

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

This Report on the Observance of Standards and Codes on Data Module for Nicaragua 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 November 30, 2005. The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of Nicaragua 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 attached.

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

INTERNATIONAL MONETARY FUND

NICARAGUA

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

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Approved by Robert W. Edwards and Anoop Singh

November 30, 2005

The Report on the Observance of Standards and Codes (ROSC) data module provides an assessment of 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 (DQAF July 2003). The DQAF lays out internationally accepted practices in statistics, ranging from good governance in data producing agencies to practices specific to datasets.

The datasets covered in this report are national accounts, consumer and producer price indices, government finance, monetary, and balance of payments statistics. The agencies that compile the datasets assessed in this report are the Central Bank of Nicaragua (CBN) and the Ministry of Finance and Public Credit (MFPC). The National Institute of Statistics and Censuses (NISC) provides some input data for macroeconomic statistics.

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

CBN: <http://www.bcn.gob.ni>

MFPC: <http://www.hacienda.gob.ni>

NISC: <http://www.inec.gob.ni>

This report is based on information provided prior to and during a staff mission that took place during January 11–26, 2005, and publicly available information. The mission team comprised Mr. Antonio Galicia-Escotto (Head), Mses. Lisbeth Rivas and Teresa Villacrés (all STA), Messrs. Luis Ipar, Pablo Mandler, and Gustavo Ortiz (Experts), and Ms. Janice Irving (STA-Administrative Assistant).

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ACRONYMS

<i>1993 SNA</i>	<i>System of National Accounts 1993</i>
<i>BPM5</i>	<i>Balance of Payments Statistics Manual, fifth edition</i>
CAIS	Central American Integration System
CBN	Central Bank of Nicaragua
CBS	Central Bank Survey
COFOG	Classification of Functions of Government
COICOP	Classification of Individual Consumption by Purpose
CPI	Consumer Price Index
DCS	Depository Corporations Survey
DEP	Department of External Programming
DID	Department of Income and Deflators
DQAF	Data Quality Assessment Framework
DSBB	Dissemination Standards Bulletin Board
ECNS	Executive Coordination of National Surveys
<i>FNI</i>	<i>Financiera Nicaragüense de Inversiones</i>
GBD	General Budget Directorate
GDDS	General Data Dissemination System
GFS	Government Finance Statistics
<i>GFSM 1986</i>	<i>A Manual on Government Finance Statistics, 1986</i>
<i>GFSM 2001</i>	<i>Government Financial Statistics Manual 2001</i>
IIP	International Investment Position
IMF	International Monetary Fund
MFPC	Ministry of Finance and Public Credit
<i>MFSM</i>	<i>Monetary and Financial Statistics Manual</i>
NISC	National Institute of Statistics and Censuses
NSHIE	National Survey of Household Income and Expenditure
NSS	National Statistical System
ODCs	Other Depository Corporations
ODCS	Other Depository Corporations Survey
PPI	Producer Price Index
ROSC	Report on the Observance of Standards and Codes
SBOFI	Superintendency of Banks and Other Financial Institutions
SDDS	Special Data Dissemination Standard
SIGFA	Integrated Financial Management and Audit System
UDB	Unified Database

I. OVERALL ASSESSMENT

1. Nicaragua is well advanced toward participating in the General Data Dissemination System (GDDS). Metadata for macroeconomic and socio-demographic statistics have been drafted and plans for improvement have been formulated. Participation can occur possibly by end-February 2005¹ once the metadata to be posted on the Dissemination Standards Bulletin Board (DSBB) have been approved by the Nicaraguan authorities.

2. The Report on the Observance of Standards and Codes (ROSC) data module describes a statistical system underpinned by a legal framework sufficient to provide the necessary authority for the collection and compilation of statistics. Although there are gaps in the provision of the terms and conditions under which official statistics are collected, compiled, and disseminated, the authorities are committed to disseminating macroeconomic statistics. There is scope to improve the methodological basis and source data underpinning most datasets. All statistical agencies are well placed to make further statistical progress on the basis of ongoing initiatives and measures taken recently. 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. Current practices in Nicaragua are compared to the GDDS and summarized in Appendix I. The authorities' response to this report and a volume of detailed assessments are presented in separate documents.

3. In applying the International Monetary Fund's Data Quality Assessment Framework (DQAF July 2003), 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.

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

- The **National Institute of Statistics and Censuses (NISC)** operates under a legal framework (law of 1979) that provides de facto independence and a coordinating role within the National Statistical System (NSS). Due to its reliance on external financing, limited appropriation from the government, and few ad hoc assignments paid by the central bank, resources are insufficient for compiling intermediate data for macroeconomic statistics such as cartographic and housing and population censuses. Relevance of statistical series is promoted mainly by seeking feedback from other statistical agencies, not focusing particularly on end users. Appropriate quality management processes are in place, and the NISC has fostered an environment of professionalism and adherence to ethical standards. Additional measures are needed to strengthen the transparency of the data compilation process through greater dissemination of information to the public.
- The Law of the **Central Bank of Nicaragua (CBN)** is the legal basis for the collection and production of macroeconomic data. The CBN compiles and

¹ After the mission, Nicaragua became participant in the GDDS on February 22, 2005.

disseminates the national accounts, balance of payments, prices, monetary, and government finance statistics (GFS), filling a void in the law regarding the clear assignment of compilation responsibilities among statistical agencies. Resources for the compilation and dissemination of data are generally adequate, although heavy reliance on contractual employees for the collection and analysis of price indices statistics could represent a risk for the future. That is, the experience of compiling processing could be lost, affecting the quality of indicators. Human resources appear to be insufficient for the compilation of prices and balance of payments statistics. The relevance of statistics is assisted by informal contact with users. Processes are in place to monitor data quality through a four-year strategic planning system that identifies goals and objectives for the period, including the adoption of internationally accepted practices in the compilation of macroeconomic statistics. The CBN seeks transparency by publishing relevant legislation and providing data simultaneously to all users, although, on request, data may be released in advance to government officials and the public is not aware of this practice. The CBN recruits qualified staff and promotes professionalism. The rules and regulations establish ethical standards.

- The **Ministry of Finance and Public Credit (MFPC)** provides an institutional environment for compiling budgetary transactions data but not for compiling statistics for general government and/or nonfinancial public enterprises. The environment fosters good arrangements for data sharing among agencies involved in GFS compilation and dissemination. Staff and computing resources are sufficient to support the statistical program, but the development of a relational database is urgently needed. GFS compilers lack users' perspectives on the outputs of the GFS compilation process, and the relevance of fiscal data could be enhanced through a more active approach to consultation with GFS users. The professional independence of the Integrated Financial Management and Audit System (SIGFA) unit in the MFPC contributes to the objectivity and impartiality of its officials. There is a strong culture of maintaining ethical standards. The transparency of fiscal data could be enhanced by publishing information on practices and procedures for data compilation and dissemination.

5. **Methodological soundness** generally is endorsed in all methodological areas. Some deviations from international standards exist in the details of concepts and definitions, scope, and sectorization. Notable are the incomplete coverage of consolidated central government and general government in GFS, and weaknesses in classification and sectorization in balance of payments, producer prices, and monetary statistics that severely limit their scope. Misclassifications are persistent in the financial account of the balance of payments. The basis for recording in all datasets could come closer to internationally accepted methodological guidelines.

6. **Accuracy and reliability** dimensions are, for the most part, carefully and appropriately treated. Source data are particularly well developed in the compilation of the CPI and the GFS, which relies on administrative data. Data shortcomings in national accounts and balance of payments statistics are explained by the lack of priority given to conducting surveys. Suitable processes for assessment and validation of source data are in

place. There are significant deficiencies in statistical techniques for the PPI. Most notably, its weights are outdated and the validation processes do not ensure minimal errors. The compilation of monetary statistics is not fully automated as data for ODCs are derived using automated and manual techniques. With the exception of the CPI, revision studies are not conducted.

7. **Serviceability** of disseminated macroeconomic statistics is adequate, as the frequency and timeliness of disseminated data already meet or exceed GDDS recommendations. Consistency standards are broadly met for all datasets. However, there are differences between fiscal and monetary data on financing of the restricted nonfinancial public sector. Shortcomings exist in revision policy and practice, and revisions are not always identified or explained to the public.

8. **Accessibility.** Significant and commendable efforts have been made to improve the accessibility of macroeconomic data. Regarding dissemination, a compendium of methodological notes for all six macroeconomic datasets is available on the Internet, and the name of a contact is clearly identified for each statistical sector. Advance release calendars are not published. There is room for improvement to present more detailed data in a way that facilitates easy use and proper interpretation of datasets.

9. To enrich the basis for the assessment, the mission elicited the views of selected users of the macroeconomic statistics. With the assistance of the CBN, a user's survey was conducted and meetings were held with users. Most users were satisfied with the official macroeconomic statistics, but saw scope for improvement. In particular, some users expressed an interest in more detail and better periodicity and timeliness, especially as regards prices and national accounts. There was concern about the insufficient coverage of balance of payments statistics and the national accounts. Most users pointed to the lack of information on statistical notes in datasets, advance release calendars, and data revisions. A considerable number of users emphasized the need for reliable employment statistics. The survey showed that users were mostly satisfied with the accessibility to the official statistics. The mission considered the data accessible to the public, primarily through electronic means, publications, and press releases.

II. ASSESSMENT BY AGENCY AND DATASET

10. Assessment of the quality of six macroeconomic datasets—national accounts, consumer price index, producer price index, government finance, monetary, and balance of payments statistics—was conducted using the Data Quality Assessment Framework (DQAF July 2003). In this section, the results are presented at the level of the DQAF elements and using a four-level 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.

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

<p>0. Prerequisites of quality</p> <p>Legal and institutional environment. The law of 1979 assigns the NISC a leadership role in the compilation and coordination of official statistics in the country. The NSS and the recently created Commission for the National Strategy of Statistical Development under the framework of the Paris21 initiative comprise the coordinating framework for statistical planning.</p> <p>The law guarantees the confidentiality of the data used for statistical purposes and although it establishes nominal penalties for noncompliance the law has become outdated. The NSS and the NISC legal framework do not assign specific responsibilities to the NISC for the compilation of macroeconomic statistics, however, <i>de facto</i> has compiled in the past sectoral economic and price statistics . The recent initiative by the President of Nicaragua to redesign and upgrade the statistical system envisages revision to the law of 1979.</p> <p>Resources. A core staff with adequate experience and training is maintained for the compilation of statistics. Because the NISC relies on financing from external donors and a limited appropriation from the government, resources are only sufficient for compiling intermediate data for macroeconomic statistics such as the cartographic and housing and population censuses, for the implementation of the Household Survey of Measurement of Standards of Living, and for conducting surveys on employment statistics.</p> <p>Relevance. Users are kept informed on the current work programs. Relevance of statistical series is promoted mainly by seeking feedback from other statistical agencies, and on a limited basis on end-users taking into account their views and data needs.</p> <p>Other quality management. Appropriate quality management processes are in place, and the NISC has fostered an environment of professionalism and adherence to ethical standards. Additional measures are needed to strengthen the transparency of the data compilation process through greater dissemination of information to the public.</p>	<p>1. Assurances of integrity</p> <p>Professionalism. The NISC is established as an independent professional administrative organization with its own legal status. No external agencies may interfere with the compilation or dissemination of data produced. Only statistical considerations are taken into account when choosing data sources and statistical techniques, as well as in making decisions about dissemination of data.</p> <p>Transparency. Mainly electronic publications make reference to the National Strategy of Statistical Development, which is the cornerstone of the revision to the current law. The “Road Map” which describes mainly the work plan for redesigning and upgrading the NSS is available on the agency’s website. The NISC clearly identifies its products as such, requests attributions when others disseminate its data, and provides attribution when it disseminates data from other sources.</p> <p>Ethical standards. Although there is no formal code of conduct, as public servants, NISC staff are required to adhere to the norms of conduct specified in the Law of Civil Service.</p>
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Table 2b. Nicaragua: Assessment of Data Quality—Dimensions 0 and 1—Central Bank of Nicaragua

<p>0. Prerequisites of quality</p> <p>Legal and institutional environment. The Law of the CBN mandates data compilation of macroeconomic statistics but does not specify dissemination responsibilities other than the obligation to present an annual report to the National Assembly, in accordance with Article 138 of the Constitution. Filling a legal void regarding clear assignment of compilation responsibilities, the CBN compiles and disseminates national accounts, balance of payments, prices, monetary and consolidated fiscal statistics. Its data-gathering capacity is supported by NISC law. Banking and supervisory legislation requires compulsory reporting by financial institutions to the Superintendency of Banks and Other Financial Institutions (SBOFI). In all cases, the legal provisions protect the confidentiality of individual data, with related provisions communicated to data suppliers. Coordination within the units of the CBN is adequate, in particular between the Accounting and Monetary Programming departments through the Unified Data Base (UDB). The rest of the statistical units are not fully automated. Arrangements are in place with other data-gathering agencies, such as the SBOFI, the Customs Office, and the NISC to facilitate data sharing, although such arrangements are not of a legal or official nature and not sufficiently effective.</p> <p>Resources. Staff, computing, and financing are broadly adequate, particularly for monetary statistics. A core staff with adequate experience and training is maintained for the compilation of statistics. Heavy reliance on temporary employees for the compilation of price indices leaves only two CBN officials in charge of its analysis and dissemination, posing a potential risk to the timeliness and opportunity of these statistics. Regarding production of balance of payments, the number of staff is inadequate. In addition, the current staff is faced with distracting noncompiling tasks, which detract from their ability to concentrate on accelerating statistical improvement. It is anticipated that current staff and computing resources will be insufficient for the compilation and dissemination of an expanded PPI that meets international standards and the upcoming tasks faced by the balance of payments unit.</p> <p>Relevance is sought by informal contact with users and data providers as well as by monitoring users' requests at the CBN's website and library. There is no formal and regular consultation with other participants of the NSS to discuss statistical development and establish new data requirements.</p> <p>Other quality management is reflected in the CBN's four-year strategic planning system, which is regularly evaluated against budget constraints and priorities. There is a need for formal processes and routines for quality control.</p>	<p>1. Assurances of integrity</p> <p>Professionalism is ensured by a range of measures. The CBN Law gives the CBN technical independence and autonomy to its staff. The CBN Board of Directors and management clearly recognize that professionalism and independence in compiling the data are crucial to the credibility of the statistical output of the institution. The law also ensures that CBN management is supportive of professionalism, through recruitment criteria that focus on relevant academic skills. Staff involved in compiling macroeconomic statistics in the CBN is given opportunities to enhance their professionalism through participation in external courses and on-the-job training. Considerations for advancement depend not only on productivity and efficiency but also on professionalism. Compilation criteria are made on the basis of technical considerations, with compilers exempt from outside interference. When there is significant misinterpretation in the public domain, the CBN issues an official response with relevant clarifications.</p> <p>Transparency. The legislation governing the CBN's statistical activities is publicly available. Publications clearly indicate that the CBN is responsible for its statistical products, and the department that prepares the information. The recent set of <i>Methodological Notes</i> available through the Internet and in hard copy provides the address where users may direct comments, suggestions, and questions on statistics specifying contacts for each dataset. Government agencies may have prerelease access to the data, subject to a formal request to the CBN. At present, the public is not informed of this practice.</p> <p>Ethical standards for staff are established in the Law of the CBN and in the Staff Regulations, covering conflict of interest, outside employment, and disciplinary actions. Requirements of staff integrity, professional competence, and rules of confidentiality are well known to new staff, and staff are periodically reminded about the importance of observance to achieve institutional excellence.</p>
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Table 2c. Nicaragua: Assessment of Data Quality—Dimensions 0 and 1—Ministry of Finance and Public Credit

<p>0. Prerequisites of quality</p> <p>Legal and institutional environment. The MFPC provides an appropriate institutional environment for compiling budgetary transactions data, but not for compiling GFS for general government and/or the nonfinancial public sector. The legal framework lacks emphasis on the need to disseminate fiscal statistics to the public at large. The environment fosters good institutional arrangements for sharing data among agencies involved in the compilation and dissemination of GFS. The consolidation of central government statistics by the CBN is partial due to the MFPC's lack of authority to collect data from autonomous and decentralized units and nonfinancial public enterprises. The confidentiality of data reported is protected by the Law on Civil Service.</p> <p>Resources. Under normal circumstances, units compiling GFS have adequate personnel and material resources, including sufficient computing equipment. However, the statistical compilers in the General Budget Directorate (GBD) do not have a relational database to store chronological time series and to generate analytical tables and make projections. In addition, only three staff members are in charge of compiling GFS. Only few experienced compilers are well trained in the <i>Manual on Government Finance Statistics, 1986 (GFSM 1986)</i>, while none have attended suitable training courses, with little familiarity with the <i>Government Financial Statistics Manual 2001 (GFSM 2001)</i>. There is no system in place to ensure the efficient use of resources or to measure the cost of statistical work.</p> <p>Relevance. The MFPC is open to feedback from GFS users, but it does not actively seek out comments from the users, nor does it have any mechanism in place to identify new or emerging data requirements. Budgetary statistics are mainly relevant to monitor the execution of the annual budget and to be used as an indicator of government activity. The MFPC does not prepare GFS data for general government and/or the nonfinancial public sector.</p> <p>Other quality management. The quality of budgetary central government data is supported by the procedures and methods used by SIGFA. Budgetary central government data quality is being improved in the process of developing new statistical sub-modules. However there is no formal quality management program.</p>	<p>1. Assurances of integrity</p> <p>Professionalism. The culture of professionalism is clearly recognized in the Law of Civil Service, among other things, as essential to ensuring the impartiality of civil servants. However, there are no specific laws or other formal arrangements to support the professional independence of GFS compilers, although under the current government structure, there have been no attempts by authorities to influence statistical outputs, and the government and other agencies appreciate the importance of allowing statistics to be produced free of interference. Professionalism is a key factor in the recruitment and promotion of staff, ensuring stability, long tenure, and a good degree of knowledge and experience with compilation and methodological procedures.</p> <p>Transparency. Public access to the budget legislation and a broad legal framework for the collection and compilation of data is complemented with other means of information, such as press releases and pamphlets on the SIGFA project. However, transparency is affected because the MFPC does not make available to the public the terms and conditions under which GFS are collected, compiled, and disseminated. In particular, users are not made aware that the coverage of central government data is incomplete and a more complete coverage of central government (including some nonfinancial public enterprises) is disseminated by the CBN.</p> <p>Ethical standards. The behavior of MFPC staff is governed by the Law of Civil Service. There is no specific code of conduct for MFPC staff, but the laws of agencies under the umbrella of the MFPC fortify ethical standards. However, any such code would merely formalize the current practice observed and expected from all staff.</p>
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Table 3a. Nicaragua: Assessment of Data Quality—Dimensions 2 to 5—National Accounts

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
<p>Concepts and definitions. The national accounts are compiled broadly in accordance with the <i>System of National Accounts 1993 (1993 SNA)</i>.</p> <p>Scope. GDP by production and expenditure approaches are estimated at current, previous year, and constant (1994) prices, in the framework of supply-and-use tables. Quarterly GDP is being compiled but still not disseminated. Delimitation of constituent unit and production and assets boundaries are in line with the SNA, with some minor exceptions.</p> <p>Classification/sectorization. The national classification systems of activities and products have a strong correspondence with ISIC Rev. 3 and CPC, respectively. COFOG is used to classify government expenditure by functions and a national Classification of Individual Consumption by Purpose (COICOP) for households' final consumption by purposes.</p> <p>Basis for recording. Although recording broadly accords with the accrual and valuation principles of the 1993 SNA, government transactions and some external transactions are recorded on a cash basis. Corrections are made when transfer prices are detected. Transactions between establishments within the same enterprise are recorded, as far as possible, on a gross basis.</p>	<p>Source data. Monthly, quarterly, and annual surveys are compiled by a special unit of the CBN. The 1996 directory of establishments will be fully updated in 2006. The annual survey provides adequate data for production accounts and supply-and-use tables. Household surveys are conducted on a regular basis. Better coverage in formal activities, especially in services, is needed. Household surveys on measurement of living standards could be used to estimate informal occupation and generated income.</p> <p>Assessment of source data. Sampling errors, based on random sampling methods, are calculated for the household survey and other main surveys. Source data for compiling the national accounts are routinely and carefully assessed.</p> <p>Statistical techniques. Good use is made of supply-and-use tables to estimate main aggregates. However, there is an excessive use of fixed coefficients and ratios more than five years old. The reference period of the accounts should be updated.</p> <p>Assessment and validation of intermediate data and statistical outputs. Estimates are validated against other available independent data sources.</p> <p>Revision studies. There are no revision studies for routine changes, neither for changes derived from the calculation of a new year base.</p>	<p>Periodicity and timeliness are in line with GDDS requirements.</p> <p>Consistency. A set of internally and temporally consistent estimates for main aggregates is obtained in the framework of annually balanced supply-and-use tables, at current and constant prices. National accounts statistics are consistent with balance of payments and are reconcilable with government finance statistics.</p> <p>Revision policy and practice. The revision cycle follows a regular schedule. It is not made public. At the time of data dissemination, estimated and preliminary data are clearly identified. Final revised data have not been disseminated since 2000. Documentation analyzing causes for revisions is not available. However it is needed to do studies on revisions.</p>	<p>Data accessibility. National accounts estimates for the previous year are included in the <i>Annual Report</i> of the CBN released in March every year. Main aggregates are shown in a clear manner in charts and tables. The report is published in hard copy and posted on the Bank's website. In July revised figures are disseminated simultaneously to all users in the CBN's website www.bcn.gob.ni. Also in the <i>Monthly Indicators</i>, users can obtain more detailed data upon request, but this possibility is not made known to the public.</p> <p>Metadata accessibility. On the occasion of adopting the 1993 SNA and changing the reference year. <i>The National Accounts System of Nicaragua, Base year 1994</i> was published, containing a description of the accounts sources and methods. A description of the main aggregates, intended for a wider audience of users, is included in the CBN's <i>Methodological Notes 2004, Economic indicators</i>. Both publications can be accessed in the CBN's website. More detailed metadata for specialized users are needed.</p> <p>Assistance to users. Prompt service is available to users. A contact point is provided in the Bank's website. An advance release calendar is not disseminated. The CBN's statistical products are posted in the website and are also available at the Bank's Library.</p>

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

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
<p>Concepts and definitions are generally in line with the <i>CPI Manual, 2004</i>. Prices and weights broadly follow the national accounts concepts (<i>1993 SNA</i>) for all monetary consumption expenditure. The level of detail for commodities and services is sufficient to permit detailed analysis of price movements.</p> <p>Scope. CPI weights cover urban households at all levels of income and types of occupations. Expenditure of rural households is not covered. Coverage of owner-occupied housing is excluded.</p> <p>Classification/sectorization. The CPI is classified using the Nicaraguan version of the COICOP, with departures from the standard COICOP (e.g., tobacco is included in miscellaneous items; and hotels and restaurants are not classified in corresponding groups).</p> <p>Basis for recording. Prices and weights are recorded using market or transaction values including discounts. However, prices do not include discounts obtained through bargaining. Purchases of automobiles are not registered on a net basis in the NSHIE, even though purchases and sales of used durable goods were investigated. Vehicles were excluded from CPI weights due to their small share in total purchases, which is a departure from international standards.</p>	<p>Source data. The sampling frame for the 1998–99 NSHIE was the 1995 population census, with an adjustment based on updated maps covering the entire territory. Final consumption expenditure and prices in rural areas are not covered.</p> <p>Assessment of source data. Validation is limited to routine checks for extreme values, consistency, and incompleteness. While low, rates of nonresponse to price surveys are not monitored and nonsampling errors are not calculated.</p> <p>Statistical techniques. The use of the geometric mean for price changes is a sound practice. Treatment of missing prices, quality adjustment, and new products needs to be improved.</p> <p>Assessment and validation of intermediate data and outputs. The CPI is compared with the PPI. Price data are validated with those from ministries and other surveys.</p> <p>Revision studies. Monthly CPI data are final. New weights are analyzed prior to implementation. However, weights are not periodically assessed for bias. Notes on price data adjustments are not stored in the database. Studies on the last CPI revision were carried out as recommended.</p>	<p>Periodicity and timeliness. Price collection is daily. The monthly CPI is published on the 10th day following the reference month, exceeding GDDS and SDDS standards.</p> <p>Consistency. The CPI is internally consistent by category of expenditure and geographical area. Continuous historical series, with 1999=100 as the reference base, are available up to December 2004. These data were linked to the previous series that had 1994=100 as the reference base. While this information is not published, it is available upon request. The CPI is consistent with the price deflator of the private final consumption of the national accounts.</p> <p>Revision policy and practice. CPI data are considered final. There was a major revision of the CPI in 1999, and there is a well-defined schedule with reasonable frequency, every five years, for revising the index.</p>	<p>Data accessibility. An executive summary is presented to the press after posting the CPI on the CBN’s website, which contains an analysis of current trends that facilitates dissemination in the media. More comprehensive statistics are disseminated in a hard-copy publication. Although the publication format meets standards, time series and detail are insufficient, and certain relevant series (food items) are not also provided in seasonally adjusted form. Longer time series can be accessed through the CBN’s website and in the publication <i>Economic Indicators 1960-1999</i>. Detailed data are available upon request. The practice of releasing CPI statistics punctually has accustomed users to expect its release on the 10th of each month. However, the CPI is not released to all users simultaneously and a more detailed but unreleased publication is provided to selected government agencies.</p> <p>Metadata accessibility. Summary metadata on the CPI are available on the CBN’s website. Metadata have been prepared in the context of GDDS participation. Detailed methodology on the 1998-99 NSHIE is available in hard-copy and CD.</p> <p>Assistance to users. Prompt service is available through the Department of Public Service in the Library of the CBN. CPI publications and the CBN’s website indicate contact points. A list of publications is available to users. Assistance to users is not periodically evaluated.</p>

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

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
<p>Concepts and definitions. In general, the PPIs and input price indices are based on concepts and definitions consistent with the 1993 SNA and the new <i>PPI Manual 2004</i>. However, only sales are included in PPI weights. Changes in inventories and own-account production for final use are excluded. The level of detail for commodities is sufficient to permit detailed analysis of price movements.</p> <p>Scope. PPIs only cover agriculture, (including livestock), fishing, and manufacturing sectors. The coverage of manufacturing activities is incomplete (50 percent of total sales) as only urban enterprises with more than 30 employees are included in the sample. Grossing-up factors are not used. Free zones and goods for processing activities (Maquila) are excluded from the index, with the exception of the garment enterprises. These are deviations from international standard practices. The PPI used to cover production sold in the domestic market only. Recently, exports were included. Price indices on domestic manufactured inputs and construction materials are also available.</p> <p>Classification/sectorization. The PPI is classified using the Nicaraguan version of the <i>ISIC Rev. 3</i> and the <i>CPC</i>, with some departures from the standard <i>ISIC</i> regarding industrial services.</p> <p>Basis for recording. Output prices and weights are recorded using factory-gate market prices (excluding taxes). Input price index weights deviate from purchasers' prices by not including distribution margins and non-deductible VAT. Business accounting for sales of around 80 percent of the enterprise sample differs from calendar years. However, adjustments were made.</p>	<p>Source data are broadly adequate. However, the urban 2000 business register is not updated regularly and household and small enterprises are not included in the sample. There are no regular meetings with producers' associations.</p> <p>Assessment of source data is routinely conducted. Unusually large movements in prices are traced back to the enterprise, if warranted, for verification. Post-enumeration checks are made. While low, nonresponse rates to price surveys are not monitored. Sampling and nonsampling errors are not calculated. The coverage of the sample is not assessed according to the total manufacturing sampling frame (output/value added).</p> <p>Statistical techniques. PPI weights are outdated (1994=100). Grossing-up factors are not used to calculate weights. However, the use of the geometric mean for price changes and chain linking is a sound practice. Treatment of missing prices, quality adjustment, and new products needs to be improved. Current data processing and analysis procedures do not ensure that coding, editing, and tabulation errors are minimal. Automatic validation and cross-checking procedures will be implemented.</p> <p>Assessment and validation of intermediate data and outputs. PPIs are checked and assessed against the relevant components of the CPI and national accounts implicit price deflators. There is no documentation on unusual changes in prices.</p> <p>Revision studies. Monthly PPI data are final. Weights have not been revised since 1994 and are not periodically assessed for bias. Notes on price data adjustments are not stored in the database.</p>	<p>Periodicity and timeliness. Price collection is daily. The monthly PPI is published between the 15th and the 20th day following the reference month, exceeding GDDS and meeting SDDS standards.</p> <p>Consistency. The PPI is internally consistent by activity branch and product. Long-term series, with 1994=100 as a weight reference base, are available up to December 2004. PPIs with 1999=100 as a price reference period were linked to the previous series with 1994=100. PPIs are consistent with national accounts implicit price deflators.</p> <p>Revision policy and practice. PPI data are considered final. There has not been a major revision of the PPI, and there is no well-defined schedule with reasonable frequency for revising the index.</p>	<p>Data accessibility. No press release or analysis on current trends is made on PPIs. PPIs are only disseminated on the CBN's website; a hard-copy publication on PPIs is not prepared. Certain relevant series are not seasonally adjusted. Time series from January 1994 up to December 2004 can be accessed through the CBN's website. Detailed data are not always available upon request. Advance release calendars are not available.</p> <p>Metadata accessibility. Summary metadata on the PPIs are available on the CBN's website. Metadata have been prepared in the context of GDDS participation. No detailed documentation for specialized users is available.</p> <p>Assistance to users. Prompt service is available through the Department of Public Service in the Library of the CBN. The CBN's website indicates contact points. A list of publications is available to users. Assistance to users is not periodically evaluated.</p>

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

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
<p>Concepts and definitions. They are consistent with <i>GFSM 1986</i>. However, there is no plan to implement <i>GFSM 2001</i>.</p> <p>Scope. Fiscal statistics disseminated by the MFPC cover budgetary operations only. CBN data for the restricted nonfinancial public sector comprise the budgetary central government, the NISS, the Managua Alcaldia (municipality), and two nonfinancial public corporations only. Coverage of the consolidated central government and general government is incomplete. Government domestic debt data include debt to the NISS.</p> <p>Classification/sectorization. Fiscal statistics lack the presentation of data for consolidated central government and general government. CBN fiscal data are classified according to the <i>GFSM 2001</i>.</p> <p>Basis for recording. Flows are valued at market prices. Debt is valued in accordance with the <i>GFSM 1986</i>. Data on flows are compiled on a cash basis. Part of government expenditure is on an accrual basis. Both the MFPC and the CBN compile the data on a gross or net basis according to the methodology of the <i>GFSM 1986</i>.</p>	<p>Source data. Source data for the restricted NFPS are comprehensive and timely. Source classification codes are in line with the <i>GFSM 1986</i>.</p> <p>Assessment of source data. The MFPC and CBN assess the data compiled by SIGFA on a monthly basis. The processes in place ensure appropriate validation and cross checking.</p> <p>Statistical techniques. Procedures for adjustments and valuation followed by the MFPC and CBN are in line with recommendations of the <i>GFSM 1986</i>.</p> <p>Assessment and validation of intermediate data and statistical outputs. Financing and debt data are adjusted on a monthly basis after reconciling data compiled by the MFPC and CBN. Adjustments are usually made to replace preliminary data with final data.</p> <p>Revision studies. No systematic revision studies are made by the MFPC. On the other hand, the CBN makes revision studies on a regular basis. Detected errors and omissions are corrected.</p>	<p>Periodicity and timeliness. The MFPC and CBN meet dissemination standards regarding periodicity and timelines.</p> <p>Consistency. Detailed data compiled by the MFPC and CBN are consistent with aggregated data presented in the summary tables. However, monetary and fiscal accounts do not reconcile due to different coverage of the nonfinancial public sector. Users could compare new data with chronological data series in publications.</p> <p>Revision policy and practice. Revised or provisional data are clearly identified in publications. However, a revision policy has not been explicitly identified in the MFPC or CBN.</p>	<p>Data accessibility. Fiscal statistics are disseminated through regular publications of the CBN and websites of the MFPC and CBN. These websites offer data published in a clear format for analytical purposes.</p> <p>Metadata accessibility. The MFPC has published various procedures manuals for the budget process and SIGFA procedures. However, these manuals are not user friendly. The CBN publishes metadata indicating methodology and classifications used in its publications. The MFPC disseminates detailed statistics but these are not adapted to the needs of the public. The CBN's detailed data are designed to meet the needs of all users.</p> <p>Assistance to users. In the MFPC there is no catalog of publications. However, the websites of the different dependencies of the ministry include documents directly accessible for the users. The CBN publishes a catalog of publications that is updated frequently. Both the MFPC and the CBN give information on names or electronic addresses to obtain support from the institutions.</p>

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

<p>2. Methodological soundness</p> <p>Concepts and definitions used for compiling monetary statistics are, in general, consistent with the <i>Monetary and Financial Statistics Manual (MFSM)</i> of 2000.</p> <p>Scope of the Central Bank Survey (CBS) is in line with the <i>MFSM</i>. However, the Other Depository Corporations Survey (ODCS) excludes the accounts of credit and savings cooperatives, which are deposit-taking corporations.</p> <p>Classification/sectorization principles are broadly consistent with <i>MFSM</i> guidelines. The residency criterion is clearly followed. However, further improvements in the sectorization of accounts of the ODCs would improve the usefulness of the data particularly to assess net credit to central government.</p> <p>Basis for recording is broadly consistent with the <i>MFSM</i>. Market prices are used when possible. CBN securities are recorded at face value without deducting the discount, and interest is recorded under liabilities, but adjusted to an accrual basis at the end of the month. Grossing and netting procedures follow largely the <i>MFSM</i>. Daily and weekly statistics are not adjusted to an accrual basis.</p>	<p>3. Accuracy and reliability</p> <p>Source data are derived from comprehensive data collection programs. Source data are timely and provide reasonably good approximation of <i>MFSM</i> concepts and definitions. However, some sectorization problems are evident due to insufficient detail in the data sources for the ODCs.</p> <p>Assessment of source data. Monetary statistics compilers undertake regular assessment and validation of source data to ensure accuracy and reliability. There is also ongoing communication with the SBOFI.</p> <p>Statistical techniques. The sectoral balances and surveys for the CBN and the ODCs are produced in separate modules but follow similar concepts and definitions. Data compilation for the CBN is largely automated; however, in the case of ODCs, data are compiled using electronic and manual techniques, which are prone to errors.</p> <p>Assessment and validation of intermediate data and statistical outputs are conducted routinely. Statistical discrepancies and other potential problems are investigated and taken into account in future work. Intermediate data have built-in checks that calculate discrepancies in the data for the relevant period. There are no automatic checks to help monitor trends in the time series. In general, intermediate results are not validated against other sources of information.</p> <p>Revision studies are not conducted on a regular basis.</p>	<p>4. Serviceability</p> <p>Periodicity and timeliness. Periodicity is monthly and timeliness is two months, which meet GDDS recommendations.</p> <p>Consistency. Statistics currently published are consistent within the dataset and over a reasonable period of time. These data are available from December 2001, follow largely the <i>MFSM</i> methodology, and have consistent institutional coverage. Data prior to December 2001 follow a different methodology. Monetary statistics are reconcilable with balance of payments statistics. Reconciliation with fiscal data poses problems mainly due to differences in institutional coverage, basis for recording, and sectorization.</p> <p>Revision policy and practice. Monthly data are considered final and revisions are rare. Preliminary daily and weekly data with narrower coverage than monthly data (i.e., central bank survey) are produced and disseminated on the CBN's website.</p>	<p>5. Accessibility</p> <p>Data accessibility. Data are available to all users simultaneously on the CBN's website. There is no advance release calendar but the CBN follows an internal publications schedule. Monthly data published in <i>Indicadores Económicos</i> include numerous tables and some charts that facilitate interpretation. Nonetheless, some important indicators are not separately identified in the DCS (e.g., net credit to central government). Statistics presented in the English section of the CBN's website are outdated as the compilation of those series has been discontinued. Users are not informed of this practice.</p> <p>Metadata accessibility. Descriptions of the methodology used in data compilation are contained in <i>Notas Metodológicas</i> which are available on the CBN's website. This document also explains the main differences between the current and former datasets; however, it does not satisfy fully the needs of specialized users.</p> <p>Assistance to users is available through the CBN contact points indicated on its website. Other publications and information are available upon request.</p>
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Table 3f. Nicaragua: Assessment of Data Quality—Dimensions 2 to 5—Balance of Payments Statistics

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
<p>Concepts and definitions. Balance of payments statistics broadly follow the concepts and definitions set out in <i>BPM5</i>, with the important exceptions that some valuation adjustments are not in line with <i>BPM5</i>, and the definition of international reserves includes capital contributions to some international organizations and some escrow accounts. The IIP is not compiled.</p> <p>Scope. Resident institutional units are defined in conformity with <i>BPM5</i>'s concepts of economic territory, residency, and center of economic interest. Coverage of the private sector is incomplete, in both the current and financial account. There are major coverage weaknesses in areas such as services, compensation of border employees (border, seasonal, and other short-term workers); and financial transactions.</p> <p>Classification/sectorization. The National presentation departs from the classification recommended by the <i>BPM5</i>, particularly in the financial account. Guidelines on the classification of resident institutional sectors, and functional categories, are not followed in the financial account.</p> <p>Basis for recording is still mixed. Some transactions are valued at market prices. Services and income of public external debt are recorded on a cash basis, while other income transactions are recorded on an accrual basis. Imports of goods are recorded when the import taxes are paid.</p>	<p>Source data are generally adequate and derived from collection programs. However data collected from surveys is incomplete, with supplementary data obtained from administrative records.</p> <p>Assessment of source data. There is a range of comprehensive checks for internal consistency, comparisons with other sources, and routine queries when large transactions are detected.</p> <p>Statistical techniques are sound and in general consistent with international practices. Compilation procedures for customs records are received electronically to minimize processing errors. Similar procedures are in place with other government agencies. No smuggling and border trade estimations are made. Private Sector Interest data are not cross checked with income taxation registers from GFS.</p> <p>Assessment and validation of intermediate data and statistical outputs. Intermediate results and statistical outputs are assessed and validated with related indicators. Regional trade data are validated using partner country information. No comparisons are made between external debt data compiled jointly by the BIS, IMF, OECD, and World Bank.</p> <p>Revision studies. The direction and magnitude of revisions of preliminary data are evaluated. However, no formal studies are conducted to keep a record of revisions.</p>	<p>Periodicity and timeliness are in line with those recommended by the GDDS.</p> <p>Consistency. Data are consistent internally and over time, and are reconcilable with foreign trade, and monetary and external debt statistics.</p> <p>Revision policy and practice are limited by the absence of a regular and transparent revision schedule. Studies and analyses of differences between revised and preliminary data are not published, but contribute to methodological consultations with other compiling agencies.</p>	<p>Data accessibility. Data access is provided through the CBN's website and in hard-copy publications. Data are available in several formats and aggregation levels. However, the data do not allow international comparisons, in particular on the financial account. Detailed tables on external trade, services, and public external debt transactions are available. There is no advance release calendar.</p> <p>Metadata accessibility. Metadata on the balance of payments are available and plans for achieving internationally accepted standards are mentioned. Working papers or other specialized studies are not disseminated. Balance of payments metadata have been prepared in the context of Nicaragua's GDDS participation.</p> <p>Assistance to users. A general note indicating that the CBN is the contact source is included with an e-mail address in the metadata. A specific contact person within the balance of payments unit is identified.</p>

III. STAFF'S RECOMMENDATIONS

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

Cross-cutting Recommendations

- Formalize participation in the GDDS as soon as possible.
- Proceed with the amendment to the Law of the CBN aimed at reinforcing the legal basis for the compilation and dissemination of macroeconomic data.
- Prepare and disseminate advance release calendars.
- Give advance notice in all statistical sectors of changes in methodology, source data, and the statistical techniques employed to produce macroeconomic statistics.
- Make widely available an explicit statistical revisions policy, identifying which data have been revised significantly and describing the data revision procedures employed.
- Review the legal environment of the MFPC to strengthen its authority to get primary data from all nonfinancial public sector units in a timely manner.

