techniques are made solely on the basis of strict technical criteria consistent with the statistical considerations contained in the *BPM5* recommendations. Decisions about data dissemination are based solely on statistical considerations.

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

The CBP attempts to avoid misinterpretation of statistics by holding press conferences and providing comments and clarifications when statistics are erroneously interpreted in the press or other public forums. There is a well-established practice to deal with data misinterpretation or misuse of statistics.

1.2 Transparency

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

In general, the CBP discloses to the public the conditions under which it compiles and disseminates statistics. The CBP Law, available on the Internet, contains a set of general provisions establishing the obligation to compile and disseminate balance of payments statistics, the confidentiality of individual reporter's data, and other key features.

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

In general, the national authorities have no access to statistics before they are released to the public. However, the CBP, as adviser to the government, may provide prior information to members of the Executive Branch, the Judiciary, and the Legislature, when requested to do so. The latter is identified in the Fund's DSBB, which is hyperlinked to the CBP website.

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

CBP statistical publications are clearly identified with the name and logo of the institution. The CBP does not require users to identify it as the source before reproducing these statistics.

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

No major changes have been introduced in methodology, source data, or statistical techniques for balance of payments compilation in the recent years. Good documentation is available on the methodology, source data, and statistical techniques for balance of payments compilation.

1.3 Ethical standards

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

The *Code of Conduct for CBP Staff* and its *Regulation*, approved by the CBP Board in September 1989 and February 1990, respectively, establish the rights and responsibilities of CBP staff, including hiring, selection process, promotions, performance evaluation, and confidentiality (Articles 44-47, 48-52, 58, and 101).

The *Information Security Regulations* approved by the CBP's Board of Directors by Resolution No. 5 of July 1997 establishes rules of conduct designed to reduce the risk of human error, theft, fraud, or misuse of information to an acceptable level. The Resolution foresees disciplinary sanctions against staff that fail to comply with these provisions. Staff are aware of the existence of these regulations.

2. Methodological soundness

2.1 Concepts and definitions

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

The concepts and definitions used for preparing balance of payments statistics are largely consistent with the guidelines of the fifth edition of the *Balance of Payments Manual* (*BPM5*). In 1997, the CBP converted the balance of payments statistics since 1985 to the *BPM5* formats. Balance of payments transactions and accounts (current, capital, and financial) are defined according to *BPM5*. A clear distinction is made between the income component and the goods and services components. The directional basis is employed when compiling and recording foreign direct investments components.

Resident institutional units are defined in broad conformity with the *BPM5*. Paraguay considers as residents the government and its embassies abroad, individuals and legal entities whose center of economic interest is in Paraguay, and those who engage in economic activities in the country for more than one year.

2.2 Scope

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

The scope is broadly consistent with international standards. In principle, all resident-nonresident transactions are covered in the balance of payments statistics, including estimates on foreign trade not recorded by Paraguayan customs (energy, smuggling, and shuttle trade), workers remittances, reinvested earnings and profit remittances, nonfinancial private sector deposits abroad, debt arrears, and noncash transactions (see also 3.3.2). Data on some services (computer, construction, and professional), direct investment and portfolio investment abroad, and real estate (most of which are assumed to be of relatively minor importance are not estimated (see also 3.1.1).

In principle, all resident institutional units engaged in transactions with nonresidents are covered; for example, affiliates of nonresident companies. Two binational hydroelectric enterprises (Itaipú and Yacyretá) are located on both banks of the Paraguayan river border with Brazil and Argentina, respectively. Itaipú (jointly owned by Paraguay and Brazil) and Yacyretá (jointly owned by Paraguay and Argentina) were established through special legislation enacted by Paraguay with Brazil and Argentina, respectively. The CBP considers these two binational hydroelectric enterprises as nonresidents in the economy.[10]

2.3 Classification/sectorization

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

Balance of payments transactions are broadly in line with the classification recommended by *BPM5*. The current account includes goods; services (transportation, travel, royalties, and other services); income (labor income and investment income); and current transfers (grants

[10] Multiterritory enterprises are single enterprises that have substantial operations in two or more territories but for which branches are not able to be identified. In June 2004, the Balance of Payments Technical Expert Group (BOPTEG) agreed with the *BPM5* general principles, but generalized to all kinds of activities—including hydroelectricity schemes on border rivers—rather than limited to mobile transport enterprises (*BPM5*, paragraph 82). Therefore, the *BPM5* update (planned for 2008) would recommend to allocate multiterritorial enterprises to the predominant territory or to split them into separate units, with equity shares and other factors (e.g., assets location) as the basis for prorating. BOPTEG also agreed that for multiterritory enterprises the new manual shall (1) acknowledge the complexities of practical implementation; (2) indicate the need for collaboration between the compilers of the territories concerned; and (3) note the implications for other economies when compiling partner data. See http://unstats.un.org/unsd/sna1993/description.asp?ID=93, AEG Paper (SNA/M2.04/21) posted on 12/22/2004 and AEG Summary posted on 30/09/2005.

and workers' remittances). Goods are further disaggregated in general merchandise, goods for processing, repairs on goods, goods procured in ports by carriers, and nonmonetary gold. However, exports and imports of the maquila sector (US$30 million and US$17 million in 2005, respectively) are recorded under general merchandise rather than in goods for processing). The capital and financial account includes: capital transfers; direct investment (equity, reinvested earnings and undistributed profits, and other capital); portfolio investment (equity securities and debt securities); other investment; and reserve assets. Other investment is classified into trade credits, loans, currency and deposits, and other assets and liabilities; and further divided into long-term and short-term—due to lack of information, most private sector liabilities are classified as long-term. Reserve assets are classified into monetary gold, special drawing rights, reserve position in the Fund, foreign exchange, and other claims. The sectorization system is broadly consistent with *BPM5*; the relevant current account items (investment income) and financial account (derivatives, portfolio, and other investment in the capital account) are disaggregated into monetary authorities, general government, banks, and other sectors. Nonbank public enterprises' claims and liabilities are attributed to other sectors; external debt transactions are attributed to the institutional sector of the borrower. Deviations from above classification systems are kept under review.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

For the most part, transactions are valued at market prices, and where information is not available, at nominal or book value. Foreign trade flows are recorded on a f.o.b. basis. No adjustments are made to correct for possible over- or under-valuation of the amounts declared on the customs forms. Public sector external debt data mostly comprise nontradable instruments. No major tradable private sector debt liabilities have been identified.

All transactions are recorded in United States dollars. Transactions in different currencies are converted using the mid-point exchange rate prevailing in the market on the transaction date. Otherwise, the average exchange rate for the period over which transactions are being measured is used. Due to lack of stock data in original currencies, transactions—calculated as the difference between fiscal year beginning and ending balances—are converted into U.S. dollars at the average exchange rate for the period; therefore, transactions may include exchange rate variations. Deviations from the above valuation principles are kept under review.

