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To: Members of the Executive Board

From: The Secretary

Subject: **Sweden—Detailed Assessments Using the Data Quality
Assessment Framework**

The attached paper on detailed assessments using the data quality assessment framework for Sweden has been prepared for information in the context of the 2001 Article IV consultation with Sweden (SM/01/257, 8/15/01), which is tentatively scheduled for discussion on Friday, August 31, 2001.

It is expected that following the Board discussion, this report will be published on the Fund's external website.

Questions may be referred to Mr. Dublin (ext. 37993) and Mr. Austin (ext. 39825).

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INTERNATIONAL MONETARY FUND

SWEDEN

Detailed Assessments Using the Data Quality Assessment Framework

Prepared by the Statistics Department

Approved by Carol S. Carson and Michael C. Deppler

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This document contains a detailed assessment by dataset of the elements and indicators that underlie the data quality dimensions discussed in Section III of the data module; the generic framework used for the assessment of the quality of Sweden's data (Appendix I), a description of Official Statistics and the organization of the statistical system in Sweden (Appendix II), and a summary of the work carried out by the Swedish authorities on data quality (Appendix III).

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DETAILED ASSESSMENTS USING THE DATA QUALITY ASSESSMENT FRAMEWORK

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 Swedish officials. This information, which is organized along the lines of the generic DQAF (Appendix I), was used by the mission to prepare the summary assessment of data quality elements presented in the Data Module.

I. NATIONAL ACCOUNTS (ANNUAL AND QUARTERLY)

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 new Statistical Law (2001:99) that came into force on April 1, 2001 and the Statistics Ordinance (2001:100) specify the responsibility for compiling and disseminating Official Statistics.¹ According to the Annex to the Ordinance, SCB is responsible for the compilation and dissemination of national accounts statistics. The legal framework for SCB is set out in the Instruction on Statistics Sweden (1988:137). Practices are consistent with these statutes.

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

Arrangements are in place to ensure the smooth and timely flow of data from other producers of Official Statistics to the SCB. The legal structures allow for the exchange of data files containing identifiable information on physical and legal persons between the authorities involved in the production of Official Statistics. Data from producers of statistics, other than Official Statistics, such as Riksbank, are, however, only made available to others, including the producers of Official Statistics at a level of aggregation that does not allow identification of individual units.

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

Statutory provisions such as the Statistical Law and the Secrecy Act (1980:100), especially Chapter 9, protect the privacy of individual data and forbids the use of confidential data in litigation except in cases relating to the breach of statistical law. Rules and regulations aimed at avoiding disclosure of confidential data include penalties against the staff who disclose

¹ Official Statistics are defined in Appendix II.

such data. Computer programs safeguard against the exposure of confidential data. Confidentiality of data is appropriately guarded during the process of their destruction. The premises for storing data are adequately secured.

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

The Statistical Law and the Regulation on Official Statistics govern the collection of data, and the provision of information, and also establish penalties in cases of noncompliance with the law. The Regulation on Official Statistics stipulates that collection of information for official statistics shall take into account the burden on respondents. This and other steps to ease the burden on respondents can be seen as contributing to the creation of goodwill among the data providers, thereby encouraging response.

0.2 Resources

0.2.1 Staff, financial, and computing resources are commensurate with institutional programs.

The number of the staff (35-40, predominantly persons with academic training) is adequate to carry out the current work. The high-quality staff has sufficient experience/knowledge of concepts and practice, undergoes internal training in national accounts methodology, and participates in international training courses/seminars/workshops. The professional incentive structure is supportive of the retention of trained staff, but wage differentials relative to other government and private jobs encourage staff members to leave the National Accounts Unit before the full benefits of the relatively long learning period have been obtained.

The resource level in the National Accounts Unit is commensurate with the program level and the overall financial resources availability of the agency, and has been increased during recent years.

Sufficient resources are allocated to automating the national accounts compilation and dissemination procedures, but there is a shortage of qualified IT-staff with knowledge of the national accounts. Recently considerable staff time has been tied up in the migration of the national accounts calculations from the mainframe to the network. The full potential of modern computer technology is being exploited.

0.2.2 Measures to ensure efficient use of resources are implemented.

Concepts and methodologies underlying Official Statistics both in the SCB and in other agencies are influenced by those of the national accounts. However, they are not always identical since concepts in surveys have to reflect the concepts used in business accounting in order to keep the response rate high and the response burden low. The needs of national accounts are given a high priority in the allocation of resources for the production of basic statistics.

0.3. Quality awareness

0.3.1 Processes are in place to focus on quality, to monitor the quality of the collection, processing, and dissemination of statistics, to acknowledge and deal with tradeoffs within quality, and to guide planning for existing and emerging needs.

The SCB has a defined quality policy, based on the Total Quality Management (TQM) concept, as illustrated by the so-called quality project and the annual Quality Report². Over 100 quality projects which focused on processes related to the production of statistics, administration, and marketing have been completed. Quality awareness is high at all stages of the compilation of national accounts and underlying basic data.

The Program Committee for Economic Statistics, an advisory body appointed by the Director General of SCB, gives advice on policy and priorities for all economic statistics, including national accounts. The work of the committee on the review of economic statistics is focused on the present state and future development of national accounts. Changes in the quality of the national accounts are evaluated in the annual Quality Report of the SCB. The Regulation on Official Statistics stipulates that quality declarations should exist for all official statistics, and that they should be made public. (These quality declarations are available on the website site of the SCB). Key headings in the declarations are: contents, compilation methods, accuracy and reliability, timeliness, comparability, availability and clarity (including references to available documentation).

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis.

The National Accounts Unit compiles statistics without any interference from outside the SCB or from the management level of the SCB.

The Statistical Law, the Statistics Ordinance and the Directive on SCB set the legal framework for the professional independence of the agencies and staff involved in the production of Official Statistics. The practices followed should also be seen against the background of a very long tradition of professional and impartial functioning of government institutions in Sweden. There is thus no external influence on the contents or release of official statistical information.

² TQM is described in Appendix III.

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

Compilers of statistics are free to choose the data sources, taking into account issues of quality, timeliness, and the burden on respondents, within the limits of the current budget. Professionalism is promoted by management according to the Regulation on the SCB, and by current practices such as through analytical work, publication of methodological papers, holding of lectures/seminars/conferences and participation in them

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

The SCB is entitled to comment on erroneous interpretation and misuse of statistics, and has done so on several occasions.

1.2 Transparency

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

The terms and conditions under which the data are produced and disseminated are available to the public on the SCB's website and in publications. The SCB is responsible to the government as far as its appropriations are concerned, but can otherwise – within the legal framework for Official Statistics and the SCB – independently organize and carry out its activities as it deems best. The Director General is appointed by the government and assisted by a Council representing other government agencies, organizations etc. There is also a Scientific Council attached to the SCB.

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

There is no internal government access to the national accounts data prior to their release.

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

Products that form part of Official Statistics, including the national accounts are clearly identified as such.

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

Advance notice is given of major changes in methodology. Examples are the transition to the *ESA 95* and the introduction of chain indices in the constant price calculations. Users were informed through meetings, seminars, press releases, etc.

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are clear and publicized.

There is a code of conduct for the compilers of Official Statistics that all staff members of the SCB must sign.

2. Methodological soundness

2.1 Concepts and definitions

2.1.1 The overall structure in terms of concepts and definitions follows international standards, guidelines, or agreed practices: see dataset-specific framework.

1993 SNA/1995 ESA³ is followed with minor exceptions concerning valuables and historical monuments. (These exceptions will be eliminated by the end of 2001).

2.2 Scope

2.2.1 The scope is consistent with international standards, guidelines, or agreed practices.

The delimitation of the constituent units of the economy are in accordance with the 1993 SNA. In particular, the following are included as part of the economy:

- territorial enclaves in the rest of the world⁴;
- free zones/bonded warehouses/factories operated by offshore enterprises under customs control; and
- workers who work part of the year in another country

The production boundary is in accordance with the 1993 SNA. In particular, the following items are included in output measurement⁵:

- own-account production of all goods for own final consumption
- output of goods for own-account fixed capital formation;
- mineral exploration; and
- production of entertainment, literary or artistic originals.

³ Further references to 1993 SNA, imply 1993 SNA/1995 ESA.

⁴ Such as embassies, consulates, military bases, scientific stations.

⁵ Irrespective of the coverage that is actually achieved.

Following the *ESA 95* conventions, illegal output sold to willing buyers is not included.