National Accounts

High priority

- Give priority to the planned adoption of a new reference year and the compilation of institutional sector accounts.
- Finalize the compilation of quarterly accounts.
- Disseminate annual survey data on a more timely basis and use it to generate final revised national accounts data.

Other

- Develop better source data for services.
- Use the data on inputs from the annual surveys, to measure directly, as far as possible, the intermediate consumption at current prices in the supply-and-use table.

- Use the available source data from the National Households Living Standard Survey to measure the level of informal occupation and its generated income, after analyzing sampling implications.

Prices Indices

High priority

- Allocate more staff to the Department of Income and Deflators (DID) and to the processing unit of the Executive Coordination of National Surveys (ECNS) to strengthen staff analyzing the price indices and update computers' capacity, and allocate more printers to the ECNS.
- Apply the standard COICOP to improve classification of alcoholic beverages, tobacco, restaurants, and hotels in the CPI.
- Apply the standard ISIC Rev. 3 to improve classification of PPI items.
- Integrate PPIs for agriculture, mining, manufacturing, electricity, and water to compile a PPI that meets international standards.
- Change the base year of the PPI, updating its weights by using output by industry including all goods producing activities.
- Prepare and release a detailed publication with trend analysis for the PPI.

Other

- Study the accuracy gains that could be derived from including in the CPI weights information on rural household consumption expenditure, and rentals of owner-occupied dwellings from the 2006 NSHIE.
- To ensure that CPI weights reflect changing consumption patterns, monitor expenditure results of the standard of living survey (ENCOVI).
- Include vehicles and net purchases of second-hand goods in the CPI.
- Incorporate a sample of household and small enterprises, enterprises operating in free zones, and goods for processing activities (Maquila) in the monthly price survey.
- Closely monitor markets to identify the need to incorporate new products and quality changes in both indices, prepare a plan to make related changes, and improve the treatment of missing prices.
- Produce and disseminate seasonally adjusted data.
- Avoid giving privileged access to CPI data to governmental agencies before releasing the index and release the detailed CPI publication to the public.

Government Finance Statistics

High Priority

- Establish a formal plan to apply in stages the implementation of *GFSM 2001*. Include, in the earlier stages of the plan, the development of bridge tables linking the budget chart of accounts with the *GFSM 2001* classifications.
- Assign more resources in the MFPC to the collection, compilation, and dissemination of fiscal statistics with complete coverage of consolidated central government, general government, and the nonfinancial public sector including the most important nonfinancial public corporations. If possible, create a ministerial unit responsible for the compilation of GFS.
- Disseminate on the MFPC's website the metadata regarding GFS methodology and compilation practices oriented to guide the user of data rather than the compiler.
- Establish a GFS revision policy and make it known to the public with the objective of increasing confidence in the data compiled and disseminated by the MFPC.

Monetary Statistics

High priority

- Continue implementation of the work plan to adopt the *MFSM* methodology.
- Widen coverage of the Depository Corporations Survey to include credit and savings cooperatives.
- Broaden sectorization of key assets and liabilities of ODCs to permit a more complete sectorization of the domestic economy, in line with the *MFSM*, and proper identification of the net credit to the central government and to the rest of the nonfinancial public sector.

Other

- Prepare a medium-term plan to further expand coverage to include Other Financial Corporations (insurance companies, pension funds, stock brokers and financial auxiliaries) which would permit eventual construction of a Financial Corporations Survey as recommended by the *MFSM*.
- Improve data accessibility for monetary statistics to bring them more closely in line with best international practices. To this end, present separately all *MFSM*-recommended categories of financial assets in monetary statistics.

Balance of Payments Statistics

High priority

- Implement the national presentation of balance of payments statistics following *BPM5* classifications, with particular emphasis in the financial account, and distinguish clearly the functional and institutional categories separately for assets and liabilities.
- Adjust the reserve assets by excluding the escrow account's balances. Also changes that are not attributable to transactions must be excluded from the balance of payments flows.
- Extend the coverage of income debit, services (both credit and debit) and external liabilities related to trade transactions by including the accrual interest, financial services, and all the external liabilities of the banking system reported from their balance sheets.
- Substantially expand the coverage of the private sector transactions mainly on direct investment and services.
- Elaborate and disseminate the International Investment Position partially based on the current available data.
- Record portfolio investment transactions at market value.
- Provide the Department of External Programming (DEP) access to the DMFAS system and financial statistics database to facilitate and improve the accuracy of their duties.

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

GDDS Data Category	Coverage (meets GDDS)	Periodicity		Timeliness	
		GDDS	Nicaragua	GDDS	Nicaragua
COMPREHENSIVE FRAMEWORK					
Real sector: National Accounts	Yes	A	A	10–14 months	7 months
Fiscal sector: Central govt. operations	Yes	A	M, Q, A	6–9 months	5 weeks
General govt. operations	Yes	A	M, Q, A	6–9 months	5 weeks
Central govt. debt	Yes	A	M	6–9 months	1–2 months
Financial sector: Depository Corporations Survey	Yes	M	M	2–3 months	2 months
External sector: Balance of payments	Yes	A	A, Q	6–9 months	3–4 months
International Investment Position (IIP)	No	A	NA	6–9 months	NA
DATA CATEGORIES AND INDICATORS					
Real Sector					
National accounts aggregates:					
GDP (nominal and real)	Yes	A (Q)	A	6–9 months	7 months
Gross national income, capital formation, saving	Yes	A	A	6–9 months	7 months
Production index/indices					
Manufacturing or industrial production index/indices	Yes	M	M	6–12 weeks	12 weeks
Primary commodity, agricultural, or other indices, as relevant	NA	As relevant	NA	6–12 weeks	NA
Price indices:					
Consumer price index	Yes	M	M	1–2 months	10–15 days
Producer price index	Yes	M	M	1–2 months	10–20 days
Labor market indicators:					
Employment	Yes */	A	A	6–9 months	3 months
Unemployment	Yes */	A	A	6–9 months	3 months
Wages/earnings (all sectors)	Yes	A	M	6–9 months	2–3 months
Fiscal Sector					
Central government aggregates:					
Central govt. budgetary aggregates: revenue, expenditure, balance, and financing with breakdowns (debt holder, instrument, currency)	Yes	Q	M, Q, A	1 quarter	5 weeks
Interest payments	NFPS Yes	Q	M, Q	1 quarter	5 weeks
Central government debt:					
Central govt. debt: domestic and foreign debt, as relevant, with appropriate breakdowns (debt holder, instrument, currency)	Yes	A (Q)	M	1–2 quarters	1–2 Q
Government guaranteed debt	NA	A (Q)	NA	1–2 quarters	NA
Financial Sector					
Broad money and credit aggregates	Yes	M	M	1–3 months	2 months
Central bank aggregates	Yes	M	D and W (preliminary); M (final)	1–2 months	Daily data: 1–2 days; weekly data: 2–3 weeks; monthly data: 2 months
Interest rates:					
Short- and long-term govt. security rates, policy variable rate	Yes	M	W (for government securities); M for CBN instruments)	1/	Weekly and monthly data: 1 day
Money or interbank market rates and a range of deposit and lending rates		M		1/	
Stock market:					
Share price index, as relevant	No	M	NA	1/	NA
External Sector					
Balance of payments aggregates	Yes	A (Q)	A, Q	6 months	3/4 M – 6/9 months
Public and publicly guaranteed external debt outstanding, with maturity breakdown	Yes	Q	M	1–2 quarters	1Q
Public and publicly guaranteed debt service schedule	No	6 M	NA	3–6 months	NA
Private external debt not publicly guaranteed	No	A	NA	6–9 months	NA
International reserves:					
Gross official reserves denominated in U.S. dollars	Yes	M	D	1–4 weeks	1D
Reserve-related liabilities	No	M	NA	1–4 weeks	NA
Merchandise trade:					
Total exports and total imports	Yes	M	M	8 wks–3 months	3 months
Major commodity breakdowns with longer time lapse	Yes	M	M	8 wks–3 months	3 months
Exchange rates: spot rates	Yes	Daily	D	1/	1D

Italics indicate encouraged categories.

1/ Dissemination as part of a high-frequency (e.g., monthly) publication.

*/ Due to budget constraints, all employment statistics are halted.

INTERNATIONAL MONETARY FUND

NICARAGUA

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

Response by the Authorities

November 30, 2005

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I. LETTER OF TRANSMITTAL

[TRANSLATED FROM SPANISH]

September 21, 2005

Mr. Robert W. Edwards
Director
Statistics Department
International Monetary Fund
Washington, D.C. 20431
U.S.A.

Dear Mr. Edwards:

I am pleased to inform you that the authorities of the three institutions that produce Nicaragua's official macroeconomic statistics, namely, the Ministry of Finance and Public Credit, the National Institute of Statistics and Censuses, and the Central Bank of Nicaragua, agree with the contents of the "Report on the Observance of Standards and Codes" (ROSC) prepared by the IMF Statistics Department mission that visited Nicaragua during the period of January 11–26, 2005.

The attached paper discusses the improvements made to the national statistics system by the Nicaraguan institutions since the mission, based on the recommendations proposed by the IMF mission and confirmed in the ROSC. It also contains a brief presentation of the additional plans for improvements and changes that will be implemented in the short and medium terms.

Finally, we take this opportunity to confirm that Nicaragua agrees to the publication of the ROSC on the IMF Web site.

Sincerely yours,

/s/
Mario Alonso Icabalceta
President
Central Bank of Nicaragua

cc: Mr. Moisés Schwartz
Executive Director
International Monetary Fund

Mr. Anoop Singh
Director
Western Hemisphere Department
International Monetary Fund

Mr. Humberto Arbulu-Neira
Resident Representative
International Monetary Fund

Mr. Mario Arana Sevilla
Minister
Ministry of Finance and Public Credit

Mr. Néstor Delgadillo
Director
National Institute of Statistics and Censuses

II. INTRODUCTION

The Nicaraguan authorities are in agreement with the recommendations in the Report on the Observance of Standards and Codes (ROSC) for Nicaragua. The report was prepared by members of the IMF mission with the cooperation of Nicaraguan specialists for the purpose of analyzing the national statistics system at the time of the mission's visit (January 11–26, 2005).

The national authorities consider it appropriate, however, to include some considerations relating to improvements that have been made to Nicaragua's statistical system since the mission's visit and to describe plans for further changes to the system. We have the following specific comments:

III. RESPONSE TO THE RECOMMENDATIONS

The Central Bank of Nicaragua (CBN), the National Institute of Statistics and Censuses, and the Ministry of Finance and Public Credit, which are the entities to produce official macroeconomic statistics, have agreed on the need to design and implement improvements in the quality of those statistics and have taken the necessary steps to this end, as discussed below:

A. General Recommendations

As of February 25, 2005, Nicaragua subscribed to the General Data Dissemination System (GDDS), in recognition of the efforts the country has made to improve cross-sector consistency, expand coverage, and adopt international standards and recommendations of sector manuals. The process has had a positive impact on the quality of official statistics and on the process for disseminating them. In this regard, the Central Bank and other official statistics-producing institutions are preparing to move further in this process and to comply with the Special Data Dissemination Standard (SDDS).

The Draft Reform to the Organic Law of the CBN incorporates features that will strengthen the legal basis for compiling the primary data used in preparing macroeconomic statistics. At this time, the Central Bank has completed preparation of the draft, which will be transmitted to the President of the Republic and subsequently submitted to the National Assembly for approval.

The "advance release calendar for data dissemination" for August–December 2005 has been published on the Central Bank's website and has been officially brought to the attention of all national institutions that provide primary data. This represents a commitment to domestic and foreign users that the CBN will ensure timely publication, consistent with the release calendar, of all the official macroeconomic statistics prepared by this institution.

While the Central Bank has published the methodologies used for calculating the main macroeconomic variables, it has also released a compendium of methodological notes on the universe of variables that this institution produces. It will take the necessary steps to

publicize methodological changes, data sources, and statistical techniques used to produce the macroeconomic statistics, prior to their release. In addition, it will inform the public of statistical revision policies, detailing the data that are to be revised and the revision procedures that will be used.

B. National Accounts

The Central Bank of Nicaragua has begun the work of changing the base year for the national accounts from 1994 to 2005. To this end it has planned a series of surveys for the farm sector and for households, which will be additional to the surveys that the CBN conducts annually for compiling the macroeconomic aggregates in the national accounts.

Specifically, with respect to the farming sector, work began in July of this year on the livestock costs survey, the purpose of which is to identify the input requirements of this activity. As to the household sector, this year saw preparation of the questionnaire and instructions for the household income and expenditure survey, which will be applied beginning in January 2006.

Progress has also been made in compiling basic statistics for the tourism satellite account. For instance, in July 2004, a continuous survey of incoming and outgoing tourism was initiated. Moreover, in November of that year the urban and rural employment survey was expanded to include a domestic tourism module for quantifying expenditure under this heading by residents of Nicaragua.

The quarterly accounts for Nicaragua follow the recommendations of the IMF's *Quarterly National Accounts Manual: Concepts, Data Sources and Compilation*. This project was pursued on the basis of the methodology in that manual and was assisted in practice by a training fellowship at the Brazilian Institute of Geography and Statistics (IBGE) in March 2004.

The principles of quarterly accounting in Nicaragua are basically those suggested by the IMF's manual. The relevant aspects are the annual overlap for the indicator trend, the use of the moving base, the acquisition of a fixed reference period by chain-linking, and the adjustment of the quarterly to annual data using the Denton technique, among others. The indicators, as the base for the trend and short-term behavior, are revised to ensure that the adjustment is as sound as possible. The resulting quarterly data will be presented at current prices and 1994 prices, as will the annual accounts data.

As part of the process of finalizing the quarterly accounts, methodological improvements have been incorporated for publication in the second half of 2005. In the first half of 2005, the IMF provided technical assistance through a mission (June 6–17) to review the quarterly accounts. Future improvement plans include preparation of balance sheets and quarterly Supply and Use Tables. These tools will enhance the consistency of the quarterly data and make the national accounts methodology more coherent.

C. Price Statistics

In keeping with the ROSC recommendations, we are revising the database for the standard-of-living survey and other information sources to analyze the structure of rural household expenditure. We are also preparing the Household Income and Expenditure Survey for 2006—the results of which will provide the basis for changing the reference year for the Consumer Price Index (CPI). When that base year is changed, we will use the opportunity to make some adjustments to bring CPI calculation into line with international practices.

With respect to the Producer Price Index (PPI), we are currently working on calculating the weighting matrix for aggregating the producer price indices from the various sectors into a global PPI, based on the Supply and Use Table from the national accounts. Moreover, we are already preparing to change the base year for the national accounts. We will use that opportunity to change the base year of the PPI and make the relevant adjustments (coverage, use of expansion factors, quality adjustments, etc.) to bring it into line with international practice.

D. Monetary Statistics

Efforts have been made to expand the coverage of sectorization in the monetary accounts. We have examined the possibility of including insurance companies and stockbrokers in "other financial corporations." During 2005 we have been taking steps for automatically incorporating these entities into the consolidated financial accounts. Nevertheless, the Superintendency of Banks and Other Financial Institutions (SIBOIF) has a project under way to amend the accounting manuals for these entities as of 2006, and for this reason the process of incorporating them was temporarily postponed.

The necessary adjustments have been made for the proper identification of "net credit to central government," both in the Central Bank Survey and in the Survey of Other Depository Corporations. We may note that the necessary information is currently available, but the Financial Systems Survey shows information for general government and not for the central government. We will therefore prepare an additional table for the Financial System Survey showing "net credit to central government," as recommended by the *Monetary and Financial Statistics Manual (MFSM)*.

A technical mission from the IMF in October 2005 will review the consistency of the national statistics with the recommendations in the *MFSM*. The intention is to examine the possibilities of expanding the coverage of subsectors for other depository corporations and other financial intermediaries and to evaluate improvements to date in the quality of the CBN's monetary statistics.

For the remainder of 2005 and 2006, we will continue implementing improvements to the monetary statistics of the CBN, in line with the *MFSM* recommendations.

E. Balance of Payments

Progress has been made in adjusting the presentation of the balance of payments to the recommendations of the fifth edition of the IMF's *Balance of Payments Statistics Manual (BPM5)*—a process that should be completed by the end of 2005.

As part of the improvement in statistical quality—specifically for commercial and financial transactions of the private sector—we have negotiated agreements to gain access to the accounting statements of the commercial banks and insurance companies. This will make it possible to expand coverage of the services account (credits and debits) and the assets and liabilities position of the financial sector.

Information is available from the tourism satellite account surveys, and this will have a positive impact on estimates of travel revenues.

We are working with the Center for Latin American Monetary Studies (CEMLA) and with Development Finance International (DFI) on a program to strengthen the private sector's capacity to monitor and analyze external assets and liabilities. The Central Bank, the Ministry of Development, Industry, and Trade, and the National Institute of Statistics and Censuses are participating.

Following the recommendations in the ROSC, the CBN recently published the International Investment Position (partial) for Nicaragua. It has also moved to quantify the changes in the CBN's reserve assets, excluding all those transactions that are due to exchange-rate revaluations.

For 2006, specific projects will be pursued to improve the coverage and valuation of the service accounts, with due regard to the availability of human resources and their level of training.

F. Government Finance

The Ministry of Finance and Public Credit has performed studies in response to the main recommendations of the ROSC mission. Specific reference is made to strengthening the legal framework of the Ministry and its ability to obtain timely primary data from all units of the nonfinancial public sector.

The recently approved Financial Administration and Budget System Act establishes a series of regulations governing the budgets of various entities of the central government. The regulations are to be exercised at different times with a view to harmonizing those entities' budgets with national plans, budget policies, consolidation requirements for financial information on the public sector, standardization of accounting terms and procedures, mandatory use of compatible information processing tools (SIGFA), budget execution reports, etc. These moves are designed to improve budgeting procedures for entities that are decentralized by function or by territorial base, state enterprises, government financial institutions, and private institutions that receive funds from the national general budget.

As a result of this law's adoption, all public sector entities, whether or not they are financed from the general budget, will be subject to extensive legal controls that currently do not exist. The controls will regulate procedures for the formulation, approval, execution, control, valuation, and reconciliation of the general budget and of the budgets of each public sector entity.

In order to cope with these new responsibilities, financing will be sought to strengthen the work of statistical compilation in the General Directorate of the Budget (DGP).

Steps will be taken to increase the number of DGP staff participating in the Government Finance Statistics seminar. Once the budgeting process for 2006 is completed, we will start work on adopting the new *Government Financial Statistics Manual 2001 (GFSM 2001)*, with the necessary changes for relating it to the basic tables and classifiers. We will also start on the revision of budget manuals and procedures in the Integrated Financial Administration System (SIGFA).

The Central Bank's Fiscal Programming Department continues to give priority to the ROSC mission's recommendations, especially those relating to the coverage, consistency, and methodological revision of the database for the government finance statistics.

Among the major advances, we may mention that as of 2005 the fiscal outcomes contain an expanded coverage for the Nonfinancial Public Sector. They include the measurement of the Nicaraguan Telecommunications and Postal Institute (TELCOR), the Nicaraguan Electricity Company (ENEL), and the National Ports Corporation (EPN).

In terms of disseminating fiscal statistics, at the CBN website and in the IMF's *Government Finance Statistics Yearbook*, the database is classified in accordance with the *GFSM 2001* methodology for 2002, 2003, and 2004.

Finally, to complete the transition process of migrating to the *GFSM 2001* methodology, we will attempt to work apace and in coordination with progress observed in implementation within the Ministry of Finance and Public Credit. In this respect, the Fiscal Programming Department will continue work on the changes to the statistical base for those enterprises included in the broad NFPS.

INTERNATIONAL MONETARY FUND

NICARAGUA

Detailed Assessments Using the Data Quality Assessment Framework (DQAF)

Prepared by the Statistics Department

Approved by Robert W. Edwards and Anoop Singh

November 30, 2005

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

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ACRONYMS

<i>1968 SNA</i>	<i>System of National Accounts 1968</i>
<i>1993 SNA</i>	<i>System of National Accounts 1993</i>
ALMA	Managua Municipality
AWP	Annual Work Plan
BIS	Bank for International Settlements
<i>BPM5</i>	<i>Balance of Payments Statistics Manual</i> , fifth edition
CAMC	Central American Monetary Council
CBN	Central Bank of Nicaragua
CEMLA	Center for Economic and Monetary Studies for Latin America
COFOG	Classification of Functions of Government
COICOP	Classification of Individual Consumption by Purpose
CPI	Consumer price index
DCS	Directorate of Customs Services
DEP	Department of External Programming
DID	Department of Income and Deflators
DMFAS	Debt Management Financial and Analysis System
DQAF	Data Quality Assessment Framework
DSBB	Dissemination Standards Bulletin Board
ECNS	Executive Coordination of National Surveys
ECLAC	Economic Commission for Latin America and the Caribbean
<i>FNI</i>	<i>Financiera Nicaragüense de Inversiones</i>
FPD	Fiscal Programming Department
GDA	General Directorate of Customs
GDB	General Directorate of the Budget
GDDS	General Data Dissemination System
GDI	General Directorate of Revenue
GDPC	General Directorate for Public Credit
GFS	Government Finance Statistics
<i>GFSM 1986</i>	<i>A Manual of Government Finance Statistics</i> , 1986
<i>GFSM 2001</i>	<i>Government Finance Statistics Manual 2001</i>
GVO	Gross Value of Output
HBS	Household Budget Survey
IV	Intermediate Consumption
IIP	International Investment Position
IMF	International Monetary Fund
INEC	National Institute of Statistics and Censuses
ISM	Information Sub-Management
MER	Ministry of External Relationships
MFPC	Ministry of Finance and Public Credit
<i>MFSM</i>	<i>Monetary and Financial Statistics Manual</i>
MPD	Monetary Programming Department
MUC	<i>Manual Unico Contable</i>

NISS	Nicaraguan Institute of Social Security
NSHIE	National Survey of Household Income and Expenditure
NSS	National Statistical System
ODCs	Other Depository Corporations
ODSC	Other Depository Corporations Survey
OECD	Organization for Economic Cooperation and Development
OLAP	On Line Analytical Processes
PPI	Producer price index
REM	Research Studies Management
ROSC	Report on the Observance of Standards and Codes
SBOFI	Superintendence of Banks and other Financial Institutions
SDDS	Special Data Dissemination Standard
SIGFA	Integrated Financial Management and Audit System
SOP	Sub-Management of Organization and Planning
UDB	Unified Data Base

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 Nicaraguan 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 Nicaragua'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 statistics is clearly specified*

The national accounts are compiled by the CBN on the basis of its Organic Law 371 of March 2001, which authorizes it to collect information for statistical and macroeconomic analysis purposes:

Article 60. Offices or units of the Central Government and municipal governments, as well as governmental credit institutions, are obliged to submit to the Central Bank such reports as the latter may request in the discharge of its duties. Likewise, the banks and any physical or juridical person with residence or domicile in Nicaraguan territory, whether a national or foreigner, are obligated to supply the Central Bank with statistical information requested by it in the discharge of the duties conferred upon it by Law. This information must be used solely and exclusively for the purpose of macroeconomic statistics and analysis.

Article 26/11 requires the President of the CBN to submit an annual report to the National Assembly. A section of that report is devoted to analyzing the behavior of the Nicaraguan economy, and is based primarily on data from the national accounts.

While the law gives the Bank broad powers to request information, it does not explicitly assign it the responsibility of compiling and disseminating the national accounts.

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

The Interagency Commission, which includes the main institutions producing statistics, is responsible for coordinating the work of the National Statistical System (NSS).

In practice, one of the main mechanisms used to facilitate coordination with other entities in the production of statistics, at least at the technical level, consists of the working committees that are set up for each survey and census. This mechanism has produced a better understanding of the statistical needs of the main institutions, and has made it possible to avoid duplication of effort and to take proper account of the implied burden on reporters, by examining carefully the corresponding questionnaires, for example.

These committees constitute mechanisms that facilitate consistency both for the methods used in producing statistics, and for the results. INEC and the Agriculture and Forestry Ministry (MAGFOR) as well as other ministries enlist the CBN as a technical partner. For example, the coordinator of the agriculture sector in the National Accounts Department of the CBN was a member of the technical committee for the Agricultural Census, and of that for the surveys of staple grains production prepared jointly with the INEC and the MAGFOR, respectively. The CBN's household statistical expert is a member of the technical committee for the Living Standards Survey and for the employment survey conducted by the INEC. The CBN's manager of censuses and surveys is a member of the technical committee for the Population and Housing Census, which the INEC will be conducting in 2005.

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

The Bank protects the confidentiality of data provided by reporters. Its organic law provides:

Article 61. The directors, officers, and employees of the Central Bank are obliged to safeguard the confidentiality of information, documents, and operations that they have knowledge of by virtue of their positions. Any violation of the confidentiality obligation enshrined herein will be sanctioned in accordance with the by-laws of the Bank, without prejudice to any punitive sanctions that may be applicable under criminal law.

The survey documentation advises reporters of their rights and obligations with respect to providing information, and they are informed that the data they provide will be used for statistical purposes. In all cases reference is made to the CBN Organic Law, Articles 60 and 61.

As well, procedures have been established to prevent the disclosure of information on individual reporters. Among other provisions, the Internal Personnel Regulations of the CBN provide penalties for any person who discloses confidential data:

Article 56. All digital information that the Bank provides to staff for the performance of their functions is confidential and may not be disclosed even after termination of the employment relationship.

Any employee who violates this article is subject to punishment in accordance with Article 61 of the CBN organic law, with respect to banking secrecy, and under ordinary criminal legislation.

Access to individual data is restricted to staff who require that information in the course of their work, and special aggregation rules have been adopted to prevent residual disclosure when aggregations from surveys or other confidential data are published.

Confidentiality is respected in the dissemination of data from the national accounts, since the statistics from individual records are aggregated by economic activity, institutional sector, and product group. Before they are disseminated, all data are examined to ensure against indirect disclosure of confidential data in tables and accounts. Confidentiality of survey data is appropriately guarded during storage: the returned forms are kept in a restricted-access warehouse. All hardcopy records are destroyed by incineration after five years, and a notation of this procedure is kept in the respective offices of the institution.

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

As noted above, Article 60 of the CBN's organic law makes it mandatory to provide the Bank with the data it requests "in the discharge of its duties." The law also establishes penalties for failure to observe the reporting requirements (including misreporting), and stipulates that anyone who refuses to provide information, "or who provides false or incomplete information, will be penalized by a fine of one thousand to ten thousand córdobas for each occurrence, which will be imposed payable to the National Treasury Directorate General of Revenues, at the request of the Central Bank." However, there are no regulations for applying the penalties established in that law. Moreover, because the fine is set in nominal terms, its real value has been eroded by inflation.

The Bank encourages cooperation by trying to deal with respondents' complaints, indicating the purpose of the data collection, reducing response burden as far as possible, and providing information on the importance of good quality statistics. Any information request from a respondent is processed and answered by the appropriate CBN office.

0.2 Resources

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

The National Accounts Department has a professional staff of 18 persons for compiling the accounts, and one secretary. The academic qualifications of the staff are sound. All have at least a bachelor's degree, mainly in economics, eight have done postgraduate studies, and seven have master's degrees. Staffing levels are in principle adequate for the present coverage of the national accounts. However, data from the latest annual surveys have not been released, nor have definitive national accounts data generated from the revisions of the

preliminary estimates based on those surveys. In fact, implementing the institutional sector accounts of the 1993 SNA will require resources much greater than those budgeted. Moreover, the planned change of base year from 1994 to 2005 will require additional staff. Staff turnover is low, and salary levels are competitive with public administration conditions in the country.

Computing resources are in general adequate and are used efficiently. Every employee has a computer, most of them Pentium IV. However, few have e-mail, and only the department head has Internet access. The department works with Office 2003, Office 2000 and SAS. SPSS is used for processing data from the annual surveys. The two available printers are sufficient to meet requirements.

Physical facilities, as well as office furnishings and equipment, are adequate to perform the required tasks. The offices have adequate heating and air-conditioning facilities.

Given resource constraints and the high cost of systematized survey processing, the CBN allocates its resources in the most efficient manner in order to guarantee the minimum quality and quantity of statistical information needed for compiling the national accounts.

Budgeting practices provide clear information to financing authorities: the budget is allocated on the basis of an annual work plan that contains detailed activities for each unit during the year. The funding horizon is also amenable to planning for statistical developments. The 2005 budget was based on a programming schedule for the main statistical activities to be pursued over the next three years, and these are part of the 2005-2007 strategic plan.

0.2.2 Measures to ensure efficient use of resources are implemented

The work plan and budget performance are evaluated every three months simultaneously, since budget allocation is done on the basis of the work plan. This evaluation is done at the level of managers, deputy managers, and department heads. Staff performance is evaluated periodically: this is done directly by the department head, in discussion with his staff.

When necessary, the CBN seeks outside expert assistance. An expert was hired in 2004 to evaluate statistical methodologies and survey data compilation systems with a view to designing a more efficient and effective alternative system for each of the stages of collecting, generating and processing monthly and quarterly survey data. The expert also conducted a thorough review of the contents of the survey forms in order to achieve greater integration among them and to reduce the response burden.

0.3 *Relevance*

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

Although there is no formal mechanism for systematic consultations with users on the relevance of its statistics, the Bank receives specific demands through various means. It receives comments by e-mail at the address provided for users at the Bank's Internet site, and these are passed on to the appropriate units. The methodological notes on indicators, which are published at the same site, provide the name and telephone number of a contact person in each case. Staff of the National Accounts Department maintain good contact with the principal users in both the public and private sectors. They also consult the opinion of interested institutions when planning new surveys and censuses. INEC conducted a survey in 2003 to determine the statistical needs of the major public sector institutions. The Coordinating Committee of the SEN has met to implement a strategy for national statistics development that will meet users' major demands.

0.4 *Other quality management*

0.4.1 Processes are in place to focus on quality

Management is sensitive to all dimensions of data quality, and enhancing the quality and timeliness of publications is one of the explicit institutional objectives in the CBN's strategic plan.

Although there is no permanent program for quality control of statistical products, when there is a need to improve the quality in a specific area of statistics, the CBN turns to outside technical expert assistance.

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

For the national accounts, the dissemination and revision cycle itself constitutes an adequate procedure for monitoring quality in terms of the factors explaining discrepancies between preliminary and revised estimates. This allows steps to be taken to reduce those discrepancies when feasible. Although the revision cycle is not regularly completed, a final consumption module was included in the 2003 employment survey to provide an annual indicator of this variable. This would assist in constructing a final consumption series that would include years in which there is no survey of household incomes and expenditures or no living standard surveys, within which one of the main variables studied is final consumption.

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

Quality issues must be taken into account in the planning process for the national accounts work program. These include quality improvements identified during the revision cycle and new data needs reported by users.

During 2004 the monthly and quarterly survey forms were redesigned to reduce the response burden for businesses and to provide information of better quality and timeliness.

1. Assurances of Integrity

1.1 Professionalism

1.1.1 Statistics are produced on an impartial basis

Article 1 of the CBN's organic law describes the institution as "a Decentralized Central Government Entity, which is technical in nature, of unlimited duration, and has juridical personality, its own capital, and full authority to acquire rights and incur liabilities, with respect to those transactions and contracts that are necessary to accomplish its purposes and duties as established by this Law."

Recruitment and promotion are based on professional aptitude or expertise. Vacant positions are open to all staff. Interested staff members apply for these positions, and the most suitable candidate is selected to assume a position of greater responsibility, in accordance with the technical requirements of each position. Contract hiring take into account professional profiles for specific jobs.

Staff are encouraged to attend seminars and pursue professional training. CBN members attend annual meetings of national accounts experts hosted by the Economic Commission for Latin America (ECLAC) as well as regional meetings organized by the Central American Monetary Council (CMCA). Staff also participate in courses sponsored by CEMLA (Center for Latin American Monetary Studies) and CESD (the European Center for Statistics Training for Developing Countries) in Madrid, among others.

Staff are encouraged to conduct research projects. For example, a study on agro-industrial production chains was undertaken to guarantee internal consistency in the supply and use table. Staff also prepare analytical text boxes relating to national accounts topics for publication in the CBN's annual report.

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

The choice of source data, whether from surveys or administrative records, and the selection of statistical techniques are based solely on measurement objectives and the resulting data

requirements. Cost considerations may sometimes determine the selection of sources and methods as well. Decisions to disseminate data are based on technical and cost considerations.

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

The CBN seeks to prevent misinterpretation or misuse of its statistics by providing explanatory materials and publishing press releases. In addition, training seminars have been held for journalists to reduce possible errors in interpreting the statistics produced by the CBN. The Bank monitors media coverage of its data closely. If any serious misinterpretation should appear in the media, an explanatory note is sent out.

1.2 Transparency

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

The CBN's organic law is published on the Bank's web page. That site contains information on the terms and conditions under which statistical series are compiled and disseminated. Survey questionnaires advise respondents of those conditions, including the legal obligation to provide the information requested, and the confidential nature of that information.

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

There is no governmental access to the statistics before they are released to the public.

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

Data released to the public are clearly identified as the CBN's product: every publication of the institution carries the logo and the name of the CBN. In the case of joint publications with INEC and other institutions, the institutions involved in the publication are identified.

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

The CBN gives advance notice to the public when major changes are introduced. For example, this was done for the change of base year in the national accounts and adoption of 1993 SNA. Prior to presentation of the new series of national accounts (produced in May 2003), the annual report for 2002 published a text box on the methodology for the 1994-base national accounts and a table summarizing the major methodological differences between 1980-base GDP and 1994-base GDP.

1.3 Ethical standards

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

Chapter 8, Article 77 (i) and (j) of the Internal Personnel Regulations of the CBN requires staff:

- (i) To safeguard the confidentiality of information, documents, and operations that they have knowledge of by virtue of their positions (Article 61 of the Organic Law of the CBN).
- (j) Consequently, any employee who discloses information on Bank activities of which he becomes aware through his duties or otherwise is subject to the sanctions established in Article 171 (4 and 7, final part) of the Comptroller General Act (administrative sanctions), without prejudice to any applicable criminal penalties.

No Bank employee is authorized to alter or change any information received from a respondent, if this results in an improper interpretation of the data.

All new permanent staff are given a copy of the internal regulations (which are also published on the Internet). Among the first points of guidance that a person receives upon joining the National Accounts Department is the need to respect the proper use of confidential information, with the emphasis on statistical secrecy, as well as the importance of the work that person will be doing, and the possible consequences of an unintentional error in the macroeconomic figures.

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 Bank undertook a project to update the base period for its national accounts and to implement the *1993 SNA* in stages. The concepts, definitions and classifications 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.

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

2.2 *Scope*

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

The 1993 SNA tables and accounts that the ISWGNA¹ determined as *minimum requirements* for its implementation, as listed below, are compiled on a regular basis:

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

Annual supply and use tables are also compiled.

Quarterly output estimates are being prepared, but they are at the review stage. Quarterly GDP is being estimated, but still not disseminated, for both the production and expenditure approaches, although the first of these is more advanced. The recommendations in the IMF's *Manual of Quarterly National Accounts* are used as the frame of reference.

The delimitation of the constituent units of the economy is in accordance with the 1993 SNA. Own-account production of all goods for own final consumption, and output of goods for own-account fixed capital formation, are included in the production boundary. Nicaragua's embassies abroad and the free zone are included as part of the economy. Workers who work part of the year in another country are included as members of resident households, although their incomes cannot be measured for practical reasons.

Nevertheless, and as a deviation from the 1993 SNA guidelines, the following are not included: production of entertainment, literary, or artistic originals; production of computer software; illegal output sold to willing buyers.

The assets boundary is broadly in accordance with the 1993 SNA. In particular, the following assets are included:² Among tangible assets, defense related assets that could be used for civilian purposes and agricultural work-in-progress. On the other hand, valuables and historical monuments are excluded. Among intangible assets, computer systems and programs purchased on the market are partially included, but those produced in-house are excluded. Also excluded are: mineral exploration (whether successful or not); entertainment, literary or artistic originals; patented entities; and leases and other transferable contracts.

¹ Inter-secretariat Working Group on National Accounts.

² Irrespective of the coverage that is actually achieved.

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

2.3 Classification/sectorization

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

The 1993 SNA is followed to classify institutional units and transactions.

For compiling the national accounts of Nicaragua, a national classifier of activities and products, known as CNIC, was prepared. The classification of activities is consistent with the International Standard Industrial Classification of All Economic Activities (ISIC rev.3), while the classification of products is consistent with the Central Product Classification (CPC). A national version of the Classification of Individual Consumption by Purpose (COICOP) is used for household consumption, and the Classification of the Functions of Government (COFOG) is used for those activities.

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

In addition to the foregoing, the Nicaraguan national accounts also make use of the Central American Customs System (SAC) and the Classification by Economic Use and Destination (CUODE) for international transactions.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

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

Market output is valued preferably at basic prices. Output for own use is valued at equivalent market prices. If not deductible, sales and excise taxes are included in the valuation of intermediate consumption. The value added tax, excluding the deductible part, is included in the valuation of intermediate consumption. The same applies to the valuation of final uses, from which the deductible part of the value added tax is excluded.

Corrections are made when transfer prices are detected, which occurs, for example, in the sugarcane industry. Where there is vertical integration, the sugarcane transferred to the refinery is valued at the price paid to independent producers (market price).

Exports are valued FOB and imports CIF, in the accounts for goods and services, but total imports are valued at FOB prices. Exports and imports are valued in córdobas using the daily exchange rate according to the date of the policy or the transaction. Transactions in foreign currency are converted using the mid-point exchange rate prevailing in the market at the moment they take place.

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

2.4.2 Recording is done on an accrual basis

Transactions and flows are recorded on an accrual basis, except for government output, which is generally recorded on a cash basis.

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

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. Aggregates such as domestic product, capital formation, disposable income and savings are recorded only in gross terms, because fixed capital consumption is not estimated.

3. Accuracy and reliability

3.1. Source data

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

The data collection programs employed to compile the national accounts statistics are generally adequate. The CBN has created a National Statistics Executive Coordination Office, which conducts a broad series of surveys for producing the basic statistics required to generate the national accounts, economic indicators, and other Bank products. The data sources of the data collection program are broadly sufficient to compile a major portion of the production accounts and of the supply and use table for the national accounts. The Executive Coordination Office surveys a broad selection of establishments on a monthly, quarterly and annual basis. These surveys include economic surveys of activities such as manufacturing, construction, trade and others, with varying periodicity. Output and costs of selected agricultural products are obtained from surveys conducted jointly with MAGFOR.