2.4.2 Recording is done on an accrual basis

In general, change of ownership as specified in the *BPM5* is the principle governing the recording of transactions. The time of recording of foreign trade transactions is the customs clearance date. Services are recorded when rendered; dividends are recorded when declared payable, and reinvested earnings on direct investment are recorded in the period when earned—with the correspondent counter-entries in the financial account. Public sector loans drawings are recorded at the time of actual disbursement and loans repayments entered when due for payment; and if debt service payments are not made when due, entries are recorded as if they were made and new short-term liabilities are created (arrears).

There are two main departures from the accrual basis principle: (i) interest on public sector debt is recorded on a due-for-payment basis (contractually established payment dates) and (ii) the recording of interest on reserve assets may exclude interest due and not yet received. The CBP keeps this under review.

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

In line with the *BPM5*, most current and capital account transaction are recorded on a gross basis, while financial account transactions are recorded on a net basis, separately for the individual asset and liability components. Due to lack of information, some services (e.g., telecommunication) are recorded on a net basis.

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

Source data used by the CBP are obtained from several data collection programs that are broadly adequate to compile Paraguay's balance of payments statistics. However, source data from customs and surveys on services and private sector financial transactions are insufficient. Besides customs data, the main data sources are (i) administrative data from government agencies (some of which are obtained from databases accessed on-line or jointly maintained); (ii) enterprise surveys; and (iii) direct reporting mainly from nonfinancial enterprises. These data are supplemented by information obtained from some foreign and international financial institutions.

The CBP obtains administrative data from government agencies as follows:

- The NDC provides on-line access to SOFIA (fiscal database on customs tariffs), which includes detailed information on goods imports and exports based on customs documents at a national level. A formal agreement with the NDC would facilitate the CBP's access to other relevant data (e.g., freight by carriers' residency) .
- The MOF's Directorate of Credit and Public Debt (DCP) and the CBP share UNCTAD's Debt Management and Financial Analysis System (DMFAS). In Paraguay, the DMFAS produces flow and stock data on the medium- and long-term public sector external debt (CBP, general government, and other public sector institutions). Disbursements and debt service (principal and interest) paid/unpaid on the due date are recorded on a transaction-by-transaction basis. The DCP also provides information on financial charges on the public sector external debt.

- The Superintendence of Banks (SB) provides electronic files with monthly financial data of resident banks, other financial institutions, and foreign exchange houses. This information is used to compile financial services, and flow and stock data on direct investment, portfolio investment (equity and debt instruments), and other investment (deposits, loans, and other external assets and liabilities).
- The Superintendence of Insurance Companies (SI) provides annual information on insurance services, quarterly data on direct investment, and annual data on other investment assets and liabilities of the insurance companies.
- The MOF's VTR provides a copy of the balance sheets, income statements, and other related documents of the nonfinancial private enterprises at the end of the fiscal year, which is used by the CBP to estimate direct investment, portfolio investment, and other external assets and liabilities. The MOF also provides quarterly information on expenditures of Paraguayan embassies and consulates abroad (government services).
- The Directorate of Tourism prepares monthly data on the number of incoming and outgoing travelers.

Currently, the CBP conducts a quarterly enterprise survey to collect data on foreign direct investment, equity and debt securities, deposits, loans, and other external assets and liabilities of the nonfinancial private sector. Questionnaires are sent to about 140 enterprises and have an initial average response rate of about 70 percent, which gradually increases to over 90 percent over the following quarters. Since 2000, the CBP has not conducted a survey on travel services. Due to the lack of human resources and the very low response rates, the CBP decided to discontinue in 2004 several annual surveys for collecting data mainly on services and current transfers from a sample of about 90 public and private sector institutions.

The CBP also collects data through direct reporting from nonfinancial enterprises:

- Itaipú and Yacyretá (binational hydroelectrical enterprises) provide official reports with information on selected transactions, including energy sold to Paraguay, compensation for energy ceded by Paraguay to Brazil and/or Argentina, purchase of goods and services from Paraguay, payments to the Paraguayan government for the use of the hydro resources (royalties), labor income paid to Paraguayan residents, undistributed profits, arrears (and interest on arrears) in compliance with their contractual rights and obligations vis-à-vis the Paraguayan government and ANDE.
- ANDE (State-owned National Electricity Administration) provides data on (1) exports and imports of energy, (2) loan liabilities to nonresidents banks arising from the financing of its capital share in the binational hydroelectrical enterprises (not recorded in the DMFAS), and (3) short-term debt liabilities to these enterprises arising from energy imports (not recorded in the DMFAS).
- PETROPAR (State-owned petroleum enterprise) provides data on its short-term debt liabilities to nonresidents suppliers (not recorded in the DMFAS).
- Other CBP departments provide data mainly on official reserve assets and yields.

Finally, the CBP supplements core source data with information obtained from some foreign and international financial institutions, such as:

- Data on merchandise imports and exports with Paraguay's trading partners based on the IMF' Direction of Trade Statistics (DOTS).
- Data on Paraguay's deposits held in the United States based on information from the United States Federal Reserve Board.
- BIS' data on deposits of the Paraguayan nonfinancial private sector held in major BIS reporting countries other than the United States.

International standards, guidelines, and practices are monitored for changes that need to be taken into account in the balance of payments compilation system.

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

Source data (administrative records, enterprise surveys, and direct reporting) are broadly consistent with *BPM5* guidelines. Specific procedures have been developed by the CBP to adjust data from various sources to improve coverage, classification, and valuation. In general, compilers are aware of differences between source data definitions and those required for balance of payments compilation, and make adjustments as far as possible.

3.1.3 Source data are timely

Most source data for compiling balance of payments information are timely. Data compilation through surveys and direct reporting could employ more rigorous follow-up procedures to ensure the timely receipt of respondents' data. Currently, the coverage of the initial release of quarter data for surveys is limited.

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 public sector debt data, international merchandise trade, an other supplementary sources used to compile the balance of payments is routinely assessed. Data from surveys are regularly analyzed in particular to check for temporal consistency and consistency with related data sources such as balance sheets of nonfinancial private sector enterprises.

3.3 Statistical techniques

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

Compilation procedures are conducted to minimize processing errors, such as coding, editing, and tabulation errors. Procedures for imputation an adjustment for nonresponse are used. Data sources, although numerous, do not provide sufficient coverage of the balance of payments transactions (see also 3.1.1). However, most gaps in terms of coverage are known. The CBP has developed several procedures to supplement available data from various data sources in line with the guidelines set out in *BPM5*. In general, data collections based on surveys are neither adequate nor used as extensively as their potential. There is no comprehensive and up-to date business register that provides the basis for sample surveys of business units; however, the CBP uses available frames developed for other administrative purposes. The CBP does not use sample techniques nor extrapolates data obtained from surveys.