The following items are taken into account in estimating the assets boundary:⁶

Tangible assets:

- defense related assets that could be used for civilian purposes⁷
- valuables are not shown separately and the value of historical monuments is not calculated.
- agricultural work-in-progress, including natural growth in forests

Intangible assets:

- mineral exploration (whether successful or not)
- systems and standard applications computer software and data bases⁸
- entertainment, literary or artistic originals
- patented entities
- leases and other transferable contracts⁹

2.3 Classification/sectorization

2.3.1 Classification/ sectorization systems used are broadly consistent with international standards, guidelines, or agreed practices.

The *1993 SNA* is followed to classify institutional units, transactions and other flows. COICOP is used to classify household consumption (in total about 130 categories). The former Classification of Functions of Government (COFOG) is used to classify functions of government. It will be replaced by the new COFOG by the end of 2001.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks where relevant.

Market output is valued at basic prices. Output for own-use is valued at equivalent market prices. Transport margins are included in the valuation of intermediate consumption. If levied, sales and excise taxes are included in the valuation of intermediate consumption. If value added taxes are in place, they are included in the valuation of intermediate consumption, excluding the deductible part of the value added taxes. If applicable, the

⁶ Irrespective of the coverage that is actually achieved.

⁷ Such as airfields, docks, roads, hospitals, and other buildings or structures.

⁸ Whether purchased or built in-house.

⁹ Such as purchased goodwill.

deductible part of the value added taxes is excluded from the valuation of final uses. Corrections are made when transfer prices are detected.

Information on insurance and freight is available at a sufficient level of detail for imports to be transformed from c.i.f. to f.o.b. values. Total imports and exports are valued on an f.o.b. basis.

Transactions in foreign currency, converted to SEK, are taken from foreign trade statistics and the balance of payments.

2.4.2 Recording is done on an accrual basis.

Timing rules used for recording flows are in accordance with the *1993 SNA*. In particular, work-in-progress is recorded in the period it is produced. Government-related transactions are recorded on an accruals basis. However, the recording of taxes and social contributions follow the newly instituted ESA rule, that calls for a so-called time-adjusted cash basis—this is a deviation from the *1993 SNA*.

2.4.3 Grossing/netting procedures are broadly consistent with international standards, guidelines, or agreed practices.

Grossing/netting procedures are in accordance with the *1993 SNA*, except for some minor problems related to interest flows. These problems will be eliminated in the near future.

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.

A comprehensive and up-to-date business register provides the basis for sample surveys¹⁰. All industries are covered by the 'structural business' statistics according to the EU regulation, except those that fall within Industrial Standard Industrial Classification (ISIC) sections A-B which are covered by other sources. There is a total coverage of enterprises employing 50 or more persons, whereas the coverage of smaller enterprises is based primarily on information available in administrative registers.

Sample design and estimation procedures are made in a scientific way and represent the survey universe. Scientific random sampling techniques are used.¹¹ Proper imputation

¹⁰ That is, they cover all activities and types of units.

¹¹ Scientific random sampling comprises the body of randomized methods or designs for selecting units from a universe list that exhaustively enumerates the units in the target population, in such a

methods are used to handle non-response, and grossing-up factors are derived scientifically, based on sample design. Survey sampling and estimation procedures are reviewed and updated regularly.

Data collected through these sample surveys are sufficiently detailed and include:

Mining and manufacturing

- Output data on sales and inventories of finished goods and work in progress
- Intermediate consumption, covering purchases and inventories of raw materials
- On own-account production of capital goods
- Wages

Agriculture

- Output data on sales and inventories of finished goods and work in progress
- Intermediate consumption covering purchases and inventories of raw materials
- Own-account production of capital goods

Construction

- Output data on values of construction put in place
- Intermediate consumption, the data on purchases and inventories of raw materials
- Own-account production of capital goods

Trade

- Trade margins, covering sales, purchases and inventories of goods for resale
- Intermediate consumption, covering uses of non-durable goods and services

Transportation

- Revenue
- Intermediate consumption, covering purchases and inventories of raw materials
- Own-account production of capital goods

Business and personal services

- Output, covering revenue
- to measure intermediate consumption, the data on uses of non-durable goods and services.
- Data on own account production is not in all cases collected directly from enterprises. In some cases, and most notably for own-produced software, estimates are based on indirect methods.

way that the entire population is represented by the sample subject only to a random error. In doing so, the properties of the random sampling error can be fully characterized by the sample design.

Household budget surveys have been conducted annually since 1995. The relatively small sample and high rate of non-response causes a large error margin that makes it impossible to use the grossed-up figures directly in the national accounts. Nonetheless, the household budget surveys are important sources in areas where no other information exists and for more detailed breakdowns of household consumption. In these cases, three-year averages are usually applied. Coverage is comprehensive, but does not include collective households.

Sample design and estimation procedures adequately represent the universe:

- Scientific random sampling techniques are used
- Proper imputation methods are used to handle non-response
- Grossing-up factors are derived scientifically based on sample design
- Sample design and estimation procedures are reviewed and corrected regularly

Data collected are detailed and include, in particular, data on purchases of non-durable consumption goods and services, and purchases of durable goods.

Periodic (two or more years) surveys/censuses are not conducted on a regular basis¹²

Sub-annual surveys of establishments/enterprises are conducted to obtain detailed quarterly/monthly indicators consistent with annual data, in particular, for: mining, manufacturing, trade, transportation (for some activities) and business and personal services. For agriculture, data are available from non-survey sources. Sub-annual surveys of establishments/enterprises are not conducted for construction.

Ad-hoc surveys are conducted, when necessary, to supplement the regular survey program. One example is the in depth branch analyses, including product statistics and other details, that is carried out for selected service industries with 3-4 years intervals.

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

The definitions, scope and classifications of source data take into account the requirements of national accounts, but will usually not completely comply with the national accounts concepts as they have to reflect the concepts actually used in business accounting.

Source data are to the extent possible consistent with the time of recording, reference periods and valuation of national accounts estimates.

¹² Applicable only to situations where annual censuses/surveys are not available and annual estimates are made by extrapolating benchmark data using indicators.

3.1.3 Source data are timely.

Source data are timely. For annual as well as quarterly source data, written agreements exist between the National Accounts Unit and the data suppliers from within SCB about which data should be delivered when. For external data suppliers, similar arrangements are in place. Usually these timetables are adhered to. Any delays must be specifically announced.

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques

The basic methodology is based on a supply and use table comprising about 400 product groups. The balancing in the framework of this table implies that the supply and use sides are not worked out completely independently. The constant price calculations also take place within this framework and level of detail.

Production approach

The working level for the annual accounts comprises about 130 industries, and for the quarterly accounts about 65 industries. The level of detail is thus, as a rule, at least the 2-digit ISIC; this also applies to estimates of intermediate consumption.

As a rule, the calculations for a year are made based on source data referring to that year. The calculations for each year are, however, not carried out in complete isolation from the calculations from the preceding year. The calculation for any year will therefore to some extent depend on structures and ratios for preceding years. But only in exceptional cases will this take the form of fixed ratios, as some new source statistics will be applied to carry the structures forward. Thus, for example, the calculation of owner-occupied dwellings are in some periods based on benchmark data (housing census) more than 5 years old, but the figures are carried forward using information on the construction of new dwellings and demolition of old ones. They thus include up to date basic information.

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

Work in progress: the following are treated as work-in-progress:

- growing crops
- standing timber
- stocks of fish (not relevant in Sweden)
- livestock reared for purposes of food
- large construction projects (so far not relevant in Sweden)
- output of large equipment, such as ships

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

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

Cash vs. accrual: the cash data are converted to an accrual basis by allocating them to the period to which they relate, in particular for the data on taxes and social contributions (which follow the new ESA procedure), subsidies on products, government revenue data and government expenditure data.

Deflators/price indices: deflators/price indices are compiled at a detailed level, and are consistent with the variables being deflated in terms of concept, coverage, and reference period.

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

Direct deflation of value added using output or input prices is avoided.

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

Output volume of trade margins are estimated by applying the base year margin rates to the corresponding volume of sales.

Measurement of volume change: GDP volume change is measured using annual Laspeyres chain indices.

Expenditure approach

In Sweden, the expenditure approach is traditionally assumed to give the most reliable measure of GDP. Any statistical discrepancy is therefore assumed to belong on the production side of the accounts.

The following components are derived independently (i.e., not as a residual):

- household final consumption expenditure
- gross fixed capital formation
- changes in inventories

GDP estimates are compiled at the following level of detail:

- Household final consumption expenditure is compiled at least at the one-digit level of the appropriate classification (such as COICOP)
- Government final consumption expenditure is compiled at least at the one-digit level of the appropriate classification (such as COFOG)
- Gross fixed capital formation is compiled by activities and by type of assets
- Changes in inventories are compiled by activities and type of inventories

As a rule, the calculations for a given year are made based on source data referring to that year. The calculations for each year are, however, not carried out in complete isolation from the calculations from the preceding year. The calculation for any year will therefore to some extent depend on structures and ratios for preceding years. But only exceptionally will this take the form of fixed ratios, as some new source statistics will be applied to carry the structures forward.