A Business Directory provides the sample frame for surveys of establishments. The Business Directory is updated every five or six years. In periods between censuses, information is provided from administrative records of the institutions that authorize the opening of new establishments, such as municipal governments and revenue/income administration offices that exist throughout the country. A census will be conducted in 2006 to update the Directory. The sampling techniques used are adequate. Sample design ensures that the population in scope is represented properly. Establishments are stratified by industry to the 4-digit ISIC level, and by size. Sample selections are assessed regularly, and at the end of each survey the variance of the most important variables is examined and sample sizes are recalculated to meet the required levels of confidence and margins of error. Population benchmarks and weights used in the estimation process are also reviewed and updated

periodically: this applies principally to the gross value of output and personnel employed, which are used to form homogeneous groups and strata within each group. Survey questionnaires are reviewed with users and are field tested to determine whether the wording of the questions adequately covers the concepts of interest. The enumerators and their interview methods are supervised, as well as respondents' answers. The survey framework supports supplementary data collection to provide information on the relevant variables for each establishment. Data collected are sufficiently detailed to estimate, in particular, the gross value of output, intermediate consumption, fixed capital formation, and changes in inventories.

A number of household surveys are conducted. The survey of household incomes and expenditures is performed roughly every five years. The last was done in 1999, and the next is scheduled for 2006. The survey covers 17 departmental capitals. It is conducted by the CBN. Results from the household living standards survey are available for the years 1993, 1998, and 2001, and the next survey will be conducted in 2005. The survey is nationally representative and is conducted by the INEC. There is also an employment survey covering urban and rural households. The INEC conducts this survey jointly with CBN and the Labor Ministry (MITRAB).

The CBN investigates the so-called informal sector by means of a survey of microenterprises with one to three employees. Given the high cost of the survey, it is scheduled every three years. It would be useful to investigate informal activities, the number of workers defined as informal and their incomes through the living standards survey as well, since this is a nationally representative household survey and would cover the rest of the urban area not included in the other household survey.

Government finance statistics are available to estimate output, intermediate consumption, and government fixed capital formation. In the national accounts, final consumption expenditure of general government is estimated via production costs, without subtracting the value of services sold. The data are derived from budget expenditure reports and financial statements for each year. Capital projects are purged of components that must be recorded as current expenditure, for example any training expenses that a project may call for. The data are recorded on a cash basis, but they are not adjusted to move to an accrual basis.

Various price indices are constructed for deflating current price aggregates, and to move from a volume estimate to a current price estimate. These indices include those for consumer prices, agricultural prices, industrial prices, construction material prices, and others. Price statistics are generally consistent with the variables being deflated in terms of price concept, coverage, and reference period. Foreign trade volume variables are estimated with unit values instead of prices, and this is done also for highly heterogeneous tariff lines such as machinery and equipment. Because most of these products are imported from just a few countries, it would be useful to construct weighted price indices using producer price indices for those headings from the main source countries.

The tables A to D below list the main sources of data used for estimating GDP from the production and the expenditure approaches.

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

Source data are broadly consistent with the definitions, scope, and classifications of the national accounts statistics. Most source data are also consistent with the time of recording, reference periods, and valuation of national accounts statistics. Although roughly 80 percent of businesses, and particularly the largest ones, observe a fiscal year that runs from July 1 to June 30, when they close their books, the business establishment surveys investigate transactions on a calendar year basis. General government transactions are recorded on a cash rather than on an accrual basis.

3.1.3 Source data are timely

Data collection and processing timetables are adequate to meet timeliness and periodicity for disseminating the national accounts statistics. However, because businesses close their books at the end of the fiscal year in June, with three months' grace, this means that information from one year is available in many cases only until September of the following year. For this reason, and others having to do with the need to complete and disseminate the new series of national accounts for 1994-2000, which was done in 2003, preliminary estimates were published for the years 2001 to 2003, based primarily on the use of short-term monthly indicators, the most important of which was the IMAE (Monthly Index of Economic Activity). This meant the excessive use of coefficients and ratios more than five years old. Preliminary statistics have been published since 2000. This situation will be partially resolved when survey data to 2002 are incorporated into the CBN annual report in March 2005. Data in the Annual Report are final.

3.2 Assessment of source data

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

To keep sampling errors to an acceptable minimum the CBN ensures that the size of the sample is adequate, that selection is probabilistic, and that the interview is conducted with sampling units selected in accordance with the sample frame. In the case of nonsampling errors, the process for collecting field data is reviewed as the work proceeds, and the final results are assessed.

Outliers and other atypical differences in periodic responses from individual survey units are examined. Extreme values are confirmed with respondents, and records maintained on the confirmation: any unit that provides atypical data is visited a second time to confirm their

validity. Before calculating the sample, any confirmed extreme values - maximum and minimum - are analyzed to ensure adequate sample size.

Temporal consistency, and consistency with other related source data, is analyzed to correct for underreporting or misreporting.

All secondary information sources are reviewed and evaluated each year, including government finance statistics, merchandise trade statistics, volume and price statistics, and other secondary sources used to compile national accounts statistics.

The tables provided below indicate the main sources of data used to generate GDP estimates from the production and expenditure approaches, at current and constant prices.

3.3 *Statistical techniques*

The following section describes the main sources of data used and the techniques applied for each component of GDP estimates both by production and by expenditure at current and constant prices. It also describes how the supply and use table (“SUT”, Spanish COU) is used to achieve consistency for the main aggregates. Tables A and B summarize the sources and methods for estimating annual GDP from the production and expenditure approaches. Tables C and D provide a similar summary for quarterly GDP.

The SUT contains a great volume of information. Once the various databases, corporate financial statements and government budget reports are received, the information is critically reviewed and processed to compile the production and primary income generation accounts for 84 economic activities, specifying principal and secondary production.

Next, supply and use analyses are performed for 150 product groups, using as the main input the results of the production account from the previous step. At this stage, for calculating constant values, price indices (producer, final consumer, export, import prices) and volume indices are used to deflate or retrapolate the nominal series.

Once the production accounts and balances are completed, the SUT is prepared: the first version usually has discrepancies that are eliminated, primarily in the intermediate use quadrant.

In principle, the information contained in the balances is accepted, given the comparative advantage of the disaggregation with which they are prepared. Only after a careful and exhaustive analysis of each of the elements that make up the balance will any modification be made to eliminate the discrepancies detected.

The major discrepancies are identified and the structure of the balances is again reviewed, in order to identify any possible inconsistency in preparing the balance or the production account, in particular those relating to homogeneous products.

Figures are identified and assigned to the fixed boxes, which are those where the destination of output for a specific product is known with certainty. For example, crude oil, unhusked rice and sugarcane are inputs to the oil refining, white rice, and sugar refining industries respectively. The total value of intermediate consumption is taken from administrative records for some activities, such as electricity, water, financial intermediation and public administration. Thus, intermediate consumption is not adjusted during the process of balancing the supply and use tables.

Once the major discrepancies have been eliminated, the remaining ones are distributed proportionately using a modified RAS method.

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

Data compilation procedures are generally sound and seek to minimize processing errors such as coding, editing, and tabulation errors.

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 establishments from the same ISIC group. For some major businesses, an attempt is made to persuade the respondent to provide information at least on certain relevant variables.

In order to adjust data for missing observations in statistical collections, the CBN uses trends and historic data and in other cases it characterizes the units that present this problem and then examines a subsample of units with characteristics similar to those that have not responded.

Based on the experience acquired in this field, in ISIC activities where there is a high nonresponse rate the field sample is normally increased by an additional percentage beyond that statistically required for a given sample error.

Adjustments for undercoverage in the surveys follow appropriate guidelines. For example, in the case of the cattle industry, the annual survey covers all industrial slaughterhouses but not the municipal slaughtering that is done in rural areas, for which an output adjustment is made based on municipal slaughtering statistics from the Agriculture and Forestry Ministry (MAGFOR). Grossing-up factors are derived scientifically, based on sample design.

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

Production approach procedures

Output accounts are constructed for 84 economic activities, primarily from survey data, administrative records and financial statements.

The balances on the supply and use accounts by product are done for 150 product groups at the most detailed level, but in the SUT they are aggregated into 37 product groups, and the same is done with the 84 output accounts.

The annual surveys provide relatively detailed information on the output of the main products generated and on intermediate consumption of the principal inputs, which can be used to estimate the production accounts and a significant portion of intermediate transactions for the table on use of goods and services, at current prices. However, the survey's results have not been incorporated since the publication of the new series, which primarily rely on the short-term volume and price indices that are used, to generate estimates at current prices by extrapolation (see details in Table A on sources and methods for the production approach). As noted separately, data from the 2001 and 2002 surveys are incorporated into the national accounts data that will be published, as preliminary estimates, in March 2005.

Proper techniques are used to address specific issues of GDP compilation. An exception comes with estimation of the volume of taxes on products, which is obtained by deflating the current values of those taxes by price indices for the products traded. Although the implicit volume index comes fairly close to the volume of products subject to tax, it will change when tax rates are modified or when there is a shift in the number and relative importance of tax-exempt products.

Table A. Summary of Sources and Techniques Used to Derive Estimates of Value Added by Type of Activity

Economic Activity	Source of Information	Method of Deflation/Reflation
Agriculture	1. Annual harvest survey by MAGFOR and CBN 2. Nontraditional crop survey, 1998. 3. Export crop cost survey: coffee 1996/97; sugarcane and bananas, 1997. 4. Oilseed crop cost survey, 2000. 5. MAGFOR price and market bulletins and technological charts for various crops from the former National Development Bank (Banades). 6. Third National Farm Census 2001, by INEC.	Double extrapolation: GVO and IC at constant prices are estimated by extrapolating the respective GVO and IC for the previous year from the specific volume indices.
Livestock	CBN model for estimating herd growth and milk output. Municipal and industrial slaughterhouse statistics, MAGFOR. Livestock cost survey, 1997.	Double extrapolation: GVO and IC at constant prices are estimated by extrapolating the respective GVO and IC for the previous year from the specific volume indices.
Manufacturing	Annual Manufacturing survey (since 1992). Quarterly survey of economic sectors. Monthly Manufacturing survey. Free Zones Corporation. Urban economic Census 1996. Municipal and industrial slaughterhouse statistics, MAGFOR. Monthly economic indicators, CBN.	GVO and IC at constant prices are estimated separately. GVO is deflated and IC is extrapolated.

Table A (concluded)

Economic Activity	Source of Information	Method of Deflation/Reflation
Construction	Quarterly survey of private construction. Public construction data from the Presidential Coordination and Strategy Secretariat, City of Managua, and Nicaraguan Social Security Institute, and Ministry of Finance and Public Credit.	Double extrapolation: GVO and IC at constant prices are estimated by extrapolating the respective GVO and IC for the previous year from the specific volume indices.
Electricity and water	Information on sales, prices and quantity consumed, derived from producers' financial statements.	For electricity, extrapolation from the index of physical volume of generation. For water, deflated by the CPI for water service.
Transport and communications	1. Annual information on number of passengers carried and corresponding route tariffs, from Ministry of Transport and Infrastructure (MTI). 2. Information on number of passengers, average tariff and cost structure, as well as number of licensed taxes, provided by a taxi cooperative and the MTI. 3. Information on the structure of transport margins obtained from the annual business survey, 1997. 4. Information from the balance sheet of telecommunication enterprises.	GVO is extrapolated from the volume index for transport and telecommunications and IC is deflated by the consumer price index for transport and telecommunications.
Wholesale and retail trade	Annual business survey.	Double extrapolation: GVO and IC at constant prices are estimated by extrapolating the respective GVO and IC for the previous year from the specific volume indices.
Financial institutions	Information from the financial statements of financial institutions.	GVO and IC at constant prices are estimated separately. GVO is deflated and IC is extrapolated.
Real estate and rental services	Data on actual and imputed residential rents from the Living Standards Survey (EMNV) 1993 and 1998, Seventh Population Census and Third Housing Census 1995, Survey of Household Incomes and Expenditures (EIGH) 1999, and quarterly survey of private construction, since 1998.	Residential rents are extrapolated from the volume index obtained from the calculation of new residential construction. Nonresidential rents are extrapolated with the volume index for nonresidential repairs (construction).
Community, social and personal services	Annual services survey. For nonprofit institutions serving households (NPISH) information comes from financial statements for the national lottery and the Ministry of the Interior EMNV 1993 and 1998 and EIGH 1999.	GVO and IC at constant prices are estimated separately. GVO is deflated and IC is extrapolated.

Expenditure approach procedures

Details can be found in Table B, which describes sources and methods for the expenditure approach.

Expenditure components are derived independently, with some exceptions. As noted below, household consumption expenditure is estimated annually by extrapolating the vector estimated for 1999 on the basis of that year's household income and expenditure survey and the 1998 living standards survey. However, the results are reconciled with the household surveys for the years in which the respective databases are available. With respect to the change in inventories, estimates for most of these are available from 2001. Expenditure estimates are compiled using detailed classifications. Gross fixed capital formation is compiled by type of assets (products) but is not classified by activities. Changes in inventories are compiled for the most part by activities and type of inventories, since the 2001 annual surveys. A portion of inventories is estimated as a residual. Expenditure compilation techniques are generally appropriate. An exception is the estimate of government consumption expenditure, which is obtained without excluding incidental sales from cost-measured output.

The reference period for the accounts is 1994. Given the excessive reliance on the fixed coefficients and relationships between variables that are more than five years old, a process has been launched to update the reference period to 2005; for example, the business survey is being used to obtain more up-to-date distribution margins.

Table B. Summary of Sources and Techniques Used to Derive Estimates by Type of Expenditure

Economic Activity	Source of Information	Method of Deflation/Reflation
Household consumption	Survey of Household Incomes and Expenditures (EIGH) 1999 (CBN/INEC), covering 17 departmental capitals. Living Standards Survey (EMNV) 1998 (INEC), for remaining urban and rural households, 2001.	Deflated by the CPI per product.
Government consumption	National budget. Budget expenditure for each institution, by chapter, item and sub-item. Revenues by type of tax and receiving entity. Detail on transfer payments. National budget performance report presented to the national assembly. Deficit financing details. Public investment program report. Balance sheet and statement of revenues, with disaggregation of accounts and subaccounts and notes to the financial statements. Revenue budget implementation report by type of tax for the City of Managua and other local government.	IC deflated with price indices and extrapolated with volume indices for use of value-added.
Nonprofit institutions serving households	Ministry of the Interior Registry of nonprofit institutions, with revenue and expenditure details. Financial statements for all nonprofit institutions registered with the Ministry of the Interior.	Extrapolated by index of volume for all institutions.

Table B (concluded)

Economic Activity	Source of Information	Method of Deflation/Reflation
<i>Gross fixed capital formation</i>		
Construction	Quarterly survey of private construction. Public construction data from the Presidential Coordination and Strategy Secretariat, City of Managua, and Nicaraguan Social Security Institute, and Ministry of Finance and Public Credit.	Double extrapolation: GVO and IC at constant prices are estimated by extrapolating the respective GVO and IC for the previous year from the specific volume indices.
Machinery and equipment	Database of the National Customs Directorate (DGSA). Machinery and equipment data from the Presidential Coordination and Strategy Secretariat.	Deflated by indices of unit value for imports of goods and services from the DGSA database.
Other investments	MAGFOR data on new plantations of coffee, sugar cane, bananas and pasture. Customs records on the value of heifers, stud bulls, and laying hens. Information from the Ministry of Natural Resources and Environment on new forest plantations.	Deflated by the construction prices index.
Change in inventories	For a portion of industrial products, inventories are obtained from surveys for the remainder of SUT adjustments.	The difference between aggregate supply at constant prices and other elements of aggregate demand at constant prices
Exports and imports of goods and services	Database of the National Customs Directorate (DGSA). Annual Report of the National Fisheries and Aquaculture Administration (ADPESCA). Information from the Nicaraguan Banana Producers' Association (PROBANICSA). Information from the National Electricity Transmission Company (ENTRESA). Information from Hydrocarbons Directorate of the Nicaraguan Electricity Institute (INE).	Constant values are calculated by volume, value and unit value of a basket of goods for which the unit value indices are calculated by CNIC.

Although the quarterly GDP estimate is still in process and its initial results are being reviewed, Tables C and D present details on data sources and methods applied for generating the estimates. To combine annual with quarterly estimates, the Denton technique is used. Because of the quantity of definitive annual data in the series, Excel is used to work out the matrix for this technique. With the inclusion of new annual data in the series, consideration is being given to using the Denton module in the STATA program. The quarterly series are derived from seasonally unadjusted source data, thus providing unadjusted series that are now being revised. The gross data series have not yet been seasonally adjusted.

Table C. Summary of Sources and Techniques for Deriving Quarterly Estimates of Value Added by Type of Activity

Economic Activity	Source of Information	Method of Deflation/Reflation
Agriculture	Production and cost surveys of MAGFOR. Technological charts for tobacco from the former National Development Bank. Information on area, output and yields. CBN's Revenue and Deflators Department is the source of producer prices, and the Annual Accounts Department is the source of reconciled annual data.	Double extrapolation: GVO and IC at constant prices are estimated by extrapolating the respective GVO and IC for the previous year from the specific volume indices.
Livestock	Municipal and industrial slaughtering statistics for cattle, swine and poultry, milk and egg production, and livestock costs from MAGFOR. Statistics on live cattle exports from DGSA. Revenue and Deflators Department, producer prices.	Double extrapolation: GVO and IC at constant prices are estimated by extrapolating the respective GVO and IC for the previous year from the GVO volume indices.
Forestry	Timber production, removal and replanting cost survey from CBN-MAGFOR. Energy balances prepared by the National Energy Commission (CNE). Quarterly model of changes in inventories for forest plantations.	Double extrapolation: GVO and IC at constant prices are estimated by extrapolating the respective GVO and IC for the previous year from the GVO volume indices.
Fishing	Catch volume statistics from ADPESCA-MIFIC. Revenue and Deflators Department, producer prices.	Double extrapolation: GVO and IC at constant prices are estimated by extrapolating the respective GVO and IC for the previous year from the GVO volume indices.
Mining	Output volume statistics from ADGEO-MIFIC. Revenue and Deflators Department, producer prices.	Double extrapolation: GVO and IC at constant prices are estimated by extrapolating the respective GVO and IC for the previous year from the GVO volume indices.
Manufacturing	Quarterly and monthly survey of economic sectors. Free Zones Corporation, municipal and industrial slaughter statistics from MAGFOR. Monthly economic indicators from the Central Bank of Nicaragua.	Estimates of GVO and IC at constant prices are obtained by extrapolating these variables.
Private construction	Quarterly survey of private construction and information from institutions such as the Tourism Institute, Urban Planning Council and Free Zones Corporation.	Chain indices are obtained from current and moving-base figures. Volume indicator: cubic meters.

Table C (concluded)

Economic Activity	Source of Information	Method of Deflation/Reflation
Public construction	Data from the Presidential Coordination and Strategy Secretariat, City of Managua, Nicaraguan Institute of Social Security, and Ministry of Finance and Public Credit.	For public buildings, a moving-base indicator is calculated by deflating the current values with a moving-base price index. For civil engineering works, the current figures are deflated by a moving-base prices index. Chain indices are obtained from current and moving-base figures.
Water and electricity	Producer-supplied information on sales, prices and quantities of consumption.	Extrapolated using the physical volume index.
Transport and communications	For quarterly estimates, the volume index calculated for IMAE purposes is used.	Extrapolated by the transport and telecommunications volume index.
Wholesale and retail trade	For quarterly estimates, the volume index calculated for IMAE purposes is used. Quarterly trade survey.	The respective GVO and IC for the previous year are extrapolated by the volume indices.
Financial intermediation	For quarterly estimates, the volume index calculated for IMAE purposes is used.	The respective GVO and IC for the previous year are extrapolated by the volume indices.
Real estate and rental services	For quarterly estimates, a synthetic volume index is used, calculated on the basis of residential and nonresidential construction, weighted by annual GVO.	Residential rents are extrapolated from the volume index obtained from the calculation of new residential construction. Nonresidential rents are extrapolated with the volume index for new nonresidential construction.
Community, social and personal services	Since 1998 the quarterly services survey has been used.	Estimates of GVO and IC at constant prices are obtained by extrapolating these variables.
Public administration, nonmarket health and education services	For the quarterly estimates, the employment index calculated for IMAE purposes is used.	Estimates of GVO and IC at constant prices are obtained by extrapolating these variables.

Table D. Quarterly Estimates by Type of Expenditure

Economic Activity	Source of Information	Method of Deflation/Reflation
Private consumption	A volume index is used, constructed from volume indicators for the following activities: electricity, water, transport and communications, financial services, marketed health and education services, community services.	Reflated by the CPI per product.
Government consumption	The quarterly estimate of Government consumption uses information from the local taxation department [<i>departamento del área fiscal</i>] and the supply department [<i>departamento oferta</i>] of the Department of Annual Accounts.	IC deflated with price indices and extrapolated with volume indices for use of value-added.
Gross Capital Formation		
Construction	Quarterly survey of private construction and information from institutions such as the Tourism Institute, Urban Planning Council and Free Zones Corporation.	The current figures are deflated by a moving-base price index. Constant values by a chaining procedure.
	Public construction data from the Presidential Coordination and Strategy Secretariat, City of Managua, Nicaraguan Social Security Institute, and Ministry of Finance and Public Credit.	The current figures are deflated by a moving-base price index, survey data and price lists. Constant values by a chaining procedure.
Machinery and equipment	DGSA database. Taxes are obtained from the respective CNICs from the annual national accounts department, which in turn are provided by the Revenue Directorate (DGI). Machinery and equipment data from the Presidential Coordination and Strategy Secretariat.	The current figures are deflated by a moving-base machinery and equipment price index, constructed from producer price indices for the United States and the capital goods export price index for Japan.
Other investments	Information from the MAGFOR on new plantings of coffee, sugarcane, bananas and pasture. Information provided by the Ministry of Natural Resources and Environment on new forest plantations.	The current figures are deflated with a moving-base price index, resulting from primary and secondary activities. The chain indices are obtained from moving-base current figures.
Exports of goods and services	Database of the National Customs Directorate (DGSA). Monthly statistics from the National Fisheries and Aquaculture Administration (ADPESCA), under the Ministry of Industry and Development (MIFIC). Information from the Nicaraguan Banana Producers' Association (PROBANICSA). Daily exchange rate published by the Central Bank of Nicaragua (CBN).	Constant export values are calculated from volume, value and unit value of a basket of goods for which unit value indices are calculated by CNIC.
Imports of goods and services	Database of the National Customs Directorate (DGSA). Monthly information from Hydrocarbons Directorate of the Nicaraguan Electricity Institute (INE). Daily exchange rate published by the Central Bank of Nicaragua (CBN).	Constant export values are calculated from volume, value and unit value of a basket of goods for which unit value indices are calculated by CNIC.

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*

The data compiled from the main sources used to compile national accounts statistics are checked against other independent data sources. Thus, for example:

Data from the annual survey of the timber sector are compared with those from the National Forestry Institute; those from the annual survey of the Esso refinery are compared with information on crude oil imports and derivatives from the Customs Directorate, and data from the annual survey of the meat industry are reconciled with data from the Agriculture and Forestry Ministry.

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

A systematic procedure exists to routinely assess the potential discrepancies in survey-generated data and take steps to eliminate them. There are three different groups that undertake critical review and reconciliation of the information provided by firms at various points in the process, comparing the data with those from other firms in the same industry and with the data provided by each of them in previous years. When problems of consistency (discrepancies) are identified in the data supplied, the source is queried directly and asked to correct them.

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

As noted in Section 3.3.1, the SUT is used as a framework to investigate discrepancies and make the statistical outputs consistent: discrepancies between supply and use are eliminated during the consistency analysis process.

Whenever another institution publishes unofficial statistical information on a topic, it is validated against the official data, and an attempt is made to explain any differences.

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)*

Upon adoption of the new base year 1994 for the national accounts, a series for 1994–2000 was published, with preliminary data for 2000. In addition, data covering the period

2001–2003 have been published. Given the short time that has elapsed since publication of the new series, no revision studies have been undertaken.

No documentation has been prepared to analyze the causes of variations in the data published in March of each year, when the revised data are released in July. This will make it difficult to perform proper revision studies in the future, the results of which might be used to improve the first and the preliminary estimate and to refine the data compilation programs for subsequent periods, by examining whether there are systematic biases in the differences generated over time between the preliminary and the revised estimates. If this were the case, adjustments could be made beforehand when doing the first and the preliminary estimates, so that the adjustment to be made in the revised estimate will be lesser.

4. Serviceability

4.1 *Periodicity and timeliness*

4.1.1 *Periodicity follows dissemination standards*

GDP estimates are disseminated annually, consistent with the IMF's General Data Dissemination Standard (GDDS).

4.1.2 *Timeliness follows dissemination standards*

The GDP estimates are disseminated seven months after the end of reference year, which is consistent with the GDDS.

4.2 *Consistency*

4.2.1 *Statistics are consistent within the dataset*

i. The statistical series are internally consistent.

A set of consistent GDP estimates by activity and expenditure components is derived from the supply and use framework at current prices for the previous year, and at constant prices for the base year 1994. By using the SUT tables as a framework for consistency and making the required adjustments to arrive at balanced tables, consistency is assured at current and constant prices for GDP measured by the production and the expenditure approaches. The growth rates obtained from the GDP series by activity and the GDP series by expenditure categories are identical. Aggregate supply of goods and services coincides with the figures on aggregate use, because they are not derived independently. GDP estimates at current prices, volume measures, and (implicit) deflators are consistent within the “value = volume × price” framework.

The quarterly GDP estimates that are now being prepared are based on the same conceptual framework as the annual accounts, and consequently the same concepts, definitions, and

classifications are applied to them. A Denton-type method will be used to combine the annual and quarterly data into a single, consistent series.

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

No attempt has been made to reconstruct a longer time series, because of the particular dovetailing difficulties involved, recognizing that GDP for the new series is roughly 70 percent greater than that in the previous series for the base year 1994, and that the better coverage of the new series has variable effects on GDP components. As well, the Department is giving greater priority to improving the quality of estimates using annual economic surveys, changing the base year to 2005, and implementing the institutional sector accounts in stages.

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

The national accounts statistics can be reconciled with government finance statistics, balance of payments and other statistical frameworks. With the balance of payments, consistency is assured by the fact that the two statistical frameworks use the same data sources and whenever adjustment is needed the problem is analyzed in common and the solution adopted is applied to both frameworks. However, national accounts have been adjusting data for informal trade in tobacco that is not included in balance of payments. This discrepancy is not explained in balance of payments publications. While there is consistency, however, the gaps in the coverage for transactions with the rest of the world affect both frameworks: for example, neither the balance of payments nor the national accounts include income earned by Nicaraguan residents who work part of the year abroad. In the case of government finance statistics, differences stem from the fact that there is less coverage of public institutions, primarily because of timing problems with the information that those institutions provide for fiscal programming.

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

The programmed revision cycle includes the release each March of a first set of accounts, referred to as "estimates." The estimates are revised at mid-year with additional data, primarily on agriculture and on government, on the basis of which new estimates are released in July, and are called the "preliminary" figures. These figures are again revised with data from the annual surveys. The set of accounts thus estimated is published two years after the close of the reference year, as "final" figures. However, in the currently published series, revisions apply only to the "estimates" data, since final data have been published up to 1999. As already noted, revised estimates will be published in March 2005, based on data from the annual surveys for 2001 and 2002: these will still be "preliminary," as will those for 2003, and the data for 2004 will be "estimates."

The data from the annual surveys are obtained very late because many firms close their books on a fiscal year basis (which in Nicaragua runs from July of one year to June of the next). This delays the delivery of information from financial statements and responses to the annual survey questionnaires. Roughly 80 percent of businesses, and in particular the bigger ones, keep their books on a fiscal year basis.

No documentation has been prepared on revisions, such as might explain to the public the reasons underlying the revisions, or could be used for future studies of revisions.

4.3.2 Preliminary and/or revised data are clearly identified

At the time of data dissemination, users are informed whether the data are preliminary. In the case of tables, this is indicated by the letter “p,” in a footnote or a heading.

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

The data published in March are revised and released in July without any analysis of the differences between them and the reasons underlying those differences. Final revisions have not yet been published (see sections 3.5.1 and 4.3.1).

5. Accessibility

5.1 Data accessibility

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

National accounts data are published in the CBN’s Annual Report in a clear manner, and charts and tables are disseminated with the data to facilitate the analysis. The level of aggregation with which they are published in that report is high. The new series published with base year 1994 contains very detailed data on the national accounts. It has been released in printed form and is also available on the website.

5.1.2 Dissemination media and format are adequate

The estimated data are published in the Bank's Annual Report in March of each year, and the preliminary data are contained in the publication "Economic Indicators." Both documents are also posted on the Bank's website. A 1994-2000 series was included in the System of National Accounts for Nicaragua with base year 1994, which was produced in printed form and is available at the CBN website.

Recent data and longer time series can be consulted free of charge at the website and in printed publications available in the Bank's library.

5.1.3 Statistics are released on a preannounced schedule

The public is not informed in advance of the dates the statistics are to be released, although there is an internal calendar.

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

The statistics are made available to all interested users simultaneously via the Internet. Users outside the CBN have no access to the data until they are released to the President of Nicaragua by the President of the Bank in his annual report, or via the Internet.

5.1.5 Statistics not routinely disseminated are made available upon request

In addition to the statistics routinely disseminated, other general statistics are made available upon request, but this possibility has not been publicly announced.

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

With the release of a new series of national accounts, a document entitled National Accounts System of Nicaragua, Base Year 1994 was published in May 2003. It describes the concepts, definitions and classifications for the national accounts, as well as the data sources used and the statistical techniques applied. Metadata have been prepared for inclusion on the IMF website upon Nicaragua's joining the GDDS.

Although methodological documents have been published with different levels of detail and aimed at users with varying degrees of education, no comprehensive document on sources and methods has been prepared, either for the department's own purposes or for consultation by Bank staff and specialized users.

The methodologies disclosed cover a portion of the requirements, but those not included could be of particular interest to specialized users.

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

The methodologies disclosed in publications and on the Internet cover both general and relatively specialized topics, thus meeting the needs of most of the public.

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

A contact point for each area is included in the publication "Economic Indicators Methodological Notes 2004." This is also available at the Bank's website.

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

A list of publications is available at the website and in the Bank's library. There is no charge for these publications.

Table 1. Nicaragua: Data Quality Assessment Framework (July 2003): Summary of Results for National Accounts
(Compiling Agency: Central Bank of Nicaragua)

Element		NA	Assessment				Comments
			O	LO	LNO	NO	
<p>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</p>							
0. Prerequisites of quality							
0.1	Legal and institutional environment			X			The primary responsibility for compiling and disseminating the national accounts is not assigned to the CBN, neither by its Charter nor any other legal instrument. The Charter gives the CBN the authority to collect statistics, but does not mention dissemination. Penalties for not answering CBN surveys are in nominal terms.
0.2	Resources		X				Formal mechanisms for consulting users' needs and identifying new and emerging data requirements have not been established.
0.3	Relevance			X			Cycle of revisions not used as a quality control tool.
0.4	Other quality management			X			
1. Assurances of integrity							
1.1	Professionalism		X				
1.2	Transparency		X				
1.3	Ethical standards		X				
2. Methodological soundness							
2.1	Concepts and definitions		X				
2.2	Scope		X				
2.3	Classification/sectorization		X				
2.4	Basis for recording			X			Government expenditures and revenues are measured on a cash basis.
3. Accuracy and reliability							
3.1	Source data			X			Better coverage of informal activities, specially in services, needed.
3.2	Assessment of source data		X				
3.3	Statistical techniques			X			The 1994 reference period should be updated.
3.4	Assessment and validation of intermediate data and statistical outputs		X				
3.5	Revision studies			X			Inadequate documentation on revisions.

Table 1. Nicaragua: Data Quality Assessment Framework (July 2003): Summary of Results for National Accounts
(Compiling Agency: Central Bank of Nicaragua)

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria						
Element	NA	Assessment			Comments	
		O	LO	LNO		NO
4. Serviceability						
4.1 Periodicity and timeliness		X				
4.2 Consistency		X				
4.3 Revision policy and practice			X			Revised data are disseminated without analysis of revisions and their causes.
5. Accessibility						
5.1 Data accessibility			X			There is no advance release calendar available for the public.
5.2 Metadata accessibility			X			More detailed metadata for internal and specialized users are needed.
5.3 Assistance to users		X				

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 monthly consumer price index (CPI) is compiled by the Central Bank of Nicaragua (CBN) since 2003. The National Institute of Statistics and Censuses (NISC) compiled the CPI up to 2002. This function was transferred to the CBN due to NISC's budget constraints. At present, operational responsibility for collecting, compiling, and analyzing the CPI lies with the Executive Coordination of National Surveys (ECNS) in the Economic Studies Management (ESM) of the CBN. Analysis of results, methodological improvements, and dissemination lies with the Department of Income and Deflators (DID) of the ESM. No other institution compiles the CPI in Nicaragua.

The CBN Organic Law (No. 317, 03/30/01) does not clearly assign the responsibility for compiling and disseminating the CPI to the CBN. However, Article 60 gives the right to the CBN to collect statistical data for statistical purposes and macroeconomic analysis.

Articles 26 (7) of the CBN Law and 138 (28) of the Political Constitution of Nicaragua (01/18/00) state among the duties of the CBN President to submit to the Board of Directors of the Bank and to the National Assembly an annual report. Article 31 (3) of the CBN Law states, "During the first three months of each year, the Central Bank will submit to the President of the Republic, the Annual Report of the Institution, which will be published, and must include, at minimum, the following points: ... (3) Description of the monetary and exchange policy followed by the Bank during the year reported, and a general survey of the economic and financial development of the country." The CBN has used these articles as legal support for its statistical function.

It should be noted that although the NISC is not currently directly involved in the compilation of the CPI, article 7 of the NISC Law (Decree No. 888, 10/30/81) establishes among the duties of the NISC the centralization of all statistical activities of the governmental entities and other public or mixed entities that produce statistics of national interest. The prospect of the new law of the NISC includes the compilation of the CPI among its functions.

While the legal framework of the CBN and the NISC is being updated to provide a clear mandate to compile and disseminate statistics. Some functions specified for the NISC are rather ambitious and go beyond its current financial capacity, such as the compilation of the CPI. However, the CBN might have a conflict of interest if it continues compiling the CPI and at the same time, implements a policy of inflation targeting. In any case, it would be

necessary to provide the NISC with sufficient resources to ensure that the CPI is compiled with adequate quality and timeliness.

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

The CBN is self-sufficient in the production of the CPI. All price and source data for weights are collected and tabulated within the CBN. However, the sampling frame (1995 Population Census and cartographic maps of Nicaragua) used to define the household sample of the 1998-1999 National Survey of Household Income and Expenditure (NSHIE) was provided by the NISC to the CBN.

The National Statistical System (NSS) includes the NISC, as a coordinator, all ministries, decentralized public entities, local governments, public enterprises, and other data producing agencies. Article 3 of the NISC Law states that the NSS shall avoid duplicating efforts and ensuring the comparability of statistical information. Article 18 envisages the creation of the Coordination Committee of the NSS and sector committees to ensure proper and efficient coordination of the activities of the NSS. Several sector committees are functioning, such as the committees of external trade, free zones, agriculture, employment, and salary statistics. In addition, the National Strategy of Statistical Development (NSSD) envisages the creation of the National Committee of the NSSD, which includes representatives of the NSS, the civil society, and (nongovernmental organizations, universities, and producers' committees), international organizations. However, owing to the decentralization of the statistical function among the entities of the NSS, coordination has not been completely effective.

There are no formal data sharing agreements among data producing agencies; therefore, data sharing is based on informal agreements and good relations. There have been efforts to strengthen technical cooperation among data producing agencies in the framework of the revision of the NISC Law, the Coordination Committee of the NSS, the National Committee of the NSSD, and the sector committees.

The National Strategy for Statistical Development (ENDE) is in the works. It includes most of the members of SEN and the civil society. Its purpose is to strengthen and modernize all statistical areas in Nicaragua.

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

Article 61 of the CBN Law states, "The directors, officers, and employees of the Central Bank will be obligated to safeguard the confidentiality of the information, documents and operations on which they have knowledge of by virtue of their positions. Any violation of the confidentiality obligation enshrined herein will be sanctioned in accordance with the by-laws of the Bank, without prejudice to any punitive sanctions that may be applicable under criminal law."

Article 10 of the CBN Personnel Internal Regulations (by-law) states among the causes of contract termination the following: “Proved released of information and reserved or confidential documents, and in general, of any information related with the functions of the Bank, when such employee has not been authorized.” The President of the CBN has the faculty to fire non-complying personnel.

Article 56 of the CBN by-law also establishes the confidentiality of databases: “All digital information supplied by the Bank to the employee for performing his/her duties is confidential and shall not be revealed even after the work relation has concluded.” In addition, Article 77 includes among the obligations and prohibitions of the employee “To keep secrecy/discretion on the information, documents, and operations on which they have knowledge of by virtue of their positions.” Infractions of these standards and sanctions for employees that disregard them are defined in Article 61 of the CBN Law and Article 78 of the CBN by-law.

When conducting the National Survey of Household Income and Expenditure 1998–1999 (NSHIE) for collecting information to update the CPI, respondents were presented with a questionnaire with a section that reads: “According to the Law of Statistics, Decree 102, Article 91 the data provided are strictly confidential and will be only used for statistical purposes.” This survey was conducted jointly by the NISC and the CBN.

Access to confidential data in the CBN is restricted to those employees who require the information in the performance of their duties. CBN personnel compiling the CPI have access to individual source information and are aware of the confidentiality of the data and the penalties imposed by the legal framework. Some institutions have requested the CBN unit records on several retail enterprises, and the CBN has refused to provide these data in accordance with the law. However, when unit records are made available for research purposes, the confidentiality of individual data is protected by making all records anonymous. Special aggregation rules are used to prevent residual disclosure when aggregations of survey or other confidential data are disseminated. The ECNS work procedures for compiling the CPI ensure that data are disseminated only at an aggregated level. Questionnaires, once processed, are archived in the store room of the ECNS. After two years, they are destroyed.

A letter is sent to respondents in order to inform the purpose of the information request and the confidentiality of the data to be provided. Price data are collected by visits to retailers. Respondents are informed on the confidentiality of the information, and that the data will be used for compiling price indices only. Price collectors fill out price surveys with the information obtained from the respondents. Price surveys include the CBN logo, the title “Consumer Price Index.” the name of the supervisor, the name of the collector, and the identification and code of the retailer.

The Information Sub-Management (ISM) of the CBN has implemented a number of security measures to guard against unauthorized access to its statistical databases. Article 66 of the CBN by-law states that “All resources of the internal net have to be protected by passwords

or established access lists.” The CBN intranet can only be accessed with an authorized user’s name and password, and different levels of access (user profiles) have been established for the various databases through the Operative System Windows 2003. There are also an external firewall to prohibit access to the CBN intranet and databases, an antispam module, and an antivirus. CPI databases are administered by the ECNS of the CBN.

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

Article 60 states that “Offices and units of the Central Government and municipal governments, as well as governmental credit institutions, are obligated to submit to the Central Bank such reports as the latter may request in the discharge of its duties.” Likewise, the banks and any person or enterprise with residence or domicile in Nicaraguan territory, whether a national or foreigner, are obligated to supply the Central Bank with statistical information requested by it in the discharge of the duties conferred upon its by Law. This information must be used solely and exclusively for statistical purposes and macroeconomic analysis. Anyone who fails to comply with the provisions of the preceding paragraph of this article, or who provides false or incomplete information, will be penalized by a fine of one thousand to ten thousand córdobas for each occurrence (\$60.61–\$606.10 as of January 2005). However, these penalties are low, particularly in the case of large and medium enterprises, and there is no mechanism to preserve its value in real terms.