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

The CBP has developed several procedures to adjust data from various data sources for improving the coverage and classification in line with *BPM5* guidelines. Of particular importance are procedures to estimate (i) unrecorded activities (including energy, shuttle trade, and smuggling); (ii) travel, transportation, and several other services; and (iii) workers' remittances and other current transfers. The procedures are indispensable to overcome, to the extent possible, the insufficient coverage of some administrative data sources and the lack of surveys, particularly for several services and current transfers. However, some of these procedures are not updated periodically; therefore, their results may not be too informative.

Goods

A large portion of Paraguay's external trade in goods is not recorded by the NDC. The so-called reexported goods (goods that enter Paraguay and subsequently leave mainly for Brazil and to a lesser extent for Argentina without being recorded by the NDC) are estimated at US$950 million in 2005. Merchandise imports and exports unrecorded by customs are estimated (since the late-1990s) on the basis of international publications, such as data reported by Paraguay's trading partners to the IMF's Direction of Trade Statistics (DOTS) and special CBP studies. The reexported goods have two components: reexport of recorded imports and re-export of unrecorded imports.

- The re-export of recorded imported goods is calculated as the difference between imports recorded by the NDC and an estimate of goods consumed/used in the economy (domestic absorption). To this end, (i) about 1,400 tariff items were identified in 1998, corresponding to 70 categories—basically, imported consumer goods included in the basket used for calculating the consumer price index; (ii) on the basis of the last household survey conducted by the CBP in 1991, the proportion of income spent on these categories of goods was identified; (iii) it was found that 52 percent of the imported value of these 1400 tariff items represented reexports of registered imports; (iv) given the lack of a more recent household survey, the CBP assumes that this percentage still applies, and the resulting amount is increased by an estimate for freight and insurance, tariffs, value added tax, and sales markup.

- The re-export of unrecorded imported goods is estimated as follows: (i) it is assumed that the imports reported in the DOTS constitute Paraguay's total imports of goods; (ii) the difference between import figures from the DOTS and those recorded by the NDC represent the value of unrecorded imports; (iii) it is assumed that all unrecorded imports are re-exported goods; and (iv) this amount is increased by an estimate for freight and insurance and sales markups.

Data on ANDE's energy exports and imports (exports estimated at US$7 million and imports at US$148 million in 2005) are not included in the NDC database but directly reported to the CBP.

Goods procured in ports by carriers and repairs on goods (exports estimated at US$7 million and imports at US$4 million in 2005) are estimated by extrapolating available data from previous periods.

Services

- Data on communications services (estimated at US$16 million in 2005) are recorded on a net basis, without being disaggregated in its credit and debit components.
- Data on goods transportation (freight on exports estimated at US$60 million and on imports at US$115 million in 2005) are calculated as a percentage of data recorded at the NDC's foreign trade database.
- Data on passenger transportation (exports estimated at US$17 million and imports at US$50 million in 2005) are calculated using information from the Migrations Department and average market price of tickets.
- Travel data (incoming traveler expenditures estimated at US$67 million and outgoing traveler expenditure at US$72 million in 2005) are based on information provided by the Migrations Department and estimates of the average length and cost of stay based on traveler expenditures surveys conducted in 2000.
- Data on freight insurance (credit estimated at US$19 million in 2005) are calculated as a percentage of data recorded at the NDC's foreign trade database.
- Data on computer and information services (exports estimated at US$0.4 million and imports at US$ million in 2005) are calculated by extrapolating previous available information.
- Data on government services (expenditures of nonresidents in Paraguay estimated at US$30 million and Paraguay's expenditures abroad at US$15 million in 2005) are based on the number of foreign embassies and consulates accredited in Paraguay.

Income

- Data on nonfinancial private sector interest are estimated using quarterly CBP surveys of the largest resident enterprises.
- Quarterly balances deposited abroad by residents in Paraguay (based on estimates from data published by the BIS and the U.S. Federal Reserve Board) are multiplied by the quarterly average LIBOR.
- Distributed and undistributed profits are estimated (i) for direct investment financial enterprises using information from the SBF; (ii) for direct investment insurance companies using information from the SI; and (iii) for private nonfinancial enterprises using CBP surveys and enterprises' balance sheets.

Transfers

- Workers' remittances (estimated at about US$130 million in 2005) are calculated by estimating the amount of money sent to Paraguay by Paraguayan citizens residing in Argentina and the United States, based on a study carried out by the CBP in 2000, which results have been incorporated going back to 1995. The CBP has initiated the compilation and dissemination of partial information on workers remittances through direct reporting of money carriers and other private sector financial intermediaries. Data provided by transport enterprises and other sources are yet to be included.
- Grants and other current transfers from official multilateral and bilateral donors (estimated at US$65 million in 2005) are calculated by extrapolating available data for previous periods.
- Capital transfers (estimated at US$15 million in 2005) are also calculated by extrapolating available data for previous periods.

Reserve assets

- Transactions are calculated from the CBP's accounting records, as the difference in original currencies between a period's beginning and ending balances and are converted into U.S. dollars at the average exchange rate for the period.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Intermediate results are validated against other information where applicable

In general, intermediate results are validated against other data sources. For example, the CBP verifies estimates of foreign direct investment and other external assets and liabilities with balance sheets and income statements for nonfinancial private sector enterprises sent by the MOF's VTR. To assess the plausibility of the estimates of workers remittance, the CBP collects quarterly information from banks and moneychangers to crosscheck cash transfers effected by Paraguayan citizens residing abroad.

The CBP also uses information reported in the financial press to verify high-value direct investment and other transactions, when appropriate.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

The behavior of a few series is routinely assessed against related series (e.g., freight and goods trade flows) but not in a systematic way. The behavior of some series (e.g., travel services and passenger transportation) may be also assessed.

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

Staff involved in producing balance of payments data monitor developments in the errors and omissions item and seek to understand them by assessing the consistency between entries in the current, capital, and financial accounts.

Bilateral data reconciliation with partner countries and international organizations are not regularly conducted (except for goods trade data within MERCOSUR). Data on selected portfolio and other investment flows/stocks may be compared with information included in databases hosted by international organizations, such as (i) IMF's coordinated portfolio investment survey (CPIS); (ii) Joint BIS-IMF-OECD-World Bank Statistics on external debt; and (iii) BIS' locational international banking statistics. Reconciliation on direct investment data may be conducted with major partner countries (within and outside MERCOSUR).

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 of balance of payments data are studied and inform statistical processes, but formal studies are not conducted. The CBP staff revised data periodically, but revisions are not documented.

4. Serviceability

4.1 Periodicity and timeliness

4.1.1 Periodicity follows dissemination standards

Quarterly periodicity of balance of payments and international investment position (IIP) data meets the highest international standards. Quarterly balance of payments and IIP data are disseminated since 2002.

4.1.2 Timeliness follows dissemination standards

Timeliness of balance of payments and IIP data meets the GDDS recommendations. Quarterly balance of payments and IIP data are disseminated 6-7 months after the end of the reference period. Quarterly data are reported to STA on a yearly basis, for publication in IMF documents.