In the total estimate of *final consumption expenditure of households*, the estimates derived from such ratios account for less than 20 percent.

In the total estimate of *final consumption expenditure of NPISHs*, the estimates derived from such ratios account for less than 20 percent. Sources for intermediate consumption data are in general weak for NPISHs.

In the total estimate of *fixed capital formation*, the estimates derived from such ratios account for less than 20 percent.

Proper techniques are used to address specific issues of GDP compilation, notably:

- Government final expenditure is exclusive of incidental sales.
- Expenses of residents abroad are included in household final consumption expenditure.
- Expenditures on items that are considered stores of wealth (such as jewelry, works of art) are included in the estimates of valuables. Valuables are not calculated or shown separately. Jewelry, works of arts etc . are included in household consumption.

Dedicated price indices/deflators are used to deflate GDP components at least at the one-digit level of level of the corresponding classifications. Constant price calculation takes place in the supply/use framework, comprising about 400 product groups. The method is Laspeyres chain indices.

There is a relatively close correlation in Sweden between the implicit consumption deflator and the CPI as the weighting schemes used in the two indices are rather similar.

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

Is there a sizeable part of the economy that is not covered by regular (i.e., based on primary statistics) national accounts estimates?

The national accounts are generally accepted as being exhaustive as far as the hidden economy is concerned, although the methods applied do not allow a separate estimate of a 'hidden' part which in any event is of minor importance in Sweden.

Official estimates are done using micro surveys of activities suspected of having production that is not covered in regular national accounts compilation. Data from household and trade surveys are also used.¹³ An important source is a comprehensive report on the black economy that the Riksrevisionsverket (the General Audit Office) published in 1998. When expenditure data exceeds production data in identifiable areas, the former are assumed to reflect the correct level.

3.3 Assessment and validation

3.3.1 Source data—including censuses, sample surveys and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and non-sampling error; the results of the assessments are monitored and made available to guide planning.

Information on sampling and non-sampling errors for survey data is available.¹⁴ Sample selection is adjusted when sampling errors become large. Information is available about non-response in the surveys or on percentages of source data imputed. The influence of outliers is limited. Surveys/censuses are audited¹⁵ to verify the accuracy of the individual survey data.

The procedures mentioned above are part of the quality control/projects in the various areas of basic statistics, and are explained in the relevant documentation, and in some cases also briefly explained in the Quality reports (for each type of statistics) on the SCB web site. Non-sampling errors are not quantified.

In compiling GDP estimates by expenditure components, the degree of reliance on the source data obtained from surveys/censuses or appropriate administrative records falls below 90 percent. This mainly reflects the estimation methods used for fixed capital formation of software. These data are based on special surveys conducted every three years, the annual investment surveys and assumptions in the commodity flow system. Own account production

¹³ For example, by applying a fixed ratio to observed GDP.

¹⁴ This refers to standard errors, or coefficients of variation.

¹⁵ For example, in accompanying field collections/random post-enumeration checks.

of software represents the most difficult problem. Here the employment of staff with computer related skills is used in the estimations.

The source data are analyzed to correct for underreporting/misreporting, in particular to check for temporal consistency, and consistency with other related data sources. The consistency of the source data with the national accounts is checked in particular for consistency with national accounts definitions, valuation, reference periods, and classifications. Source data are also analyzed in the context of revisions.

3.3.2 Main intermediate results are validated against other information where applicable.

Considering that the supply/use framework is used and all relevant data in principle introduced in the system already at the outset, such validation is only to a limited extent possible, and in particular relates to macro checks.

Since the supply/use method is used, the statistical discrepancy cannot be used for assessing the accuracy of the accounts.

A statistical discrepancy between GDP by production activities and GDP by expenditure components is shown explicitly. It is insignificant in size, and therefore no indication for either accuracy or errors.

3.4 Revisions

3.4.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes.

During the transition to the *ESA 95* publication was to some extent irregular. A complete description of release and revision schedules after the introduction of the new system has not yet been published, but the number of years/quarters revised are described on a current basis in the various national accounts publications.

The ordinary release schedule is primarily determined by the availability of the necessary data sources, but the release dates for some versions of the data take into account the needs in for example the government budget process.

3.4.2 Revision studies and analyses are made public and used to guide data users.

Revisions studies such as analysis of bias and dispersion are not carried out. However, when revised figures are published, significant revisions will usually be commented on and explained in the text. There is thus no information available that allows the users to obtain a broader picture of the revisions, such as how they compare internationally.

4. Serviceability

4.1 Relevance

4.1.1 Processes to monitor the relevance and practical utility of existing statistics in meeting users' needs are in place.

An external review was conducted in 2000 to obtain users' points of view on the existing national accounts data (the survey carried out by the Commission on the Review of Economic Statistics). In the opinion of some users, there are a number of shortcomings related to coverage, timeliness and reliability. As part of SCB's annual internal Quality Report, a self-evaluation of a number of quality elements is carried out. The Report is made public.

4.2. Timeliness and periodicity

4.2.1 Periodicity follows dissemination standards.

Sweden's national accounts are compiled on a quarterly basis, meeting SDDS requirements. Annual accounts are also produced.

4.2.2 Timeliness follows dissemination standards

Quarterly accounts are published with a time lag of 75 days, exceeding SDDS requirements. Before the end of 2001, timeliness will improve to 70 days (thus also fulfilling the EU Action Plan)

The first preliminary version of the annual accounts is published after 11 months and the final version after 23 months.

The timeliness now achieved and described above is at present found satisfactory. Some users have, however, expressed a wish to have more timely quarterly accounts such as within one month. The Commission on the Review of Economic Statistics will deal with this question.

4.3 Consistency

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

Consistent time series data at an aggregated level are available since 1980, and detailed series since 1993. Consistent quarterly series back to 1980 will be ready by the end of 2001. Back series are adjusted to account for methodological developments and to avoid discontinuities arising from changes in data sources. Outliers in the structural ratios are not investigated as a separate exercise, but these and other check procedures form an integrated part of the compilation process.

4.3.2 Statistics are internally consistent (e.g., accounting identities observed).

The statistical discrepancy between GDP by production activities and GDP by expenditure components is shown explicitly. The discrepancy is insignificant, and usually 0.1-0.2 percent of GDP. As the discrepancy is insignificant the two growth rates are almost identical. In principle, the growth rate from the expenditure side is to take precedence. National accounts data are reconciled within the supply-use tables framework¹⁶. Net lending of resident and nonresident surplus sectors is matched by net borrowing of resident and nonresident deficit sectors derived independently. Independent estimates of net lending/net borrowing are derived from the capital account and from the financial account¹⁷. Though attempts are made to reconcile results from the two sides, differences, sometimes considerable, remain for all institutional sectors. Financial accounts are compiled in the Financial Market Unit and is completed later than the other parts of the national accounts.

GDP estimates at current prices, volume measures and (implicit) deflators are consistent within the “value = volume x price” framework

Concepts and definitions for compiling quarterly GDP estimates are identical to those used to compile the annual estimates. The discrepancy between the sum of quarterly estimates and the annual estimate is removed through calendar year adjustment.

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

Total net lending/net borrowing (from the national accounts) is the same as the current account balance plus the capital account balance (from the balance of payments). As the balance of payments statistics are revised on a continual basis that consistency may no longer exist at the time when the national accounts data are published. This is noted in the text contained in the national accounts publications.

As there are no government finance statistics in a national accounts format the question of consistency does not arise in this context. Data for the general government sector are

¹⁶ $O + T_n + M_{g\&s} = C_i + C_f + GFCF + \Delta Inven + Val_{na} + X_{g\&s}$, where O , T_n , $M_{g\&s}$ are the components of supply – output, taxes less subsidies on products, and imports of goods and services, respectively; and C_i , C_f , $GFCF$, $\Delta Inven$, Val_{na} , $X_{g\&s}$ are the components of uses – intermediate consumption expenditure, final consumption expenditure, gross fixed capital formation, changes in inventories, acquisition less disposals of valuables and exports of goods and services, respectively.

¹⁷ $NL_{cap} = NL_{fin}$, where NL_{cap} , NL_{fin} , are the estimates of net lending/borrowing derived from the capital and financial accounts.

compiled in the National Accounts Unit and are consistent with the other sectors of the national accounts.