The enabling legal provisions for requesting information have been rarely invoked and penalties for noncompliance have not been levied. The CBN personnel state that there are not clear regulations to apply the penalties for noncompliance. The authorities prefer to encourage voluntary reporting by explaining in detail to respondents the intended use of the requested information, its confidential nature, and its importance for assessing the economic conditions of the country.

Surveys and censuses are announced through radio, television, and newspapers with explanations of purpose. In general, the CBN assists respondents in completing and submitting the questionnaires through regular visits to enterprises in the sample and by providing a point of contact.

The nonresponse to the NSHIE 1998–1999 was 12 percent in Managua and 18 percent in the rest of the country. It was mainly concentrated in the high-income stratum in Managua and spread in all strata in the rest of the country. With respect to price surveys, the nonresponse is around 1 percent. Retailers that do not provide information are visited by the supervisor or by the coordinator of the ECNS to try to encourage them to provide the requested information. If they refuse to provide the data, they are substituted by other retailers that sell the same items and are located in the same market place. Statistical information is provided to respondents when requested and the CBN annual report is given free of charge in some cases.

Instruments to collect information on price and weights are designed to reduce respondent burden, and an attempt is made to take into account the time constraints of the respondent.

0.2 Resources

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

The number of staff assigned to the CPI is broadly adequate (34). However, there is only 1 professional within the DID for analyzing and improving CPI methodology under the coordination of the Department Chief. At the ECNS, there is a CPI unit with 15 field agents, 4 supervisors, 1 field chief, 4 analysts, 2 reviewers, 3 data processors, 1 programming developer, and 1 coordinator assigned to price collection, compilation, and analysis of the CPI. Price collection is made by 5 price collectors in Managua and 8 in the other 7 regions.

While current resources are broadly adequate for the preparation of the current CPI covering 322 varieties and 26,000 price quotations, there will be a shortage of resources (both human and financial) for the conduction of the 2006 NHSIE and the compilation and dissemination of a CPI with a new reference base.

More than ninety percent of the staff working on the CPI is contractual personnel. These may be a source of risk for the quality and timeliness of the CPI, especially for data analysis and index calculation. The ECNS has tried to retain the trained contractual personnel as budgetary constraints have permitted it by renewing their contract annually. Most data collectors are professionals (economists, administrators, and public accountants), which ensure that collected data are validated, crossed-checked and analyzed before compiling the index. Average seniority of staff in the CPI is approximately eight years.

The mix of staff involved in the compilation of the CPI is as follows:

Income and Price Deflators Department (CPI)	Permanent	Contractual	Total
Department Unit	2	0	2
Chief	1	0	1
Professional	1	0	1
Executive Coordination of National Surveys (CPI)			
CPI Unit	1	31	32
Chief	0	1	1
Assistant	0	1	1
Programming developer	0	1	1
Processors	0	3	3
Analysts	1	3	4
Critics	0	2	2
Field chief	0	1	1
Supervisors	0	4	4
Field agents	0	15	15
Total	3	31	34

CPI staff members receive on-the-job training as well as formal training through courses and seminars, including a few abroad, such as those conducted by the Economic Commission for Latin America and the Caribbean (ECLAC), the Central American Monetary Council (CAMC), and the Center for the Training of Statisticians from Developing Countries of the National Institute of Statistics of Spain (Cesd-Madrid). However, the training opportunities are not offered regularly.

Salaries at the CBN are competitive compared to those at other ministries and public dependencies (monthly salaries are around \$200 for data processors, \$300 for analysts, and \$450 for professionals).

The DID and the ECNS currently have sufficient processing equipment for the preparation of the CPI according with staff numbers. However, most computers at the ECNS have low capacity to handle large databases and the number of printers (1) and their speed is insufficient. The DID has 2 computers, mainly Pentium 4, 1 server, and 2 printers. However, only 1 computer has Internet access, and only supervisors have their own CBN e-mail account. The ECNS has 12 computers, 1 printer, and 2 servers assigned to CPI data processing and compilation; only 2 computers are Pentium 4. Nevertheless, the CBN is currently in the process of leasing modern computing resources. Distribution of computers within the DID and the ECNS takes into account staff assigned to the different tasks (data collection, processing, and compilation) as well as their work programs. The CBN plans to incorporate more equipment to the ECNS unit.

The CPI is presently being calculated using applications developed in Visual Basic 6.0, configured to perform all calculations in an automated fashion. A SQL Server database is used to store CPI data. A daily back up of CPI data is made. Besides the Intranet of the CBN, each employee has access to computer programs, such as the ones included in Office 2000 (Excel, Word, and Power Point), and to E-Views, ARIMA, Tramo Seats, Crystal Reports, and SPSS to analyze results and prepare presentations and publications. However, software is not regularly updated due to budget constraints.

The CBN building has adequate working facilities (cooling, space, restrooms, and power system to support CBN's computing system). Office furniture and equipment are adequate to perform tasks. Transportation equipment for CPI data collection (4 vehicles) is broadly adequate. However, these vehicles have to be shared with other work programs as the conduct of other surveys. Nevertheless, priority is given to the CPI compilation.

The 1998–1999 NSHIE was jointly carried out between the CBN and the NSHIE, with funding from the CBN and the Inter-American Development Bank (IDB). The financial resources for compiling the CPI are broadly adequate. Currently, funding for the compilation of the CPI is provided under the budgetary process of the CBN. The budget for the CPI program in 2005 is 2.98 million córdobas (\$180,606 as of January 2005). Short and medium-term work programs are taken into account in the budgetary process. Requests for funding for special projects such as conducting the 2006 NSHIE, changing the reference base of the

index, expanding its coverage, and conducting studies for improving CPI methodology are included as part of the normal budgetary process.

0.2.2 Measures to ensure efficient use of resources are implemented

The CBN has a four-year (2004–2007) strategic plan that serves to increase the quality and timeliness of the statistical series that are compiled as well as to improve efficiency in the allocation of resources. The four-year strategic plan is further broken down into individual annual work plans. These plans are administered by each organizational unit of the bank in coordination with the Sub-Management of Organization and Planning (SOP). The SOP meets with each organizational unit every quarter to review progress with the four-year plan and the yearly plan. The allocation of both financial and human resources is also discussed during these meetings with the SOP. In addition, each unit formally reviews progress on a monthly basis according with their work plans.

The performance of CBN personnel is annually evaluated through semiannual advances. A follow-up and tests are made for promoting personnel.

Assignment of responsibilities among the DID and ECNS units is clear. The supervisors within the RSM meet regularly in order to measure progress, define the work to be undertaken, and analyze the CPI results.

The budget is quarterly reviewed to ensure that scarce resources are employed efficiently in addressing major data problems or meeting new data priorities.

Regarding data collection, processing, and analysis, daily productivity rates are calculated. In the event of errors and inconsistencies, clarification is sought with respondents and corrections made. Data in databases are subjected to additional consistency checks. An efficient application was developed in Visual Basic 6.0 to elaborate the CPI. An application in SQL Server was introduced to improve data validation processes and keep digital records of data corrections and revisions.

The CBN has an active program to take advantage of new computing technology, including the Internet, for data processing and dissemination. The CBN Internet website is well designed according with the standards of the Bank of International Server, and has become an important part of the data dissemination process for both the bank and index users.

The ISM has introduced innovations and plans to introduce Data Transformation Services to reduce time and cost of statistical collection, coding, editing, validation, and tabulation of source data. The ISM plans to install software for survey designing and implement data collection processes through Palm Pilots avoiding data transcription. These mobile units will be connected directly to the servers for downloading source data. Staff will be trained to use On Line Analytical Processes (OLAP) to analyze data, indicators' systems, and dynamic tables. Reports will be flexible since compilers will design and prepare them directly without developing costly applications. The process for data dissemination will be decentralized as

the new technology will allow data producing units to post statistical products automatically on the CBN website.

In order to reduce costs, the ISM plans to use free software such as the operating system Linux in non-critical areas of the CBN.

The DID and the ECNS have received technical assistance from independent consultants for conducting the 1998-1999 NSHIE, applying sampling techniques, compiling the CPI 1999=100, and systematizing the CPI compilation process.

0.3 *Relevance*

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

The CBN library and website provide timely information to users on CBN's statistical products. The Department of Public Service of the Library monitors and keeps records on users' requests and non-satisfied needs. Nonetheless, the CBN does not have regular meetings with those entities that participate in the NSS, in order to discuss statistical development and establish new data requirements. However, the National Committee of the NSSD and the Coordination Committee of the NSS include key public and private users. In addition, the CBN website provides two e-mail addresses to users (bcn@bcn.gob.ni and webmaster@bcn.gon.ni) to contact CBN personnel and provide comments if users did not find the information they needed on the CBN website. In the English version of the website there is a message that reads "We welcome all comments and suggestions for other information that may be of use to researchers, investors, financial entities, and the general public."

When a new census or survey is conducted, a users' committee is created in order to satisfy users' needs by including their data requests, where relevant, in the questionnaires before implementation. The NISC conducted a survey on statistics demand in 2003.

The CBN staff participates in meetings and seminars on price statistics as budgetary constraints permit it.

0.4 *Other quality management*

0.4.1 Processes are in place to focus on quality

The CBN strategic plan, as it is administered by the organizational units under the direction of the MOP, possesses the essential characteristics of a total quality management program. It provides the framework for continuous structured review of the allocation of all types of resources as well as the different elements of data quality, including accuracy, methodological soundness, reliability, serviceability, and accessibility. One of the goals of the strategic plan is to improve the quality and timeliness of statistics.

The President and managers of the CBN meet regularly with the media to inform economic developments as well as to report on the bank's projects for improving the quality of statistics.

Price collectors and analysts are annually trained on type of errors to be avoided: respondent errors, errors when completing questionnaires, transcription errors, and analysis errors. These training courses have been conducted since 2002.

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

Even though responses to surveys were assessed for the NSHIE, response rates to price surveys are not calculated and complete monitoring processes are not in place to inform managers on the quality of ongoing statistical activities (e.g., editing rates, revisions history, and timeliness evaluations).

Compilers have access to expert guidance on the quality of their statistics and on strategies for improving data production when international organizations donate or lend the resources to hire the experts or when the CBN contracts experts albeit its budget constraints.

The CBN has established practices and procedures to ensure the quality of the CPI at all levels of production including data collection, data processing, and index tabulation and dissemination. The monthly price collection phase of the CPI is reviewed at both the regional level and the national level. Any problems that are detected are referred to the supervisors at the section and the unit levels. Data entry and screening are handled at the ECNS. Computer listings are generated that allow for review and validation of the index at each level of compilation. This process permits a consistent review of data from all parts of the country by qualified analysts. Any errors that are detected are corrected after consultation with respondents and the regional staff, when necessary. The index aggregates are also reviewed and analyzed by CBN staff at various administrative levels before the index is published.

The CBN also has instituted a program of monthly visits to oversee price collection in the different regions. These visits also serve as a means for verifying abnormalities detected during the monthly review of data in the ECNS and the DID.

There are defined processes to supervise data collection and apply consistency checks. Information from a sub-sample of questionnaires is verified by the supervisors in their visits. Staff keeps records of usual errors and improvements to be incorporated in the new surveys in order to improve the quality of the compilation process before commencing another survey.

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

The four-year strategic planning system of the CBN and the form in which it has been implemented is strong evidence of the bank's commitment to quality assurance and an

analysis of the tradeoffs among its different dimensions: resource availability, timeliness, and accuracy/reliability.

The CBN has an ongoing program to identify changes in specifications for CPI market basket items, especially clothing, motor vehicles, and high technology items. The new items specifications are introduced into the index as needed.

Although there are no official mechanisms, such as a users' survey or official advisory groups, for obtaining feedback from users and/or guidance on methodological issues, the CBN convenes, on an ad hoc basis, such groups when changes are being considered for the index. However, these groups tend to concentrate on issues relating to the methodological soundness of the CPI, rather than user needs. Users' needs are monitored through data requests and users' comments obtained through the CBN website. Nevertheless, the Coordination Committee of the NSS and the National Committee of the NSSD will play an important role in this regard.

1. Assurances of integrity

1.1 Professionalism

1.1.1 Statistics are produced on an impartial basis

In practice, the CPI is produced and disseminated without any outside influence. However, the CBN regulations do not specifically cover attempts at interference and/or influence on official statistics by parties outside the CBN. The CBN Board of Directors includes the minister of the MFPC, with a risk that a conflict of interest could emerge. However, Article 15 states that:

[a] "A Board shall be responsible for the executive management of the Bank. The Board shall include the President of the Bank who, in turn, will preside over the Board, the Minister of Finance and Public Credit, and four members named by the President of the Republic in consultation with the private sector, and ratified by the National Assembly. Of these four members, one must belong to the party or alliance of parties that placed second in the most recent election of the highest authorities of the nation, based on the proposal of said party or alliance ... The president of the Bank will serve for a term equal to that of the President of the Republic...."

Article 62 states the procedures for appointing the four members of the Board:

"1. The appointment of the member of the Board representing the party in second place will be done so that the end of his term coincides with the end of the current presidential term of office. 2. Appointments of the remaining three members will be made in such a way that the end of the term coincides with the halfway of the current presidential term...."

These regulations avoid political influence since Board's decisions are made by consensus of the majority.

Article 16 of the CBN Law requires the Members of the Board of Directors to be "... of recognized moral integrity, economically solvent, and professionally qualified in matters related to the position that they will fill." Article 25 of the CBN Law also requires the president of the CBN to "... be of recognized moral integrity and professional competence in the areas that fall over the purview of said position."

Hiring and promotion of CBN employees are governed by CBN regulations, and are based on professional merit. Articles 7 (d) and (f) of the CBN by-law state that "Every person that wishes to join the Central Bank of Nicaragua shall fulfill the following requisites: ... (b) To have the academic, technical or work experience requisites corresponding to the function of the requested position" and "(f) To satisfactorily approve all aptitude and competence tests established by the Bank according to the requirements of the requested position." Articles 14 to 17 regulate the promotion of personnel. CBN personnel have priority to fill vacancies according with their merits. These regulations ensure that political affiliation is not taken into account to hire and promote personnel.

Professionalism is promoted through encouraging staff participation in training opportunities, workshops and seminars, to ensure awareness and understanding of statistical standards and good statistical practices. Staff attending training courses and seminars has to make a presentation on their contents to his/her colleagues at the completion of the training. The Department of Human Resource Development (DHRD) under the CBN Human Resources Sub-Management (HRS) is in charge of personnel training. Article 77 (k) of the CBN by-law includes among the obligations of CBN employees "To attend courses and other training activities convened with the administration, as well as to attend national and international seminars or meetings of interest of the institution."

CBN employees are encouraged to carry out research projects and to participate in conferences, lectures, and professional meetings with other professional groups. Usually research papers are a result of the employees' own initiative. The methodological studies prepared by CBN professionals are circulated for internal review and, when appropriate, for outside review. Institutional papers submitted for publication must be approved by the administration of the CBN.

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

The selection of source data and statistical techniques for the compilation of statistical series is based solely on statistical considerations. The sources and methods for compiling the CPI are fully under the control of the CBN and concepts and practices follow international standards. Appropriate sources and statistical techniques are used, with no outside interference or attempted interference in matters of sources, methods, and dissemination. Decisions in this regard are made internally after careful consideration of methodological

recommendations by international organizations. A summary documentation on source data and methodology employed for compiling the CPI has been prepared and is available to the public.

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

When necessary, the CBN responds to erroneous interpretations of the CPI through press releases and other means. The CBN follows the press very carefully with regard to references to the CPI. Data are presented to the media at press conferences held each month at the time of release of the monthly CPI. Comments on CPI trends are included in the presentation and in the monthly bulletin that is distributed to the press. This bulletin identifies the main underlying factors behind unusual figures and movements, in order to improve user understanding and reduce the likelihood of misinterpretation. The president and the manager of the CBN are entitled to respond to public criticism of statistics or instances of misuse of statistics, but there have been few instances where response to public criticism has been required.

1.2 Transparency

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

Article 131 of the Political Constitution of Nicaragua states that “The staff of the four powers of the State, elected directly or indirectly, shall respond on the correct performance of their functions and inform the population on their work and official activities.”

The CBN website includes a summary methodology and the technical conditions under which the CPI is calculated. The CBN has posted its Law on its website, which informs about the CBN’s standards of confidentiality and professionalism of its president and Board of Directors. However, the CBN By-Law or a summary of the articles that deal with professionalism of the staff have not been posted on the CBN website.

The CBN website (www.bcn.gob.ni) contains a directory of key personnel and two email addresses to direct additional requests, suggestions, and contact CBN personnel. CBN publications contain information on the CBN website, its PO Box, and the fax number of the ESM.

In addition, the CBN Library has a unit in charge of providing information to the public.

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

The CBN indicates that the approval of published index series is exempt from outside interference. A number of high-level government officials have embargoed access to these series usually 72 hours before they are publicly released. The list of officials receiving

privileged access is not published. CBN publications are authorized by the CBN Board of Directors, but there are no specific regulations guiding this approval process. In practice, CPI release and publications are authorized by the manager of Economic Studies.

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

All CBN publications include the Bank's logo. In the case of joint publications, each entity, whether public or private, is clearly identified with their logos or in the footnotes of all published tables and/or on the title page of the document. The CBN has a policy of releasing publications on the CPI in a standard format (titles, colors, typography, etc.)

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

Major changes in methodology or data sources are publicized before implementation. The CBN implemented a campaign to publicize the change of base year of the CPI (1999=100) before publishing the new series in January 2001; this campaign was carried out by means of presentations and meetings. Also, a report with a summary table with the main differences between the new CPI and the previous index (1994=100) was published.

The questionnaires of the NSHIE, used to collect information on the new market basket weights for the CPI, were presented ahead of implementation to a group of researchers and specialized users.

1.3 Ethical standards

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

A manual of instructions is issued to field agents and supervisors, which provides guidelines about staff behavior. CBN staff is not authorized to alter or change statistical data received from respondents. The CBN By-Law contains rules of staff conduct in Chapter VIII on Obligations and Prohibitions of the Employee. Article 61 of the CBN Law and 77 of its By-Laws state that CBN employees have to be discrete on the affairs that due to their character are reserved according to the law, regulations or special instructions. Other obligations include: "(a) ... to provide their service with efficiency, honesty, dedication, responsibility, loyalty, and constant improvement in the performance of their assigned tasks ... (f) to observe decorous conduct and maintain respect, consideration, and courtesy at all times in their relations with peers and the public."

Article 77 also states the following prohibitions: "(c) To receive from the public any invitation or gift (it does not matter its value or nature) that can be related to expedite paperwork or transactions, or any other circumstance that could induce a special treatment or inappropriate authorization ... (i) to use, for own benefit or third parties' benefit, values or goods of the Institution...." Article 78 presents the sanctions to apply to the personnel that do

not comply with the prohibitions. These sanctions include verbal and written reprimand, work suspension without salary, and dismissal of the employee.

Each new employee is informed of the CBN Law and regulations and is given a personal copy of them.

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 CPI are generally in line with internationally accepted standards as defined by the International Labor Organization, the IMF and others in the *Consumer Price Index Manual, 2004*. The prices and weights of the CPI broadly follow the national accounts concepts—based on the *1993 SNA/1995 ESA*—for all monetary household consumption expenditures.

Level of detail for commodities and services is sufficient for detailed analysis of price movements at the level of divisions, groups, classes, and items of the *Nicaraguan Classification of Individual Consumption by Purpose (COICOP)*.

2.2 *Scope*

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

Both the geographic weights and the market basket item weights for the CPI are based on expenditure data from all urban households included in the household sample for the 1998–99 NSHIE. The household sample is representative of all levels of income, types of occupations and household composition. The NSHIE was designed to separate consumption and business expenditures for those households with unincorporated business activity. Expenditure data from households involved in farming and fishing activities that resided in urban geographic areas were included for weights calculations for the CPI. Consumption of illegal market goods and services was not investigated in the NSHIE, and therefore, excluded from the CPI weights.

The consumption of nonmonetary goods such own-produced agriculture products and goods provided by employers as income in kind are included, since they were investigated in the NSHIE. The value of the rent of owner-occupied housing is excluded from the CPI weights, although an imputation was made on the rentals of owner-occupied dwellings in the results of the NSHIE. This latter exclusion is a departure from international standard practices. However, materials used in housing repairs are incorporated in the weights.

The CPI weights only cover the expenditures of all urban resident households in the country. Rural households were not covered in the NSHIE, and therefore, their expenditures are excluded from the CPI weights due to budget constraints for data collection in rural areas.

Up to 2000 the index only covered Managua city. Since then, prices are collected in each major city of the 17 departmental states of Nicaragua. These cities are grouped into 8 regions, and this sample, together with the range of outlets covered in each municipality, is considered representative of the pricing structure throughout the country.

2.3 Classification/sectorization

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

All classification and coding for the 1998–99 NSHIE and the current CPI are based on a Nicaraguan version of the COICOP. However, this version departs from the standard COICOP in the following divisions: Food and non-alcoholic beverages; Alcoholic beverages and Tobacco; Transport; Communication; and Restaurants and Hotels. Alcoholic and non alcoholic beverages are together; tobacco is included in miscellaneous goods and services; transport and communication are grouped in one division; hotels are included in leisure, equipment, and recreation services; and restaurants are included together with food and non-alcoholic beverages. Nonetheless, index data is available at item level (basic expenditure level), which allows users to obtain detailed data and perhaps reclassify them. Expenditure data on goods and services are classified into a seven-digit extended version of the COICOP, which includes items' varieties. The Central Product Classification (CPC) was not used to classify the items. Nevertheless, the CPI classification is broadly in accordance with the CPC at product level.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

The value of consumption used for determining the weights for the CPI is based on expenditure data from the 1998–99 NSHIE. The prices used to determine expenditures were the market prices (purchaser's prices) including trade and transportation margins and taxes (value added tax). Subsidies on products were discounted. The only subsidy currently applied by the government is the subsidy on urban transport, which is reflected in the market price of transport services in the CPI.

Prices include discounts when applied to all purchasers according to international practices.

CPI prices do not reflect price reductions through price bargaining (prices individually negotiated between sellers and purchasers), a general practice in cantonal and informal markets in Nicaragua for food items. International standards recommend that price collectors buy items to determine the relevant price through bargaining. Nonetheless, this practice

depends on the price collector's ability to bargain, which can be very different among price collectors. In addition, only some food items can be bought through bargaining in cantonal and informal markets and they represent less than 10 percent of food items. The rest of the items are not bargained. Therefore, the price collected in the Nicaraguan price survey is the first price asked by the retailer.

Product specifications for pricing items in the market basket include detailed item characteristics and the terms of transactions. Field agents purchase a sample (31) of food articles in order to check product specifications: unit of measurement, presentation, quantity, and weight.

2.4.2 Recording is done on an accrual basis

All prices used for estimating the market basket item weights and for monthly price collection are measured on an accrual basis. The market price of the good or service is recorded for the period in which the item is purchased, in the case of the sample of items purchased by field agents. For the rest of the items, the price is recorded in the period during which the item is offered for sale.

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

For the CPI market basket weights, purchases of durable goods, such as automobiles, were not registered as acquisitions less disposal of such goods, only new goods were recorded, even though the information collected in the 1998–99 NSHIE permits to separate out purchases of new goods from purchases of used goods for consumer durables. Sales of used consumer durables are also identifiable. However, in 2000 the CBN decided to exclude purchases of vehicles from the CPI market basket owing to the small proportion they represent in total expenditure; which is a departure from international practices.

3. Accuracy and reliability

3.1 Source data

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

The first NSHIE was conducted in 1953, the second NSHIE in 1972, the third in 1984-85, and the fourth was conducted in 1998-99. Thus, these surveys have been conducted every 13 to 19 years historically. According to the authorities of the CBN, there is a long-term plan to conduct a NSHIE every five years. The next NSHIE will be conducted in 2006 and this activity has been included in the CBN's budget. In addition, the NISC has carried out several surveys of living conditions (under the MECOVI project). The typical survey of living conditions is conducted over a four-month period as in the Nicaraguan case, rather than over an entire year; therefore, the results have the potential of having seasonal biases. However, in

some countries the survey of living conditions is modified to accommodate the needs of the CPI. The results of this survey may be useful for assessing CPI bias owing to changes in consumption patterns.

The current CPI basket and weights were derived from 1998–99 NSHIE. The sampling frame for the 1998–99 NSHIE was the 1995 Census of Population and Housing (CPH). The construction of the sampling frame of this survey was based on census maps (for the selection of conglomerates or sectors) and lists of households (for the selection of households within the selected sectors). The NSHIE sampling frame covered the main cities of the 15 departmental states of Nicaragua and its 2 autonomous regions. Therefore, only urban households were investigated.

The NSHIE sampling frame contained 270,090 housing units (142,092 in Managua and 127,998 in the rest of the country). The sampling-frame was divided into two sub-populations, one for Managua and another for the rest of the country, since they presented different characteristics. A two-stage stratified random procedure with replacement was applied for the selection of households and the probability of selecting them was known: 4,848 households (1,848 in Managua and 3,000 in the rest of the country) were selected. The territory of Nicaragua covered the main city of each departmental state: (1) Managua, (2) Ocotol, (3) Somoto, (4) Estelí, (5) León, (6) Chinandega, (7) Masaya, (8) Granada, (9) Jinotepe, (10) Rivas, (11) Boaco, (12) Juigalpa, (13) Matagalpa, (14) Jinotega, (15) San Carlos, (16) Puerto Cabezas, and (17) Bluefields. In the first stage of sampling, specific geographic areas (or conglomerates) were selected, and in the second stage, the households to be surveyed were selected. For each geographic conglomerate, the household sample was distributed over the 12-month period that was to be covered by the survey (December 1998 to November 1999).

The sample was increased in 15 percent in order to substitute households when they refused to respond to the survey. The final number of conglomerates was 466 and the final number of households surveyed was 5,592. The sample size was calculated with an estimation error of 10 percent and a confidence level of 90 percent for each departmental state. The size of the sample in the second stage was 12 households in each conglomerate or area in order to visit one household every month. Households were stratified according to socioeconomic criteria (e.g., dwelling's characteristics, number of vehicles in the household, and suburb) in high, medium, and low as a proxy variable of income. In order to know the size of the variance, incomes and expenditures reported in the 1993 Survey of Standard of Living were analyzed.

The questionnaires of the NSHIE were constructed according to sound design principles. They were subjected to pilot tests; hence, proposed changes were pre-tested to ensure effectiveness.

Tabulations of the 1998–99 NSHIE data were prepared in sufficient detail to accommodate the selection of the item sample and the estimation of the market basket weights for the CPI. However, the Hurricane Mitch (1998) might have had affected the results of the NSHIE. Purchases of goods and services were valued at purchaser's prices; own production was

valued at market prices; and imputed rent for owner-occupied housing was estimated based on market rents for rental units. However, own production and imputed rent were excluded from the CPI weights. Purchases in informal markets were included in the weights. The results of the NSHIE were grossed-up to reflect the population of the survey-sampling frame.

The CPI market basket includes a sample of 138 products and services and 322 varieties aggregated into 9 chapters (COICOP divisions), 27 divisions (COICOP groups), 60 groups (COICOP classes), and 85 sub-groups. Prices are collected in the 17 major cities (mentioned before) of the eight regions of the country. Price indices are compiled for Managua, the rest of the country and at national level. All expenditure items from the 1998–99 NSHIE with shares of greater than 0.05 percent and reported for at least 60 households were included in the CPI market basket.

A sample of around 6,800 outlets for monthly price collection for the CPI was selected by taking into account the shopping patterns reflected in the 1998–99 NSHIE and the availability of the items selected for price collection. The sampling frame to select the outlet sample was also the cartographic maps of the 1995 Population Census. The sample size was calculated with an estimation error of 5 percent and a confidence level of 95 percent for each departmental state. This sample is divided into four week panels of 7 days each that cover 27 percent of the sample in the first 7 days, 25 percent in the second 7 days, 23 percent in the third 7 days, and 25 percent the fourth week. An effort is made to maintain at least 10 monthly sources for each item. There are 26,000 monthly price observations/quotations included in the CPI. Detailed specifications are used to identify the specific varieties of products and services that are priced for the CPI.

Pricing outlets are selected using purposive sampling based on four main criteria: significant consumer sales, abundant variety of articles for retailing, located in commercial zones with large flow of purchasers, and the availability of a range of goods and services included in the CPI basket. The selected outlets cover the major cities of the regions; therefore, consumer prices in rural areas are not covered by the CPI. Item selection is done based on purchase volume. Within each item group, specific varieties are selected on the basis of stable and significant sales activity.

Field agents monitor items regularly to ensure that product specifications are up-to-date, especially with regard to cloth and technology items. Price behavior for CPI market basket items is monitored and compared with information from the press and other sources (Ministry of Agriculture, Livestock, and Food, Ministry of Energy and Mines, wholesalers, and main producer enterprises).

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

Expenditure data from the 1998–99 NSHIE and the monthly price surveys are adequate for the need of the CPI. The NSHIE was designed with the CPI in mind, and incorporates the required scope of household coverage, expenditure classification, purchaser price valuations,

and recall or diary reporting of expenditure in the month it was actually made. The frequency of the price collection survey (daily) is adequate to support the publication frequency of the index. Source data are consistent with the time of recording and valuation of CPI estimates.

3.1.3 Source data are timely

Only price data from the monthly price survey conducted by the CBN are used in the calculation of the published CPI. Prices are collected between the first and the twenty-eight of each month. These data are consistently obtained in a timely manner. Respondents usually provide information the same day of the interview. Zone supervisors apply follow-up procedures to ensure the timely receipt of source data.

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

Information about nonresponse to the NSHIE and price surveys is available (12 percent in Managua and 18 percent in the rest of the country for the NSHIE, and around 1 percent for the price survey). In addition, the effect of the Hurricane Mitch (November 1998) in the results of the NSHIE was not evaluated. Information about sampling errors for the price survey is not monitored on a regular basis. Data about nonsampling errors (survey operations, biases, over/under-coverage, misclassification, and processing) are not available. Prices collected for the CPI are scrutinized. Any atypical prices are verified with the respondents before they are used in index calculations. A constant program for review of the price collection process is carried out by the CPI Unit of the CBN. Variations of more than two standard deviations are verified. The proportion of household final consumption expenditure for the economy that is not covered in regular CPI compilation is not assessed and comprises more than 10 percent. It corresponds to household expenditures in rural areas.

3.3 Statistical techniques

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

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

Adjustments to individual records are made only when clearly warranted. Unusual values are not replaced or modified unless clearly required and can be identified in datasets. Databases do not include footnotes when data are revised. However, it includes codes to identify some causes of revision.

Price relatives at the item level is calculated using the weighted geometric mean of short-term price relatives at variety level. The weights used are the regional expenditure shares at

variety level. Elementary indices at item level are calculated by using the modified *Laspeyres* index calculation formula. For higher levels of aggregation, the *Laspeyres* formula is used. Chained indices were introduced in the new series with 1999 as base year.

Temporarily unavailable and seasonally unavailable prices are held constant if prices seem stable. When prices for substitution items/varieties for permanently unavailable items/varieties are available, the price change for the substitution item/variety is imputed to the permanently unavailable item/variety. Although the methodology of holding the temporarily unavailable and seasonally unavailable prices constant is a self-correcting procedure, it has the potential of causing large jumps in the index series when the prices again become available. It would be preferable to impute all missing prices by using the price change of the same item in another area if available, the price change of the rest of the item's varieties or the price change of the item's class. A more serious problem arises when items/varieties become permanently unavailable. Sometime it may take several (three) months to determine that an item/variety will not return to the market in the outlet in which it is being priced. If the price of the old variety is held constant until this is determined and if no imputation of price change is made, there exists the potential for a permanent uncorrected bias in the index. Although this bias is likely to be small during periods of stable prices, it could be significant during periods characterized by large changes in prices.

New varieties are introduced into the index when two-month observations are available and outlets are updated when necessary. New products are introduced into the CPI only when a major revision of the index is carried out (change in the weight reference period).

In general, only repackaging quality adjustments (adjustments for the volume, weight, or count) for CPI items/varieties are made.

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

Monetary household consumption expenditure, as defined in the *1993 SNA*, is used to establish weights. Expenditure weights include purchases in all markets for affected goods and services, including informal markets.

The value recorded for goods and services represents the economic cost to the consumer at the time the good or service is purchased regardless of the method for payment.

An unbiased formula (weighted geometric mean of price ratios or relatives) is used to calculate the elementary (item) level indices. A short-term price change from the previous period is used.

The method to aggregate elementary indices to higher levels uses an internationally accepted formula (*Laspeyres* formula).

The current weights are derived from the monthly average expenditures for the period December 1998 to November 1999, and the price reference period of the index is 1999. The expenditure shares are held constant from the weight reference period. The weight reference period was updated within the past five years (1998–99).

When the new weights were introduced, the new index was linked to the old index using international accepted practices (the splicing method); however, these series are not publicized.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Intermediate results are validated against other information where applicable

The CPI is compared with comparable estimates from other major price indices such as the agricultural and manufacturing producer price indices. CPI behavior is validated against export and import unit value indices for selected items at detailed level. Detailed price data is compared to information from other sources such as the Ministry of Agriculture and Forestry and the Ministry of Energy.

The detailed CPI is compared to the implicit deflators of private final consumption expenditures in the national accounts. Data from micro surveys of activities suspected to have production that is not covered in regular CPI compilation; data from household and trade surveys; and global estimates based on past benchmarks or judgments are not used to improve coverage of the CPI.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

The CBN has established a program for the constant monitoring of price data used in the CPI. Any atypical prices are reviewed with price collectors and respondents before they are included in the index.

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

Price data are checked for consistency with prices for similar products in the same geographic area and for the same products in other geographic areas. Investigations are made into the source of any errors that are detected and steps are taken to eliminate the source of these errors.

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)

Extensive studies were carried out on the 1998–99 NSHIE with regard to the level of error and consistency in the expenditure data. Detailed documentation for the survey and these studies are available for use in a special publication of the results of the 1998–99 NSHIE. The CPI is not revised. CPI data is final when released, but new weights are subject to analysis and validation prior to being incorporated in the index. Weights obtained from the 1998–99 NSHIE were compared to the weights used in the previous reference base (1984–85 NSHIE), and analyzed. However, periodic weight revisions are not undertaken to determine the bias of the CPI. Documentation on price data adjustments that include a description of causes of adjustments and the way data are adjusted are not incorporated to the database. Nevertheless, a report on the causes of adjustments is archived and codes are assigned to the causes of missing prices in the database.

4. Serviceability

4.1 Periodicity and timeliness

4.1.1 Periodicity follows dissemination standards

Prices are collected daily. The periodicity for the compilation of the CPI is weekly and monthly, meeting GDDS recommendations and SDDS standards.

4.1.2 Timeliness follows dissemination standards

The monthly CPI is published within 10 to 15 days of the reference month. This exceeds GDDS recommendations and SDDS standards.

4.2 Consistency

4.2.1 Statistics are consistent within the dataset

For the CPI, the all-items index tabulations are consistent regardless of whether the aggregations are made by category of expenditure or by geographical area.

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

The revised CPI began publication in January 2001 with a price reference period of 1999=100. Continuous historical series for the CPI, with 1999 as reference base, are available for the period January 1999-December 2004. This series were linked to the previous series with 1994 as reference base. However, this information is not published, but it is available upon request.

Detailed methodological notes that identify and explain the main breaks and discontinuities in time series (1956=100, May–October 1972=100, 1980=100, and October–December 1987=100), and their causes are available on the CBN website. No adjustments have been made to maintain consistency over time.

Both the press release and the monthly publication of the CPI on the CBN website include a brief analysis of the index and an explanation of any unusual price behavior.

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

Consistency was verified by comparing the rate of growth of the CPI with those of the PPI and selected import and export price indices. Of course, these indices have different coverage and conceptual frameworks. The CPI is also consistent with the implicit price deflator of private final consumption expenditures in the national accounts.

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

Monthly CPI data are final. In principle, data may be only revised in case of eventual errors. Although there was a major revision of the CPI in the year 1999, there has not been a historically consistent pattern established for revision of the index. The household income and expenditure surveys needed for updating the CPI market basket have been conducted almost every 13–19 years, which is not adequate. However, the CBN has a plan to carry out NSHIEs every five years. The next NSHIE will be conducted in 2006.

A detailed documentation of the latest CPI revision is available. A detailed publication describing the 1998–99 NSHIE and its results is available to users.

4.3.2 Preliminary and/or revised data are clearly identified

Due to the extensive review process in place for the CPI and the timeliness of source data, the index is published in its final form, and no corrections are published. In the unusual event that errors are discovered after publication, corrections are incorporated into the following month's index with an explanation.

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

A study on the last CPI revision was publicized, and a special publication, *Encuesta Nacional de Ingresos y Gastos de los Hogares, 1998–1999*, contains a detailed methodology and results of the 1998–99 NSHIE and is available to the 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 CBN *Monthly Bulletin, Consumer Price Index (Índices de Precios al Consumidor)*, presents the monthly national-level CPI for December of the previous year and the months of the current year. Tables are included for Managua, the rest of the country, and at national level with detailed indices, weights, and percentage changes at different levels of COICOP aggregations for December of the previous year and for the previous and current months. An analysis of the important price changes and their causes is included. However, this publication is only available to selected government agencies.

The CBN *Quarterly Economic Bulletin (Boletín Económico Trimestral)* presents an analysis on cumulative inflation for the current year compared with the last two years, the underlying inflation, administered prices, and market prices. It includes charts and tables. The CBN *Annual Report (Informe Anual)* also includes an analysis on cumulative inflation for the current year compared to the last two years, underlying inflation, administered prices, tradable and non-tradable goods, and basic basket.

In addition, there is a monthly summary journal, *System of Consumer Price Indices (Sistema de Indices de Precios al Consumidor)*, which is posted on the CBN website and includes monthly price indices and price changes at division level for the current and the previous years, an analysis of current price trends, and the monthly cost of the basic basket of goods and services for Managua, the price of each item in this basket, and the cost of the urban basic basket.

Although the publication formats for the CPI meet standards, time series are insufficient and relevant series (e.g., food items) are not disseminated in a seasonally adjusted form.

5.1.2 Dissemination media and format are adequate

An executive summary is presented to the press by the president of the CBN each month. It contains tables, charts, and an analysis of current trends that facilitate redissemination in the media. More comprehensive and detailed statistics are disseminated in the CPI hard-copy publication. Current statistics and longer time series can be accessed through the CBN website or by requesting them to the DID of CBN. The CBN provides detailed price data by product of the basic basket to the Ministry of Development, Industry, and Commerce in order to be weekly released in the press.

5.1.3 Statistics are released on a preannounced schedule

There is no published schedule for the dissemination of the index. However, the CBN's practice of giving a press conference on the tenth of each month and releasing CPI statistics punctually has accustomed users to expect the results of the CPI on that date.

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

The public is informed of the statistics being released, and of the procedures to access them at the CBN website and in the publications. Publications contain information on the CBN website (www.bcn.gob.ni), CBN PO box address, and fax number. The CBN website also includes two e-mail addresses (bcn@bcn.gob.ni and webmaster@bcn.gob.ni) to direct requests and contact CBN personnel.

Nevertheless, CPI statistics are not made available to all interested users simultaneously. Some government agencies receive the CPI before releasing it, if requested it. A detailed CPI publication with restrictive access is sent to several government agencies. This publication is not released to the public.