4.2 Consistency

4.2.1 Statistics are consistent within the dataset

The balance of payments data are consistent within the dataset. Data on financial transactions of the balance of payments are consistent with changes in the IIP data, and a table explaining the reconciliation (transactions and other changes) is disseminated by the CPB on a regular basis in its publications. Consistent series are available since 1995. Annual balance of payments data are the sum of quarterly balance of payments data.

During 1998-2004, the net errors and omissions item (in absolute values) averaged 1.2 percent of GDP (compared to 0.3 percent in other countries in MERCOSUR) and 1.6 percent of total goods exports and imports (compared to 1.4 percent in other countries in MERCOSUR); and, on average, is equivalent to the current account of the balance of payments (compared with 9.2 percent in other countries in MERCOSUR). Furthermore, the errors and omissions item have been relatively unstable, and in some years it is sizeable, reflecting for the most part the limitations in the method of estimating unrecorded goods trade data by customs and the lack of coverage of certain services and financial transactions—particularly short-term—with nonresidents.

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

The balance of payments statistics are consistent over time—annual statistics since 1995, and quarterly statistics since 2002. When changes in source data, methodology, or techniques are introduced, the CBP revises the historical series accordingly, as far as possible. The CBP does not define or explain such changes to users. Unusual changes in economic trends are explained in the relevant CBP publications.

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

The balance of payments data are broadly consistent with other statistical frameworks, including:

- Merchandise trade data: as recommended in *BPM5,* balance of payments data on goods exports/imports also include estimates of foreign trade not recorded in customs.

- Monetary statistics: to the extent that they use the same source data and periodic meetings are held to ensure a common approach to recording the reserve assets.
- Public external debt flows and stocks compiled and published by the CBP: the balance of payments data are not fully consistent with the fiscal sector statistics prepared by the MOF. The external accounts correctly record transactions and stocks data for the medium- and long-term external public debt, applying the debtor criterion, while the fiscal accounts apply the executor criterion for allocating the external disbursement, and the payer criterion for allocating debt service. External debt data compiled by the CPB include some debt liabilities (short- and medium-term) of the public sector enterprises not recorded in DMFAS.
- National accounts data: to the extent that they are based on balance of payment data (including estimates of unrecorded trade and other relevant adjustments). However, there may be inconsistencies between the historical series of balance of payments and national accounts data due to the different periodicity and timeliness of both datasets.

The CBP does not have regular and well-established procedures for evaluating the consistency of balance of payments data with statistics for other economic sectors.

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

The revision cycle of the balance of payments and IIP statistics is predetermined but not made known to the public. Data for a new quarter are preliminary and subject to revisions during seven consecutive quarters. The revision cycle is associated with the availability of the source data; being part of the normal statistical process for incorporating new data. Policies and practices governing the revision of data are not disseminated nor documented in the balance of payments publications.

4.3.2 Preliminary and/or revised data are clearly identified

At the time of data dissemination, users are informed whenever data are preliminary or revised. New quarter data are always preliminary.

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

Analysis of differences between the revised and preliminary data are not published. Formal studies are not conducted.

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)

Paraguay's balance of payments statistics are mainly disseminated in three CBP publications: (a) *Annual Report*; b) *Economic Report* (monthly); and (c) *Bulletin of Balance of Payments and International Investment Position of Paraguay* (published in 2003). These publications are also available on the CBP website (http://www.bcp.gov.py). Regarding the monthly *Economic Report*, the CBP holds regularly press conferences to provide additional explanatory information of a technical nature.

Balance of payments statistics are published in formats that are fully consistent with the standardized components of the *BPM5*, but additional summary tables are needed. Data also include the analytical presentation of the balance of payments and a reconciliation table between balance of payments and IIP data (flows and stocks). The balance of payments statistics are disseminated in a clear manner, but neither charts nor tables are prepared to facilitate analysis. The CBP publications do not include commentaries on current-period balance of payments developments.

5.1.2 Dissemination media and format are adequate

Quarterly balance of payments and IIP data are disseminated in the annexes of most CBP publications (*pdf.* format). The CBP does not disseminate electronic tables or an electronic database with balance of payments data. Longer time series are not currently available.

5.1.3 Statistics are released on a preannounced schedule

No advance release calendars are published although quarterly balance of payments and IIP data follow a regular dissemination path. Data are included in the relevant CBP monthly publication.

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

The balance of payments data are released simultaneously to the public on the CBP website and through a reduced number of CBP hard copy publications.

5.1.5 Statistics not routinely disseminated are made available upon request

The CBP provides available unpublished balance of payments data series to users who so request, with due regard to confidentiality rules. No specific reference is made in balance of payments publications (see 5.1.1) on the availability of unpublished subaggregates and the terms under which they are made available. However, the CBP may prepare customized reports to meet specific requests.

5.2 Metadata accessibility

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

The CBP disseminates methodological notes on balance of payments compilation in national publications, e.g., in the monthly *Economic Report*. A comprehensive sources and methods document "*Bulletin of Balance of Payments and International Investment Position of Paraguay*" was published by the CBP in 2003. An update is intended to be published during 2006. Paraguay's balance of payments methodology is also posted on the Fund's Dissemination Standards Bulletin Board (DSBB)—currently hyperlinked to the CBP webpage—and in the Fund's *Balance of Payments Statistics Yearbook* (*BOPSY, Part 3*).

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

The metadata mentioned in 5.2.1 allow users with different needs for detailed data to obtain information on balance of payments sources, compilation methods, and statistical techniques.

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

Contact information (telephone, fax, and email addresses) is provided in the balance of payments publications, including quarterly specialized reports on external debt statistics and foreign direct investment. These documents are available on the CBP website. The CBP staff are available to answer queries from users, as stated in the CBP publications, albeit in an unsystematic way. No processes are conducted periodically to monitor and review assistance to users.

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

The CBP website contains a list of publications (monthly, quarterly, and annual) that include balance of payments statistics. These publication also include other relevant external sector data such as merchandise trade, public sector external debt, foreign direct investment, and international investment position. Special documents (work documents and research papers) prepared by CBP staff related to balance of payments statistics are also included in the CBP website. All these publications may be obtained free of charge.

Table 6: Data Quality Assessment Framework (July 2003): Summary of Results for Balance of Payments

(Compiling Agency: Central Bank of Paraguay)

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

Element	NA	Assessment				Comments on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
0. Prerequisites of quality							
0.1 Legal and institutional environment			X			No penalties established for nonfinancial enterprises.	Institutional agreements to improve data collection.
0.2 Resources			X			Insufficient staff for surveys and updating statistical techniques.	Increasing staffing, particularly for the work involved in conducting surveys on services and investment.
0.3 Relevance			X			Data users are not consulted on practical utility of existing data and rising needs.	Users' survey to be available on the CBP webpage.
0.4 Other quality management			X			More systemic processes to monitor quality are needed.	Monthly monitoring to the survey process.
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			Lack of coverage for some services, direct investment, and other private sector external assets/liabilities.	Research on financial flows based on derivatives and direct investment, real estate, and nonfinancial private sector deposits.
2.3 Classification/sectorization			X			Goods for processing are included within merchandise goods rather than in a separate goods category.	Identification of goods for processing, and classify data in line with *BPM5* guidelines.
2.4 Basis for recording			X			Public sector external debt recorded in a due-for-payment basis.	