4.4 Revision policy and practice.

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

The revision schedule is predetermined and reasonably stable from year to year.

New source data are incorporated as early as possible, taking into account the predetermined revision schedule. Major changes in source data may even have to await the next major revision. Revised estimates are released in time to be incorporated in important official economic policy documents. The principle is that release is governed by the availability of data sources. For some versions release times are, however, influenced by the needs of the budget process.

4.4.2 Preliminary data are clearly identified.

Preliminary data are not labeled, but in the accompanying text it is made clear which years/quarters are preliminary and which are revised.

4.4.3 Studies and analyses of revisions are carried out routinely and made public

Candid documentation is published on sources and methods of revising the data. The documentation includes information on the direction and magnitude of revisions, the main flows of data from the preliminary to the revised versions, and the reasons for revisions.

Studies and analysis of revisions are not made. The reasons for important revisions will usually be dealt with in the text of the publication. Internally, the causes of such revisions are always scrutinized.

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 estimates are disseminated at a detailed level and as time series. The data are properly catalogued to allow users to find out what information is available and assist them in locating it.

5.1.2 Dissemination media and formats are adequate.

National accounts estimates are disseminated through a dedicated annual national accounts publication, and through electronic means. Quarterly national accounts estimates are disseminated regularly, in particular through a dedicated sub-annual statistical publication and electronic means.

5.1.3 Statistics are released on a pre-announced schedule

National accounts estimates are released according to an advance release calendar disseminated on the SCB's website.

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

Strictly for internal use, experts at The National Institute of Economic Research and the Ministry of Finance are given access to some work-tables a few days before the data are released. Occasionally these agencies may have comments that lead to changes in the data.

5.1.5 Non-published (but non-confidential) sub-aggregates are made available upon request.

Non-confidential data are 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 international standards are annotated.

Following the transition to the *ESA 95* in 1999 the available documentation is at present insufficient. However, comprehensive documentation on the *ESA 95* calculations will become available before the end of 2001.

5.2.2 Different levels of detail are provided depending on intended audience and type of collection.

At present metadata are only available at very summary level.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized.

A help desk provides prompt and knowledgeable service and support. A national accounts contact person is publicized and available to provide further assistance as required.

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

Information on publications, documentation, and services, including on any charges, is widely available on the SCB's website and in SCB's publications.

II. PRICE STATISTICS (CONSUMER PRICE INDEX)

0. Prerequisites of quality

The contents of the DQAF on the National Accounts (Section A) are also valid here, as it mainly deals with the SCB. Therefore, only CPI-specific information is presented below.

0.1 Legal and institutional environment

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

The Official Statistics Ordinance (2001:100) specifies that Statistics Sweden (SCB) is responsible for compiling and disseminating the CPI. It is explicitly stated in the Directive for SCB (1988:137) that SCB shall compile the CPI and it mandates the establishment of the CPI Board. The CPI Board has eight members. The chairman and six ordinary members are appointed by the SCB, two of which on the recommendations of the Riksbank and the NIER. One member is appointed by the government. The majority of the members have competence in the fields of economics and statistics. Practice is consistent with the statutes.

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

Not applicable.

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

See Section A, 0.1.3.

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

See Section A, 0.1.4.

0.2 Resources

0.2.1 Staff, financial, and computing resources are commensurate with institutional programs.

The number of the staff is adequate, in total about 18 persons. The CPI is produced in the same unit as the PPI, and several staff members work on both indices. The staff is adequate, has sufficient experience/knowledge of concepts and practice, undergoes internal training in CPI methodology, and participates in international training courses/seminars/workshops. The professional incentive structure is supportive of retention of trained staff, but the wage incentive may work in the opposite direction.

The budgetary resource allocation is sufficient, and is commensurate with the overall resource availability of the SCB.

Sufficient computing resources are allocated to CPI compilation and dissemination. Best efforts are made to exploit the potential of modern technology.

0.2.2 Measures to ensure efficient use of resources are implemented.

Accounting conventions used within the SCB enable measurement of resources used for the CPI. Periodic reviews are undertaken to ensure that unit costs are reasonable and resources are used efficiently for their intended purpose in the CPI.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality, to monitor the quality of the collection, processing, and dissemination of statistics, to acknowledge and deal with tradeoffs within quality, and to guide planning for existing and emerging needs.

The CPI Board decides on matters of principle concerning the CPI, gives advice on policies and priorities, and promotes the development of methods. It is within the authority of the SCB to:

- determine the requirements for funding;
- ensure that the flow of data within the SCB is smooth;
- ensure that the duplication of effort within the SCB is avoided; and
- ensure that the response burden of data providers is taken into account

The CPI Board obtains feedback from important users, both internally such as national accounts, and externally, including government and the Riksbank. The whole CPI system is scrutinized every year in connection with the change of weights, (some) outlets and (some) products.

1. Integrity

1.1 Professionalism

1.1.1 *Statistics are compiled on an impartial basis.*

The CPI statistics are compiled on impartial basis. Even though the CPI Board has some decision-making it is considered a professional body that is not influenced by non-statistical considerations. The Harmonized Consumer Price Index (HCPI) that is also produced in the Price Unit of the SCB, according to EU Regulations and reported monthly to Eurostat, is not considered part of Official Statistics, and the special rules governing its production has so far not influenced the Swedish CPI.

By providing distinctly separate measures of the CPI for important policy purposes, the statistical integrity of the CPI itself is maintained. There are two such examples of separate measures:

- The monetary policy of the Riksbank is based on inflation targeting. Since August 1998, SCB has calculated and published two measures of underlying inflation. These measures, called UNDI_X and UNDI_{NHX} are defined by the Riksbank and published monthly on its behalf concurrently with the CPI.
- National basic pensions and certain other transfers to households are guaranteed a given real value by means of adjustments made by using a so-called Price Basic Amount (in 1999 equal to 36.396 SEK) that has been calculated annually since 1982. In principle the Price Basic Amount is regulated with the CPI, but its regulation is ultimately a matter policy that is determined by Parliament and/or Government. For example, inflationary effects of the Swedish depreciation in November 1992 to October 1994 were excluded from the Basic Amount, and in some cases it has been decided to only regulate with a certain proportion of the increase in the CPI.

Statutory provisions and/or other arrangements emphasize the professional independence of the statistical agency, govern the appointment and independence of action of the head of the statistical agency, and prevent improper external influence on the content or release of statistical information.

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

The compilers of statistics are free to choose the data sources with regard to quality, timeliness, costs, and the burden on respondents, taking into accounts the budget restrictions of the SCB and the policy towards respondents.

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

The SCB is entitled to comment on erroneous interpretation and misuse of statistics

1.2 Transparency

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

The terms and conditions under which the data are produced and disseminated are available to the public.

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

There is no internal governmental access prior to public release, as indicated in Sweden's CPI metadata on the DSBB.

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

Statistical products of the SCB are clearly identified as such.

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

Advance notice of major changes in methodology is usually given in the monthly Statistical Report on the CPI – an example is the change to COICOP in January 2001.

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are clear and publicized.

See Section A, 1.3.1.

2. Methodological soundness

Background information on the methodology of Sweden's CPI is presented as follows:

The Swedish CPI is a chain index with annual links. However, this index has an unique chaining techniques that make it differ considerable from chain indices in other countries. Index links for all months January to December in the current year are computed with weights based on the preceding year, and with December the preceding year (t-1) equal to 100. This is according to a Laspeyres formula. These links are called Short term links.

However, for December t-1 an additional (additional to the December t-1 Short-term link already computed in the current calculations for year t-1, based on weights from year t-2)

revised Long-term link is also computed for which the quantity weights refer to the current year $t-1$. A chained Long-term index (reference year 1980) for December preceding the current year is computed by chaining Long-term links for each December back to 1980. The Long term links are neither of the Laspeyres type, since the weights refer to a period subsequent to the price reference period, nor is it of the Paasche-type since the weights refer to a period that mainly is placed before the price comparison period (December $t-1$).

The official CPI is computed by chaining the Short term links of the current year to the December Long-term index of the preceding year. The rationale for using this techniques is that it ensures that the CPI index series is based on links that have been computed using as time relevant weights as possible. The index series will thus not suffer from a positive substitution bias at this level of aggregation which is in line with an approximation to a 'true cost of living index' that has for many years been the guiding principle in the compilation of the Swedish CPI.

As a consequence of this procedure the official CPI for January in year t is not obtained by a link to the official CPI for December $t-1$ that must be expected (based on standard index theory) to exceed the Long-term index for that month. As the official CPIs are never revised the development in the CPI between December $t-1$ and January t will in addition to the actual price movements between the two months also reflect the difference between the movements in the short-term and the long-term links from December $t-2$ to December $t-1$. This latter effect will in the normal case have a negative influence on the price increase measured by the CPI between the two months.