5.1.5 Statistics not routinely disseminated are made available upon request

Historical, unpublished, non-confidential CPI data are available for the national and regional indices at the item level and at higher-level of COICOP aggregations upon request. The availability of additional statistics and the procedures for obtaining them are not made known 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

A summary methodology on the CPI is available to the public at the CBN website in Monthly Economic Indicators.

A detailed methodology on the CPI was prepared by the NISC, *Metodología para el Cálculo del IPC de Nicaragua, Sistema de Índices de Precios al Consumidor*. This documentation is available at the Center of Documentation of the NISC and at the CBN website.

Information on 1998–99 NSHIE, such as survey characteristics, response rates, survey monitoring, method, sample frame, sample design and selection, critic, coding, and editing, data processing, and monthly average household income, and expenditure by item, class, group, and division and region were published in the *Encuesta Nacional de Ingresos y Gastos de los Hogares 1998-1999* available in hard copy and CD.

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

CPI methodologies that give a complete documentation of the concepts, scope, classification system, data sources and statistical techniques are available, in hard copy at the NISC Documentation Center, and on the CBN website. These publications are designed for different types of index users from the typical consumer (methodological notes of the Monthly Economic Indicators) to the economic analyst (detailed methodology).

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

Prompt and knowledgeable service and support on the CPI is available to all index users through the Department of Public Service at the CBN Library and key personnel are listed in the CPI methodology. Assistance to users is monitored through data requests, but it is not reviewed periodically.

The NISC has prepared presentations to raise awareness on the use of the CPI for schools, high schools, and universities.

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

A list of CBN publications and CDs is available from the CBN Library and on the CBN website. Assistance is provided in placing orders at the Library. CBN publications are free of charge.

Table 2. Nicaragua: Data Quality Assessment Framework (July 2003): Summary of Results for the Consumer Price Index
(Compiling Agency: Central Bank of Nicaragua)

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
0. Prerequisites of quality						
0.1 Legal and institutional environment			X			The CBN Law does not clearly assign the responsibility for compiling price statistics to the CBN. There are informal agreements for data sharing but infrequent communication. Sanctions for nonresponse are outdated and rarely applied.
0.2 Resources			X			The DID does not have sufficient staff for analyzing CPI data and development work (1 professional). All price analysts and compilers at the ECNS are contractual personnel. Many computers do not have enough data processing capacity and the number of printers (1) at the ECNS and their speed is insufficient. There will be a shortage of resources (both human and financial) for the conduction of the 2006 NHSIE and the compilation and dissemination of a CPI with a new reference base. Restricted access to Internet and email. Regular attendance to price indices courses and seminar is needed.
0.3 Relevance			X			No formal process established for consultation with policy departments and index users (no user surveys or advisory committee). However, some users' needs are monitored through data requests.
0.4 Other quality management			X			Response rates to price surveys and editing rates are not calculated. Data adjustment history is not kept. Users' committees created when a new survey is conducted.
1. Assurances of integrity						
1.1 Professionalism		X				Government access to price indices prior to official release is not publicly known. In practice, the approval process of CPI results is exempt from outside interference.
1.2 Transparency		X				
1.3 Ethical standards		X				
2. Methodological soundness						
2.1 Concepts and definitions		X				
2.2 Scope			X			Only urban households are in the scope of the index. Imputed rentals of owner-occupied housing are excluded from the index.

Table 2. Nicaragua: Data Quality Assessment Framework (July 2003): Summary of Results for the Consumer Price Index
(Compiling Agency: Central Bank of Nicaragua)

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
2.3 Classification/sectorization			X			Some departures from standard COICOP (e.g., alcoholic beverages, tobacco, restaurants, and hotels).
2.4 Basis for recording			X			Discounts through bargaining are not included in price data. Durable items such as automobiles were not recorded as acquisitions less disposals of such goods, even though information is available in the NSHIE. Vehicles were excluded from the index in 2000, due to their low weight in 1999.
3. Accuracy and reliability						
3.1 Source data			X			Final consumption expenditure and prices in rural areas are not covered.
3.2 Assessment of source data			X			The share of consumption expenditure not covered by the index is more than 10 percent. While low, nonresponse rates to price surveys are not monitored. Nonsampling errors are not calculated.
3.3 Statistical techniques			X			In some cases, previous price data are imputed for missing prices introducing a possible bias in the index. Changes in product specifications/quality are introduced after there are two price observations available. New products are introduced only when a major revision is carried out.
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies			X			Monthly CPI data are final. Notes on price data adjustments are not stored in the database. Weights are not periodically assessed for bias. A study on the last major revision (1999=100) was carried out.
4. Serviceability						
4.1 Periodicity and timeliness		X				
4.2 Consistency		X				
4.3 Revision policy and practice		X				

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

Table 2. Nicaragua: Data Quality Assessment Framework (July 2003): Summary of Results for the Consumer Price Index
(Compiling Agency: Central Bank of Nicaragua)

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
5. Accessibility						
5.1 Data accessibility			X			Detail in the CPI publication released to the public is insufficient. Seasonally adjusted series are not published. However, underlying (core) inflation calculated with a sub-set of items is disseminated. No published schedule of release dates, but the practice of releasing CPI statistics punctually has accustomed users to expect release on the 10th of each month. CPI is available to some users prior to public release. A more detailed publication is sent to a restricted group of users. Difficulty in determining what detailed data are available upon request and the procedures to obtain them.
5.2 Metadata accessibility		X				
5.3 Assistance to users		X				

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

III. 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 monthly producer price indices (PPIs) for agriculture and manufacturing are compiled by the CBN. The CBN also produces price indices for domestic manufactured inputs and construction materials. In general, this assessment will be focused on the PPI for manufacturing. Operational responsibility for collecting, compiling, and analyzing the PPI lies with the ECNS in the ESM of the CBN. Analysis of results, methodological improvements, and dissemination lies with the DID of the ESM. There is no other institution that compiles PPIs.

The CBN Organic Law (No. 317, 03/30/01) does not clearly assign the responsibility for compiling and disseminating a PPI to the CBN. However, Article 60 gives the right to the CBN to collect statistical data for statistical purposes and macroeconomic analysis.

Articles 26 (7) of the CBN Law and 138 (28) of the Political Constitution of Nicaragua (01/18/00) state among the duties of the CBN president to submit to the Board of Directors of the Bank and to the National Assembly an annual report. Article 31 (3) of the CBN Law states that “During the first three months of each year, the Central Bank will submit to the President of the Republic, the Annual Report of the Institution, which will be published, and must include, at minimum, the following points: ... (3) Description of the monetary and exchange policy followed by the Bank during the year reported, and a general survey of the economic and financial development of the country.” The CBN has used these articles as legal support for its statistical function.

It should be noted that although the NISC is not currently directly involved in the compilation of the PPI, Article 7 of the NISC Law (Decree No. 888, 10/30/81) establishes among the duties of the NISC the centralization of all statistical activities of the governmental entities and other public or mixed entities that produce statistics of national interest.

While the legal framework of the CBN and the NISC is being updated to be adequate, some functions specified for the NISC are rather ambitious and go beyond its current financial capacity. In any case, it would be necessary to provide the NISC with sufficient resources to ensure that the PPI is compiled with adequate quality and timeliness.

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

The CBN is self-sufficient in the production of the PPI. All price and source data for weights are collected and tabulated within the CBN. However, the sampling frame (economic register) used to define the enterprise sample for the PPI was provided by the NISC to the CBN.

The NSS includes the NISC, all ministries, decentralized public entities, local governments, public enterprises, and other data producing agencies. Article 3 of the NISC Law states that the NSS shall avoid duplicating efforts and ensuring the comparability of statistical information. Article 18 envisages the creation of the Coordination Committee of the NSS and sector committees to ensure proper and efficient coordination of the activities of the NSS. Several sector committees are functioning, such as the committees of external trade, free zones, agriculture, employment, and salary statistics. In addition, the National Strategy of Statistical Development (NSSD) envisages the creation of the National Committee of the NSSD, which includes representatives of the NSS, the civil society (nongovernmental organizations, universities, and producers' committees), and international organizations. However, owing to the decentralization of the statistical function among the entities of the NSS, coordination has not been completely effective. For instance, the MFPC has not provided the CBN with income tax records, which content among other useful information, annual sale values of manufacturing products, due to a confidentiality precept, even though the Bank has requested these data aggregated by economic activity and/or product without identifying individual respondents.

There are no formal data sharing agreements among data producing agencies; therefore, data sharing is based on informal agreements and friendship relations. There have been efforts to strengthen technical cooperation among data producing agencies in the framework of the revision of the NISC Law, the Coordination Committee of the NSS, the National Committee of the NSSD, and the sector committees.

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

Article 61 of the CBN Law states, "The directors, officers, and employees of the Central Bank will be obligated to safeguard the confidentiality of the information, documents and operations on which they have knowledge of by virtue of their positions. Any violation of the confidentiality obligation enshrined herein will be sanctioned in accordance with the by-laws of the Bank, without prejudice to any punitive sanctions that may be applicable under criminal law." Article 10 of the CBN by-law states among the causes of contract termination the following: "Proved released of information and reserved or confidential documents, and in general, of any information related with the functions of the Bank, when such employee has not been authorized." The president of the CBN has the faculty to fire non-complying personnel.

Article 56 of the CBN by-law also establishes the confidentiality of databases: “All digital information supplied by the Bank to the employee for performing his/her duties is confidential and shall not be revealed even after the work relation has concluded.” In addition, Article 77 includes among the obligations and prohibitions of the employee “To keep secrecy/discretion on the information, documents, and operations on which they have knowledge of by virtue of their positions.” Infractions of these standards and sanctions for employees that disregard them are defined in Article 61 of the CBN Law and Article 78 of the CBN by-law.

In the CBN, access to confidential data is restricted to those employees who require the information in the performance of their duties. CBN personnel compiling the PPI have access to individual source information and are aware of the confidentiality of the data and the penalties imposed by the legal framework. Some institutions have requested the CBN individual data on some enterprises, and the CBN has refused to provide these data in accordance with the law. However, when unit records are made available for research purposes, the confidentiality of individual data is protected by making all records anonymous. Special aggregation rules are used to prevent residual disclosure when aggregations of survey or other confidential data are disseminated. The ECNS work procedures for compiling the PPI ensure that data are disseminated only at an aggregated level. Questionnaires, once processed, are archived in the storeroom of the ECNS. After two years, they are destroyed.

A letter is sent to respondents in order to inform the purpose of the information request and the confidentiality of the data to be provided. Price data are collected by interviews to producers. Respondents are informed on the confidentiality of the information, and that the data will be used for compiling price indices only. Price collectors fill out price surveys with the information obtained from the respondents. Price surveys include the CBN logo, the title “Monthly Survey of Price Indices of Industrial Products and Inputs”, the name of the collector, and the identification and code of the enterprise.

The Information Sub-Management (ISM) of the CBN has implemented a number of security measures to guard against unauthorized access to its statistical databases. Article 66 of the CBN by-law states that “All resources of the internal net have to be protected by passwords or established access lists.” The CBN intranet can only be accessed with an authorized user’s name and password, and different levels of access (user profiles) have been established for the various databases through the Operative System Windows 2003. There are also an external firewall to prohibit access to the CBN intranet and databases, an antispam module, and an antivirus. PPI databases are administered by the ECNS of the CBN.

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

Article 60 states that “Offices and units of the Central Government and municipal governments, as well as governmental credit institutions, are obligated to submit to the Central Bank such reports as the latter may request in the discharge of its duties.” Likewise,

the banks and any physical person or enterprise with residence or domicile in Nicaraguan territory, whether a national or foreigner, are obligated to supply the Central Bank with statistical information requested by it in the discharge of the duties conferred upon its by Law. This information must be used solely and exclusively for statistical purposes and macroeconomic analysis. Anyone who fails to comply with the provisions of the preceding paragraph of this article, or who provides false or incomplete information, will be penalized by a fine of one thousand to ten thousand córdobas for each occurrence (\$60.61–\$606.10 as of January 2005). However, these penalties are low, particularly in the case of large and medium enterprises, and there is no mechanism to preserve its value in real terms.

The enabling legal provisions for requesting information have been rarely invoked and penalties for noncompliance have not been levied. The CBN personnel state that there are not clear regulations to apply the penalties for noncompliance. The authorities prefer to encourage voluntary reporting by explaining in detail to respondents the intended use of the requested information, its confidential nature, and its importance for assessing the economic conditions of the country.

Surveys and censuses are announced through radio, television, and newspapers with explanations of purpose. In general, the CBN assists respondents in completing and submitting the questionnaires through regular visits to enterprises in the sample and by providing a point of contact.

With respect to price surveys, the nonresponse is around one percent. Enterprises that do not provide information are visited by the supervisor or by the coordinator of the ECNS to try to encourage respondents to provide the requested information. If they refuse to provide the data, they are substituted by other enterprises that produce the same item and are located in the same area. Statistical information is provided to respondents when requested and CBN annual report is given free of charge in some cases.

Instruments to collect information on price and weights are designed to reduce respondent burden, and an attempt is made to take into account the time constraints of the respondent visiting enterprises just once a month.

0.2 Resources

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

Although the index only covers manufacturing at the present time, the CBN plans to expand the coverage of the PPI by integrating the indices for agriculture, mining, and construction in 2006 with the introduction of the new base year of the national accounts. The CBN also plans to incorporate prices of imported inputs into the price index of manufactured inputs in 2005 and formally publish the new PPI, which will also serve as an input to the preparation of quarterly national accounts.

While current resources are broadly adequate for the preparation of the current PPI covering 136 products from 420 manufacturing establishments, there will be a shortage of resources (both human and financial) for the compilation and dissemination of an expanded PPI that meets international standards.

There is only 1 professional within the DID assigned to analyze PPI data and work on methodological improvements under the coordination of the Chief of the Department, and there are 8 field agents, 1 supervisor, and 2 data analysts within the ECNS assigned to the collection and compilation of the PPI. Price collection is made by 4 price collectors in Managua and 5 in the other departmental states covered by the index. Therefore, the staff assigned to the analysis of results and methodological improvements of the PPI (1 professional) and to the data processing unit (4 processors) and the validation of PPI data (2 analysts) is insufficient. In addition, data processors also process information from all CBN surveys, except from the CPI survey, which has an independent processing unit.

Nearly ninety-two percent of the staff working on the PPI is contractual personnel. These may be a source of risk for the quality and timeliness of the PPI, especially for data analysis and index calculation. The ECNS has tried to retain the trained contractual personnel as budgetary constraints have permitted it by renewing their contract annually. Most data collectors are professionals (economists, administrators, and public accountants), which ensure that collected data are validated, crossed-checked and analyzed before compiling the index. Average seniority of staff in the PPI is 4 years.

The mix of staff involved in the compilation of the PPI is as follows:

Income and Price Deflators Department (PPI)	Permanent	Contractual	Total
Department Unit	2	0	2
Chief	1	0	1
Professional	1	0	1
Executive Coordination of National Surveys (PPI)			
Processing Unit	0	9	9
Programming developer	0	5	1
Processors	0	4	4
Analysis Unit	0	4	4
Chief	0	1	1
Assistant	0	1	1
Analysts	0	2	2
PPI Section	0	9	9
Supervisor	0	1	1
Field agents	0	8	4
Total	2	22	24

PPI staff members receive on-the-job training as well as formal training through courses and seminars, including a few abroad, such as those conducted by the Economic Commission for

Latin America and the Caribbean (ECLAC), the Central American Monetary Council (CAMC), and the Center for the Training of Statisticians from Developing Countries of the National Institute of Statistics of Spain (Cesd-Madrid). However, the training opportunities are not offered regularly.

Salaries at the CBN are competitive compared to those at other ministries and public dependencies (monthly salaries are around \$200 for data processors, \$300 for analysts, and \$450 for professionals).

The DID and the ECNS currently have sufficient processing equipment for the preparation of the PPI according with staff numbers. However, some computers have low capacity to handle large databases and the number of printers and their speed is insufficient. The DID has 2 computers, mainly Pentium 4, 1 server, and 2 printers. However, only 1 computer has Internet access, and only supervisors have their own CBN e-mail account. The ECNS has 12 computers, 4 printers, 1 net administrator, and 2 servers assigned to PPI data processing and compilation, and also for processing other surveys, except the CPI data; only 7 computers are Pentium 4. Distribution of computers within the DID and the ECNS takes into account staff assigned to the different tasks (data collection, processing, and compilation) as well as their work programs. The CBN plans to incorporate more equipment to the ECNS unit.

The PPI is presently being computed using applications developed in FOXPRO, configured to perform all calculations in an automated fashion. An Access database is used to store PPI data. The CBN plans to develop applications in Visual Basic 6.0 and migrate the PPI database to SQL Server. A daily back up of PPI data is made. Besides the intranet of the CBN, each employee has access to computer programs, such as the ones included in Office 2000 (Excel, Word, and Power Point), and to E-Views, ARIMA, Tramo Seats, and SPSS to analyze results and prepare presentations and publications. However, software is not regularly updated due to budget constraints.

The CBN building has adequate working facilities (cooling, space, restrooms, and power system to support CBN's computing system). Office furniture and equipment are adequate to perform tasks. Transportation equipment for PPI data collection (1 vehicle) is inadequate. This vehicle has to be shared with other work programs as the conduct of other surveys. Nevertheless, priority is given to PPI compilation.

The financial resources for compiling the PPI are broadly adequate. Funding for the compilation of the PPI and input indices is provided under the budgetary process of the CBN. The budget for the PPI program in 2005 is 1.894 million córdobas (\$114,787.87 as of January 2005). Short and medium-term work programs are taken into account in the budgetary process. Requests for funding for special projects such as changing the reference base of the index, expanding its coverage, and conducting studies for improving PPI methodology are included as part of the normal budgetary process.

0.2.2 Measures to ensure efficient use of resources are implemented

The CBN has a four-year (2004–2007) strategic plan that serves to increase the quality and timeliness of the statistical series that are compiled as well as to improve efficiency in the allocation of resources. The four-year strategic plan is further broken down into individual annual work plans. These plans are administered by each organizational unit of the bank in coordination with the SOP. The SOP meets with each organizational unit every quarter to review progress with the four-year plan and the yearly plan. The allocation of both financial and human resources is also discussed during these meetings with the SOP. In addition, each unit formally reviews progress on a monthly basis according with their work plans.

The performance of CBN personnel is annually evaluated through semiannual advances. A follow-up and tests are made for promoting personnel.

Assignment of responsibilities among the DID and ECNS units is clear. The supervisors within the RSM meet regularly in order to measure progress, define the work to be undertaken, and analyze the PPI results.

The budget is quarterly reviewed to ensure that scarce resources are employed efficiently in addressing major data problems or meeting new data priorities.

Regarding data collection, processing, and analysis, daily productivity rates are calculated. In the event of errors and inconsistencies, clarification is sought with respondents and corrections made. Data in databases are subjected to additional consistency checks. A more efficient application will be developed in Visual Basic 6.0 to elaborate the new PPI. An application in SQL Server will be also introduced to improved data validation processes and keep digital records of data corrections and revisions.

The CBN has an active program to take advantage of new computing technology, including the Internet, for data processing and dissemination. The CBN Internet website is well designed according with the standards of the Bank of International Server, and has become an important part of the data dissemination process for both the bank and index users.

The ISM has introduced innovations and plans to introduce Data Transformation Services to reduce time and cost of statistical collection, coding, editing, validation, and tabulation of source data. The ISM plans to install software for survey designing and implement data collection processes through Palm Pilots avoiding data transcription. These mobile units will be connected directly to the servers for downloading source data. Staff will be trained to use On Line Analytical Processes (OLAP) to analyze data, indicators' systems, and dynamic tables. Reports will be flexible since compilers will design and prepare them directly without developing costly applications. The process for data dissemination will be decentralized as the new technology will allow data producing units to post statistical products automatically on the CBN website.

In order to reduce costs, the ISM plans to use free software such as the operating system Linux in non-critical areas of the CBN.

The ECNS and the DID have not received technical assistance regarding the PPI compilation process, but has received technical assistance from independent consultants for integrating the different price indices in an expanded PPI.

0.3 *Relevance*

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

The CBN Library and website provide timely information to users on CBN's statistical products. The Department of Public Service of the Library monitors and keeps records on users' requests and non-satisfied needs. Nonetheless, the CBN does not have regular meetings with those entities that participate in the NSS, in order to discuss statistical development and establish new data requirements. However, the National Committee of the NSSD and the Coordination Committee of the NSS include key public and private users. In addition, the CBN website provides two e-mails addresses to users (bcn@bcn.gob.ni and webmaster@bcn.gob.ni) to contact CBN personnel and provide comments if users did not find the information they needed on the CBN website. In the English version of the website there is a message that reads "We welcome all comments and suggestions for other information that may be of use to researchers, investors, financial entities, and the general public." When a new census or survey is conducted, a users' committee is created in order to satisfy users' needs by including their data requests, where relevant, in the questionnaires before implementation. The NISC conducted a survey on statistics demand in 2003.

The CBN staff participates in meetings and seminars on price statistics as budgetary constraints permit it.

0.4 *Other quality management*

0.4.1 *Processes are in place to focus on quality*

The CBN strategic plan, as it is administered by the organizational units under the direction of the MOP, possesses the essential characteristics of a total quality management program. It provides the framework for continuous structured review of the allocation of all types of resources as well as the different elements of data quality, including accuracy, methodological soundness, reliability, serviceability, and accessibility. One of the goals of the strategic plan is to improve the quality and timeliness of statistics.

The president and managers of the CBN meet regularly with the media to inform economic developments as well as to report on the bank's projects for improving the quality of statistics.

Price collectors and analysts are annually trained on type of errors to be avoided: respondent errors, errors when completing questionnaires, transcription errors, and analysis errors. These training courses have been conducted since 2002.

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

Even though responses to surveys are assessed, complete monitoring processes are not in place to inform managers on the quality of ongoing statistical activities (e.g., editing rates, revisions history, and timeliness evaluations).

Compilers have access to expert guidance on the quality of their statistics and on strategies for improving data production when international organizations donate or lend the resources to hire the experts or when the CBN contracts experts albeit its budget constraints.

The CBN has established practices and procedures to ensure the quality of the PPI at all levels of production including data collection, data processing, and index tabulation and dissemination. There are manuals for price collectors. The monthly price collection phase of the PPI is reviewed at both the product and activity level. Any problems that are detected are referred to the supervisors at the section and the unit levels. Data entry and screening are handled at the ECNS. Computer listings are generated that allow for review and validation of the index at each level of compilation. This process permits a consistent review of data by qualified analysts. Any errors that are detected are corrected after consultation with respondents, when necessary. The index aggregates are also reviewed and analyzed by CBN staff at various administrative levels before the index is published.

The CBN also has instituted a program of monthly visits to oversee price collection in the different regions. These visits also serve as a means for verifying abnormalities detected during the monthly review of data in the ECNS and the DID.

There are defined processes to supervise data collection and apply consistency checks. Information from a sub-sample of questionnaires is verified by the supervisors in their visits. Staff keeps records of usual errors and improvements to be incorporated in the new surveys in order to improve the quality of the compilation process before commencing another survey.

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

The four-year strategic planning system of the CBN and the form in which it has been implemented is strong evidence of the bank's commitment to quality assurance and an analysis of the tradeoffs among its different dimensions: resource availability, timeliness, and accuracy/reliability.

The CBN has an ongoing program to identify changes in specifications for PPI basket items, especially clothing and metallic products. The new items specifications are introduced into the index as needed.

Although there are no official mechanisms, such as a user survey or official advisory groups, for obtaining feedback from users and/or guidance on methodological issues, the CBN convenes, on an ad hoc basis, such groups when changes are being considered for the index. However, these groups tend to concentrate on issues relating to the methodological soundness of the PPI, rather than users' needs. Users' needs are monitored through data requests and users' comments obtained through the CBN website. Nevertheless, the Coordination Committee of the NSS and the National Committee of the NSSD will play an important role in this regard.

1. Assurances of integrity

1.1 Professionalism

1.1.1 Statistics are produced on an impartial basis

In practice, the PPI is produced and disseminated without any outside influence. However, the CBN regulations do not specifically cover attempts at interference and/or influence on official statistics by parties outside the CBN. The CBN Board of Directors includes the minister of the MFPC, with a risk that a conflict of interest could emerge. However, Article 15 states that:

“A Board shall be responsible for the executive management of the Bank. The Board shall include the President of the Bank who, in turn, will preside over the Board, the Minister of Finance and Public Credit, and four members named by the President of the Republic in consultation with the private sector, and ratified by the National Assembly. Of these four members, one must belong to the party or alliance of parties that placed second in the most recent election of the highest authorities of the nation, based on the proposal of said party or alliance ... The president of the Bank will serve for a term equal to that of the President of the Republic....”

Article 62 states the procedures for appointing the four members of the Board. It states that:

“... 1. The appointment of the member of the Board representing the party in second place will be done so that the end of his term coincides with the end of the current presidential term of office. 2. Appointments of the remaining three members will be made in such a way that the end of the term coincides with the halfway of the current presidential term....”

These regulations avoid political influence since Board's decisions are made by consensus of the majority.

Article 16 of the CBN Law requires the Members of the Board of Directors to be "... of recognized moral integrity, economically solvent, and professionally qualified in matters related to the position that they will fill." Article 25 of the CBN Law also requires the president of the CBN to "... be of recognized moral integrity and professional competence in the areas that fall over the purview of said position."

Hiring and promotion of CBN employees are governed by CBN regulations, and are based on professional merit. Articles 7 (d) and (f) of the CBN by-law state:

"Every person that wishes to join the Central Bank of Nicaragua shall fulfill the following requisites: ... (b) To have the academic, technical or work experience requisites corresponding to the function of the requested position, ... (f) To satisfactorily approve all aptitude and competence tests established by the Bank according to the requirements of the requested position."

Articles 14 to 17 regulate the promotion of personnel. CBN personnel have priority to fill vacancies according with their merits. These regulations ensure that political affiliation is not taken into account to hire and promote personnel.

Professionalism is promoted through encouraging staff participation in training opportunities, workshops and seminars, to ensure awareness and understanding of statistical standards and good statistical practices. Staff attending training courses and seminars has to make a presentation on their contents to his/her colleagues at the completion of the training. The Department of Human Resource Development (DHRD) under the CBN Human Resources Sub-Management (HRS) is in charge of personnel training. Article 77 (k) of the CBN by-law includes among the obligations of CBN employees "to attend courses and other training activities convened with the administration, as well as to attend national and international seminars or meetings of interest of the institution."

CBN employees are encouraged to carry out research projects and to participate in conferences, lectures, and professional meetings with other professional groups. Usually research papers are a result of the employees' own initiative. The methodological studies prepared by CBN professionals are circulated for internal review and, when appropriate, for outside review. Institutional papers submitted for publication must be approved by the administration of the CBN.

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

The selection of source data and statistical techniques for the compilation of statistical series is based solely on statistical considerations. The sources and methods for compiling the PPI are fully under the control of the CBN and concepts and practices follow international standards. Sources and statistical techniques are used, with no outside interference or attempted interference in matters of sources, methods, and dissemination. Decisions in this regard are made internally after careful consideration of methodological recommendations by

international organizations. A summary documentation on source data and methodology employed for compiling the PPI has been prepared and is available to the public.

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

When necessary, the CBN responds to erroneous interpretations of CBN statistics through press releases and other means. The CBN follows the press very carefully with regard to references to the PPI. The president and the manager of the CBN are entitled to respond to public criticism of statistics or instances of misuse of statistics, but there have been few instances where response to public criticism has been required.

1.2 Transparency

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

Article 131 of the Political Constitution of Nicaragua states, “The staff of the four powers of the State, elected directly or indirectly, shall respond on the correct performance of their functions and inform the population on their work and official activities.” The CBN website includes a summary methodology and the technical conditions under which the PPI is calculated. The CBN has posted its Law on its website, which informs about the CBN’s standards of confidentiality and professionalism of its president and Board of Directors. However, the CBN By-Law or a summary of the articles that deal with professionalism of the staff have not been posted on the CBN website. The CBN website (www.bcn.gob.ni) contains a directory of key personnel and two email addresses to direct additional requests, suggestions, and contact CBN personnel. CBN publications contain information on the CBN website, its PO Box, and the fax number of the ESM.

In addition, the CBN Library has a unit in charge of providing information to the public.

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

The CBN indicates that the approval of published index series is exempt from outside interference. CBN publications are authorized by the CBN Board of Directors, but there are no specific regulations guiding this approval process. In practice, PPI release and publications are authorized by the manager of Economic Studies.

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

All CBN publications include the Bank’s logo. In the case of joint publications, each entity, whether public or private, is clearly identified with their logos or in the footnotes of all published tables and/or on the title page of the document. The CBN has a policy of releasing publications on the PPI in a standard format (titles, colors, typography, etc.).

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

Major changes in methodology or data sources are publicized before implementation. Questionnaires used to collect information on manufacturing were presented ahead of implementation to a group of researchers and specialized users.

1.3 Ethical standards

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

A manual of instructions is issued to field agents and supervisors that provides guidelines about staff behavior. CBN staff is not authorized to alter or change statistical data received from respondents. The CBN By-Laws contains rules of staff conduct in Chapter VIII on Obligations and Prohibitions of the Employee. Article 61 of the CBN Law and 77 of its By-Laws state that CBN employees have to be discrete on the affairs that due to their character are reserved according to the law, regulations or special instructions. Other obligations include:

- (a) ... to provide their service with efficiency, honesty, dedication, responsibility, loyalty, and constant improvement in the performance of their assigned tasks....
- (f) to observe decorous conduct and maintain respect, consideration, and courtesy at all times in their relations with peers and the public.

Article 77 also states the following prohibitions:

- (c) To receive from the public any invitation or gift (it does not matter its value or nature) that can be related to expedite paperwork or transactions, or any other circumstance that could induce a special treatment or inappropriate authorization....
- (i) to use, for own benefit or third parties' benefit, values or goods of the Institution....

Article 78 presents the sanctions to apply to the personnel that do not comply with the prohibitions. These sanctions include verbal and written reprehension, work suspension without salary, and dismissal of the employee.

Each new employee is informed of the CBN Law and regulations and is given a personal copy of them.

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

In general, the PPIs and input price indices are based on concepts and definitions consistent with the 1993 SNA and the new *PPI Manual 2004*. However, only sales are included in manufacturing PPI weights. Changes in inventories and own-account production for final use are excluded. The level of detail for commodities and economic activities is sufficient to permit detailed analysis of price movements at division, group, and class of the *ISIC Rev. 3*, and at 4,5, and 6 digits of the CPC at product level.

2.2 Scope

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

The current PPIs only cover agriculture (including livestock), fishing, and manufacturing sectors. Core industries such as mineral extraction and water and electricity production are excluded. With the exception of the garment enterprises in the free zone, the manufacturing PPI also excludes goods for processing (maquila) that constitute an important segment of the Nicaraguan economy. The coverage of manufacturing activities is incomplete (50 percent of total sales) as only urban enterprises with more than 30 employees are included in the enterprise sample used to calculate PPI weights. Grossing-up factors were not used to calculate weights. These are deviations from international practices.

The PPI used to cover production sold in the domestic market only. Recently, exports were included. Price indices on domestic manufactured inputs and construction materials are also available.

As part of updating the national accounts to the base year 2005, the CBN plans to compile and publish a new PPI that covers agriculture, fishing, mining, manufacturing, electricity and water production.

2.3 Classification/sectorization

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

The PPI is classified using the Nicaraguan version of the *ISIC Rev. 3* and the CPC, with some departures from the standard *ISIC* regarding some activity classes and industrial services.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

The weights for the agricultural and manufacturing PPIs are determined using values for production based on farm/factory gate producer prices. These prices exclude taxes, transportation costs and commercial margins. Input price index weights deviate from purchasers' prices by not including distribution margins and non-deductible VAT.

2.4.2 Recording is done on an accrual basis

Business accounting for annual sales (July (t-1)–June t) of around 80 percent of the enterprise sample differs from calendar years. However, adjustments were made to adjust sales to calendar years. Therefore, for both the estimation of weights and monthly price collection for the PPI, values are determined on an accrual basis. For monthly price collection, the market price of the product at the moment of the transaction, during the time period covered by the survey, is recorded.

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

For the manufacturing sector in Nicaragua there is not a significant problem with regard to grossing and netting procedures for the PPI. However, for those enterprises producing significant amounts of dissimilar outputs, such as an enterprise that produces both sugar cane and sugar or cooking oil and soap, the production is separated and treated as if there were two separate establishments producing these products. In these cases, “transactions” between the “establishments” are recorded on a gross basis. In many cases this is facilitated by the accounting practices of the enterprises that have developed separate cost centers for the different types of production.

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 available are broadly adequate. However, its coverage is insufficient. The sampling-frame of the PPI was the 1996 Economic Census. According to this census, 87.5 percent of total manufacturing establishments had 1 to 3 employees, and 10.4 percent had 4 to 9 employees. Similarly, the 2000 economic census showed that 82.5 percent of total manufacturing establishments had 1 to 3 employees and 12.9 percent had 4 to 9 employees. In addition, 87.1 percent of establishments that produce food items, 94 percent of establishments that produce textiles, and 82.6 percent of establishments that produce metallic products had 1 to 3 employees in 2000. On contrast, the 1994 PPI enterprise sample only covered the sales of establishments with more than 30 employees and at least 0.5 percent of

total sales of the 1994 enterprise sample. This implies that the index has serious problems with regard to economic coverage (see 2.2 Scope).

Although a new economic census was conducted in 2000, its results have not been used to update the enterprise sample and weights of the PPI. In addition, the business register is not updated regularly and household and small enterprises are not included in the PPI weights. There are no regular meetings with producers' associations.

The PPI has been available for internal CBN use since 2000. It was released to the public in May 2004. The enterprise sample included in the monthly pricing survey account for only 50 percent of manufacturing sales for 2000 according to the economic census (excluding goods for processing). Moreover, in general only one product is priced in each enterprise. No secondary products are priced.

Weight calculations are consistent in that the enterprises with the largest sale values at activity and product level were selected. No scientific sampling procedures were employed.

The CBN has embarked on a continuous annual economic survey. Data are available for the year 2002 and will be used in updating the base year of the PPI. Data for 2003 and 2004 are presently being collected.

Up to 1999, manufacturing producer prices were obtained by calculating unit values from the monthly manufacturing data on values and volume of sales by product. Since 2000, a price survey has been conducted in order to obtain price quotations directly by visiting the enterprises once a month on the same date each month.

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

Available source data for PPI weights and prices are consistent with the need of the PPI in terms of time of recording, reference period, and valuation.

3.1.3 Source data are timely

Monthly price collection is handled by the ECNS. Enterprises are visited daily and each enterprise is visited once a month. Source data are timely.

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

Assessment of source data is routinely conducted. Unusually large movements in prices are traced back to the enterprise, if warranted, for verification. Suspicious data are usually verified by contacting the respondent a second time. Post-enumeration checks are made while low, non-response rates to price surveys are not monitored. Sampling and nonsampling errors are not calculated. The coverage of the sample is not assessed according to the total manufacturing sampling frame (output/value added).

3.3 Statistical techniques

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

PPI weights are outdated (1994=100). Grossing-up factors were not used to calculate weights. However, the use of the geometric mean for price changes and linking is a sound practice.

The PPI is calculated using the current-period-to-previous-period (short-term price change) formulation of the Laspeyres index calculation formula. The reference periods for both the weights (1994=100) and the index (1999=100) are not the same.

Temporarily unavailable and seasonally unavailable prices are held constant if prices seem stable. When prices for substitution items/varieties for permanently unavailable items/varieties are available, the price change for the substitution item/variety is imputed to the permanently unavailable item/variety. Although the methodology of holding the temporarily unavailable and seasonally unavailable prices constant is a self-correcting procedure, it has the potential of causing large jumps in the index series when the prices again become available. It would be preferable to impute all missing prices by using the price change of the same item in another area, if available, the price change of the rest of the item's varieties or the price change of the item's class. A more serious problem arises when items/varieties become permanently unavailable. Sometime it may take several (three) months to determine that an item/variety will not return to the market in the outlet in which it is being priced. If the price of the old variety is held constant until this is determined and if no imputation of price change is made, there exists the potential for a permanent uncorrected bias in the index. Although this bias is likely to be small during periods of stable prices, it could be significant during periods characterized by large changes in prices.

New varieties are introduced into the index when two-month observations are available and enterprises are updated when necessary. New products are introduced into the PPI only when a major revision of the index is carried out (change in the weight reference period).

In general, only repackaging quality adjustments (adjustments for the volume, weight, or count) for PPI items/varieties are made.

Current data validation and analysis procedures (manual) do not ensure that coding, editing, and tabulation errors. Automatic validation and cross-checking will be implemented.

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

Gross sales were used to establish the manufacturing PPI weights. Work in progress (*trabajos en curso*) is not included in the agricultural PPI weights. An unbiased formula (weighted geometric mean of price ratios or relatives) is used to calculate the elementary (item) level indices when the item has several varieties. A short-term price change from the previous period is used. The method to aggregate elementary indices to higher levels uses an internationally accepted formula (*Laspeyres* formula).

The current weight reference period (1994=100) and price reference period (1999=100) for the index are not the same. The sales shares are held constant from the weight reference period. The weight reference period was not updated within the past ten years. When the new weights were introduced, the new index was linked to the old index using international accepted practices (the splicing method); however, these series are not publicized.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Intermediate results are validated against other information where applicable

Where possible PPI price and index data are compared to corresponding data from the CPI and other price data from government ministries. PPIs are also compared to the implicit price indices in the national accounts.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

Unusual price behavior is investigated, and corrections are made. However, no documentation is prepared.

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

No formal studies are conducted to investigate errors, omissions, and fluctuations in the data.

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)

Monthly PPI data are final. Weights have not been revised since 1994 and are not periodically assessed for bias. Since the PPI was recently published, there are no revisions of published data. However, the CBN is in the process of updating the base year of the national accounts to the year 2005, and plans to expand the coverage of the PPI and update the weights to the year 2005 at the same time. Notes on price data adjustments are not stored in the database.

4. Serviceability

4.1 Periodicity and timeliness

4.1.1 Periodicity follows dissemination standards

Prices are collected daily. The periodicity for the compilation of the PPI is monthly, meeting GDDS recommendations and SDDS standards.

4.1.2 Timeliness follows dissemination standards

The monthly PPI is published within 15 to 20 days of the reference month. This exceeds GDDS and SDDS standards.

4.2 Consistency

4.2.1 Statistics are consistent within the dataset

The PPI is internally consistent by activity branch and product.

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

Long-term series, with 1994=100 as a weight reference base, are available up to December 2004. PPIs with 1999=100 were linked to the previous series with 1994=100. Monthly index series are available since 1992 when they were first compiled.

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

The PPI is consistent with other government statistics as well as with national accounts implicit price deflators.

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

There is no well-established schedule for revising the weights for the PPI. The weights have not been updated since the index was first compiled. However, as part of updating the base year for the national accounts to the year 2005, the PPI will also be expanded and updated.

4.3.2 Preliminary and/or revised data are clearly identified

When data are revised, preliminary and revised data are not identified.

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

Since the PPI weights have not been updated, this element cannot be evaluated except to mention that a documentation of the methodology for compiling the index has been prepared and is available on the CBN website. No other analysis of the index or its potential revision has been documented.

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)

No press release or analysis on current trends is made on PPIs. PPIs are only disseminated on the CBN website; a hard-copy publication on PPIs is not prepared. However, PPIs are published in the *Economic Indicators* publication. Certain relevant series are not seasonally adjusted. Time series from January 1994 up to December 2004 can be accessed through the CBN website. Detailed indices and price changes at product level are not published.