Table 6: Data Quality Assessment Framework (July 2003): Summary of Results for Balance of Payments

(*Compiling Agency: Central Bank of Paraguay)*

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

Element	NA	Assessment				Comments on Assessment	Plans for Improvement and Target Dates
		O	LO	LNO	NO		
3. Accuracy and reliability							
3.1 Source data			X			Data from customs and surveys are insufficient.	Improvement of the survey system. Conduct quarterly surveys on services. Work in well designed, timely, and reliable surveys on services and investment. Improvement in private current and capital transfers.
3.2 Assessment of source data		X					
3.3 Statistical techniques			X			Some statistical techniques need to be reviewed (e.g., unrecorded trade).	Revision of the methodology used to calculate unrecorded exports and imports. Training in sampling techniques and other statistical techniques.
3.4 Assessment and validation of intermediate data and statistical outputs			X			Data reconciliation with partner countries and international organizations is limited.	Compare relevant data with available data in international organizations (BIS, OECD, and IMF).
3.5 Revision studies			X			Revisions inform statistical process but formal studies are not conducted.	Data revisions will be documented.
4. Serviceability							
4.1 Periodicity and timeliness		X					
4.2 Consistency			X			BOP and IIP data are consistent/reconcilable with other datasets but not with the GFS.	Periodic review of data consistency with other datasets (national accounts, monetary, and fiscal accounts).
4.3 Revision policy and practice			X			Revision cycle is predetermined but not preannounced to the public. Revision cycle need to be reviewed.	Assess whether the current revision cycle may be improved.
5. Accessibility							
5.1 Data accessibility			X			Formats are in line with *BPM5* but additional summary tables are needed. No preannounced scheduled.	The CBP will publish data release schedules according to GDDS recommendations.
5.2 Metadata accessibility		X					
5.3 Assistance to users		X					

Summary of the General Data Dissemination System (GDDS)

Data coverage, periodicity, and timeliness

Dissemination of reliable, comprehensive, and timely economic, financial, and socio-demographic data is essential to the transparency of macroeconomic performance and policy. The GDDS contains specific recommendations concerning coverage, periodicity, and timeliness for comprehensive frameworks as well as for data categories and indicators.

Quality

Data quality must have a high priority. Data users must be provided with information to assess quality and quality improvements. The GDDS recommends:

- dissemination of documentation on methodology and sources used in preparing statistics; and
- dissemination of component detail, reconciliations with related data, and statistical frameworks that support statistical cross-checks and provide assurance of reasonableness.

Integrity

To fulfill the purpose of providing the public with information, official statistics must have the confidence of their users. In turn, confidence in the statistics ultimately becomes a matter of confidence in the objectivity and professionalism of the agency producing the statistics. Transparency of practices and procedures is a key factor in creating this confidence. The GDDS, therefore, recommends:

- dissemination of the terms and conditions under which official statistics are produced, including those relating to the confidentiality of individually identifiable information;
- identification of internal government access to data before release;
- identification of ministerial commentary on the occasion of statistical releases; and
- provision of information about revision and advance notice of major changes in methodology.

Access to the public

Dissemination of official statistics is an essential feature of statistics as a public good. Ready and equal access by the public are principal requirements. The GDDS recommends:

- dissemination of advance release calendars; and
- simultaneous release to all interested parties.

Plans for improvement

The GDDS recommends that plans for improvement be developed for all areas in which shortcomings exist and that these plans be disseminated.

The GDDS also recommends that any needs for assistance be identified in the metadata. This may also be helpful for donors and technical assistance providers to prioritize their activities.

For each participating member country, the GDDS metadata provide descriptions of the dimensions listed above, together with plans for improvement and needs for assistance. This information is posted on the DSBB; participating countries are encouraged to also post the metadata on their national websites.

Source: Guide to the GDDS, March 2002: http://dsbb.imf.org

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

Table 7: Practices Compared to the SDDS Coverage, Periodicity, and Timeliness of Data

SDDS Data Category	Coverage meets SDDS requirement	Periodicity		Timeliness		Comments
		SDDS	Paraguay	SDDS	Paraguay	
Real Sector						
National accounts	No	Q	A	Q	11 months	Quarterly data are not compiled Timeliness refers to annual data.
Production index/indices	No	M	N/A	6W *(1M)*	N/A	Not compiled.
Forward-looking indicators	*No*	*M or Q*	N/A	*M or Q*	N/A	Not compiled.
Employment	Yes	Q	A	Q	5 months	Only annual data available. Timeliness refers to annual data.
Unemployment	Yes	Q	A	Q	5 months	Only annual data available. Timeliness refers to annual data.
Wages/earnings	Yes	Q	A	Q	5 months	Only annual data available. Timeliness refers to annual data.
Consumer price index	Yes	M	M	M	1 day	Coverage is limited to the metropolitan area of Asuncion.
Producer price index	Yes	M	M	M	4 weeks	Coverage of industries is limited.
Fiscal Sector						
General government operations	No	A	N/A	2Q	N/A	Data for local governments are not compiled.
Central government operations	Yes	M	A	M	4 months	Data for subsectors of central government are available, but not consolidated. Only data for budgetary central government are compiled on a monthly basis and disseminated two months after the end of the reference month. Periodicity needs to be improved to not more than 1 month.

SDDS Data Category	Coverage meets SDDS requirement	Periodicity		Timeliness		Comments
		SDDS	Paraguay	SDDS	Paraguay	
Central government debt	Yes	Q	A	Q	4 months	Data for subsectors of central government are available, but not consolidated. A detailed breakdown is available only for external debt data, which are compiled on a monthly basis and disseminated two months after the end of the reference period. Periodicity needs to be improved to not more than 1 quarter.
Financial Sector						
Analytical accounts of the banking sector	Yes	M	M	M	1 month	Periodicity and timeliness meet requirements. Coverage needs to be expanded to include the credit unions.
Analytical accounts of the central bank	Yes	M *(1W)*	M	2W *(1W)*	1 month	Periodicity meets requirements. Timeliness needs to be improved to not more that two weeks after the end of the reference period.
Interest rates	Yes	D	D	[11]	daily	Periodicity and timeliness meet requirements.
Stock market: share price index	N/R	D	N/R	[1]	N/R	Volume of operations is negligible.
External Sector						
Balance of payments	Yes	Q	Q	Q	6-7 months	Timeliness needs to be improved to not more than three months
Official reserve assets	Yes	M *(W)*	M	W	4 weeks	Timeliness needs to be improved to not more than one week.
Reserves template	No	M	N/A	M	N/A	Work in progress.
Merchandise trade	Yes	M	M	8W *(4–6W)*	4 weeks	Partial coverage. Excludes goods not recorded by Customs (e.g., energy, smuggling, and shuttle trade). Timeliness exceeds requirement.
International investment position	Yes	A *(Q)*	Q	3Q *(1Q)*	6-7 months	Periodicity and timeliness exceed the requirement.