The above mentioned "discontinuity" does not cause problems for the official CPI with reference year 1980. In fact this is intended. It does, however, cause problems for comparisons between months of adjacent years. To ensure a fixed basket interpretation of the twelve month rate of inflation the level effect of the "discontinuity" has to be removed. This is simply done by multiplying the proportion between the CPIs for the two identical months of year t and $t-1$ by the proportion between the short-term link and the long-term link between December $t-2$ and December $t-1$. This will exactly remove the "discontinuity", and in the general case result in a twelve month rate of inflation that exceeds what would have been obtained by just comparing the CPIs for the two months.

Since August 1998 the SCB has calculated and published two measures of the underlying inflation. These measures, called UND1X and UNDINHX are defined by the Riksbank, and published on its behalf. Prior to this similar indices, called UND1 and UNDINH were calculated by the Riksbank and published in its monthly inflation report. Because of some methodological changes, the indices calculated by the SCB are not comparable to those earlier calculated by the Riksbank.

In both measures the CPI domain is modified so as to exclude mortgage interest on owner-occupied houses and prices are adjusted for changes in indirect taxes and subsidies, except those related to wages and salaries. The UNDINHX is further modified to exclude goods that are mainly imported.

In general the Swedish CPI and related indices can be seen as representing a very advanced approach that fulfils a number of different user needs in a very sophisticated way, and based on scientific and state of the art methods in practically all processes involved in the compilation of the index.

2.1 Concepts and definitions

2.1.1 The overall structure in terms of concepts and definitions follows international standards, guidelines, or agreed practices: see dataset-specific framework.

Concepts and definitions for household consumption expenditures from *1993 SNA/1995 ESA*¹⁸ or ILO guidelines are followed regarding determination of the index weights for the CPI.¹⁹

Concepts and definitions such as those given in the Consumer Price Index Manual (in preparation) are followed regarding the definition or specification of the individual goods and services on which periodic price measurements are to be taken.²⁰

2.2 Scope

2.2.1 The scope is broadly consistent with international standards, guidelines, or agreed practices.

The CPI covers the consumption of goods and services for the purpose of private consumption in Sweden, i.e., consumption of domestic households and of foreign visitors with the exception of child care, care of the elderly, fees for hospital care, life insurance and miscellaneous goods and services for which no methods are developed for price index calculation (In total the CPI covers 97 percent of private consumption in the national accounts). In particular the following are included:

- Both urban and rural households
- Families of all sizes (regardless of the number of persons) and income levels

¹⁸ References to *1993 SNA* imply both *1993 SNA/1995 ESA*.

¹⁹ The weighting concept for the CPI is consumer purchases of goods and services (goods and services that purchased for use by the household for household consumption and not used for business or investment purposes).

²⁰ Including consideration, not only of product characteristics, but also of transaction characteristics that have a significant effect on price in determining the specification.

- Households whose major activity involves an unincorporated business activity that can separate records on business and consumption purchases.
- Households whose primary activity is farm or fishing

The following outputs are in scope for household consumption measurement²¹:

- marketed goods for consumption purchases
- own-account production of market goods for own final consumption²²
- marketed services for consumption purchases
- production of selected services for own final consumption²³

Illegal marketed services sold to willing buyers are excluded following the *ESA 95* convention.

2.3 Classification/sectorization

2.3.1 Classification/ sectorization systems used are broadly consistent with international standards, guidelines, or agreed practices.

The *1993 SNA* is followed to classify household units, transactions, and other flows. COICOP is used to classify consumption activities (since January 2001), but some activities are left out.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks.

Regarding consumption expenditures (for weights of the CPI), consumption expenditure is valued at purchasers' prices which include margins and applicable taxes. Production for own-use is valued at equivalent market prices. Product specifications include price determining characteristics related to transactions.

2.4.2 Recording is done on an accrual basis

Prices of goods and services are recorded in the period they are purchased.

²¹ See notes to 2.1.1. regarding the definition of household consumption expenditures. An item may be in-scope for measurement irrespective of the coverage that is actually achieved.

²² Comprising, for example, agricultural produce for consumption by the owners, employees, and their families of an unincorporated household farming enterprise.

²³ Principally comprising the value of rental services produced by household owner-occupants of residential housing for own final consumption.

2.4.3 Grossing/netting procedures are broadly consistent with international standards, guidelines, or agreed practices.

Not applicable.

3. Accuracy and reliability

3.1 Source data

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

A comprehensive and up-to-date business register provides the basis for sample surveys²⁴

Frequency of compiling new weights for consumption expenditures is annual. At the aggregate level, national accounts data on household consumption are used cf. below for owner-occupied dwellings). They include more than 100 categories according to the COICOP. The data used for the CPI are very early estimates for the year just ended. They use preliminary data for the first three quarters (from the quarterly national accounts), and a projection for the fourth quarter, made in December by the National Institute for Economic Research, mainly based on retail trade data. Once estimated these weights are never revised.

From January 2001 the national accounts weight for owner-occupied dwellings that is based on the market rent for comparable rented dwellings has been replaced by a weight based on direct estimates of different components of user cost, from a survey of owner occupiers. At lower level of estimation a variety of sources are used, the two most important being the household budget survey (HBS) and, for food, data from the National Agricultural Agency.

All households are covered (except those where the head of the household is more than 74 years old) are covered in the annual HBS. The HBS is running continuously. However, due to a large non-response the survey was discontinued during 1997 and a major review of the whole survey took place. The survey was started again during 1999. Since the sample of households is small HBS data for some years, usually three, have to be aggregated. The HBS based subgroup weights in the CPI are updated annually with the best information that is available at the time. All geographic areas and all household sizes are covered in the HBS.

Sample design and estimation procedures in the HBS represent the survey universe; scientific random sampling techniques are used²⁵. The sample includes 3000 households.

²⁴ That is, they cover all retail activities or types of housing units.

²⁵ Scientific random sampling comprises the body of randomized methods or designs for selecting units from a universe list that exhaustively enumerates the units in the target population, in such a
(continued)

Proper imputation methods are used to handle non-response, and weight adjustments are made scientifically, based on sample design. Survey sampling and estimation procedures are reviewed and corrected regularly.

The rate of non response in the 1999 HBS survey was 47 percent.

Data collected in the HBS are sufficiently detailed, and include:

- expenditures for marketed goods and services at purchaser's prices
- value of goods produced for own consumption at market prices
- value of owner occupied dwelling is basically represented by a user value concept.
- at the aggregate level (1-digit COICOP) the grossed up figures of the HBS compares quite well to the household consumption estimated in the national accounts in 1999.

The frequency of price collection survey is monthly, except for rent for dwellings that is collected quarterly. With the above mentioned minor exceptions all consumer purchases are covered. In total 24,000 price quotes are collected from approximately 600 outlets. For most services and some goods the central staff in the SCB collects the prices either by telephone or by mail surveys. For other goods and services there is local price collection by price collectors who visit the outlets.

Sample design and estimation procedures represent the survey universe. A variety of methods are used to select items. The most used methods are purposive sampling and probability sampling. Other methods used are: cut-off sampling, quota sampling and complete coverage (the last for alcoholic beverage and prescription medicine), scientific random sampling and cutoff sampling.

The methods for selecting outlets vary with the surveys. In the survey for daily necessities and in the local price surveys, prices are collected from outlets sampled by Pareto PPS from the Central Business Register. Outlets for petrol are also chosen by PPS. For the surveys collected by the central staff in SCB judgmental methods are used in most cases. Several methods are used to select the product varieties. The 'most sold' variety principle that can be seen as a special case of cutoff sampling is widely used.

There is no regional stratification level in the CPI. Price data collected are sufficiently detailed by product and use sufficiently detailed product specifications to ensure the same variety is priced each period.

Occasionally small ad-hoc surveys are conducted to supplement the regular survey program (e.g., to identify new products and provide source data for weights and prices).

way that the entire population is represented by the sample subject only to a random error. In doing so, the properties of the random sampling error can be fully characterized by the sample design.

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

Source data are consistent with the definitions, scope and classifications of CPI estimates. They are also consistent with the time of recording, reference periods and valuation of CPI estimates

3.1.3 Source data are timely.

Source data for the weights are obtained from in particular national accounts and the HBS so that it is possible to establish the weights for the year t-1 in January year t, although the information has to be supplemented with estimates and use of data from earlier periods to obtain the weights. It is, however, not realistic to opt for more timely source data, as they, by their very nature, cannot be fully available in January.