5.1.2 Dissemination media and format are adequate

PPI data is only published at the CBN website and in *Economic Indicators*. There is no special publication for the PPI such as the one for the CPI.

5.1.3 Statistics are released on a preannounced schedule

Advance release calendars are not available.

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

PPIs are made available to all users at the same time through the CBN website. The public is informed of the statistics being released, and of the procedures to access them at the CBN website and in the publications. Publications contain information on the CBN website

(www.bcn.gob.ni), CBN PO box address, and fax number. The CBN website also includes two e-mail addresses (bcn@bcn.gob.ni and webmaster@bcn.gob.ni) to direct requests and contact CBN personnel.

5.1.5 Statistics not routinely disseminated are made available upon request

There is difficulty in determining which nonpublished nonconfidential data are available upon request and the procedures to obtain them. Detailed data are not always available upon request.

5.2 Metadata accessibility

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

A summary methodological document on the PPI describing the weight estimation process and the index calculation methodology is available on the CBN website. This is the only document that is provided to the public. A more detailed methodology is available at the DID, but it is not published.

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

No detailed documentation for specialized audience is available.

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

Prompt and knowledgeable service and support on the PPI is available to all index users through the Department of Public Service at the CBN Library and key personnel are listed in the PPI methodology. Assistance to users is monitored through data requests, but it is not reviewed periodically.

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

A list of CBN publications and CDs is available from the CBN Library and on the CBN website. Assistance is provided in placing orders at the Library. CBN publications are free of charge.

Table 3. Nicaragua: Data Quality Assessment Framework (July 2003): Summary of Results for the Producer Price Index
(Compiling Agency: Central Bank of Nicaragua)

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
0. Prerequisites of quality						
0.1 Legal and institutional environment			X			The CBN Law does not clearly assign the responsibility for compiling price statistics to the CBN. Informal agreements of data sharing and infrequent communication. Sanctions for nonresponse are outdated and not applied.
0.2 Resources			X			The ECNS and the DID do not have sufficient staff for data processing (4 data processors), analyzing PPI data (2 analysts), and for development work (1 professional). Data processors also process data from other surveys. All price analysts and compilers at the ECNS are contractual personnel. Some computer resources need to be updated and more printers are needed. Only one vehicle is available for price collection. There will be a shortage of resources (both human and financial) for the compilation and dissemination of an integrated PPI with a new reference base that meets international standards. Restricted access to Internet and email. Regular attendance of price courses and seminars is needed.
0.3 Relevance			X			No formal process established for consultation with policy departments and index users (no user surveys or advisory committee). However, some users' needs are monitored through data requests.
0.4 Other quality management			X			Response rates to price surveys and editing rates are not calculated. Data adjustment history is not kept. Users' committees created when a new survey is conducted.
1. Assurances of integrity						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				

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

Table 3. Nicaragua: Data Quality Assessment Framework (July 2003): Summary of Results for the Producer Price Index
(Compiling Agency: Central Bank of Nicaragua)

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
2. Methodological soundness						
2.1 Concepts and definitions			X			Weights are based on sales instead of output. Changes in inventories and own-account production are excluded.
2.2 Scope				X		Weights only cover 50 percent of the manufacturing sector captured in the 2000 Business Register. Free zones and goods for processing activities (Maquila) are not covered.
2.3 Classification/sectorization			X			Some activity branches and industrial services are not classified according to international standards.
2.4 Basis for recording			X			Business accounting periods for sales of 80 percent of enterprises in the sample differ from calendar years. Adjustments were made. Distribution margins and non-deductible VAT were not included in input price indices' weights.
3. Accuracy and reliability						
3.1 Source data			X			The 2000 Business Register is not updated regularly. Sample was not stratified. Household enterprises are not included in the sample. Only main establishment and product are investigated. No secondary goods included in the price survey. No regular meetings with producers' associations.
3.2 Assessment of source data				X		While low, nonresponse rates to price surveys are not monitored. Sampling and nonsampling errors are not calculated. Sample coverage is not assessed according to sampling frame/business register (total sales, output or value added).

Table 3. Nicaragua: Data Quality Assessment Framework (July 2003): Summary of Results for the Producer Price Index
(Compiling Agency: Central Bank of Nicaragua)

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
3.3 Statistical techniques				X		Weights used are outdated (1994=100). Grossing-up factors were not used to calculate weights. In some cases, previous price data are imputed for missing prices introducing a possible bias in the index. Changes in product specifications/quality are introduced after there are two price observations available. New products are introduced only when a major revision is carried out. Current data validation (manual) and analysis procedures do not ensure that codification, editing, and tabulation errors are minimal. Price reference period 1999=100 and weights reference period are not the same (1994=100).
3.4 Assessment and validation of intermediate data and statistical outputs			X			No documentation on unusual changes in price variations is prepared and disseminated.
3.5 Revision studies				X		Notes on price data adjustments are not stored in the database. Weights have not been revised since 1994 and are not periodically assessed for bias. The change in the price reference period (1999=100) was documented. However, an analysis of the revision was not prepared.
4. Serviceability						
4.1 Periodicity and timeliness		X				
4.2 Consistency		X				
4.3 Revision policy and practice				X		Changes in the reference base of the index do not follow a regular schedule. Documentation on the change of price reference period was published, but an analysis on the revision is not available.

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

Table 3. Nicaragua: Data Quality Assessment Framework (July 2003): Summary of Results for the Producer Price Index
(Compiling Agency: Central Bank of Nicaragua)

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
5. Accessibility						
5.1 Data accessibility			X			Charts and an analysis of price trends are not disseminated with the data. Information by product and seasonally adjusted series are not published. No preannounced schedule is available. Difficulty in determining which nonpublished nonconfidential data are available upon request and the procedures to obtain them
5.2 Metadata accessibility			X			A commendable effort has been made by disseminating updated methodology. However, the level of detail, while adequate for a general audience, does not have enough information for the specialist community.
5.3 Assistance to users			X			

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

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*

The Ministry of Finance and Public Credit (MFPC) is responsible of collecting, processing, and disseminating fiscal statistics corresponding to the central government. Several laws establish these functions. In the first place the Political Constitution of the country, chapter 3, Article 112, gives responsibility to the Executive Power in the formulation of the budget and the responsibility of the National Assembly in the process of its approval. Article 113, establishes that, for information of the National Assembly, the Projected Annual Budget Law should contain the budget of autonomous decentralized entities and state enterprises.

In addition to the in the Constitution, the legal environment includes the following attributions to prepare the budget:

Law 290, the Law of Organization, Competence and Procedures of the Executive Power, in its Article 21, letter (a), establishes the management of public finances: that is, to direct, supervise, and control tax policy, formulate and propose the pre-projected Annual Budget Law to the President of the Republic; determine the fiscal balance; coordinate and direct the execution and control of public expenditure; and manage the registry of public investment.

The Laws of the General Directorate of the Budget (GDB) contributes to reinforce the authority of the MFPC to direct the public finances as mentioned in its Law 51, named “Law of the Budgetary Regimen” and Law 136 “Reform and Additions to the Budgetary Regimen” that gives powers to the MFPC, in this matter, in articles 9,10, and 12. The authority of the MFPC is ratified in the articles to the Annual Budget Law and in the law of norms for execution that regulate the budget laws.

There are other legal dispositions related to the collection and dissemination of statistics contained in the organic laws of the directorates of the MFPC, among them General Directorate for Public Credit (GDPC), General Directorate of Government Accounting, and two autonomous directorates linked to the MFPC: General Directorate of Revenue (GDI) and General Directorate of Customs (GDA).

In the legal environment of the GDPC, the Law 290, letter (b) of Article 21, the Directorate is given the responsibility to direct, manage, follow-up, and control the impact of the domestic and foreign debt of the central government and decentralized agencies.

In the legal framework of the General Directorate of Government Accounting, in its Law 290, Law of Organization, Competence and Procedures of the Executive Power, Article 21,

letter (h) and Decree 44-98, Article 7, establish the functions of the Directorate. These functions include the management of the Integrated Financial Management and Audit System (SIGFA) sub-system of the central government accounting, to consolidate the government accounting and the budget execution at the end of the budgetary exercise. The GDB, using this document as a source, prepares the Annual Report on the Liquidation of the Budget, each year, to be presented to the President of Nicaragua and to the National Assembly.

In the legal framework of the GDI, the Law 339, Article 5, number (5) establishes that the main function of the GDI is to make operative the laws and dispositions that establish or regulate the revenue in favor of the government, that are under its jurisdiction, so that the revenue is received in a timely manner, with accuracy and justice.

Regarding the DGA, the Law 339 of March 2000 establishes the DGA as a decentralized Directorate linked to the MFPC. The Directorate has juridical independence and administrative autonomy to manage the tax laws that are in favor of the government that apply to international transactions of goods and services. This function is ratified by the Decree 20-2003 that regulates the Law 339.

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

The MFPC through the GDB collects the underlying information on government operations supported by SIGFA, which covers the operations performed by the General Treasury of the Republic, DGI, DGA, General Directorate of Government Accounting, and the General Directorate of Public Credit. Among these institutions, there is good level of coordination and sharing of data. There is a committee for MFPC entities, DGI and DGA to reconcile statistics and data sharing on weekly meetings. The committee examines the statistics presented by each institution and follows-up on the Economic Program of the Government with the IMF. Also, there is a coordination committee with the CBN. There are no formal bylaws or ministerial decrees or institutional arrangements for the functioning of these committees. Each institutional representative in the committees could participate in the preparation of the agenda for the next meeting. In addition, there is close coordination with the fiscal sector unit of the Research Department in the CBN that assists in the compilation of data for the foreign sector (external loans, foreign grants, amortization, and interest paid), and the internal flows related to operations of the MFPC and the CBN.

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

Data reported by the each government entity are confidential, e.g., data reported by the GDI and GDA. However, after SIGFA processes and consolidates the data for accounting purposes, the aggregated data reported by each entity are no longer confidential.

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

The laws discussed in section 0.1.1 above determine the publication of data by the MFPC, in particular, the Law of Budget Procedures, and the Annual Budget Law. These laws rule that all agencies of the central government should report the operations related to the budget. Therefore, only government entities included in the annual budget have a legal mandate to report their operations to the MFPC.

0.2 Resources

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

The unit compiling GFS in the MFPC has adequate personnel and material resources, including sufficient computing equipment. However, the statistical compilers (only three staff members) in the GDB do not have a relational database to store chronological time series and to generate analytical tables and make projections. Only few experienced compilers are well trained in the *A Manual on Government Finance Statistics, 1986 (GFSM 1986)*, while none have attended suitable training courses, and they have little familiarity with the *Government Financial Statistics Manual 2001 (GFSM 2001)*.

0.2.2 Measures to ensure efficient use of resources are implemented

There is no system in place to ensure the efficient use of resources or to measure the cost of statistical work. There is no formal system for evaluating the personal performance of the compilers of fiscal data. However, there is an ongoing process of evaluation in the completion of the work program of the compiling unit. It is expected that the application of the Law of Civil Service will correct this situation. The cost of compiling fiscal data is not determined. However, it is possible to calculate the expenditure of the unit that compiles fiscal data.

0.3 Relevance

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

The MFPC is open to feedback from GFS users, but it does not actively seek out comments from the users, nor does it have any mechanism in place to identify new or emerging data requirements. Budgetary statistics are mainly relevant to monitor the execution of the annual budget and to be used as an indicator of government activity. The MFPC does not prepare GFS data for general government and/or the nonfinancial public sector.

The authorities in the MFPC have access in advance to the information generated by SIGFA. In the establishment of the SIGFA project, the needs of official users were evaluated and

agreed. The quarterly report is disseminated to the public through Internet. This report contains summarized data and detailed tables in its annexes.

0.4 Other quality management

0.4.1 Processes are in place to focus on quality

The use of data generated by SIGFA gives assurance that data being compiled are based on the best quality information available. The administrative and accounting records are used in the processing of the data.

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

The MFPC is systematically reviewing the classification and coherence of the reports prepared by SIGFA, for budgeting and accounting, to evaluate the quality of the fiscal data. International experts from the Interamerican Development Bank (IDB) and WB have assisted the authorities in developing a system for medium-term projections and to review the classifications being used. However there is no formal quality management program.

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

The coverage of the SIGFA system is being reviewed to expand it and develop a module to cover the transactions of the municipalities. Future expansion to cover the nonfinancial public corporations data is planned.

1. Assurances of integrity

1.1 Professionalism

1.1.1 Statistics are produced on an impartial basis

Fiscal data compiled by the MFPC are based on the data generated by SIGFA and, therefore, are produced on an impartial basis. The CBN makes efforts to present technical seminars to discuss papers and recent work undertaken, which are prepared by the technical staff to promote professionalism in the CBN.

The culture of professionalism is clearly recognized as essential in ensuring impartiality on the part of civil servants and in the Law of Civil Service. There are no laws or other formal arrangements to support the professional independence of GFS compilers, although under the current government structure, there have been no attempts by authorities to influence statistical output. Professionalism is a key factor in the recruitment and promotion of staff, ensuring stability, long tenure, and a good degree of knowledge and experience with compilation and methodological procedures.

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

Data generated by SIGFA are based on sound sources of information, as they are the administrative and accounting records of the budgetary units of the government. In the CBN, the selection of sources for data compilation is in line with the recommendations of *GFSM 1986*. Decisions to disseminate the data compiled by the CBN are aligned by the autonomous character of the institution and the professional integrity of the staff.

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

In the MFPC and CBN only authorized officials can address the public to comment on erroneous interpretation of the data released. Compilers should report to the authorities on the emerging issues and then if the authorities find it pertinent, they release comments to the public but not the compilers.

1.2 Transparency

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

Public access to the budget legislation and a broad legal framework for the collection and compilation of data is complemented with other means of information, such as press releases and pamphlets on the SIGFA project. However, transparency is affected because the MFPC does not make available to the public the terms and conditions under which GFS are collected, compiled, and disseminated. In particular, users are not made aware that the coverage of central government data is incomplete and that data with a more complete coverage of central government, local governments (including some nonfinancial public enterprises) are disseminated by the CBN.

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

It is publicly known that all monthly data generated by SIGFA and its subsystems are reported to the MFPC and the National Assembly and then after 20 to 30 days to the CBN. After the CBN receives the information, quarterly data are released to the public in general on the Internet.

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

The MFPC's website clearly identifies the data generated by SIGFA. In addition, issuers could make questions through the MFPC website "Citizen's Popular Questions" (*Consulta Popular Ciudadana*) and the MFPC's regulations require to answer all questions channeled through this website within 48 hours after the original question is received.

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

The methodology and procedures followed by SIGFA in the generation of data on fiscal operations have been publicly announced from the beginning of the Project.

1.3 Ethical standards

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

The recently approved Law of Civil Service of 2004 governs the behavior of MFPC staff. There is no formal code of conduct for the GFS compilers in the MFPC, except for one general disposition in the By-Laws for Personnel, Part 3, number IX, that establishes that the use of information known to the employee in the course of the work is to be guarded with care and protection (*debido sigilo*). The laws of agencies under the MFPC contribute to fortify ethical standards. However, any such codes would merely formalize the current practice observed and expected from all 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

Concepts and definitions used by the MFPC and CBN are generally consistent with *GFSM 1986*. However, there is no plan, yet to implement the *GFSM 2001*. In 2004, the CBN reclassified the fiscal data using data categories as defined in the *GFSM 2001*. Data is now being disseminated by the CBN in this new presentation. The CBN published in printed form and on the Internet the metadata with a description of the content of each category in the different classifications now used.

2.2 Scope

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

Fiscal statistics disseminated by the MFPC cover the budgetary operations only. The data compiled by the MFPC through the GDB comprise the following institutions: ministries, decentralized agencies under the direction of the central government, and the extra budgetary agencies. The general budget of the government includes information about the budget of the Nicaraguan Institute of Social Security (NISS), autonomous agencies and nonfinancial corporations producing utility services. However, the MFPC does not receive information on the execution of their budgets.

The CBN compiles data for the “restricted nonfinancial public sector” that comprises the budgetary central government, the NISS, the Municipality of Managua (*Alcaldía de Managua*), and two nonfinancial public corporations. Coverage is incomplete to determine the consolidated central government (missing are the operations of various autonomous agencies and decentralized entities that do not receive resources from the budget). The coverage of municipalities is incomplete precluding compilation of data for the concept of general government, and the operations of several important nonfinancial public corporations are missing. This is the reason why the data for the nonfinancial public sector are denominated “Restricted nonfinancial public sector.” Domestic debt data include intergovernmental debt to the NISS. There are no fiscal statistics on the operations of consolidated central government or complete local governments and therefore general government data are not compiled.

2.3 *Classification/sectorization*

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

Fiscal statistics lack the presentation of data for consolidated central government and general government. There are no fiscal statistics on the operations of consolidated central government, complete local governments, and therefore, there is a lack of coverage of data covering the general government. However, CBN fiscal data are classified according to *GFSM 2001*. Under this presentation the summarized operations of the nonfinancial public sector are classified as follows:

1.	Revenue
	Taxes
	Social contributions
	Other revenue
2.	Expenditure
	Employee remuneration
	Purchases of goods and services
	Interest
	Current and capital transfers
	Social benefits
	Other expenditure
3.	Net operating balance
4.	Net acquisition of nonfinancial assets
5.	Cash surplus or deficit before grants (3–4)
6.	External grants
7.	Cash surplus or deficit after grants (5–6)
8.	Net domestic financing
	Of which:
	CBN
9.	Net external financing
	Revenue from privatization
	<i>Memorandum item:</i>
	Current savings

The MFPC is still using the analytical framework and classifications of the *GFSM 1986*.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

Flows are valued at market prices for each transaction. The statistical data are compiled and published in national currency (córdobas). Transactions denominated in dollars or other currencies are converted to national currency (córdobas) at the exchange rate in effect at the time of the transactions. Nominal value is used for debt stocks in accordance with *GFSM 1986*.

2.4.2 Recording is done on an accrual basis

Budgetary central government expenditure is recorded partly on a cash basis and partly on an accrual basis. Expenditures recorded on an accrual basis are the purchase of goods and services, as well as wages and salaries appropriated for the month of November each year. The CBN's rest-of-public-sector operations are recorded on a cash basis.

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

The MFPC and CBN present the flow data on a gross basis, except for corrective transactions and net data for the operations on financial assets and liabilities in the compilation of financing.

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 MFPC flow data are generated by SIGFA, for the budgetary central government (BCG) operations, for the GFS aggregates and their corresponding detail. The BCG data are supplemented with flow data for domestic and foreign financing reported by the CBN. The financing data are based on the accounting records of the CBN, regarding its own operations with the BCG, and data reported by the GDFC on domestic and foreign debt operations. In the compilation of the rest of the restricted public sector operations, the CBN collects data on a cash basis from the NISS, ALMA (Managua Municipality), and two relevant nonfinancial public corporations. However, the CBN does not use financial statements and balance sheets of the NISS or nonfinancial public enterprises to compile their flow accounts.

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

Classification codes used by SIGFA to provide source data to both the BCG and the CBN, and for the rest of the nonfinancial public sector are in line with *GFSM 1986* and, also, the valuation practices are in line with *GFSM 1986*.

3.1.3 Source data are timely

Compilation by SIGFA of monthly, quarterly, and annual data for the BCG is timely with a lag of less than 30 days. The CBN collects the monthly information for the institutions in the rest of the restricted nonfinancial public sector within 20 days. However, some delays are observed for some institutions, that may delay the compilation and dissemination of the restricted nonfinancial public sector. More generally, the CBN publishes the fiscal data within five weeks after 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 no sampling error; the results of the assessments are monitored and made available to guide statistical processes

Because source data are timely, SIGFA assesses regularly the data compiled by the system and subsystems with the objective of compiling new reports or modifying the old ones. Data for the rest of public sector collected by the CBN are assessed and analyzed by the compilers in the central bank each month. The processes in place ensure appropriate validation and cross checking.

3.3 Statistical techniques

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

SIGFA and CBN procedures are in line with *GFSM 1986*. The quality of data generated by SIGFA is assured by the procedures followed by the system and subsystems of SIGFA, which are based on the accounting and administrative records of the government units. The CBN validates arithmetic accuracy of the data received for the institutions in the restricted nonfinancial public sector.

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

SIGFA and the CBN follow recommendations of *GFSM 1986* regarding adjustments, in particular for the reclassification of items, and valuation techniques. Domestic debt is valued at nominal value, and external debt flows are valued in national currency at the exchange rate

of the date of the transaction and the remaining maturity balance is valued at the end of period exchange rate.

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 by the revenue directorates (GDI and GDA) are used to validate fiscal revenue data generated by SIGFA. The CBN validates data on government transfers received with data reported by SIGFA corresponding to individual institutions in the rest of the nonfinancial public sector. NISS data on interests and amortization are provided by the Treasury and subsequently compared with MFPC data on these categories.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

The MFPC validates the data on changes of government debt stocks with financing data in coordination with the CBN. The statistical discrepancies found in crosschecks of preliminary data of paying and receiving institutions are revised in the data sources and then adjusted in the statistics.

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

Compiled data are checked horizontally and vertically for internal consistency by both the MFPC and the CBN. In addition, the CBN makes, when possible, crosschecks of foreign loans received and grants with creditors and when possible with a directory of donors.

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 MFPC reviews and researches discrepancies and, when errors are detected, data are revised accordingly. However, no revision studies are undertaken in a systematic way in the MFPC. On the other hand, the CBN's revisions do not follow a regular pattern. The sources of error are examined in order to improve the compilation practices in the CBN.

4. Serviceability

4.1 Periodicity and timeliness

4.1.1 Periodicity follows dissemination standards

Flow data compiled by the MFPC and CBN meet GDDS dissemination recommendations regarding periodicity. Data are compiled on a monthly, quarterly, and annual basis. Debt data (domestic and foreign) are compiled by the MFPC on a monthly basis.

4.1.2 Timeliness follows dissemination standards

Flow data compiled by the MFPC and CBN meet GDDS dissemination recommendations regarding timeliness. The quarterly data are released by the MFPC to the public with a delay of about 20-30 days. The CBN's timelines is 60 days for monthly data, 90 days for quarterly data, and four to five months for annual data. Quarterly debt data are disseminated to the public with a delay of about three to four months.

4.2 Consistency

4.2.1 Statistics are consistent within the dataset

Statistics are checked arithmetically for consistency, horizontally and vertically, in both MFPC and CBN data. Compilers, in both institutions, obtain annual data as the sum of quarterly data. If any correction is made to the annual figures, an adjustment is made in the last month of the fiscal year for monthly data or in the last quarter of the fiscal year for the quarterly data in order to keep sub annual data consistent with annual data. The aggregates shown in the summary tables are checked with the sum of categories in the detailed tables.

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

Both the MFPC and CBN disseminate fiscal data that are consistent with chronological time series. In the MFPC, time series for about 10 years are available and in the CBN, from 1987 through 2004.

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

MFPC budgetary data are used as intermediate products in other data sources. Monetary statistics are not consistent with fiscal data due to incomplete coverage of the nonfinancial public sector and differences in recording criteria. Government expenditure is recorded partly on an accrual basis. Monetary statistics cover all nonfinancial public sector units and data are recorded on an accrual basis. However, primary intermediate data sources could be largely reconciled.

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

Revisions do not follow a regular pattern in the MFPC or CBN. When data are revised in the MFPC, evaluation comments are included if differences are deemed important. Revision takes place in the CBN when annual data are compiled or before publication of final data. If any errors or omissions are found, the compilers review data for earlier years if possible.

4.3.2 Preliminary and/or revised data are clearly identified

The MFPC and CBN identify the status of data through footnotes in the statistical tables.

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

Both the MFPC and CBN do not make public studies of the revisions.

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)

Fiscal data are disseminated by the MFPC to the public in a format that conforms to the components and classifications of *GFSM 1986*. CBN data are classified according to *GFSM 2001* classifications. Both the MFPC and CBN supplement data with detailed tables, graphic presentations, and evaluation comments.

5.1.2 Dissemination media and format are adequate

The MFPC publishes the quarterly reports in hard copy with the same breakdown as the data published in the website of the ministry. Users can find quarterly data from 2000 onwards. The CBN publishes the data through *Economic Indicators*, quarterly bulletins, annual reports and in the CBN's website.

5.1.3 Statistics are released on a preannounced schedule

The MFPC disseminates data to the public on a quarterly basis in accordance with the legal mandate in the Budget Law. The CBN does not have a preannounced schedule for publication.

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

Both the MFPC and the CBN release fiscal data to all users simultaneously.

5.1.5 Statistics not routinely disseminated are made available upon request

In both MFPC and CBN, unpublished data with a longer time series are available to users upon request. In the MFPC the website gives the electronic address to make requests: webmaster@mhcp.gob.ni, although there is no address of the GFS compiler.

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 MFPC has published procedures manuals for the budget processes and SIGFA procedures. However, these manuals are not user friendly and are intended for reference to the employees of the ministry. The CBN has recently published, in hard print and in the Bank's website, detailed metadata.

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

The MFPC includes detailed information not adapted to the needs of the public. The publications contain more detailed information than the international standards. In addition the MHCP does not alert users regarding the existence of data with better coverage published by the CBN. The CBN's detailed information is designed to meet the needs of all users.

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

Both the MFPC and the CBN give information on names or electronic address to obtain support from the institutions.

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

In the MFPC, there is no catalog of publications. However, the websites of the different dependencies of the ministry include the links for direct access to the available documents for the users. The CBN publishes a catalog of publications that is updated frequently.

Table 4. Nicaragua: Data Quality Assessment Framework (July 2003): Summary of Results for Government Finance Statistics (Compiling Agencies: Ministry of Finance and Public Credit for Dimensions O-1, and Central Bank of Nicaragua for Dimensions 1-4)

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
<p>0. Prerequisites of quality</p>						
0.1 Legal and institutional environment			X			Law gives responsibility to MFPC but no power to collect information of several important public sector units. Fiscal data correspond only to budgetary operations of central government units financed with government resources. There is an appropriate level of data sharing and coordination among MFPC units, CBN, and revenue collecting directorates (GDI and GDA).
0.2 Resources			X			More staff resources and computing resources are needed. The statistical compilers in the General Directorate of the Budget in the MFPC do not have a database to store chronological time series to generate analytical tables and to make projections. In the MFPC there is no system in place to ensure the efficient use of resources or to measure the cost of the statistical work.
0.3 Relevance				X		Budgetary statistics prepared by the MFPC are mainly relevant to monitoring the execution of the annual budget and to be used as useful indicators of government activity. The MFPC does not prepare GFS data for general government and/or nonfinancial public sector.
0.4 Other quality management			X			The quality of budgetary central government data is ensured by the procedures and methods used by the SIGFA. Budgetary central government data quality is improved in the process of development of new SIGFA modules or subsystems. However, there are no regular revision procedures.

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

Table 4. Nicaragua: Data Quality Assessment Framework (July 2003): Summary of Results for Government Finance Statistics (Compiling Agencies: Ministry of Finance and Public Credit for Dimensions O-1, and Central Bank of Nicaragua for Dimensions 1-4)

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
1. Assurances of integrity						
1.1 Professionalism		X	X			Users are not made aware that the coverage of MFPC central government data is incomplete and that fiscal data with a more complete coverage of general government units and some nonfinancial public corporations are compiled and disseminated by the CBN.
1.2 Transparency						
1.3 Ethical standards		X				
2. Methodological soundness						
2.1 Concepts and definitions			X			MFPC and CBN fiscal data are classified according to the <i>GFMS 1986</i> . However, there is no plan to implement <i>GFMS 2001</i> . Definition of MFPC's fiscal statistics are based on budgetary operations only.
2.2 Scope				X		Coverage is incomplete to compile data for the consolidated central government (missing are the operations of various autonomous agencies and decentralized entities that do not receive resources from the budget) or to compile data for general government (operations of the rest of the municipalities other than ALMA are missing) and the operations of several important nonfinancial public corporations are also missing. Central government domestic debt data include intergovernmental debt to the National Institute of Social Security. There are no fiscal statistics on the operations of consolidated central government or complete local governments and therefore general government data are not compiled.

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

Table 4. Nicaragua: Data Quality Assessment Framework (July 2003): Summary of Results for Government Finance Statistics (Compiling Agencies: Ministry of Finance and Public Credit for Dimensions O-1, and Central Bank of Nicaragua for Dimensions 1-4)

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
2.3 Classification/sectorization				X		Fiscal statistics lack the presentation of data for consolidated central government and general government. CBN fiscal data are classified according to the <i>GFSM 2001</i> . No data are available for consolidated central government, general government, and nonfinancial public sector with incomplete coverage of nonfinancial public corporations.
2.4 Basis for recording			X			Budgetary central government expenditure is recorded partly on a cash basis and partly on an accrual basis. CBN rest of public sector operations are recorded on a cash basis.
3. Accuracy and reliability						
3.1 Source data		X				
3.2 Assessment of source data		X				
3.3 Statistical techniques		X				
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies			X			The MFPC reviews and analyses discrepancies when errors are detected and data are revised accordingly. However, no revision studies are undertaken in a systematic way. The CBN makes revisions with no predetermined pattern.

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

Table 4. Nicaragua: Data Quality Assessment Framework (July 2003): Summary of Results for Government Finance Statistics (Compiling Agencies: Ministry of Finance and Public Credit for Dimensions O-1, and Central Bank of Nicaragua for Dimensions 1-4)

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
4. Serviceability						
4.1 Periodicity and timeliness		X	X			MFPC budgetary data are used as an intermediate product in other data sources. Monetary statistics are not consistent with fiscal data due to incomplete coverage of the nonfinancial public sector and differences in recording bases. Government expenditure is recorded partly on an accrual basis. Monetary statistics cover all nonfinancial public sector units and data are recorded on an accrual basis. However, primary intermediate data sources could be largely reconciled.
4.2 Consistency						
4.3 Revision policy and practice				X		Revisions do not follow a regular pattern in the MFPC or CBN. Revision takes place in the CBN when annual data are compiled or before publication of final data.
5. Accessibility						
5.1 Data accessibility		X				The MFPC has published procedures manuals for the budget process and SIGFA procedures. However, these manuals have not been written in a user-friendly way but for ministry employees. The CBN has recently included detailed metadata at the time the classifications according with <i>GFSM 2001</i> were introduced and disseminated. The MFPC includes detailed information not adapted to the needs of the public. The publications contain more detail than the international standards. The CBN detailed data are designed to meet the needs of all users.
5.2 Metadata accessibility			X			
5.3 Assistance to users		X				

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

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 Nicaraguan financial system is governed by the Political Constitution of Nicaragua (Articles 99, 131), the Organic Law of the CBN (Law No. 317), the Law of the Superintendency of Banks and Other Financial Institutions (Law No. 316), the Law of Banks, Nonbank Financial Institutions and Financial Groups (Law No. 314), and other applicable laws, as well as respective regulations. These laws have undergone various amendments and additions.

The CBN was created by the Constitution of 1950 through legislative decree No. 525 on August 28, 1960 and began operations on January 1, 1961 as a state institution with operational autonomy, indefinite duration, independent funding, and legal identity. It is currently governed by Article 99 of the Political Constitution which establishes that “The Central Bank is the state regulator of the monetary system.” The CBN’s legal framework was modernized in 1999 as reflected in its Organic Law (CBN Law).

Traditionally, the CBN has been responsible for the collection, compilation, and dissemination of monetary and financial statistics. The legal basis for these functions derives essentially from the CBN Law, in particular Articles 60 and 61, which set the rights and obligations of the CBN in relation to the production of macroeconomic data. Also, Article 31 of the CBN Law stipulates that, during the first three months of the year, the CBN must submit to the President of the Republic the *Annual Report* of the institution, which should include a general survey of the economic and financial development of the country.

The Superintendency of Banks and Other Financial Institutions (SBOFI) has its own legal framework (Law No. 316) and the legal authority to collect information from those institutions under its supervision. Financial institutions are also required by law (Law No. 314) to report to the SBOFI or face sanctions. In compliance with the law, financial institutions provide information to the SBOFI on a weekly and monthly basis and the SBOFI forwards the information to the CBN in electronic format.

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

In the case of the central bank data, the CBN has adopted provisions to facilitate the flow of source data between the Accounting Department (Accounting) [*Subgerencia de Contabilidad y Presupuesto*] and the Monetary Programming Department (MPD) through an automated system known as the “Unified Database” (UDB) [*Base de datos unificada del BCN*]. One

computer at the MDP is linked to the UDB and direct access to the database is limited to a few authorized MPD staff, who can view and retrieve data but cannot modify them. The UDB is updated daily with the accounting information of the central bank balance. With respect to **Other Depository Corporations** (ODCs), the CBN and the SBOFI have arrangements in place to ensure the flow of information from the SBOFI to the CBN although such arrangements are not of a legal or official nature. Financial institutions provide information to the SBOFI on a weekly and monthly basis. The SBOFI in turn provides monthly data to the Economic Studies Department [*Subgerencia de Estudios Económicos*] of the CBN in electronic format after they have been reviewed and aggregated. Considerable delays in data transmittal are not usually encountered. The CBN maintains open and regular communications with the SBOFI regarding the flow of information and to resolve any data issues that may arise during the data review and validation process. The MPD staff do not contact the individual ODCs directly. Prior to the introduction of the *Sectorization Report for ODCs* (see item 0.1.4), the CBN and the SBOFI held joint seminars with the ODCs to discuss the report and its implementation.

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

The confidentiality of the data that ODCs provide to the SBOFI is established in the CBN Law. Article 60 stipulates that information shall be used solely for statistical purposes and macroeconomic analysis. Also, according to Article 61, all CBN employees are required to keep confidential any information, documents, and transactions that may come to their attention in the course of performing their duties. Moreover, Article 10 (e) of the CBN By-Laws [*Reglamento Interno*] identifies disclosure of confidential information as a cause to terminate employment, Article 56 stipulates the confidentiality of all electronic information available to the staff, and Article 77 (j) and (i) establishes that any violation of bank secrecy or confidentiality is punished without prejudice to any punitive sanctions that may apply under ordinary criminal law.

There are no computer programs especially designed to prevent the dissemination of confidential data. Aggregate data are reviewed and validated prior to dissemination to avoid indirect disclosure of individual data. The confidentiality of the data depends, to a large extent, on the professional ethics of CBN employees. To safeguard the confidentiality of the data, access to individual data and to installations and electronic databases in the CBN's server is restricted to authorized personnel.

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

The legal provisions underpinning the obligation of financial institutions to report data needed to compile statistics are contained in the legislation cited above (item 0.1.1). Article 60 of the CBN Law stipulates that government and municipal offices and agencies, as well as State credit institutions, be required to submit to the CBN any reports it may request to carry out its functions. In addition, banks and any other individual or legal entity resident

or domiciled in Nicaragua, whether national or foreign, are required to provide the CBN with any statistical data it may request in exercise of the authority conferred on it by law.

Article 61 contemplates generic sanctions for noncompliance with the law, regulations and resolutions issued by the CBN or by providing incomplete or false information (i.e., a fine of 1,000 to 10,000 córdobas for each instance, which shall be credited to the tax authority, the General Revenue Directorate, at the request of the Central Bank). In practice, the CBN does not levy fines for nonreporting.

Article 25 of the SBOFI Law and article 144 of the Law of Banks, Nonbank Financial Institutions and Financial Groups also stipulate the sanctions in case of noncompliance. Also, in 2002, the SBOFI issued an official mandate requiring all deposit-taking institutions to prepare and submit to the SBOFI a weekly and monthly *Sectorization Report* which would provide better source data for compiling monetary statistics. This regulation became effective in September 2002 and includes provisions for sanctions. The CBN prepared instructions to facilitate the preparation of the *Sectorization Report*, classification of institutional units and the forms for recording data at monthly and weekly intervals.

0.2 Resources

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

Monetary statistics are prepared by the MPD of the CBN, which has 11 staff, six of whom spend a considerable part of their time on the preparation of daily, weekly, and monthly monetary statistics. All of the staff have university degrees in economics and several staff have participated in specialized courses in monetary and financial statistics. It is estimated that an average of six months experience is required to acquire good knowledge of concepts and established practices. There is minimum staff turnover in the MPD as 60 percent have been in their positions for more than 10 years. Staff resources for compiling monetary statistics are broadly adequate to carry out its current work program.

Regarding training in methodologies and compilation techniques, the CBN supports the participation of its employees in courses offered by international organizations, such as the IMF (especially the Monetary and Financial Statistics course), and seminars offered by regional institutions, such as the Central American Monetary Council (CAMC) and the Center for Economic and Monetary Studies for Latin America (CEMLA). There is no training program offered by the CBN to help staff improve their technical qualifications in economics, monetary and financial matters, including statistical compilation.

On technical resources, improvements have been made since 2003 and all staff currently have personal computers and a standard software, which is connected to the CBN network. The staff uses Excel, Word, PowerPoint in a Windows environment. All staff have access to the CBN Intranet but only two have access to the Internet. Access to more modern equipment (e.g., computers with larger memory) and more sophisticated software (e.g., econometric packages) would help to enhance the contributions made by the staff.

The compilation of monetary statistics for the central bank is performed using an electronic system developed in a Windows environment in late 2000. This tool is comprised of different modules (one for the CBN and one for the ODCs), allows interactions with users to expedite the updating and verification of data and the production of predetermined output tables. Nevertheless, access to the system is limited to a few key staff members, each of whom perform very specific functions.

The physical facilities (workspace, office facilities, furniture, equipment, etc.) are less than adequate to facilitate the efficient compilation of monetary statistics; however, a remodeling project that is currently being carried out will result in significant improvements.

Financial resources are broadly adequate to support the current programs for monetary statistics. The budget for monetary and financial statistics is reviewed each year within the context of the overall CBN budget and the required appropriations are usually granted. MPD monitors the use of its financial resources based on a report provided by the Accounting Department and may adjust its program as needed. Requests for additional resources must be submitted for management's consideration and approval within the context of existing priorities.

As of 2004, a *Plan Estratégico del Banco Central de Nicaragua* has been prepared in a manner consistent with the approved budget for each organizational unit. A strategic plan for 2005 has been recently drafted and also provides for adequate financing to undertake all objectives identified for the period, including the adoption of internationally accepted practices and methodologies in the compilation of financial and economic data.

0.2.2 Measures to ensure efficient use of resources are implemented

In general, all programs in the CBN are subject to budget considerations and regular performance assessments. Annual work programs are designed by the individual departments and submitted for approval by CBN management. In the case of monetary statistics, staff performance evaluations are conducted every year and the work program is monitored and reviewed periodically. There is no specific process to measure the resources used to compile monetary and financial statistics vis-à-vis those employed for other macroeconomic data. Moreover, internal work practices and procedures are not reviewed regularly to improve efficiency; however, the CBN seeks technical assistance from international organizations (e.g., the IMF, CEMLA, CAMC) to evaluate and improve statistical methodologies.

0.3 Relevance

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

The CBN does not have a proactive policy of regularly consulting users to obtain feedback on the quality and relevance of monetary statistics, and therefore, input from the general

public is very limited. In general, feedback on the relevance of the statistics is obtained in the course of responding to specific data requests. Users seeking data that is not published on the CBN's website or in its publications contact the CBN for assistance. Occasionally, the CBN conducts conferences to inform the public about changes and innovations in monetary statistics.