[11] Dissemination as part of a high-frequency (e.g. monthly) publication.

SDDS Data Category	Coverage meets SDDS requirement	Periodicity		Timeliness		Comments
		SDDS	Paraguay	SDDS	Paraguay	
External debt	Yes	Q	Q	Q	2 quarters	Prescribed data breakdown not available. Timeliness needs to be improved to not more than one quarter.
Exchange rates	Yes	D	D	[1]	daily	Periodicity and timeliness meet requirements.
Addendum: Population		A				

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

Italics indicate encouraged categories/practices.

DATA QUALITY ASSESSMENT FRAMEWORK—GENERIC FRAMEWORK (JULY 2003 FRAMEWORK)

Quality Dimensions	Elements	Indicators
0. Prerequisites of quality	**0.1 Legal and institutional environment**—*The environment is supportive of statistics*	0.1.1 The responsibility for collecting, processing, and disseminating the statistics is clearly specified. 0.1.2 Data sharing and coordination among data-producing agencies are adequate. 0.1.3 Individual reporters' data are to be kept confidential and used for statistical purposes only. 0.1.4 Statistical reporting is ensured through legal mandate and/or measures to encourage response.
	0.2 Resources—*Resources are commensurate with needs of statistical programs.*	0.2.1 Staff, facilities, computing resources, and financing are commensurate with statistical programs. 0.2.2 Measures to ensure efficient use of resources are implemented.
	0.3 Relevance—*Statistics cover relevant information on the subject field.*	0.3.1 The relevance and practical utility of existing statistics in meeting users' needs are monitored.
	0.4 Other quality management—*Quality is a cornerstone of statistical work.*	0.4.1 Processes are in place to focus on quality. 0.4.2 Processes are in place to monitor the quality of the statistical program. 0.4.3 Processes are in place to deal with quality considerations in planning the statistical program.
1. Assurances of integrity *The principle of objectivity in the collection, processing, and dissemination of statistics is firmly adhered to.*	**1.1 Professionalism—***Statistical policies and practices are guided by professional principles.*	1.1.1 Statistics are produced on an impartial basis. 1.1.2 Choices of sources and statistical techniques as well as decisions about dissemination are informed solely by statistical considerations. 1.1.3 The appropriate statistical entity is entitled to comment on erroneous interpretation and misuse of statistics.
	1.2 Transparency—*Statistical policies and practices are transparent.*	1.2.1 The terms and conditions under which statistics are collected, processed, and disseminated are available to the public. 1.2.2 Internal governmental access to statistics prior to their release is publicly identified. 1.2.3 Products of statistical agencies/units are clearly identified as such. 1.2.4 Advance notice is given of major changes in methodology, source data, and statistical techniques.
	1.3 Ethical standards—*Policies and practices are guided by ethical standards.*	1.3.1 Guidelines for staff behavior are in place and are well known to the staff.

Quality Dimensions	Elements	Indicators
2. Methodological soundness *The methodological basis for the statistics follows internationally accepted standards, guidelines, or good practices.*	**2.1 Concepts and definitions**—*Concepts and definitions used are in accord with internationally accepted statistical frameworks.*	2.1.1 The overall structure in terms of concepts and definitions follows internationally accepted standards, guidelines, or good practices.
	2.2 Scope—*The scope is in accord with internationally accepted standards, guidelines, or good practices.*	2.2.1 The scope is broadly consistent with internationally accepted standards, guidelines, or good practices.
	2.3 Classification/ sectorization—*Classification and sectorization systems are in accord with internationally accepted standards, guidelines, or good practices.*	2.3.1 Classification/sectorization systems used are broadly consistent with internationally accepted standards, guidelines, or good practices.
	2.4 Basis for recording—*Flows and stocks are valued and recorded according to internationally accepted standards, guidelines, or good practices*	2.4.1 Market prices are used to value flows and stocks. 2.4.2 Recording is done on an accrual basis. 2.4.3 Grossing/netting procedures are broadly consistent with internationally accepted standards, guidelines, or good practices.
3. Accuracy and reliability *Source data and statistical techniques are sound and statistical outputs sufficiently portray reality*	**3.1 Source data** – *Source data available provide an adequate basis to compile statistics*.	3.1.1 Source data are obtained from comprehensive data collection programs that take into account country-specific conditions. 3.1.2 Source data reasonably approximate the definitions, scope, classifications, valuation, and time of recording required. 3.1.3 Source data are timely.
	3.2 Assessment of source data—*Source data are regularly assessed.*	3.2.1 Source data—including censuses, sample surveys, and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and nonsampling error; the results of the assessments are monitored and made available to guide statistical processes.
	3.3 Statistical techniques—*Statistical techniques employed conform to sound statistical procedures*	3.3.1 Data compilation employs sound statistical techniques to deal with data sources. 3.3.2 Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques.
	3.4 Assessment and validation of intermediate data and statistical outputs—*Intermediate results and statistical outputs are regularly assessed and validated.*	3.4.1 Intermediate results are validated against other information where applicable. 3.4.2 Statistical discrepancies in intermediate data are assessed and investigated. 3.4.3 Statistical discrepancies and other potential indicators or problems in statistical outputs are investigated.
	3.5 Revision studies— *Revisions, as a gauge of reliability, are tracked and mined for the information they may provide.*	3.5.1 Studies and analyses of revisions are carried out routinely and used internally to inform statistical processes (see also 4.3.3).