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques

The level of detail for goods and services is sufficient for detailed analysis of price movement. There are 12 groups at the level of the main tabulation categories of the classification used (e.g., 1 digit COICOP). There are 37 subgroups (3-digit COICOP) and four of the subgroups are divided into 26 more detailed subgroups (4-digit level). Within all the subgroups there are altogether 335 (for the year 2000) representative items.

The level of detail for services is sufficient for detailed analysis of price movement: at the level of the main tabulation categories of the classification used (e.g., 1 digit COICOP); at the level of all groups, classes, or items of the classification (e.g., 2,3,4,5-digit CPC) or several of them

Household consumption expenditure, as defined in the *1993 SNA*, is used to establish weights, with the exceptions mentioned above.

Owner-occupied dwellings: consumption is valued at user costs since January 2001.

Value for goods and services represent the economic cost to the consumer at the time the good or service is purchased regardless of method for payment (cash or credit).

Goods and services produced for own final consumption are valued at market prices at the time produced.

A special formula is normally used for computing the elementary level indices. It is called the RA formula ("Ratio of Average standardized prices"). In some other cases the simpler

ratio of average prices is used. The RA formula (weighted or unweighted) can be shown to approximate a geometric mean quite well.

The CPI is computed as a chain index with annual links with the reference period being December. The weights being revised each year. Index links for all months January to December are computed with weights based on the value of private consumption on the domestic market during the preceding year. That is, according to a Laspeyres-type formula. These links are called short term links. However, for December an additional revised long-term link is also computed in which the quantity weights refer to the current year. Since the quantity weights refer to a period (year t) which mainly occurred before the price comparison period (December year t) the index-type is neither a Laspeyres, nor a Paasche-type index.

The weight reference period is year $t-1$ for the short term link and year t for the long-term link. The price reference period is December and the chained index has 1980 as reference year.

Value weights are price updated in order to reflect the value of weight reference period quantities at price reference period prices. When the new weights are introduced annually, a long term link from December $t-2$ to December $t-1$ is calculated. The current CPI is by a short-term link linked to the long-term index for December $t-1$ (and thus not to the earlier published CPI for December $t-1$).

Prices for temporarily missing products are carried forward by the last reported price. Seasonal products are considered comparable regardless of season. For seasonal unavailability carry forward is applied. Products that become permanently unavailable are replaced in the sample. In this case a quality adjustment is normally done. Outlets are not replaced.

Adjustments for quality differences are made using several methods. The products are classified as either quality adjustment products or non-quality adjustment products. In the local price collection (except for clothing) the price collectors perform the adjustments from a consumer point of view. A hedonic method is used for clothing and an expert panel evaluates the specification for new car models. For PCs are used monthly chained indexes for models that are found in both months.

New products are introduced into the sample as they gain market share, based on the principle of "most sold."

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

Not applicable

3.3 Assessment and validation

3.3.1 Source data—including censuses, sample surveys and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and non-sampling error; the results of the assessments are monitored and made available to guide planning.

There are no current calculations of sampling errors, but a number of ad hoc studies have been carried out. Systematic computations on the random sampling error were carried out for a few years in the mid 90's. The 95 percent confidence interval was estimated to be 0.4. The error related to the selection of outlets and of products has been calculated to be 0.4 index units (95 percent confidence interval) for an annual link.²⁶

Concerning non-sampling errors, alternative calculations for the long term links for some years (1986-88) have shown that the annual increase in the CPI would have been 0.1-0.2 index units higher if the definitive rather than the (very) preliminary national accounts data were applied to the weights. The two most important conceptual difficulties relate to owner-occupied dwellings and quality adjustments, including new products. It is estimated that there is, within the limits of plausible methods, a conceptual gray zone of the order of one percentage unit. In particular the non-housing quality and new product bias was estimated to be an upward 0.33.

Sample selection is adjusted annually according to certain criteria. The non-response in the price surveys is insignificant except for the rent survey where it is about 5 percent. The influence of outliers (extreme quotations) is limited.

In the total estimate of household consumption expenditures the observed data used as weights account for over 90 percent

In the total estimate of household consumption expenditures in the monthly price survey, the sampled products account for probably less than 20 percent of total expenditure.

The price data are analyzed to correct for misreporting, in particular to check for:

- temporal consistency
- check of the outlet and item codes
- quantity control
- checks of regular prices
- check of the quality adjustments
- probability control of the quoted prices

²⁶ This refers to standard errors, or coefficients of variation.

For prices collected by the central SCB staff, contacts with the respondents are made in cases of extraordinary price changes, etc. The entire price statistics staff meet together and scrutinize all the item indices and the final results.

3.3.2 Main intermediate results are validated against other information where applicable

The CPI items and categories are not compared with estimates from other sources such as the PPI, export price indices, and import price indices on a current basis, the main reasons being lack of both timeliness and comparability at relevant levels.

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

The CPI is considered final when first published. Following each monthly publication, the all item CPI (1980=100) is legally fixed in a special document signed by the Director General of the SCB, and cannot be revised (this is the case for the All Item CPI, but not for the sub-indices). This procedure should be seen on the background of the important administrative uses of the CPI or specialized indices derived from it.

Errors are sometimes discovered after the publication of the CPI. They may be of two kinds: (1) errors within the framework of the chosen method and (2) errors affecting the choice of method. When discovered, they are included in a "Shadow index" that is computed with the corrected indices consistently backward for the whole series of the All item CPI and sub-indices. The current calculations of the CPI are then linked up to these revised indices, and thus "back on track." The "shadow indices" (for the All item CPI as well as for subgroups) are available in Sweden's Statistical Databases as well as on the SCB website and in publications. There is thus full insight for the users into these changes. The "shadow indices" are analytically useful and are also affecting the levels in the current CPI calculations. They do not, however, imply revisions of the official CPI. To illustrate the differences it may be mentioned, that the Official CPI and the Shadow Index (with one decimal) were identical in year 2000, whereas the differences were 0.4 and 0.3 index points in 1999 and 1998 respectively (index level around 260) according to the SCB website, May 2001.

3.4 Revision studies

3.4.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes.

Not applicable. However, it is observed that the Long-term links from December to December in general has been found to increase about 0.2 percentage points less than the corresponding Short-term link. The direction of the difference is consistent with expectations based on index theory. This difference does not constitute a revision as such, but is an intended and important property of the way the CPI is being compiled.

3.4.2 Revision studies and analyses are made public and used to guide data users.

Not applicable.

4. Serviceability

4.1 Relevance

4.1.1 Processes to monitor the relevance and practical utility of existing statistics in meeting users' needs are in place.

Many users have a direct and current interest in the CPI and will communicate their user needs either directly or via various official channels and/or the CPI Board. The CPI program is responsive to new user needs, sometimes by means of computing tailor- made derived indices.

4.2 Timeliness and periodicity

4.2.1 Periodicity follows dissemination standards.

The periodicity of the CPI is monthly, in accordance with SDDS requirements.

4.2.2 Timeliness follows dissemination standards

Except for January data, CPI data are disseminated no later than two weeks after the end of the reference month, thereby exceeding SDDS requirements. Timeliness of the data for January is 3 weeks, also within SDDS requirements.

4.3 Consistency

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

As the CPI is a chain index with annual links, and changes in methods etc. usually take place in connection with the change of year, breaks in time series do not normally occur. Erratic movements in the monthly time series, when they occur, are explained according to the contribution of index components to index change.

4.3.2 Statistics are internally consistent.

Not applicable.

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

Comparisons with other price indices or their components, have little relevance.

4.4 Revision policy and practice.

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

Weights and samples are revised annually. Revisions policy not applicable as data are final when first released.

4.4.2 Preliminary data are clearly identified.

Not applicable.

4.4.3 Studies and analyses of revisions are carried out routinely and made public.

Not applicable.

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).

CPI estimates are disseminated at a detailed level and as time series in publications and on the SCB website. Press releases are also published on the website and the most recent CPI figure is given on the SCB's homepage. The data are properly catalogued to allow users to find out what information is available and assist them in locating it. There is free access to SCB's electronic databases where detailed time series from the CPI can be found, as well as the Net Price Index (also part of Official Statistics), the HICP, the two concepts for underlying inflation, UNDI_X and UNDI_{NHX}, and the Price Basic Amount. The price statistics section of the SCB's Internet website gives a comprehensive overview over the price indices available and documentation and reports related to the CPI and derived price indices.

5.1.2 Dissemination media and formats are adequate.

CPI estimates are disseminated through a dedicated monthly CPI publication (SM PR 14), and press release, and through electronic means, cf. above. A dedicated annual publication (SM PR 15) contains long time series and a text section that also deals with the various sources of errors and uncertainty.