Nonetheless, CBN participation in seminars and conferences on monetary statistics organized by international and regional organizations (e.g., the IMF, CAMC, and CEMLA) provides a forum to identify new and emerging data requirements and to help in assessing the relevance of the CBN's monetary statistics. The CBN is actively pursuing the goal of adopting internationally accepted standards for monetary statistics, as demonstrated by their efforts to adopt the *Monetary and Financial Statistics Manual's (MFSM)* methodology and their decision to participate in the IMF's General Data Dissemination System (GDDS).^{3 4}

0.4 Other quality management

0.4.1 Processes are in place to focus on quality

The CBN recognizes that the quality of the statistics is essential for accurate analysis of the monetary situation and for formulating and implementing monetary policy. This awareness is embodied in the CBN Law and its By-Laws and the organizational structure of the CBN. In practice, (1) the quality of monetary statistics is assessed by CBN employees who compile them and prepare periodic reports; (2) participation in training programs abroad that stress methodology, compilation procedures, and their relevance to data quality; (3) the Internal Auditor of the CBN, under Article 29 of the CBN Law, is responsible for inspecting and monitoring the CBN's operations and accounts and reports to the Board of Directors of the CBN. Every year, the CBN also undergoes an external audit.

Moreover, the CBN is sensitive to the importance of data quality and its dimensions, as evidenced by the recent decision to participate in the GDDS.

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

The MPD has in place some procedures for quality control of monetary and financial statistics, including routine checks of the raw data inputted into the electronic system; however, these procedures are not reviewed regularly with a view to improve them. Concerning the statistical program, the CBN has retained the services of international

³ Preparations for Nicaragua's formal participation in the GDDS are at an advanced stage. Nicaragua has committed to use the GDDS as a framework for statistical development, nominated a national GDDS coordinator, and prepared draft metadata. When finalized, the metadata will be posted on the IMF's Dissemination Standards Bulletin Board (DSBB) indicating that Nicaragua has officially joined the GDDS.

⁴ After the visit of the mission, Nicaragua became a participant country in the GDDS on February 22, 2005.

consultants and experts to improve the quality of monetary and financial statistics and develop strategies to enhance data compilation.⁵ Notwithstanding these efforts, the MPD does not verify that data-reporting practices followed by the banks are consistent with prescribed guidelines, in particular those established for the preparation of the *Sectorization Report*. The SBOFI includes in its quarterly report [*Informe*] the financial statements of the financial institutions under its supervision.

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

There is wide recognition in the CBN of the trade-offs between data accuracy, periodicity, and timeliness and these factors are evaluated regularly against constraints and priorities posed by the overall CBN budget. There are procedures in place to deal with quality issues in planning the statistical program. The strategic plan [*Plan Estratégico del Banco Central de Nicaragua*] is linked to the CBN budget facilitating the efficient allocation of resources. A strategic plan for the CBN for 2005 has been recently drafted and, in the case of monetary statistics, calls for continuing work on the adoption of the *MFSM*.

1. Assurances of integrity

1.1 Professionalism

1.1.1 Statistics are produced on an impartial basis

There is no law that specifically stipulates that the terms and conditions under which the statistics are produced should be in accordance with the principles of professional independence. However, the conditions and provisions governing the CBN as stipulated in Law 317 (Articles 1, 60) are deemed adequate to ensure its technical independence and the autonomy of its staff. The CBN's Board of Directors and management clearly recognize that professionalism and independence in compiling the data, including monetary statistics, are crucial to the credibility of the statistical outputs of the institution.

The CBN clearly promotes professionalism of its staff. Professional and academic skills, as well as performance on placing tests, are prerequisites for hiring personnel. Chapter 2 of the CBN By-Laws stipulate the requirements for employment in detail. Considerations for advancement depend not only on productivity and efficiency but also on professionalism. The CBN also promotes professionalism by encouraging staff to conduct research projects and to participate in international seminars and courses on monetary statistics, post-graduate

⁵ Significant improvements have been effected in recent years with technical assistance from the IMF and participation in a joint IMF-CAMC seminar in 2004.

studies, and in meetings with other central banks and international organization. In the near future, a research unit will be set up within the Gerencia de Estudios Económicos.

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

The sources, methods and statistical techniques used for compiling monetary statistics are based on statistical considerations (e.g., coverage, timeliness, and reliability of the source data). The source data used for compiling monetary statistics (i.e., balance sheets of the CBN and ODCs reports) meet, to a large extent, the statistical requirements for decision-making purposes and for publication. The definitions and statistical techniques are based on methodological considerations (e.g., the *MFSM*). Although the current methodology used to compile monetary statistics for the ODCs is not entirely consistent with *MFSM* recommendations (e.g., coverage and sectorization), plans for improvement have been formulated within the context of the GDDS.

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

Generally there is no erroneous interpretation or misuse of monetary statistics by data users. When there are significant errors in interpretation in the media, the CBN issues an official response with the relevant clarifications. The methodological notes available on the CBN's website help to avoid misinterpretations about the data published in *Indicadores Económicos*. Also, in the past, the CBN has organized seminars with the media to discuss the appropriate interpretation and use of some economic and financial indicators prepared and disseminated by the CBN.

1.2 Transparency

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

The CBN Law (No. 317), the Law of the Superintendence of Banks and Other Financial Institutions (Law No. 316), the Law of Banks, Nonbank Financial Institutions and Financial Groups (Law No. 314) can be found on the CBN's website (<http://www.bcn.gob.ni>). This legislation provides the broad terms and conditions under which statistics are collected, compiled, but contains reference to data dissemination.

The CBN By-Laws and other internal documents (e.g., strategy plan) that cover aspects related to statistical compilation, such as safeguards for confidentiality of data, professionalism in compiling information, are for internal use only. The CBN By-Laws are available on the CBN's Intranet site.

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

No government officials outside the CBN have access to monetary statistics before their release to the public. Once compilation of the statistical output is complete and before it is disseminated on the CBN's website, it is made available to the *Gerente de Estudios Económicos* of the CBN. An official representative of a government agency may have prerelease access to the data, subject to the submission of a formal request to the *Gerente de Estudios Económicos*. At present, the public is not informed of this practice.

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

Publications clearly indicates that the CBN is responsible for its statistical products and the department that prepares the information (i.e., Gerencia de Estudios Económicos). Moreover, all statistical products have the CBN logo. In cases where statistics are reproduced in other documents or newspapers, the CBN is generally identified as the source of the data.

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

In general, there is no advance notice of changes in methodology, source data, and statistical techniques used to prepare monetary statistics. Changes are announced and explained at the time the new data are disseminated on the CBN's website (<http://www.bcn.gob.ni>). However, now that the CBN's website contains methodological notes on monetary statistics, the CBN intends to update them regularly.

1.3 Ethical standards

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

The CBN Law (Article 19) provides for its Board of Directors to issue its own internal By-Laws. Hence, the CBN's By-Laws (chapter 8) provide guidelines for the staff that requires them, among others, to carry out their responsibilities with due diligence and loyalty, dedicating to the tasks their best moral, intellectual, and physical efforts. The By-Laws also establish regulations and sanctions for employees who misuse the information to which they have access. The By-Laws are made known to all new CBN employees and are available on the CBN's Intranet (for internal use only). Employees are routinely reminded to observe the rules and 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 overall structure in terms of concepts and definitions of the monetary statistics generally follows internationally accepted standards, guidelines, and good practices. In recent years, the CBN has made great efforts to adopt the methodology of the IMF's *MFSM*. An improved presentation for monetary statistics, with monthly data since December 2001, was disseminated via the Internet in May 2004 in the CBN's *Economic Indicators* [Indicadores Económicos], along with a separate compendium of detailed methodological notes.

The analytical framework used to compile and present the Central Bank Survey (CBS) and the Depository Corporations Survey (DCS) follows in general the *MFSM* methodology. The DCS seeks to explain the factors affecting the creation of money by means of institutional sectorization and classification of accounts. The DCS (called Monetary Survey of the National Financial System) is a consolidation of the sectoral balances of the CBN and ODCs, which include commercial banks and finance companies, and the sectoral balance of the Financiera Nicaragüense de Inversiones (Nicaraguan Investment Fund (FNI)).⁶ The surveys and underlying sectoral balance sheets reflect the residency criterion, the sectorization of institutional units, and the classification of financial instruments on a gross basis as recommended in the *MFSM*.

The main aggregates identified in the DCS include net foreign assets (claims on nonresidents less liabilities to nonresidents), net domestic credit (to general government, nonfinancial public enterprises, private sector, other sectors and other items net), and monetary liabilities (currency outside banks, transferable deposits, other liabilities with the private sector, and securities issued by the CBN and held by residents). The CBN also publishes several measures of broad money (M1, M2 and M3) as a series of broader monetary aggregates (M1a, M2a, and M3a). The *MFSM* does not prescribe a uniform definition for this indicator since definitions vary from one country to another.

Notwithstanding the improvements introduced in 2004, the current presentation does not conform fully to the *MFSM*, mainly due to incomplete institutional coverage, the partial sectorization of institutional units in the accounts of the ODCs which poses difficulties in identifying holders and issuers of financial assets/liabilities, and partial application of accrual-based recording as noted below.

⁶ The FNI is not a deposit-taking institution but it is included in the national concept of DCS.

2.2 *Scope*

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

The financial system of Nicaragua consists of a variety of financial intermediaries that operate under different legal, regulatory, and institutional schemes. The financial sector includes (1) **the Central Bank (CBN)**, (2) **Other Depository Corporations (ODCs)** comprising six commercial banks,⁷ three finance companies,⁸ and a large number of credit and savings cooperatives; and (3) **Other Financial Corporations** comprising the FNI, insurance companies, pension funds, and various financial auxiliaries.

The scope of the data is broadly consistent with the guidelines of the *MFSM*. At present, the CBN presents four surveys in *Indicadores Económicos*, each with a different institutional coverage: (1) the Central Bank (Central Bank of Nicaragua) Survey, (2) ODCs comprising commercial banks and finance companies; (3) the Nicaraguan Investment Fund (FNI),⁹ and (4) the Monetary Survey of the National Financial System (MSNFS), which is a (partial) Financial Corporations Survey. The MSNFS is a consolidation of the sectoral balances of the CBN, the ODCs, and the FNI but will be considered as a DCS for purposes of this exercise.

The DCS produced is the consolidation of accounts of resident financial corporations and quasi corporations that are mainly engaged in financial intermediation and issue liabilities included in the national definitions of broad money. Data cover the activities of the head offices and all domestic branches. At present, incomplete institutional coverage is a problem as some deposit-taking corporations, namely credit and savings cooperatives¹⁰ and offshore banks¹¹ are excluded from the statistics of the ODC subsector. Moreover, data on other financial corporations—insurance companies, pension funds,¹² and various financial auxiliaries (warehouse deposits, stockbrokers, exchange houses, etc.) need to be compiled to produce a broader Financial Corporations Survey.

⁷ Banco de la Producción (Banpro), Banco de Crédito Centroamericano (Bancentro), Banco de América Central (Bac), Banco de Finanzas (BDF), Banexpo-Banco Uno, and Banco Caley Dagnall.

⁸ Financiera Arrendadora Centroamericana (Finarca), Corporación Nicaraguense Financera (Confia), and the Financiera Nicaraguense de Desarrollo (Findesa).

⁹ The FNI is not a deposit-taking institution but it is included in the national concept of DCS.

¹⁰ It is estimated that deposits with credit and savings cooperatives account for about 15 percent of total bank deposits.

¹¹ Offshore banks operating in Nicaragua accept deposits of residents but their transactions are not considered very significant.

¹² It is envisaged that pension funds will start operating in 2005 under the supervision of an entity other than the SBOFI.

Work is being undertaken by the CBN to establish data reporting by credit and savings cooperatives with a view to producing a broader DCS and from insurance companies, pension funds, and the stock exchange to produce a Financial Corporations Survey. It should be noted that credit and savings cooperatives are not regulated by the SBOFI; nonetheless, Article 60 of the CBN Law empowers the CBN to request information from any sources for statistical purposes. The SBOFI receives monthly information from insurance companies.

2.3 Classification/sectorization

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

The sectoral classification adopted in the *MFSM* is based on the *System of National Accounts 1993 (1993 SNA)* that distinguishes first between residents and nonresidents and classifies the resident units according to their functions as: (1) financial corporations; (2) nonfinancial corporations; (3) general government; (4) households; and (5) nonprofit institutions serving households.

The CBN is implementing a new system of monetary accounts largely based on the sectorization of institutional units and classification of financial instruments recommended in the *MFSM*. The CBN has prepared a listing of institutions operating in the economy and their sectorization into four mutually exclusive sectors: (1) general government, (2) nonfinancial public enterprises, (3) financial corporations, and (4) households. This document is used by the MPD and has been distributed to ODCs as a guide in preparing sectorization reports for the SBOFI.

For the central bank and ODCs, assets and liabilities are classified according to the institutional sector of the counterparts. Thus, assets are classified by debtor sectors and liabilities by creditor sector. The sectoral balance sheets of the CBN and the ODCs clearly reflect the residency criterion and the application of this concept has greatly improved the quality of monetary statistics. Nonetheless, the lack of proper sectorization due to insufficient detail in the source data of ODCs mainly for claims and deposits of the nonfinancial public sector (NFPS)—i.e., central government, nonfinancial public enterprises, and local governments—detract from the usefulness of monetary statistics to assess the net credit to central government and the rest of the NFPS. Also, the complexity of the CBN chart of accounts makes it difficult to derive a classification of instruments and sectors. However, the DPM is improving its database with the help of a computerized system that links accounting balances to the pertinent classification group of the CBN sectoral balance.

The classification of financial instruments in the sectoral balance sheets and in the surveys (CBS and DCS) is broadly consistent with international recommendations, as it is based on the liquidity of the instrument and the legal characteristics defining the basic relationship between creditors and debtors. Recent improvements in the classification of instruments resulted in the calculation of more accurate and meaningful monetary and credit aggregates.

For example, foreign currency reserve deposits were reclassified under “monetary reserves”; thereby improving the calculation of foreign assets and hence of international reserves and the monetary base. The CBN does not hold monetary gold nor does it conduct swap operations or repurchase agreements (repos).

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

The general recommendation of the *MFSM* is that the valuation of financial assets and liabilities should be based on market prices or market-price equivalents (fair values). The valuation of loans is an exception to this principle and loan values should be based on creditors’ outstanding claims without adjustment for expected loan losses. This amount comprises the outstanding principal plus any accrued interest and is referred to as the book value of a loan. The *1993 SNA* and the *MFSM* also recommend that financial instruments denominated in foreign currency should be converted to national currency values at the market exchange rate prevailing at the time they are recorded (i.e., on the balance sheet date). Holding gains and losses arising from changes in market values (or fair values) of financial assets or outstanding liabilities should be recorded separately in a revaluation account.

The CBN accounts are compiled broadly in accordance with the valuation principles recommended by the *MFSM*. Financial transactions are recorded at the time they occur (that is, the date on which ownership is registered), and at market prices. The stocks of financial assets and liabilities are valued at market prices, if possible, otherwise, at the purchasing price—as in the case of CBN securities. Foreign currency transactions are converted to national currency at the exchange rate prevailing on the transaction date; outstanding stocks of foreign-currency-denominated assets and liabilities are adjusted for exchange rate valuation changes based on end-of-period exchange rates with valuation gains/losses included in the profit/loss accounts. Assets and liabilities denominated in U.S. dollars are converted into domestic currency using exchange rates published by the CBN on a daily basis while assets and liabilities denominated in other currencies are converted to domestic currency using rates published in REUTERS. Beginning with data for December 2001 when sectoral balances started being generated, valuation adjustments (including holding gains and losses for instruments) are presented in the sectoral balance sheets.

The foreign currency denominated positions of commercial banks are valued at end-of-period exchange rates according to formal instructions issued by the SBOFI. The foreign-currency-denominated positions of the FNI are also valued at end-of-month exchange rates.

2.4.2 Recording is done on an accrual basis

The accrual accounting principles recommended by the *MFSM* specify that interest accruing (i.e., interest due but not paid) on financial instruments be incorporated into the outstanding amount of the financial asset/liability, instead of being treated as part of other accounts receivable/payable. In other words, the interest accruing in each period prior to maturity

should be recorded as a financial transaction that represents a further acquisition of the financial asset by the creditor (i.e., bond holder) and an equal incurrence of a liability by the debtor (i.e., the CBN). In addition, revenues and expenditures should be recorded in the period in which they fall due (accrual basis), regardless of when the corresponding cash flow actually takes place (cash basis).

The principle of accrual accounting is not fully applied in the compilation of monetary statistics. Contrary to *MFSM* recommendations, the securities issued by the CBN are recorded under liabilities at face value, without deducting the discount. The amount of interest is recorded under liabilities in a single event even though the period of time for accrual has not elapsed; but, it is adjusted to accrual basis at the end of the month. A record for accrued interest is kept through the open market operations system (OMAS) which has made provision for the regular calculation of accrued interest only since September 2003. Daily and weekly data are not adjusted to accrual basis. However, in the case of monthly data, the CBN's *Notas Metodológicas* (page 24) available at <http://www.bcn.gob.ni>, notes that the outstanding amount recorded for securities issued by the CBN reflects the purchase price plus accrued interest, adjusted for exchange rate valuation changes.

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

The general principle of the *MFSM* and *1993 SNA* that data be collected and compiled on a gross basis is broadly applied to the compilation of monetary statistics. Assets and liabilities of the CBN accounts are compiled on a gross basis and aggregated into a statement of assets and liabilities without consolidating interbank positions. In the case of ODCs, data are reported on a gross basis in their monthly returns, but netted out and presented in consolidated form in their surveys. In the consolidation process, stocks and flows that occur between institutional units within a subsector are eliminated. The DCS is obtained by canceling out all outstanding claims and liabilities between the central bank and the ODCs, while preserving the presentation of data on all other outstanding claims and liabilities. It should be noted, however, that in the surveys (e.g., DCS), "Net credit to central government" is not separately identified as recommended in the *MFSM*.

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 are obtained from comprehensive data collection programs that take into account the specific conditions for Nicaragua. The main sources of information for compiling monetary financial statistics are (1) the CBN's daily balance sheet prepared by the CBN's Accounting Department; and (2) the monthly balance (*Balance General*) and sectorization matrix of commercial banks and finance companies that the SBOFI sends to the CBN's

Finance Department on a monthly basis. The monthly data are contained in an electronic file with account validations; the data are considered final.¹³

The CBN balance sheet is derived from the accounting records which are processed according to political and accounting rules and regulations through a general plan of accounts. The existing structure of the CBN chart of accounts includes many individualized levels of transactors and a plethora of records that impact on the preparation of the CBN sectoral balance. Nonetheless, considerable progress has been made recently with the development and implementation of a database (Base Unica de Datos) that facilitates the classification and sectorization of instruments on the CBN balance sheet based on a predetermined codification of accounts.

As regard the ODCs, each commercial bank and finance company send their accounting reports (*Balance General*) to the SBOFI through electronic means. The SBOFI reviews the information and forwards it to the CBN also electronically. Since early 2002, and as part of a project to adopt the methodology of the *MFMS*, the ODCs have also been supplying to the SBOFI a *Sectorization Matrix* with monthly information on investments, credit and deposits disaggregated in terms of instruments and sectors. These data facilitate the derivation of the sectoral balance for the ODCs which is consistent with that of the central bank.

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

The source data reasonably approximate the definitions, scope, time of recording, and valuation required. The residency criterion, the classification of instruments, and the identification of institutional sectors are in broad compliance with *MFMS* recommendations. Notwithstanding the complexity of the CBN balance sheet, its structure and degree of detail allow to follow, to a large extent, the sectorization standards of the *MFMS*.

The ODCs follow the same chart of accounts known as Manual Unico Contable (MUC) authorized by the SBOFI. The MUC has been in place since 1995 and it has been revised several times. The MUC is generally consistent with international accounting criteria and practices. The data sources of the ODCs (i.e., accounts balance and sectorization matrix) provide key information on definition, scope, and classification, but lack sufficient detail to permit more accurate classification and sectorization of accounts in line with the *MFMS*. In some cases, shortcomings in sectorization are evident.

¹³ The SBOFI also reports daily data on the ODCs to the CBN. The daily reports are on a preliminary basis and are sent by e-mail. Data on the monetary aggregates are prepared from this information. The daily CBN and ODC data are called *Indicadores de coyuntura* (short-term economic indicators) and are published on the CBN's website. The monthly data are published in *Indicadores económicos* on the CBN's website and in publications and are used for monitoring purposes.

3.1.3 Source data are timely

Delays in the source data are unusual. The Accounting Department of the CBN prepares accounting data for the central bank on a daily basis, and these are available to the DMP the same day. The ODCs are required by law to send their reports to the SIBOF on a daily, weekly, and monthly basis. The SBOFI aggregates these data and sends them to the CBN electronically. The monthly balance is received with a 20-25 day lag and the matrix two to three days later (the matrix is provided on a monthly basis only).

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 central bank accounts are validated with electronic built-in checks in the BUD to ensure the accuracy of the internal accounts of the institution. There is also communication between the Accounting Department and the DPM regarding proper classification of new accounts.

The accuracy of the data from commercial banks and finance companies is routinely reviewed for internal consistency as well as for consistency between the aggregates in the general balance and the sectorization report. Inconsistencies and out-of-value trends are discussed with the SBOFI. There is ongoing contact between the CBN and the SBOFI to resolve any data queries but direct contact with the reporting institution is limited. The database is reviewed every quarter to ensure its capability to continue to generate high-quality and timely data. Source data are reviewed in the context of revisions such as on the occasion of the introduction of revised monetary statistics in May 2004.

3.3 Statistical techniques

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

The sectoral balances for the CBN and the ODCs are produced in separate data modules but follow similar concepts and definitions. The data from each module are then linked electronically to produce the DCS.

To deal with data sources, the CBN uses statistical techniques that are largely automated. The CBN balance sheet is prepared daily and the data are captured on an automated platform (i.e., Base Unica de Datos) based on a predetermined codification of accounts. The BUD is used to generate monetary statistics for the CBN in the form of a sectoral balance sheet and central bank survey. The BUD is also used to compile the short-term indicators.

Regarding the ODCs, the CBN filters the information from the general balance using a computerized system which validates the information for each reporting ODC. However, the

monthly data in the sectorization matrix are captured manually on an Excel spreadsheet and compared with the totals reported in the general balance. After processing and as separate events, data from the general balance and from the sectorization matrix are subsequently posted (cut and paste) to another database, where they are used as input to generate the sectoral balance sheet for the ODCs and eventually the DCS. The use of manual techniques could lead to statistical errors.

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

Given the accounting basis of the source data, it is unusual to make statistical adjustments or estimates for the central bank balance sheet and the monetary aggregates. The sectoral balance sheet of commercial banks and finance companies encompasses all intermediaries and is based on their accounting records. Source data are presented in national currency and include transactions based on conversion of foreign exchange into local currency using the official end-of-month exchange rate published by the CBN.

Currently there are no banks undergoing liquidation.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Intermediate results are validated against other information where applicable

As recommended in the *MFMS*, production of monetary statistics comprises two levels of data compilation and presentation: (1) the first level aggregates data on balances reported by individual units in sectoral balance sheets. (2) the second level consolidates the data from the sectoral balance sheets into surveys. In general, intermediate results (i.e., sectoral balance sheets) are not validated against other sources of information.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

The databases used to generate intermediate data (i.e., sectoral balance sheets) have built-in checks that calculate discrepancies in the data for the relevant period. There are no automatic checks to help monitor trends in the time series.

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

Regarding statistical outputs, large discrepancies and other potential problems are routinely investigated. The MPD checks all its statistical products and explains any unusually large fluctuations. Data from ODCs are checked to prevent any statistical discrepancy due to errors in classification or omissions. This process may involve checking the balance sheets for data entry error or cross-checking financial flows with changes in the outstanding stocks of the related variable. When unexplainable variations are noted, the MDP contacts the SBOFI to clarify the reasons for the fluctuations.

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)

There is no mechanism in place for conducting a routine analysis of revisions to the data; thus, no formal studies on this matter are available. However, periodic investigations are conducted on an ad-hoc basis to evaluate the sources of problems (e.g., erroneous sectorization of institutional units). Once the sources of the problems are identified, procedures are put in place to ensure that they do not reoccur. Daily and weekly data are preliminary and monthly data are considered final—revisions are unusual.

4. Serviceability

4.1 Periodicity and timeliness

4.1.1 Periodicity follows dissemination standards

The periodicity of monetary statistics meets GDDS recommendations of “monthly.” In addition, preliminary data for “central bank aggregates” are published daily and weekly.

4.1.2 Timeliness follows dissemination standards

The timeliness of monthly monetary statistics is consistent with GDDS recommendations which is “two to three months.” The CBN publishes the DCS (“Balance Monetario del Sistema Financiero”) two months after the end of the reference month. Preliminary daily and weekly central bank aggregates are disseminated with a lag of one to two days and two to three weeks, respectively.

4.2 Consistency

4.2.1 Statistics are consistent within the dataset

In general, the accounting of assets and liabilities between the CNB and the ODCs is consistent. Recording differences may arise mainly due to operations in transit, but they are usually reconcilable.

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

The monthly monetary data currently disseminated to the public start in December 2001 and are reconcilable since they follow the same methodology (*MFMS*) and institutional coverage. Compilation of the former series (which followed a different methodology) was discontinued after December 2003.

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

Monetary statistics are not always easily reconcilable with those obtained through other data sources, but some intersectoral cross-checks are performed. It is possible to reconcile monetary statistics (e.g., net foreign assets) with balance of payments since the residency criteria is followed. The international investment position is not compiled at this time. However, it is difficult to reconcile monetary statistics with fiscal data (e.g., net credit to government) for various reasons including: (1) different institutional coverage in the fiscal and monetary accounts; (2) different criteria used to sectorize the economy for purposes of compiling monetary data and fiscal; and (3) accrual recording largely used in monetary statistics vis-à-vis cash basis in fiscal data for revenues and partial accrual for expenditure. Moreover, institutional coverage in monetary data lacks operations of credit and savings cooperatives and other financial institutions (e.g., insurance companies, pension funds, etc.).

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

There is no predetermined, well-established, and transparent revision policy for monetary accounts. Comparative analyses of preliminary and final data are neither prepared nor published. Revisions occur occasionally, when errors are detected; however, no adequate documentation of revisions is included in monetary publications.

4.3.2 Preliminary and/or revised data are clearly identified

Preliminary daily and weekly data are identified as such. However, there is no indication that monthly data are final when first published. Any revisions to these data are not identified in the publications.

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

There is no predetermined, well-established, and transparent revision cycle for monetary statistics. Revisions to monthly data occur occasionally, when errors are detected. However, adequate documentation on revisions is not made publicly available. The current series covers from December 2001 onwards and the former series from 1990s to December 2003. No studies or analysis of both series have been 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)

The statistical tables in *Indicadores Económicos*, which are also published in the CBN website, present the information of the CBN, ODCs, and DCS in a way that facilitates interpretations, although they do not follow strictly the presentation recommended in the *MFMS*. The main aggregates identified in the DCS include net foreign assets, net domestic credit, and monetary liabilities. Thus, all *MFMS*- recommended categories of financial assets are not separately identified, such as **claims on other sectors**¹⁴ and **net credit to central government**. The presentation of claims to central government on a net basis facilitates the analysis of depository corporations' financing of central government operations. Also, some tables in *Indicadores Económicos* contain erroneous captions (e.g., table titles and column headings) which detract from the usefulness of the information.

5.1.2 Dissemination media and format are adequate

The media and formats used in the dissemination of data are adequate, particularly for users who have access to Internet, as both recent and historical data can be consulted on the CBN Internet website (<http://www.bcn.gob.ni>). The statistical information is accompanied by charts. However, there are no footnotes on the tables linking to the methodological notes which are presented on a separate volume. Moreover, the section in English is very outdated as compilation of those series has been discontinued and users are not informed about this practice.

5.1.3 Statistics are released on a preannounced schedule

There is no preannounced advance release calendar to the general public. However, the MPD follows an internal production and publication schedule.

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

Daily, weekly and monthly monetary statistics data are disseminated simultaneously to the public on the CBN website: <http://www.bcn.gob.ni>. Monthly data are also published in the monthly report *Indicadores Económicos*, which is released with a lag of two months. Daily and weekly data are published at <http://www.bcn.gob.ni/estadisticas>.

¹⁴ The *MFMS* recommends that claims on domestic sectors other than central government be presented gross and disaggregated into claims on: (i) other financial corporations, (ii) state and local governments, (iii) public nonfinancial corporations, and (iv) other resident sectors comprising households and nonprofit institutions serving households.

5.1.5 Statistics not routinely disseminated are made available upon request

Nonpublished (but nonconfidential) data are made available upon request from the MPD, with the approval of the senior staff of the Economic Studies Department or management. All information requested by users is free of charge. The CBN's website has a facility for users to send questions or queries to the CBN.

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 CBN has prepared and published methodological notes on the monthly monetary statistics introduced in *Indicadores Económicos* in May 2004 with data from December 2001. The methodology is contained in *Notas Metodológicas* which is available on the CBN's website and on hard copy. This document explains the main concepts and definitions used in data compilation, deviations from the key concepts and definitions of the *MFSM*, and the main differences between the current and the former datasets.

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

Notwithstanding the level of detail provided in *Notas Metodológicas*, they do not satisfy fully the needs of specialized users. Moreover, supporting working papers on methodology are not published.

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

The internal users of monetary statistics at the CBN get support from the compilers at the MPD. External users may send their queries through the CBN website (webmaster@bcn.gob.ni) or contact the CBN directly. CBN publications clearly identify the Economic Studies Department (Gerencia de Estudios Económicos) as the compiling department and some publications (i.e., *Indicadores Económicos*) also provide a fax number, Internet address, and postal address. Moreover, *Notas Metodológicas* provides the name of a contact person for monetary statistics. In future, when Nicaragua starts participating in the GDDS, the public will be able to send their questions directly to the contact person identified in the metadata.

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

The main vehicle for informing the public about monetary statistics is the CBN's website, which contains daily, weekly, and monthly monetary accounts. A complete list of publications and other documents is available on the website and at the CBN Library.

Table 5. Nicaragua: Data Quality Assessment Framework (July 2003): Summary of Results for Monetary Statistics
(Compiling Agency: Central Bank of Nicaragua)

Element		NA	Assessment				Comments
			O	LO	LNO	NO	
0. Prerequisites of quality							
0.1	Legal and institutional environment			X			The CBN Law does not specify clearly the role of the CBN in the collection, compilation, and dissemination of monetary statistics.
0.2	Resources			X			Lack of internal training programs on methodologies and limited access to more advanced facilities (equipment, software, Internet, etc.).
0.3	Relevance			X			Formal consultations with data users are not conducted.
0.4	Other quality management			X			Processes and routines for quality control are not reviewed regularly for improvement.
1. Assurances of integrity							
1.1	Professionalism		X				
1.2	Transparency			X			Major changes in methodology are not announced in advance. Public is not informed that some government agencies may have prior access to data before its release.
1.3	Ethical standards		X				
2. Methodological soundness							
2.1	Concepts and definitions		X				
2.2	Scope			X			Credit and savings cooperatives are not included in the ODCS and in the DCS.
2.3	Classification/sectorization			X			Current classification/sectorization of accounts does not facilitate assessment of net credit to central government.

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

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Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria						
Element	NA	Assessment			Comments	
		O	LO	LNO		
2.4 Basis for recording			X			Accrual accounting is not fully applied. CBN securities are valued at purchase price rather than market price.
3. Accuracy and reliability						
3.1 Source data			X			Source data for the ODCs lack sufficient detail to permit a more accurate classification and sectorization of accounts in line with the <i>MFSM</i> .
3.2 Assessment of source data						
3.3 Statistical techniques		X	X			Data compilation for the ODCs relies on automated and manual statistical techniques.
3.4 Assessment and validation of intermediate data and statistical outputs			X			Intermediate data (sectoral balance sheets and surveys) are subject to internal automated checks, but they are not routinely validated against other information.
3.5 Revision studies			X			Revision studies are not conducted on a regular basis.
4. Serviceability						
4.1 Periodicity and timeliness		X	X			Data are reconcilable with balance of payments statistics, but not entirely with fiscal data mainly due to differences in institutional coverage, basis for recording, and sectorization.
4.2 Consistency						
4.3 Revision policy and practice			X			Revision policy is not documented or disseminated.

Table 5. Nicaragua: Data Quality Assessment Framework (July 2003): Summary of Results for Monetary Statistics
(Compiling Agency: Central Bank of Nicaragua)

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
5. Accessibility						
5.1 Data accessibility			X			All categories of financial assets recommended in the <i>MFSM</i> are not presented in the data. There is no advance release calendar.
5.2 Metadata accessibility			X			Methodological notes do not satisfy the needs of specialized users. Supporting working papers on methodology are not published.
5.3 Assistance to users				X		

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

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*

Based on the Law of the Central Bank of Nicaragua (CBN) (No. 317, 03/30/01), the Department of External Programming (DEP) of the CBN is in charge of compiling and disseminating the balance of payments statistics.

In its Article 60 the Law of the Central Bank mentions that offices or units of the Central Government and municipal governments, as well as governmental credit institutions, are obliged to submit to the Central Bank such reports as the latter may request in the discharge of its duties. Likewise, the banks and any physical or juridical person with residence or domicile in Nicaraguan territory, whether a national or foreigner, are obligated to supply the Central Bank with statistical information requested by it in the discharge of the duties conferred upon it by Law. This information must be used solely and exclusively for the purpose of macroeconomic statistics and analysis.

The Law of the CBN does not mention the mandate to compile and disseminate balance of payments statistics and no treatment is established for nonresponse cases.

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

The CBN has established a close relationship with other public institutions that provide source data for the compilation of balance of payments statistics to facilitate data sharing and coordination. Under this framework interagency working groups have been established to deal with: external trade, external transfers, tourism, and foreign direct investment transactions.

The most relevant interagency working group is the Technical and Permanent Interinstitutional Commission integrated with the CBN, National Institute of Statistics and Censuses (NISC), Directorate of Customs Services (DCS), Ministry of Industry Development and Commerce and National Commission of Free Zones.

Problems remain, however, with the timeliness of source data provided to the CBN regarding data on external transfers and with coverage of the private sector transactions. The mechanisms mentioned before do not consider sanctions, deadlines, and the nonresponse treatment. Additionally, there are some difficulties in accessing specific transactions of the banking sector from the Superintendence of Banks and Other Financial Institutions (e.g., financial services).

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

The data gathered is completely confidential and used solely for statistical purposes in aggregated form, as indicated in the letters that accompany surveys, and other requests for information which are sent to reporting parties.

The Law of the CBN makes it clear that the information provided from reporters is to be used solely for statistical purposes and macroeconomic analysis (Art. 60).

Access to individual data included in the balance of payments is restricted to staff members who require such information in the course of their professional duties. There are measures in place to restrict access to the facilities and to the balance of payments database by unauthorized individuals, so as to protect the confidentiality of individual data.

In addition, according to Article 61 of the Law of the CBN, all employees of the CBN are required to keep confidential all information, documents, and transactions that may come to their attention in the course of performing their duties. Moreover, Article 10 (e) of the CBN By-Laws identifies disclosure of confidential information as a cause to terminate employment. In particular, Article 56 stipulates the confidentiality of all electronic information available to the staff, and Article 77 (j) and (i) establishes that any violation of bank secrecy or confidentiality is punished without prejudice to any punitive sanctions that may apply under ordinary criminal law.

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

In accordance with the Law of the CBN, public and private institutions are required to report to the CBN for statistical purposes. Sanctions could be applied, however, these sanctions are in national currency without a clause for periodic readjustment and it does not define how to deal with nonresponse cases. (i.e., a fine of 1,000 to 10,000 *córdobas* for each instance, which shall be credited to the tax authority, the General Revenue Directorate, at the request of the Central Bank). In practice, the CBN does not levy fines for nonreporting data.

As a result, the DEP has resorted to other mechanisms to encourage the voluntary reporting of information, such as providing technical support for respondents to facilitate filling out surveys together with the person in charge of providing the data, by means of direct interview, phone, or email. The DEP stresses the importance of receiving quality, reliable, and timely information.

According to DEP, there still persists a cultural reluctance among private sector firms to provide information, particularly with respect to their financial assets and liabilities with nonresidents. The legal framework is in the process of being reinforced to give the CBN attributions to collect and disseminate macroeconomic data, as well as to conduct surveys to the nonfinancial private sector.

0.2 Resources

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

DEP's staff comprises nine officers, including the department head. Of these, only five officers are directly involved in compiling balance of payments statistics. Two staff work on the revision and monitoring of short- and long-term forecasts for the balance of payments, and the remainder are engaged in preparing economic situation reports on external sector statistics.

In light of budgetary restrictions for hiring new staff, coordination mechanisms have been established with the National Accounts Surveys Office to develop specific balance of payments surveys, focused primarily on foreign investment flows. Working relationships have also been established with other institutions to obtain information from the private sector.

Three of the staff responsible for compiling the balance of payments statistics have received training at the IMF in the techniques and methods of the compilation of balance of payments statistics. The working group responsible for programming and economic situation analysis of the external sector, includes individuals with advanced degrees. Nevertheless, as part of the program to strengthen human resource capacities, there is a need to upgrade knowledge of best practices in compiling data on private capital flows, and methods for forecasting and analyzing policies related to the external sector.

Departmental staff is equipped with personal computers for their work, although not all computers have Internet access. In terms of software, staff makes good use of Excel, Word, and PowerPoint in a Windows environment, as well as statistical packages for working with databases (SPSS, ACCESS, and FOXPRO). A special application was designed to process external trade customs data and data from migration forms. There is no network access to the Debt Management Financial and Analysis System (DMFAS) and other banking statistics systems in the CBN.

The department's physical facilities are currently being remodeled to improve conditions in terms of office space, equipment, furnishings, lighting, and air-conditioning.

As of 2004, the Annual Work Plan (AWP) has been prepared in a manner consistent with the approved budget for each organizational unit. The work plans for 2005 also provide for adequate financing to carry out all program activities.

0.2.2 Measures to ensure efficient use of resources are implemented

In the elaboration of CBN's AWP, it includes all the products and services offered to the general public. The planning is done at the level of Manager, Deputy Manager and

department, and it is tracked and evaluated quarterly. Constant efforts are made to improve the quality and timeliness of statistics by using internationally-accepted concepts and methodologies. The implementation of the balance of payments statistics under the fifth edition of the IMF's *Balance of Payments Manual (BPM5)* guidelines is not yet complete.

When it comes to processing and disseminating the data, the CBN has sought to take advantage of the latest technical advances in preparing and disseminating data, most notably the dissemination is done through its Internet website.

0.3 *Relevance*

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

There are no formal monitoring procedures for users. However, the CBN seeks to improve the quality of the information it provides to the general public, to ensure that economic indicators are suitable for users in their analysis and decision making. It has developed feedback mechanisms on the type and quality of information required by different users. Such feedback mechanisms are surveys on statistical needs conducted at the library of the CBN. This has helped to improve and expand the economic information disseminated in both hard copy and electronic format.

0.4 *Other quality management*

0.4.1 Processes are in place to focus on quality

The CBN's AWP promotes the principle of institutional excellence, encouraging staff members not only to maintain but to enhance the quality with which they perform their duties. Above all, it means providing high-quality information. Although specific procedures have not been established for examining the quality of the balance of payments statistics (e.g., external audits), DEP management and staff are aware that quality, in all its dimensions, is an essential component of statistical work. In cases where information is available from more than one source for the same component, crosschecks are performed and discrepancies are investigated, as in the case of workers' remittances.