Quality Dimensions	Elements	Indicators
4. Serviceability *Statistics, with adequate periodicity and timeliness, are consistent and follow a predictable revisions policy.*	**4.1 Periodicity and timeliness—** *Periodicity and timeliness follow internationally accepted dissemination standards.*	4.1.1 Periodicity follows dissemination standards. 4.1.2 Timeliness follows dissemination standards.
	4.2 Consistency— *Statistics are consistent within the dataset, over time, and with major datasets.*	4.2.1 Statistics are consistent within the dataset. 4.2.2 Statistics are consistent or reconcilable over a reasonable period of time. 4.2.3 Statistics are consistent or reconcilable with those obtained through other data sources and/or statistical frameworks.
	4.3 Revision policy and practice—*Data revisions follow a regular and publicized procedure.*	4.3.1 Revisions follow a regular and transparent schedule. 4.3.2 Preliminary and/or revised data are clearly identified. 4.3.3 Studies and analyses of revisions are made public (see also 3.5.1).
5. Accessibility *Data and metadata are easily available and assistance to users is adequate.*	**5.1 Data accessibility**— *Statistics are presented in a clear and understandable manner, forms of dissemination are adequate, and statistics are made available on an impartial basis.*	5.1.1 Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts). 5.1.2 Dissemination media and format are adequate. 5.1.3 Statistics are released on a preannounced schedule. 5.1.4 Statistics are made available to all users at the same time. 5.1.5 Statistics not routinely disseminated are made available upon request.
	5.2 Metadata accessibility— *Up-to-date and pertinent metadata are made available.*	5.2.1 Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is available, and differences from internationally accepted standards, guidelines, or good practices are annotated. 5.2.2 Levels of detail are adapted to the needs of the intended audience.
	5.3 Assistance to users— *Prompt and knowledgeable support service is available.*	5.3.1 Contact points for each subject field are publicized. 5.3.2 Catalogs of publications, documents, and other services, including information on any charges, are widely available.

Users' Survey

In order to complement the IMF's assessment of the quality of official statistics produced by Paraguay, with assistance from the authorities, the mission conducted an informal survey of key users of macroeconomic statistics. Questionnaires were sent to a broad range of users, including academics, banks, international organizations, and the media, as well as consulting companies.

Users were asked to evaluate the coverage, periodicity, timeliness, dissemination practices, accessibility, and overall quality of the official statistics produced by the Central Bank of Paraguay, the Ministry of Finance, and the Directorate General of Statistics, Surveys, and Censuses. Of the 80 targeted users, 50 percent submitted responses. The respondent indicated that the official statistics they used the most were the consumer price indices, monetary statistics, and national accounts. Respondents also indicated that their main use of official statistics was for short-term decisions based on current economic developments, with the vast majority relying on first-hand information from official sources.

On a five point scale (1 = poor and 5 = excellent), the average rating for the overall quality of the official statistics for all sectors was 3.0. There was moderate variation among the averages for each of the main datasets, with no more than a 0.6 difference between the sector that scored the highest (monetary) and the one that scored the lowest (government finance). Notwithstanding, across sectors, 80 percent of all respondents felt that Paraguay's statistics were of comparable quality to those disseminated by neighboring countries.

Even though there was broad satisfaction with the methodological soundness of Paraguay's official statistics, as much as 38 percent of the respondents felt that the statistics were not entirely reliable, as they did not accurately reflect the true economic situation of the country as they saw it. Many attributed the apparent inaccuracy of published data to either the use of too many estimates or, in the case of prices, the continued use of an outdated base year.

On the whole, approximately 75 percent of respondents appeared to be satisfied with the levels of coverage and detail of the statistics. Similarly, 78 percent of users also seemed to be content with the periodicity of published data. However, satisfaction levels decreased to 68 percent with regard to their timeliness.

Overall accessibility to official information was highly satisfactory. However, while 72 percent of respondents stated that they could access not only the data, but the related methodological and explanatory information they needed on a regular basis, only 30 percent felt that the available information was sufficiently clear or even detailed enough to be of any value. As in most cases, official websites were the most popular means of accessing Paraguay's statistics, with 75 percent of the respondents relying on this method. The next popular means was hard copy publications.

With respect to dissemination practices, as much as 82 percent of respondents indicated that they were unaware of the existence of any official calendar of release dates. Not surprisingly, quiet a few emphasized the need for the establishment of any such system of advanced notification and, in addition, that adherence to this schedule by the disseminating agencies should be mandatory. As to revisions of previously published data, 60 percent of users felt that sufficient information was provided along with newly released statistics.

Many respondents took advantage of the survey and provided additional comments and suggestions concerning Paraguay's statistics. Among several of these, which are summarized below, users expressed interest in receiving statistics on tourism and short-term indicators of economic activity, the implementation of more frequent economic censuses, accessing more accurate metadata for all sectors, the publication of more frequent data on labor statistics, and the need for measuring inflation for the country as a whole. The comments shown in Box 1 below are grouped into five categories: (i) methodological soundness; (ii) accuracy and reliability; (iii) serviceability; (iv) accessibility; and (v) general comments.

Table 8: Questionnaire Results Analyzed by Type of User

January 2006

Respondent	Sent	Received	Percent Received Within Each Group
1. Public sector (central bank, ministries, agencies, nonfinancial corporations)	14	10	71%
2. Financial sector	26	14	54%
3. Private nonfinancial corporations	17	8	47%
3. Embassies and international organizations	13	5	38%
4. Universities	3	1	33%
5. Media	7	2	29%
Total	80	40	50%

Table 9. Paraguay: Results of Users' Survey
(in percentage of total responses)

January 2006

General Information About
Uses of Official Macroeconomic Statistics of Paraguay

1. Which official statistics do you use regularly?

a. National accounts (NA)	75%
b. Prices (CPI & PPI)	83%
c. Government finance statistics (GFS)	38%
d. Monetary statistics (MS)	78%
e. Balance of payments (BOP)	45%
f. Other:	
· Production indices	33%
· Labor market	15%
· Merchandise trade	35%
· International reserves and foreign currency liquidity	58%
· External debt	35%
· International investment position	25%
· Other	5%

2. Where do you obtain the official statistics?

a. Official press releases and publications on macroeconomic statistics	85%
b. Private sector summaries and analyses	40%
c. Official policy papers	43%
d. Publications from international organizations about the country	58%
e. Other sources	18%

3. Do you refer to official descriptions of the sources and methods that were used to compile the official statistics?

Yes	53%
No	47%
	100%

4. For what purposes do you use the official statistics?

a. Analysis of current developments for short-term decision making	65%
b. Analysis of trends for longer-term policy formulation?	35%
c. Econometric model building and forecasting	25%
d. Economic research	50%
e. Comparison with economic developments in other countries	35%
f. General economic background	45%
g. Other	13%

Table 9 (continued)

	NA	Prices	GFS	MS	BOP	Other	Average
5. Coverage and detail							
5.1 In general, are you satisfied with the coverage of official statistics?							
Yes	73%	85%	64%	80%	63%	33%	73%
No	27%	15%	36%	20%	37%	67%	27%
5.2 In general, are you satisfied with the official statistics in terms of their level of detail?							
Yes	72%	90%	57%	83%	70%	33%	75%
No	28%	10%	43%	17%	30%	67%	25%
6 Periodicity and timeliness							
6.1 Are you satisfied with the frequency of compilation of the official statistics (e.g., weekly, monthly, quarterly, annual)?							
Yes	68%	91%	67%	87%	73%	50%	78%
No	32%	9%	33%	13%	27%	50%	22%
6.2. 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	44%	90%	58%	76%	71%	33%	68%
No	56%	10%	42%	24%	29%	67%	32%
7. Other dissemination practices							
7.1 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	17%	26%	15%	16%	15%	0%	18%
No	83%	74%	85%	84%	85%	100%	82%
7.2 If there is a calendar of release dates, in your experience, are the official statistics released on the dates announced?							
Yes	46%	44%	42%	40%	33%	0%	41%
No	54%	56%	58%	60%	67%	100%	59%
7.3 Is there enough information about revisions to official statistics?							
Yes	59%	65%	50%	61%	58%	100%	60%
No	41%	35%	50%	39%	42%	0%	40%