5.1.3 Statistics are released on a pre-announced schedule.

Expected release dates for at least one quarter ahead are announced on SCB's Internet website (<http://www.scb.se>). A note to this effect is published in the monthly bulletin "SCB-indikatorer" (Statistics Sweden-Economic Indicators). The release calendar is continuously updated. Precise release dates are announced a week ahead in a press release and in the

electronic service "Key Economic Indicators from Statistics Sweden" (redisseminated by several news agencies, information vendors, etc.)

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

CPI estimates are released simultaneously to all interested users on the date and time specified in the advance release schedule.

5.1.5 Non-published (but non-confidential) sub-aggregates are made available upon request.

Non-confidential data at the compilation level are available upon request, usually for a fee.

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 international standards are annotated.

A comprehensive description of CPI methodology is published, and in general also available on the SCB website. In particular a comprehensive documentation in English: *The Swedish Consumer Price Index, A handbook of methods* was published in March 2001. Additional documentation is available on the SCB website. A number of government White Papers, most recently (SOU 1999:24), have also dealt in depth with the CPI.

5.2.2 Different levels of detail are provided depending on intended audience and type of collection.

Metadata are available at different levels of detail.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized.

A help desk provides prompt and knowledgeable service and support. There is an automatic telephone information service 24 hours a day. A CPI contact person is publicized and available to provide further assistance as required.

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

Information on publications, documentation, and services, including on any charges, is widely available in hard copy and electronic formats.

III. PRICE STATISTICS (PRODUCER PRICE INDEX)

0. Prerequisites of quality

The contents of the DQAF on the National Accounts (Section A) are also valid here, as it mainly deals with the SCB. Therefore, only PPI-specific information is presented below.

0.1 Legal and institutional environment

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

The Statistical Law (2001:99) specifies the responsibility for compiling and disseminating PPI estimates, and the practice is consistent with the Law.

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

Data flow from other data producing agencies accounts for a very small share of total data supply, and is according to informal arrangements. Close contacts are maintained with external data suppliers.

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

See Section A, 0.1.3

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

Statutory provisions include the monthly collection of data.

0.2 Resources

0.2.1 Staff, financial, and computing resources are commensurate with institutional programs.

The PPI is produced in the Price Unit together with the CPI, and the time of several staff members is shared between the two indices. In total the staff resources used to the PPI is estimated at 7-8 staff years. Those responsible for the index find the staff resources allocated to the PPI insufficient to support necessary development work.

The present financial resource allocation is not sufficient. It may, however, be increased as a follow up to the work of the Commission on the Review of Economic Statistics. It might however be commensurate with the overall resource availability of the agency.

Sufficient computing resources are allocated to PPI compilation and dissemination, and best efforts are made to exploit the potential of modern technology.

0.2.2 Measures to ensure efficient use of resources are implemented.

Accounting conventions used within the agency enable measurement of resources used for the PPI. Periodic reviews are undertaken to ensure the unit costs are reasonable and the resources are used efficiently for their intended purpose in the PPI.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality, to monitor the quality of the collection, processing, and dissemination of statistics, to acknowledge and deal with tradeoffs within quality, and to guide planning for existing and emerging needs.

See Section A, 0.3.1 for additional information.

Internal annual quality surveys are performed, and annual plans often include the monitoring of different aspects on quality. Methodological issues are discussed in the Consumer Price Index Board which acts as Advisory Committee for the PPI. However, quality declarations on SCB's website should be kept updated.

Mechanisms aimed at addressing new and emerging data requirements exist, indirectly, through the yearly update of weights and review of the sample at the Combined Nomenclature and establishment levels; and directly through the work of the CPI Board and the Commission on the review of Economic Statistics.

1. Integrity

The contents of the DQAF on the National Accounts (Section A) are also valid here, as it mainly deals with the SCB. Therefore, only PPI-specific information is included.

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis.

See Section A, 1.1.1

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

See Section A, 1.1.2

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

See Section A, 1.1.3.

1.2 Transparency

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

See Section A, 1.2.1.

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

There is no internal governmental access prior to public release, as indicated in Sweden's PPI metadata on the DSBB.

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

Statistical products of the SCB are clearly identified as such.

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

Advance notice of major changes in methodology is given occasionally. When the industrial classification was changed in 1994, the users were informed well in advance to make it possible for them to adjust contractual index arrangements.²⁷

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are clear and publicized.

See Section A, 1.3.1.

2. Methodological soundness

2.1 Concepts and definitions

2.1.1 The overall structure in terms of concepts and definitions follows international standards, guidelines, or agreed practices.

Concepts and definitions for the supply and use of goods and services from 1993 SNA/1995 ESA²⁸ are used to determine the weights for the PPI²⁹. The PPI weights, as well as the prices,

²⁷ However, results were also compiled according to the old classification during the first year after the change.

refer to basic values. In addition a separate index for petroleum products is compiled, where environmental and energy taxes are added to the prices, whereas in the PPI proper, price of petroleum products are measured at basic prices).

Prices refer to ex-works for the Swedish market, f.o.b. for exports, and c.i.f. for imports.

Concepts and definitions such as those given in the Producer Price Index Manual (in preparation) are followed in principle regarding the definition or specification of the individual goods and services on which periodic price measurements are to be taken. However, in practice there may exist deviations regarding the specification detail of price determining characteristics as well as the definition of the price.

2.2 Scope

2.2.1 The scope is broadly consistent with international standards, guidelines, or agreed practices.

All market-producers of goods, according to the production boundary of the *1993 SNA*, are included.

2.3 Classification/sectorization

2.3.1 Classification/ sectorization systems used are broadly consistent with international standards, guidelines, or agreed practices: see dataset-specific framework.

Index numbers are computed for commodity groups according to “Products by SNI” that defines Combined Nomenclature categories grouped according the Swedish extended version of NACE rev. 1.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks.

²⁸ References to *1993 SNA* imply both *1993 SNA/1995 ESA*.

²⁹ The weighting concept for the PPI is *Market output of finished goods and services* (goods and services that can be sold at economically significant prices—often conventionally defined as covering at least half their unit cost of production). *Market output* is defined in the *1993 SNA* as comprising

- Sales, barter
- Change in output inventories of market goods for sale, exclusive of holding gains, including
 - Change in inventories of finished goods
 - Net accumulation of *work-in-progress*
- Output of market goods and services for own final use in consumption or fixed capital formation (as noted under 2.2 below)

Market output of finished goods is market output less work in progress.

Regarding output (for weights of the PPI), market output is valued at basic prices. Output for own-use is valued at equivalent market prices.

2.4.2 Recording is done on an accrual basis.

For industrial products sales of finished goods are used in the weights, i.e., no corrections for changes in inventories are made (following EU guidelines for industrial statistics). The definitions used in the foreign trade statistics apply for exports and imports. The weights for the PPI (domestic market concept) are derived (for CN categories) as sales of domestic output according to the annual Manufacturing Statistics less the corresponding export value according to foreign trade statistics.

2.4.3 Grossing/netting procedures are broadly consistent with international standards, guidelines, or agreed practices.

Stages of processing indices are not produced.

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 annual manufacturing statistics register provides the basis for sample surveys. The register contains all manufacturers of all products within scope, with the exemption of the smallest ones. Thus all manufacturing enterprises with 20 or more employees are fully covered by the industrial production statistics, and for enterprises between 10 and 19 employees data are taken from tax registers, and given an imputed product composition based on the distribution in the bigger enterprises.

Annual business statistics are collected through a regular establishment/enterprise survey program for compiling output weights (PPI); all mining and manufacturing industries are covered. Basic prices are collected monthly and for Mining and Manufacturing, coverage is above 90 percent. For the activities covered, the largest unit sizes are represented. Purposive sampling is used in order to select the products with the largest values and the largest producers.

Price data collected are sufficiently detailed by product but don't always use sufficiently detailed product specifications.

The above mentioned surveys cover corporate as well as unincorporated enterprises.

Periodic (two or more years) surveys/censuses of output and intermediate consumption are not conducted on a regular basis.³⁰

There are provisions to conduct ad-hoc surveys, if necessary.

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 PPI estimates. Collected prices are measured as average monthly invoiced prices.

Source data are broadly consistent with the time of recording, reference periods and valuation of PPI estimates, though output used in the weights is measured as sales.

3.1.3 Source data are timely.

The weights refer to the year t-1, but source data from industrial and foreign trade statistics are not available that early (just after the end of the year) and therefore the t-2 data are price updated to t-1.