After data are compiled, the reported data are checked for internal consistency as well as compared with data reported in earlier periods. When inconsistencies are detected, the respondents are contacted so that they can make the appropriate clarifications and further corrections, if necessary.

Publications contain advice to users as to whether the data are projected, estimated, preliminary, or definitive, although there are no marks for data that have been revised.

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

The DEP maintains measures for checking the intersectoral consistency of the data received from respondents, and carries out periodic monitoring processes about response rates, errors, and timelines of reported data. The transactions currently compiled using surveys as primary sources are: workers' remittances, air transport services, communications services and goods procured in port by carriers. In addition, experts from the International Monetary Fund (IMF) and the Central American Monetary Council (CAMC) have provided advisory services on the balance of payments, and this has helped to improve the quality of the statistical information, as well as the strategies for preparing data.

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

Procedures are in place to deal with quality issues in planning the statistical program, and these are taken into account in the AWP, e.g., customs data are reviewed monthly to eliminate double counting in cases where the original customs document has been adjusted on value or quantity, and to exclude transactions of enterprises located on Managua's Free Zone that are recorded separately.

1. Assurances of integrity

1.1 Professionalism

1.1.1 Statistics are produced on an impartial basis

There are legal provisions that give the CBN professional independence. Article 1 of the Law of the CBN defines it as a decentralized entity of the State with technical and administrative autonomy. In addition, Article 15 of the same CBN establishes that the President of the Central Bank and members of the Council of Directors must receive clearance from the National Assembly after they are nominated.

CBN's staff is stimulated to participate in meetings, seminars, courses, and workshops arranged internally or by international organizations to improve their knowledge of statistical practices.

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

The DEP staff has independency in choosing data sources (e.g., administrative records or surveys) and methodologies for compiling balance of payments statistics on the basis of statistical considerations examining the coverage, reliability, and timeliness of the information available from alternative sources. The design of surveys takes account of the international methodological recommendations of the *BPM5* and the opinions of external experts.

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

The DEP monitors media news and professionals' comments on external sector statistics. In cases of misinterpretation of published data, the DEP reports it to the senior staff of the CBN, who is responsible for contacting the media to make the appropriate corrections or clarifications.

In addition, CBN seminars have periodically been held with professional journalists to train them in the interpretation of certain economic and financial indicators of public interest. In addition, the CBN periodically disseminates on its website reports explaining relevant aspects of published external data.

1.2 Transparency

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

The CBN publishes the balance of payments statistics on its website, and includes methodological notes specifying the terms and conditions under which the statistics are compiled, as well as the confidential nature of the data. The Internet site also includes the e-mail address of the person responsible for answering inquiries and provides clarifications or additional information on the balance of payments statistics.

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

National authorities do not have access to balance of payments statistics before they are released to the public.

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

All statistical tables and reports published by the CBN mention the source of the data. Balance of payments statistics (monthly, quarterly, and annual) are identified with the institutional logo and labeled: "Banco Central de Nicaragua, Gerencia de Estudios Económicos."

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

There is a recurring procedure to review the methodological notes each year and to highlight the most important changes, so as to keep users of the information up to date. This procedure is not formally preannounced to users.

1.3 Ethical standards

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

The CBN's Internal Staff Regulations, approved by the General Manager and by the staff union, govern and harmonize working relations within the institution, and establish disciplinary guidelines that all staff must observe. All new employees are familiarized with these regulations, and staff is regularly reminded that they must observe them. Violation or nonobservance of the ethical standards established in the regulations is punished according to the provisions of the corresponding articles.

2. Methodological soundness

2.1 Concepts and definitions

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

The balance of payments statistics register the transactions between residents and nonresidents according to the residence criteria defined by the *BPM5* and are, when possible, recorded under the conceptual and methodological framework that conform with guidelines outlined in the *BPM5*.

The DEP has recently been carrying out advances to improve the transition from the fourth edition of the *Balance of Payments Manual (BPM4)* to *BPM5*, especially in the treatment of transactions related with goods for processing, goods procured in ports by carriers, the distinction of the current and capital transfers, and the recording of reserve assets on a gross basis. No adjustments are made to the goods that are consumed in Nicaragua after they have been recorded in goods for processing in the balance of payments. Some valuation adjustments are not in accordance with *BPM5*. External assets that are not readily available have been recorded as reserve assets (escrow accounts).

More effort could be made to complete the entire implementation of the *BPM5*, especially on the Financial Account presentation (Functional and Institutional categories and a clear distinction between assets and liabilities in the accounts), to apply the accrual principle on external public debt and record the reserve assets transactions, excluding changes that are not attributable to transactions. Finally, to record in the Financial Account a counter entry of goods for processing when goods remain in Nicaragua after the end of the recording period as well as after the imported goods have been processed.

To date the international investment position statistics (IIP) have not been compiled and disseminated, although the DEP has begun to estimate a partial version.

The double-entry system is applied as a basic principle and the net residual is embedded in the capital and financial account. The overall balance in the national presentation is recorded

as a balance item which includes reserves and exceptional financing, similar to the standard presentation according to *BPM5*.

2.2 Scope

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

The statistical records identify the main transactions between residents and nonresidents. There are no estimates carried out on smuggling. Recently, the industrial activity carried out inside Managua's Free Zone has been recorded as goods for processing in gross terms.

There is difficulty in measuring transactions with nonresidents of the private sector related to (1) services (mainly financial, royalties, insurance, computer, professional, cultural, etc.); (2) income derived from compensation of border employees and external financial assets (with the exception of currency and deposits, assets obtained from the BIS website); and (3) financial transactions, (portfolio investment, trade credits, currency and deposits and other assets and liabilities). In the current and financial account, banks' income, debt and trade credits are not recorded.

Most of the transactions with nonresidents are made through the resident financial system. Many of the above operations are registered in an implicit way as errors and omissions that affect double-entry application.

2.3 Classification/sectorization

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

The balance of payments statistics classification and sectorization do not comply fully with *BPM5* guidelines.

The CBN currently publishes on its website four different versions of balance of payments statistics: monthly, quarterly, yearly reports and "macroeconomic statistics for the last 40 years."

The major breakdown in the Current Account is published in the monthly report as balance on external trade of goods, which are broken down into general merchandise, goods for processing and goods procured in ports by carriers. The items pertaining to services are presented for credits and debits; income is classified as well on credit and debit. Debit income entries detail interest with contractual maturities during the period and the portion of these that has been paid. The current account includes current transfers credit, although no data are available for current transfers' debit.

The Capital Account records entries on credit transactions (no data are available for debit transactions).

The Financial Account does not follow functional and institutional categories according to *BPM5* guidelines.

Private Capital differs in presentation with the Financial Account in *BPM5*. In the monthly version, sectors are broken down by two institutional categories: public and private capital. The public capital also shows two functional categories: loans (the details of current principal amortizations are shown.) and other net assets. The Private Capital distinguishes the Net Financial Capital, Net Long Term Loans, and Other External Assets.

In the yearly version, the Private Capital is broken down into: the Net Financial system, Direct Foreign Investment, Portfolio Investment, Transfers to Non Government Organizations, and Other Capital.

In all versions the “Other Net Private Capital” includes errors and omissions.

On the website of National Institute of Statistics and Censuses (NISC) a balance of payments statement is published for the period 1990-1999. This version does not match the data published on the CBN’s website although a footnote indicates the source is the CBN. The main discrepancies are on “Current and Private Capital.” NISC should update the information on their website on a monthly basis.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

Balance of payments transactions are generally recorded according to the valuation principle based on market prices, as stipulated in *BPM5*. An exception is the transactions of portfolio investment liabilities that are recorded according to their face value.

Most balance of payments transactions are in U.S. dollars and therefore present no conversion problem. When the currency of the transaction is not the dollar, the data are converted to dollars using the exchange rate in effect on the date of the transaction. This rule applies, for example, to the customs documents that form the basis for the foreign trade statistics compiled by CBN. Regarding time of recording, *BPM5* mentions in its paragraph 116 that “In principle, exports and imports of goods should be recorded when ownership of the goods passes from a resident to a nonresident, or vice versa. In practice a change in ownership is recognized (or is proxied) when the two parties to the transaction record it in their books or accounts....”

Flows of reserve assets are derived from monetary statistics stocks. These are not available in the original currency but are already converted to dollars at the corresponding exchange rate against the dollar prevailing at the end of each period. This method used for flows in the

balance of payments, makes it very difficult to exclude, from the total, those changes due to prices and the cross exchange rates . For stocks this effect is not significant.

2.4.2 Recording is done on an accrual basis

The criteria recommended by the *BPM5* are generally followed with the exception of interest of public external debt which is recorded based on the contractual maturity. Starting in 2002, imports of general merchandise data that are obtained on a due-for-payment basis from customs documents are recorded incorrectly according to the country's import tax payment date. Because of this accounting system, there is no harmonization with the change of ownership principle, as the change formally happens when the exporter or importer records the transaction in his/her books. The *BPM5* itself recognizes the practical difficulty in applying this principle, but as an alternative method it is recommended using the date when the merchandise crosses the country's border.

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

The guidelines of the *BPM5* are partially applied for the recording of transactions in gross and net terms. The Current and Capital accounts are recorded on a gross basis, and the Financial Account transactions 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

The data used to compile the balance of payments are generally considered adequate. However, it is considered necessary to improve the coverage of the private sector transactions by means of extending the use of surveys for: (1) transactions on services (transport, insurance, financial, cultural, merchanting, royalties, computers, cultural, etc.), and (2) financial transactions such as trade credits, portfolio investment, direct investment, and other investment (assets and liabilities). The main sources used to compile the balance of payments of Nicaragua are:

- Regarding entries on goods, these reflect general merchandise, goods for processing, and goods procured in port by carriers. The general merchandise is the component of critical importance in the balance of payments and is based on the information that the CBN obtains from the Customs General Directorate (CGD). Data are recorded in the balance of payments in f.o.b. terms. The CBN make adjustments to coverage, valuation, and timeliness in the case of the exports of fresh fish, shrimp, lobster, and bananas, with data provides from public entities or associations of producers. The imports are adjusted for petroleum and oil products, as well as electricity by means of data provided by the National Institute of Energy (NIE).

The data on goods for processing are obtained from the Corporation of Free Zones (CFZ) and entries on goods procured in port by carriers are exclusively exports of jet fuel that the NIE reports.

- The international trade of services is compiled as follows:

Transport: Freight credit entries are estimated using the proportion of exports to Central America whose road freight services are provided by Nicaraguan residents. The basic assumption for this calculation is that neither sea nor air services are provided. Passenger services are obtained from the annual survey to nonresident air carriers that operate in the country. Other complementary information is provided by the National Port Company (NPC) and International Airports Administrating Enterprise (IAAE). Other transportation services include commissions of travel agents paid by nonresident air carriers.

Travel: The DEP's estimates are based on: (1) information provided by the General Directorate of Migration and Alien (GDMA) that reports the number of residents and nonresidents arriving and leaving the country: data reported also allow the calculation of the average number of nights spent in Nicaragua per tourist; and (2) the Annual Survey of the Nicaraguan Tourism Institute (NTI), which provides travelers' expense averages, adjusted by DBP using an indicator of the exchange rate vis-à-vis the US dollar and the consumer price index. Also they are about to implement the Tourism Satellite Accounts that will significantly improve data on travel entries, especially on travelers' expenses estimations.

Other services: Credit entries only cover transactions on communication, insurance, government, and other services. Debit entries additionally cover other business services. The source for communication services is the Nicaraguan Telecommunications Company (NTC) that records the gross revenues and expenditures. Insurance records are those related to the external trade of goods (the same sources are being used as well as the methodology applied to freights services). Government's services transactions (credit) are estimate from the last data available (year 1996), and adjusted by an inflation index. Debit entries are reported by the Ministry of External Relationships (MER) and they correspond to the expenses of the Nicaraguan embassies credited in other countries. Entries under Other Services debit refer to technical assistance reported by Secretary of External Cooperation of the MER (SEC-MER).

- Income

Income: Credit entries record CBN's interest accrued compiled from the Department of Administration of Reserves and, on the other hand, the interest accrued by the financial system provided by the Monetary Programming Department based on SOBFI's balance sheet data. There are no estimates on the private sector's interest flows from the information published by the BIS. Debit entries include interest on the external public debt provided by the DMFAS System and foreign direct investment data are obtained from the annual foreign direct investment survey carried out jointly with national accounts, which includes reinvested earnings. No data on interest paid or accrual for the financial sector are included.

Current transfers: This item includes data on private transfers (workers' remittances). Information is provided by the major money transfer companies, from the financial system, and DEP estimates on family remittances carried out from Nicaraguan nationals in Costa Rica. In addition, NGO grants are recorded using information obtained from the SEC-MER.

Capital transfers: Data on grants are obtained from the Ministry of Finance and Public Credit (MFPC) and the SEC-MER.

- Financial account

Portfolio investment liabilities are estimated using a fixed coefficient of the total amount of securities held by nonresidents. This information is obtained from surveys to the local stock exchange operators, which are not recorded at market prices.

Direct investment in the country is obtained from the survey carried out jointly with national accounts. The selection of enterprises is made based on the information obtained from newspapers, periodicals, the Nicaraguan Tourism Institute and the Ministry of Development, Industry and Trade information (MDIT).

The other investment account includes external public debt transactions. Data are obtained from the DMFAS System. Transactions of the financial sector are obtained from the Monetary Programming Department based on data provided by SOBFI (the coverage of financial sector liabilities is not complete) and transactions in connection with commercial credits obtained from the General Directorate of Taxation (DGT).

Reserve assets: The change in the CBN's reserve assets is recorded using information from the Monetary Programming Department of the CBN. Entries include accrual interest. However, reserves include changes on valuation that are not attributable to transactions and small amounts of capital contributions to international organizations. In addition, the definition of reserves should be reviewed to exclude escrow accounts.

Exceptional financing: Data relating to debt forgiveness, HIPC relief, debt renegotiations and changes in arrears are obtained from the DMFAS System.

Nicaragua does not have an International Transactions Reporting System (ITRS) for compiling balance of payments statistics.

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

Customs data are adjusted for some items such as exports of fresh fish with flakes, shrimp, coffee, and bananas. Imports are adjusted for items such as petroleum and other oil products. The data that are obtained from surveys are in general satisfactory. Questionnaires were designed taking into account the *BPM5* guidelines. Interest of External Public Debt is

calculated by the DMFAS system and then recorded as contractual maturities rather than on an accrual basis.

3.1.3 Source data are timely

The DEP has an internal calendar adapted to the requirements of the GDDS, maintaining, in general, good communication with other sources to obtain information on current transfers, such as those provided by SEC-MER.

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

Data sources are analyzed under a revisions' schedule. In addition, all major changes from data available are incorporated into the balance of payments according to a revision cycle that prevents the accumulation of revisions over long periods of time.

Data are analyzed for underreporting/misreporting occurrences and to verify temporal consistency. Surveys are not conducted on the basis of sampling and no estimates or studies have been conducted on nonsampling errors. Respondents are consulted if there are significant deviations on data reported. Accuracy of public external debt data is routinely assessed by the DMFAS system with creditors' statements. Network access to the DMFAS System and to the Accounting and Financial Statistics Database is not provided to the DEP.

3.3 Statistical techniques

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

In general, solid procedures to compile data are used. Complementary information is used in cases of nonresponse and for the elaboration of estimates. Surveys are designed to be easily completed and processed and detailed instructions are attached. The data reported are checked before being processed electronically.

International trade and other supplementary data sources, such as workers' remittances used to compile balance of payments statistics are routinely assessed by cross checking with regional partners countries and international statistics.

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

The information from Customs separately records freight and insurance values from imports data which is recorded on a c.i.f. basis by the Customs' Office, thus it is not necessary to

determine a conversion factor. Coverage and valuation for specific export and import transactions are regularly adjusted. Also cross checks with data compiled from the CAMC are done periodically. Data on workers' remittances are adjusted to include remittances made directly by Nicaraguan nationals who work in Costa Rica and who cross the border by land. There are no estimates of trade at border crossings attributed to border workers, as mentioned in paragraph 67 of *BPM5*.

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

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

Intermediate results are checked against other independent data sources, as in the case of press reports on foreign direct investments. Private sector interest data are not cross checked with income taxation registers.

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

Some balance of payments components are validated with related indicators such as external trade with airport and port activity, travel expenditures with the records on citizenship and purpose of tourist arrivals, and interest accrued to nonresidents deposits is checked with an estimate of stocks and international reference interest rates.

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

The magnitude and sign of the net errors and omissions item is followed up, and efforts are made to understand what statistical deficiencies may have caused them. As for foreign trade, bilateral reconciliations are done with countries in the region. No comparisons are made between external debt data and the data compiled jointly by the BIS, IMF, OECD, and the World Bank.

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)*

There are no formal studies to assess revisions to the balance of payments statistics. However, the CBN is constantly seeking to improve its statistical processes, and it takes into account the recommendations of external experts who have provided technical assistance.

4. Serviceability

4.1 *Periodicity and timeliness*

4.1.1 Periodicity follows dissemination standards

Periodicity of the balance of payments statistics is consistent with GDDS recommendations. Monthly, quarterly, and annual data are published.

4.1.2 Timeliness follows dissemination standards

The timeliness of the balance of payments statistics follows GDDS dissemination recommendations. In the case of quarterly balance of payments statistics, these are disseminated within three to four months after the reference period, while the annual balance of payments statistics are disseminated within six to nine months after the reference period.

4.2 *Consistency*

4.2.1 Statistics are consistent within the dataset

Significant efforts are being made to achieve consistency within the dataset, so that the concepts, definitions, and classifications for producing monthly, quarterly, and annual balance of payments statistics will be the same. When the quarterly figures are revised, data in the annual projections are corrected to ensure consistency.

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

Although not disseminated in the CBN's website, there are consistent time series for balance of payments statistics converted into *BPM5* for the period 1990-2003, on a quarterly and annual basis. Annual time series for the last 40 years are published on the CBN's website. When there are changes to the source data, the methodology, or the statistical techniques used, the time series are reconstructed to the extent possible in order to maintain consistency. In this vein the mission recommended to disseminate the *BPM5* classification along with the national presentation in the publications of the CBN.

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

The balance of payments statistics can be reconciled with monetary, trade, and external debt statistics. Certain adjustments are made to improve coverage of the goods account. However, balance of payments statistics do not show the adjustments to the goods account that are made in the sector of national accounts. These estimates in national accounts pertain mainly to smuggling of tobacco products and some other items. Although the discrepancy is well known by the DEP, there is no reference in the balance of payments methodology to alert the user of statistics.

Flows of reserve assets cover the same accounts as those recorded in the monetary and financial statistics. External debt statistics compiled by the DEP use data from the DMFAS System, which provides the appropriate breakdown of initial balances, disbursements, amortizations, interest, and other adjustments, all of which are reconciled with flows compiled for the Department of Fiscal Statistics.

4.3 Revision policy and practice

4.3.1 Revisions follow a regular and transparent schedule

There is no predetermined revision cycle. Revisions are generally conducted annually, and data for previous years are corrected, if possible, in light of new information received.

4.3.2 Preliminary and/or revised data are clearly identified

Users are informed about the preliminary nature of the data, by means of a footnote. There is no schedule for revisions, because these are done as the definitive information becomes available, and generally within one year. There are no marks in the statistics indicating revisions to data.

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

There are no formal studies or analysis of the revisions, thus no documentation on this aspect is published.

5. Accessibility

5.1 Data accessibility

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

The balance of payments statistics are disseminated according to the information needs of the senior authorities in Nicaragua with various levels of detail, but departures from *BPM5* guidelines. The statistics are disseminated quarterly and annually with commentaries on current-period developments and in electronic format to facilitate users' access. Additional series on trade, services, and public external debt are also disseminated to improve the scope of the national presentation.

5.1.2 Dissemination media and format are adequate

The balance of payments statistics are posted on the CBN's website (<http://www.bcn.gob.ni>), and are also published in hard copy, so users have access to the information. More comprehensive and detailed statistics are also disseminated for external trade transactions. Although not disseminated in the CBN's website, there are consistent time series for balance

of payments statistics converted into *BPM5* for the period 1990-2003, on a quarterly and annual basis. Annual time series for the last 40 years are published on the CBN's website.

5.1.3 Statistics are released on a preannounced schedule

There is no preannounced schedule for the dissemination of the statistics, although such a schedule does exist within the institution.

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

The balance of payments statistics are made available to all interested users simultaneously.

5.1.5 Statistics not routinely disseminated are made available upon request

The DEP tries to satisfy requests for additional data that it receives. Commonly, these requests focus on a more detailed information on export or import data. The availability of nonpublished statistics and the terms and conditions under which data are provided to interested parties are 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

The CBN's website currently provides methodological notes relating to the country's balance of payments, foreign trade, and external debt, with information on concepts, definitions, classifications, data sources, compilation methods, statistical techniques, and other relevant methodological and procedural aspects. The same methodological notes are available in a hard copy.

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

Different levels of metadata detail are made available to meet users' requirements. However, working papers or other specialized studies were not done and/or disseminated.

5.3 Assistance to users

5.3.1 Contact points for each subject field are publicized

Prompt and knowledgeable support is offered to users of statistics. Users are advised as to where they can find information, and the contact people who can provide it.

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

The CBN's website contains a list of publications available to users, and it is updated frequently. Working documents and other services offered by the institution are also published. The CBN provides its information free of charge.

Table 6. Nicaragua: Data Quality Assessment Framework (July 2003): Summary of Results for Balance of Payments
(Compiling Agency: Central Bank of Nicaragua)

Element		NA	Assessment				Comments
			O	LO	LNO	NO	
0. Prerequisites of quality							
0.1	Legal and institutional environment			X			The legal framework of the CBN is not robust enough to prosecute cases of survey nonresponse. Sub-optimal data sharing with Banking Superintendency.
0.2	Resources			X			More staff is needed to work on balance of payments surveys.
0.3	Relevance			X			Users' needs are not monitored through a regular consultation process.
0.4	Other quality management			X			There are no formal quality assessment procedures.
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			Some valuation adjustments are not in accordance with <i>BPM5</i> . External assets that are not readily available have been recorded as reserve assets (escrow accounts). No adjustments are made to the goods that are consumed in Nicaragua after they have been recorded in goods for processing in the balance of payments.
2.2	Scope			X			Transactions of the nonfinancial private sector are recorded partially. Income debt entries do not record interest on an accrual basis by the banking system.
2.3	Classification/sectorization				X		Significant departures from <i>BPM5</i> on the financial account.
2.4	Basis for recording			X			Interest of public external debt is not recorded on an accrual basis. Starting 2002, imports of goods are incorrectly recorded based when import taxes are paid.

Table 6. Nicaragua: Data Quality Assessment Framework (July 2003): Summary of Results for Balance of Payments
(Compiling Agency: Central Bank of Nicaragua)

Element		NA	Assessment				Comments
			O	LO	LNO	NO	
3. Accuracy and reliability							
3.1	Source data			X			Surveys do not cover some private sector services and financial transactions. Timeliness difficulties to record data from donors.
3.2	Assessment of source data		X				Insufficient quality control in data compilation.
3.3	Statistical techniques			X			International data sources, e.g., the BIS, IMF, OECD, and World Bank are not used.
3.4	Assessment and validation of intermediate data and statistical outputs			X			The direction and magnitude of revisions of preliminary data are evaluated. However, no formal studies are conducted to keep record of revisions.
3.5	Revision studies			X			
4. Serviceability							
4.1	Periodicity and timeliness		X				Discrepancies with National Accounts that are not explained in the Balance of Payments tables
4.2	Consistency			X			Revisions are carried out routinely but without advance notice to users.
4.3	Revision policy and practice			X			
5. Accessibility							
5.1	Data accessibility			X			Presentation is not in accordance with <i>BPM5</i> guidelines and no preannounced calendar for publications is disseminated.
5.2	Metadata accessibility			X			Metadata are published, however, no working papers or other studies are disseminated
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>

**DATA QUALITY ASSESSMENT FRAMEWORK—GENERIC FRAMEWORK
(JULY 2003 FRAMEWORK)**

Quality Dimensions	Elements	Indicators
<p>0. Prerequisites of quality</p>	<p>0.1 Legal and institutional environment—<i>The environment is supportive of statistics</i></p> <p>0.2 Resources—<i>Resources are commensurate with needs of statistical programs.</i></p> <p>0.3 Relevance—<i>Statistics cover relevant information on the subject field.</i></p> <p>0.4 Other quality management—<i>Quality is a cornerstone of statistical work.</i></p>	<p>0.1.1 The responsibility for collecting, processing, and disseminating the statistics is clearly specified.</p> <p>0.1.2 Data sharing and coordination among data-producing agencies are adequate.</p> <p>0.1.3 Individual reporters’ data are to be kept confidential and used for statistical purposes only.</p> <p>0.1.4 Statistical reporting is ensured through legal mandate and/or measures to encourage response.</p> <p>0.2.1 Staff, facilities, computing resources, and financing are commensurate with statistical programs.</p> <p>0.2.2 Measures to ensure efficient use of resources are implemented.</p> <p>0.3.1 The relevance and practical utility of existing statistics in meeting users’ needs are monitored.</p> <p>0.4.1 Processes are in place to focus on quality.</p> <p>0.4.2 Processes are in place to monitor the quality of the statistical program.</p> <p>0.4.3 Processes are in place to deal with quality considerations in planning the statistical program.</p>
<p>1. Assurances of integrity</p> <p><i>The principle of objectivity in the collection, processing, and dissemination of statistics is firmly adhered to.</i></p>	<p>1.1 Professionalism—<i>Statistical policies and practices are guided by professional principles.</i></p> <p>1.2 Transparency—<i>Statistical policies and practices are transparent.</i></p> <p>1.3 Ethical standards—<i>Policies and practices are guided by ethical standards.</i></p>	<p>1.1.1 Statistics are produced on an impartial basis.</p> <p>1.1.2 Choices of sources and statistical techniques as well as decisions about dissemination are informed solely by statistical considerations.</p> <p>1.1.3 The appropriate statistical entity is entitled to comment on erroneous interpretation and misuse of statistics.</p> <p>1.2.1 The terms and conditions under which statistics are collected, processed, and disseminated are available to the public.</p> <p>1.2.2 Internal governmental access to statistics prior to their release is publicly identified.</p> <p>1.2.3 Products of statistical agencies/units are clearly identified as such.</p> <p>1.2.4 Advance notice is given of major changes in methodology, source data, and statistical techniques.</p> <p>1.3.1 Guidelines for staff behavior are in place and are well known to the staff.</p>

Quality Dimensions	Elements	Indicators
<p>2. Methodological soundness</p> <p><i>The methodological basis for the statistics follows internationally accepted standards, guidelines, or good practices.</i></p>	<p>2.1 Concepts and definitions—<i>Concepts and definitions used are in accord with internationally accepted statistical frameworks.</i></p> <p>2.2 Scope—<i>The scope is in accord with internationally accepted standards, guidelines, or good practices.</i></p> <p>2.3 Classification/sectorization—<i>Classification and sectorization systems are in accord with internationally accepted standards, guidelines, or good practices.</i></p> <p>2.4 Basis for recording—<i>Flows and stocks are valued and recorded according to internationally accepted standards, guidelines, or good practices</i></p>	<p>2.1.1 The overall structure in terms of concepts and definitions follows internationally accepted standards, guidelines, or good practices.</p> <p>2.2.1 The scope is broadly consistent with internationally accepted standards, guidelines, or good practices.</p> <p>2.3.1 Classification/sectorization systems used are broadly consistent with internationally accepted standards, guidelines, or good practices.</p> <p>2.4.1 Market prices are used to value flows and stocks.</p> <p>2.4.2 Recording is done on an accrual basis.</p> <p>2.4.3 Grossing/netting procedures are broadly consistent with internationally accepted standards, guidelines, or good practices.</p>
<p>3. Accuracy and reliability</p> <p><i>Source data and statistical techniques are sound and statistical outputs sufficiently portray reality</i></p>	<p>3.1 Source data – <i>Source data available provide an adequate basis to compile statistics.</i></p> <p>3.2 Assessment of source data—<i>Source data are regularly assessed.</i></p> <p>3.3 Statistical techniques—<i>Statistical techniques employed conform to sound statistical procedures</i></p> <p>3.4 Assessment and validation of intermediate data and statistical outputs—<i>Intermediate results and statistical outputs are regularly assessed and validated.</i></p> <p>3.5 Revision studies—<i>Revisions, as a gauge of reliability, are tracked and mined for the information they may provide.</i></p>	<p>3.1.1 Source data are obtained from comprehensive data collection programs that take into account country-specific conditions.</p> <p>3.1.2 Source data reasonably approximate the definitions, scope, classifications, valuation, and time of recording required.</p> <p>3.1.3 Source data are timely.</p> <p>3.2.1 Source data—including censuses, sample surveys, and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and nonsampling error; the results of the assessments are monitored and made available to guide statistical processes.</p> <p>3.3.1 Data compilation employs sound statistical techniques to deal with data sources.</p> <p>3.3.2 Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques.</p> <p>3.4.1 Intermediate results are validated against other information where applicable.</p> <p>3.4.2 Statistical discrepancies in intermediate data are assessed and investigated.</p> <p>3.4.3 Statistical discrepancies and other potential indicators or problems in statistical outputs are investigated.</p> <p>3.5.1 Studies and analyses of revisions are carried out routinely and used internally to inform statistical processes (see also 4.3.3).</p>

Quality Dimensions	Elements	Indicators
<p>4. Serviceability <i>Statistics, with adequate periodicity and timeliness, are consistent and follow a predictable revisions policy.</i></p>	<p>4.1 Periodicity and timeliness— <i>Periodicity and timeliness follow internationally accepted dissemination standards.</i></p> <p>4.2 Consistency— <i>Statistics are consistent within the dataset, over time, and with major datasets.</i></p> <p>4.3 Revision policy and practice—<i>Data revisions follow a regular and publicized procedure.</i></p>	<p>4.1.1 Periodicity follows dissemination standards. 4.1.2 Timeliness follows dissemination standards.</p> <p>4.2.1 Statistics are consistent within the dataset. 4.2.2 Statistics are consistent or reconcilable over a reasonable period of time. 4.2.3 Statistics are consistent or reconcilable with those obtained through other data sources and/or statistical frameworks.</p> <p>4.3.1 Revisions follow a regular and transparent schedule. 4.3.2 Preliminary and/or revised data are clearly identified. 4.3.3 Studies and analyses of revisions are made public (see also 3.5.1).</p>
<p>5. Accessibility <i>Data and metadata are easily available and assistance to users is adequate.</i></p>	<p>5.1 Data accessibility— <i>Statistics are presented in a clear and understandable manner, forms of dissemination are adequate, and statistics are made available on an impartial basis.</i></p> <p>5.2 Metadata accessibility— <i>Up-to-date and pertinent metadata are made available.</i></p> <p>5.3 Assistance to users— <i>Prompt and knowledgeable support service is available.</i></p>	<p>5.1.1 Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts). 5.1.2 Dissemination media and format are adequate. 5.1.3 Statistics are released on a preannounced schedule. 5.1.4 Statistics are made available to all users at the same time. 5.1.5 Statistics not routinely disseminated are made available upon request.</p> <p>5.2.1 Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is available, and differences from internationally accepted standards, guidelines, or good practices are annotated. 5.2.2 Levels of detail are adapted to the needs of the intended audience.</p> <p>5.3.1 Contact points for each subject field are publicized. 5.3.2 Catalogs of publications, documents, and other services, including information on any charges, are widely available.</p>

Users' Survey

Surveys to users

1. With the assistance of the authorities, the mission conducted an informal survey of users to ascertain their views on selected aspects of the quality of Nicaragua's macroeconomic statistics. The survey used a questionnaire developed by IMF staff. The survey was conducted by the CBN targeted to users of macroeconomic statistics. Questionnaires were sent to 117 users with 27 responses received from a broad range of users, including, the academia, international organizations, the media, think-thanks, government agencies, embassies, and consulting companies. As a complement to the survey, and the mission's own assessment of macroeconomic statistics, three meetings with key users of Nicaraguan economic data were organized by the CBN.
2. According to the survey results, the methodological soundness and reliability of the Nicaragua macroeconomic data were perceived to be good and similar in quality if compared with other countries in the region. Most respondents were broadly satisfied with the coverage and detail of macroeconomic statistics, although half of the respondents considered that official statistics were not disseminated with the appropriate timeliness. Some respondents mentioned that consistency among statistical sectors should be improved.
3. The survey showed that users were satisfied with accessibility to the official statistics. The data were considered to be reasonable accessible, primary through electronic means, publications and press releases. About 50 percent of the respondents felt that methodological concepts and analytical presentations were clearly described.

Meetings with users

4. To complement the users' views of official statistics in Nicaragua, the mission met with several groups of key users of macroeconomic statistics represented by economist from the public and private sector, consultants, representatives of commercial banks, entrepreneurs and business owners, as well as with main organizations of the private sector in Nicaragua. Overall, users views were consistent with the findings of the survey and the main areas for improvement identified by users were in line with the findings of the IMF staff. A common denominator in all the meetings was the need to improve the coverage of labor statistics.
5. Users expressed a general view that statistics in Nicaragua had improved recently, although none of the users made reference to the recent metadata released by the CBN. The CBN was always cited as the agency with the more reliable information. Users also wanted more information on revision policies and better coverage, as well as an expanded breakdown of sectoral and balance of payments statistics. Some donors and consultants express their dismay that Nicaragua does not disseminate a comprehensive set of social statistics.

Table 1. Nicaragua: Questionnaire Results Analyzed by Type of User
January 2005

Type of Respondent	Total Received (117 Questionnaires Sent)
Government	9
State-owned agencies (enterprises)	5
Banks	1
Other enterprises	4
Embassies	4
Universities (researcher)	1
Media	1
Supervisory, regulatory institutions (stock exchange)	2
Total	27

Source: Users Surveys conducted by the CBN

Table 2. Results of Nicaragua's User Survey—January 2005

General Information about Uses of Official Macroeconomic Statistics of Nicaragua		Total Number of Responses
1.	Which official statistics do you use regularly?	
	a. National accounts (NA)	20
	b. Prices	18
	c. Government finance statistics (GFS)	18
	d. Monetary statistics (Monetary)	20
	e. Balance of payments (BOP)	18
	f. Other:	
	• Production indices	15
	• Labor market	14
	• Merchandise trade	10
	• International reserves and foreign currency liquidity	15
	• External debt	18
	• International investment position	9
	• Other	6
2.	Where do you obtain the official statistics?	
	a. Official press releases and publications on macroeconomic statistics	20
	b. Private sector summaries and analyses	8
	c. Official policy papers	12
	d. Publications from international organizations about the country	15
	e. Other sources	7
3.	Do you refer to official descriptions of the sources and methods that were used to compile the official statistics?	
	— Yes	16
	— No	8
4.	For what purposes do you use the official statistics?	
	a. Analysis of current developments for short-term decision making	16
	b. Analysis of trends for longer-term policy formulation?	15
	c. Econometric model building and forecasting	5
	d. Economic research	20
	e. Comparison with economic developments in other countries	11
	f. General economic background	13
	g. Other	4

General Information about Uses of Official Macroeconomic Statistics of Nicaragua						
	NA	Prices	GFS	Monetary	BOP	Other
5. Coverage and detail						
5.1 In general, are you satisfied with the coverage of official statistics?						
— Yes	14	16	14	23	18	1
— No	5	3	4	0	4	2
5.2 In general, are you satisfied with the official statistics in terms of their level of detail?						
— Yes	11	14	12	22	16	2
— No	8	5	6	1	5	1
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	18	16	15	19	19	3
— No	0	3	2	3	1	1
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	7	9	7	13	8	1
— No	11	8	8	8	10	2
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	2	5	3	5	4	1
— No	19	13	14	17	16	5
7.2 If there is a calendar of release dates, in your experience, are the official statistics released on the dates announced?						
— Yes	1	3	1	5	3	1
— No	8	7	7	6	7	3
7.3 Is there enough information about revisions to official statistics?						
— Yes	9	13	10	14	12	3
— No	8	4	6	7	5	1
8. Accessibility						
8.1 Can you easily access the official statistics?						
— Yes	17	17	17	20	18	2
— No	3	3	3	3	3	0

General Information about Uses of Official Macroeconomic Statistics of Nicaragua						
	NA	Prices	GFS	Monetary	BOP	Other
8.2 Can you easily access information pertaining to official statistics you use (explanatory notes, methodological descriptions, reference concerning concepts, classification, statistical practice)?						
— Yes	9	9	7	12	11	0
— No	11	8	10	10	9	2
					Yes	No
8.3 Is the above information on methodology sufficiently clear and at an adequate level of detail to be useful to you?					13	10
8.4 How do you get access to official statistics?						
— Official releases						12
— Hard copy publications						22
— Data specifically requested						13
— Official website						24
— Other						3
— E-mail requests						11
	NA	Prices	GFS	Monetary	BOP	Other
9. Overall assessment						
9.1 In your opinion, is the underlying methodology of official statistics sound and appropriate?						
— Yes	14	13	14	17	17	2
— No	2	0	1	0	0	0
9.2 In general, do you consider the official statistics to be unbiased and accurate?						
— Yes	6	7	5	8	8	1
— No	6	6	6	5	4	0
9.3 How would you compare the quality of official statistics of the country with those of other countries in the region?						
— Better	2	3	2	3	0	0
— Same	9	9	10	11	12	2
— Worse	1	1	1	0	1	0
9.4 How do you assess the overall quality of the official statistics? (1 rated as poor and 5 as excellent)						
1	0	0	0	0	0	0
2	1	1	2	0	0	0
3	4	3	2	1	4	2
4	8	12	9	12	12	1
5	5	3	4	8	5	0

NA = National Accounts; Prices refers to: CPI (Consumer Price Index) and PPI (Producer Price Index); GFS = Government Finance Statistics; Monetary = Monetary Statistics; and BOP = Balance of Payments Statistics

Box 1. Nicaragua: Comments by Users of Macroeconomic Statistics

Additional comments, including areas where you see room for improvement (this section includes those surveys that included comments):

Respondent 1

- The timelines of the statistics should improve.
- In general the statistical information disseminated by the CBN is of good quality.

Respondent 2

- There is a considerable lack of socio-economic statistics in Nicaragua.
- The timeliness of official publications is not optimum.

Respondent 3

- Time series and charts will help to analyze data more efficiently.
- Would like to see disseminated the goods' basket included in the CPI.

Respondent 4

- Most of the statistics are not updated.
- Better and comprehensive explanation of the base year in National Accounts is needed.
- Lack of breakdown in all statistics
- An improved and comprehensive detail of fiscal accounts is needed.

Respondent 5

- When there is a special request on data there is no response.
- The periodicity of statistics is adequate, although its timelines could be improved.
- Additional breakdown on Agroindustrial statistics is needed.

Respondent 6

- The information system of the BCN has improved notably.
- It is important to have bilateral trade data.

Respondent 7

- There is lack of consistency in statistical data.
- Statistical information on the informal sector in Nicaragua could be useful.

Respondent 8

- Sometimes it is necessary to query the CBN to request clarification on what is included in its statistics.

Respondent 9

- It is imperative to improve the coverage of Government Finance Statistics, including local governments, and government agencies.
- There are some problems with foreign investment and workers' remittances in balance of payments statistics.
- Trade statistics are always published with a lag.

Source: Survey conducted by the CBN.