Table 9 (concluded)

	NA	Prices	GFS	MS	BOP	Other	Average
8. Accessibility							
8.1 Can you easily access the official statistics?							
Yes	88%	97%	77%	92%	96%	100%	90%
No	13%	3%	23%	8%	4%	0%	10%
8.2 Can you easily access information pertaining to the official statistics you use (explanatory notes, methodological descriptions, reference concerning concepts, classification, statistical practice)?							
Yes	77%	75%	61%	78%	64%	100%	72%
No	23%	25%	39%	22%	36%	0%	28%
8.3 Is the information on methodology sufficiently clear and detail enough to be useful to you?							
Yes							30%
No							18%
No Opinion							53%
8.4 How do you get access to official statistics?							
· Official releases							45%
· Hard copy publications							65%
· Data specifically requested							35%
· Official website							75%
· Other							5%
· E-mail requests							33%
9. Overall assessment							
9.1 In your opinion, is the underlying methodology of official statistics sound and appropriate?							
Yes	77%	85%	63%	86%	70%	100%	78%
No	23%	15%	37%	14%	30%	0%	22%
9.2 In general, do you consider the official statistics to be unbiased and accurate?							
Yes	54%	56%	61%	83%	60%	0%	63%
No	46%	44%	39%	17%	40%	100%	38%
9.3 How would you compare the quality of official statistics with those of other countries in the region?							
Better	0%	0%	5%	4%	0%	0%	2%
Same	68%	89%	74%	85%	80%	100%	80%
Worse	32%	11%	21%	11%	20%	0%	18%
9.4 How do you assess the overall quality of the official statistics?							
(1 = poor; 5 = excellent)	3.0	3.5	3.1	3.5	3.5	2.5	3.2

NA = National Accounts; Prices refers to: CPI (Consumer Price Index) and PPI (Producer Price Index);
GFS = Government Finance Statistics; MS = Monetary Statistics; and BOP = Balance of Payments Statistics

Paraguay: Comments by Users of Macroeconomic Statistics

1. Methodological soundness

- The base year for the CPI should be updated.
- Though there is coherence with data from other sources (household surveys), in light of the difficulties caused by lack of information on the informal economy and non-registered trade, it would be a worthwhile effort to include unregistered trade in the balance of payments and, of course, national accounts.
- There is a need for more surveys and censuses, particularly economic censuses.
- Data for the financial sector excludes the informal economy. It also excludes data for cooperatives, which make up to 40 percent of the sector. Private moneylenders also make up a large portion.
- Export registries should be improved by including the real final destination, using as source documents not only customs information, but also certificates of origin, since currently only the reshipment ports are indicated as the merchandise's final destination, and this generates distortions and inaccurate information.
- It would be helpful to quantify inflation for the entire country and not only for the metropolitan area of Asuncion.
- National Accounts should be published on a quarterly basis.
- The government does not have consolidated information. Statistics do not include information such as floating debt excludes data on the nonfinancial public sector.

2. Accuracy and reliability

- I would hope that the official statistics are unbiased and accurate, but the index of quality of life is not reflected in the country's macroeconomic data.
- In general I feel that the official statistics are accurate, though in terms of an outdated base years, the statistics may appear biased.
- The statistics adequately describe the trend of the variables mentioned.
- There are indications that some data (inflation, makeup of the consumer basket, etc.) do not adequately reflect reality.
- The monetary statistics available are very limited, and basically only provide information on deposits, credit, and money in circulation.
- Relative to other countries, I think we have good statistics; obviously not better, but good.

3. Serviceability

- Publication of statistics on the websites is oftentimes delayed.
- The country needs short-term employment indicators. The MOF disseminates this information, but not on a short-term basis. The CBP should work closely with the MOF to make this information available.
- The CBP should regularly publish an official calendar of release dates so that there may be greater incentive for publication deadlines to be met.
- There is a need for a calendar which indicates the dates statistics are released.
- Statistics should be more timely.
- It would be helpful to have a platform for managing the database in such a way as to allow access to updated statistical information, along with explanatory guides which describe the nature of the information, the methodology used in its calculation, its main uses and suggested uses, as well as warnings and limitations. In addition, the website should allow direct interaction between users and the institutions which gather and disseminate the information, as well as the ability to obtain and submit related articles.
- The debt of the Central Bank and of the Ministry of Finance are not reconciled.

4. Accessibility

- It is not easy to access information at the MOF.
- It is difficult to access methodological descriptions and references to concepts used.
- The CBP website is very slow and therefore it is difficult to use any information that may be available.
- It is necessary to improve access to information related to the country's macro and microeconomic data, since only 2 percent of the population has access to the Internet. There is a need to establish a system for accessing and soliciting information, especially for students. On the other hand, it would be ideal to have an expert available for appropriately managing and disseminating information based on needs.
- Fiscal data are of good quality, but not very accessible. Unfortunately, the MOF's monthly report is no longer published.
- In some cases, additional methodological detail isn't always accessible.
- In the majority of cases methodology is insufficiently clear and detailed.

5. General comments

- There is a need to improve the availability of statistical information from the different sectors of the economy, including tourism. For instance, information on the number of tourists entering and exiting a country, as well as average expenditure.

- There is a need for statistics on microeconomic aggregates.
- There is a need for (a) short-term employments statistics, (b) GDP compiled from the expenditure side; (c) better use of price information through household budget surveys (the CBP could provide information on where purchases are made, what is purchased, and preferences, etc.); (d) a different presentation format for GDP to help businesses make better investment decisions (there is a wealth of information that was compiled during the base-year change in national accounts); and (e) economic censuses (the last one took place between 1960 and 1970).
- The government does not seem to consider statistics as very important.
- Employment statistics are necessary.
- Data should more accurately reflect reality. Data should not be manipulated in order to fulfill the needs of international organizations. These organizations are in a position to demand improvements in the quality of data and should do so.
- In comparison to other countries (like Argentina and Uruguay) our statistics have a greater time lag.
- The approval of the statistics law is important.
- We need to homogenize the plan of account of public enterprises and improve the budgetary process.
- In Mexico, statistical information is presented in a fashion similar to our country, with many cases of information containing a high degree of complexity (extraneous or unessential or irrelevant information) which make it difficult to analyze the information.
- There are statistics that are better than ours but not worse.
- Paraguay’s statistics would be as good as those of neighboring countries if GDP were also compiled following the expenditure approach, and the base year for CPI were updated.
- Corruption inside and outside the country has affected balance of payments data.