Price collection takes place in the period from the 1st to the 20th in the month following the reference month. The collected prices are being processed on a current basis so that the PPI can be published around the 25th in the month. Other systems of price statistics from which source data are used include in particular prices of agricultural products.

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques

Weights are applied at the most detailed level (single price relatives). Hence, no elementary aggregate indices are computed. Aggregation is according to a Laspeyres-type index where annual links (base period December year t-1) are aggregated using price-updated value weights referring to year t-2). Prices for temporarily missing products are carried forward. There are no seasonal adjustments. Seasonal products are considered comparable regardless of season. For seasonal unavailability carry forward is applied. Permanently unavailable products are replaced in the sample. Most frequently price differences are assumed to reflect the value of quality differences. New products are introduced into the sample as they gain sufficient market share, provided it has come to the SCB's knowledge.

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

³⁰ Applicable only to situations where annual censuses/surveys are not available and annual estimates are developed by extrapolating benchmark data using appropriate indicators.

Within the area of goods, a sizeable part of the economy is covered by sources used for regular PPI compilation. Special price indices for selected services are now calculated on a current basis.

3.3 Assessment and validation

3.3.1 Source data

Information is not available about sampling errors, as the price sample is not random.³¹ Quantifiable information is not available about non-sampling errors, but the Quality Declaration (on the SCB's web site) discusses the various sources of uncertainty, and classifies some as more important than others. It is stated that "errors in measurement together with the sample is probably the major contributor to the degree of uncertainty." The non-response in the price surveys is insignificant, around one percent, and is usually not due to refusal, but rather to the contact person not being available.

The directly observed data used as weights account for more than 90 percent of total output. In the monthly price survey, the sampled products account for less than 20 percent of total output.

The source data are analyzed to check for temporal consistency

3.3.2 Main intermediate results are validated against other information where applicable

Only limited comparisons are made between the PPI for individual products and estimates from other sources such as the CPI, export price indices, and import price indices. There are differences in methodology and timing relative to the CPI, and the quarterly import and export prices published in connection with the foreign trade statistics are to a great extent based on the prices collected for the PPI. There are thus no independently calculated trade unit values to facilitate comparison.

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

Not applicable

³¹ This refers to standard errors, or coefficients of variation.

3.4 Revision studies

3.4.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes.

Not Applicable

3.4.2 Revision studies and analyses are made public and used to guide data users.

Not Applicable.

4. Serviceability

4.1 Relevance

4.1.1 Relevance and practical utility of existing statistics in meeting users' needs are monitored occasionally.

Important users are consulted in order meet their needs. The CPI Board in its advisory function for the PPI also represents users needs. The National Accounts Unit of the SCB is consulted on the needs for the constant price calculations. There is also feedback from customers who commission calculations of special price aggregates etc.

4.2 Timeliness and periodicity

4.2.1 Periodicity follows dissemination standards.

The periodicity of PPI is monthly, thereby meeting SDDS requirements.

4.2.2 Timeliness follows dissemination standards

The timeliness of monthly PPI data is less than one month except for the January index that, due the change of weights and sample, is released about 5 weeks after the reference month. Considering the data collection schedule there is no possibility of reducing the production time.

4.3 Consistency

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

The present PPI, which uses the Industrial Classification SNI92, is reconcilable from 1990 onwards. By linking the present index (1990=100) to the historical index (1968=100) covering the period 1969-94, a consistent time series is available at appropriate levels of aggregation. This has, however, not been done by the SCB. The discontinued series is considered to be the best estimation of aggregated price change during the overlapping

period. Erratic movements in the monthly time series, when they occur, are measured according to the contribution of index components to index change. Methodological changes and changes in data sources are linked in and thus do not normally give rise to breaks.

4.3.2 Statistics are internally consistent.

PPIs are computed for product groups only. Consistency problems do therefore not arise.

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

The price changes are normally consistent among comparable components of the PPI and components of the import/ export price indices. However CPI methodology and timing differ considerably so that no direct comparability exist.

4.4 Revision policy and practice

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

Weights and samples are revised annually with the release of the January index. Index numbers are not revised

4.4.2 Preliminary data are clearly identified.

Not applicable - first published results are final.

4.4.3 Studies and analyses of revisions are carried out routinely and made public.

Not Applicable

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).

PPI estimates are disseminated in the form of five index series, each with a detailed product break down: These series are: PPI —Domestic market; Export Price Index; Import Price Index, which are the primary series, and a PPI inclusive of exports that combines the PPI — Domestic Market and the Export Price Index, and finally the Price Index for Domestic Supply that combines the PPI – Domestic Market and the Import Price Index.

The data are catalogued to allow users to find out what information is available and assist them in locating it.

5.1.2 Dissemination media and formats are adequate.

PPI estimates are disseminated through a dedicated monthly PPI publication, a press release, and on the SCB's Internet website.

5.1.3 Statistics are released on a pre-announced schedule.

PPI estimates are released according to an advance release calendar that meets the requirements of the SDDS. Expected release dates for at least one quarter ahead are announced on the SCB Internet web site (<http://www.scb.se>). A note to this effect is published in the monthly bulletin "SCB-indikatorer" (Statistics Sweden-Economic Indicators). The release calendar is continuously updated. Precise release dates are announced a week ahead in a press release and in the electronic service "Key Economic Indicators from Statistics Sweden" which are redisseminated by several news agencies, information vendors, etc.

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

PPI estimates are released simultaneously to all interested users on the date and time specified in the advance release schedule

5.1.5 Non-published (but non-confidential) sub-aggregates are made available upon request.

Non-confidential data at the compilation level are available upon request, often for a fee.

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 international standards are annotated.

Updated description of PPI methodology is available in the quality declaration on SCB's web site (about 10 pages) that may be sufficient for most users. More detailed documentation, inclusive the documentation of the hedonic price index for personal computers, is about ten years old, but still useful.

5.2.2 Different levels of detail are provided depending on intended audience and type of collection.

Updated metadata are at present not available at a very high levels of detail

5.3 Assistance to users

5.3.1 Contact person is publicized.

A help desk, both telephone and e-mail, provides prompt and knowledgeable service and support. A PPI contact person is publicized (also in connection with the quality declaration on the web site) and available to provide further assistance as required.

5.3.2 Catalogues of publications, documents, and other services, including information on any charges, are not widely available.

Such information is made available as part of SCB's general dissemination policy, and especially on its web site.

IV. GOVERNMENT FINANCE STATISTICS

0. Pre-requisites of quality

0.1 Legal and institutional environment

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

The SCB compiles and publishes general government statistics in the context of the national accounts. It collects information from the ESV (on central government operations) and the RGK (on central government financing) both under the Ministry of Finance as well as the social security funds (the old-age pension, and the premium pension funds), and local government (289 local authorities, the Swedish federation of County Councils on the 20 county councils, 64 statutory joint authorities and local government non-profit organizations). The SCB also collects data on the financial accounts of all general government institutional units. As in several other areas, the SCB has entered into cooperation agreements with various other public authorities that have statistical responsibilities and produce the Official Statistics in these areas on the SCB's behalf. Official Statistics are governed by the Official Statistics Act of April 1, 2001. The SCB also bears overall responsibility for coordinating and supervising Official Statistics and elaborating statistical nomenclatures and classifications.

However, no single agency has been assigned to compile comprehensive general government statistics in the Government Finance Statistics (GFS) context. The NIER rearranges the information from the national accounts to prepare an analytical presentation of the fiscal data.

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

The ESV compiles data on the central government budget, combined with the financing information provided by the RGK. These data are used to inform the compilation of the data on the general government sector in the national accounts compiled by the SCB.

The 1992 Official Statistics Act (which was updated on April 1, 2001) designates the SCB (under the Ministry of Justice) as the organ responsible for the supervision and coordination of all Official Statistics, providing the legal basis for inter-agency coordination. At an operational level, most of the source data on government are recombined within the MOF to produce budget papers based on the reporting of the ESV, the RGK, and the NIER data.

There is close collaboration between the SCB, which compiles the general government statistics in the context of the national accounts, and the ESV and RGK, which compile the operations and financing data on the central government. The ESV provides the SCB with information on the operations of the central government, the extrabudgetary funds, and the premium pension funds. The RGK provides the SCB with information on the financing of the central government. The SCB collects information from the other units of general government through surveys (for local authorities *primärkommunerna*) and other data requests (for example, on non-financial operations of the county councils from the Swedish Federation of County Councils and on operations of the old age pension fund from the National Social Insurance Board).

On July 1, 1989 the RGK, after 200 years of control by parliament, became directly subordinate to the government. A Board was established to lay down limits and guidelines for the RGK's borrowing activities. A funding and budget process was developed to replace the detailed control of activities. Numerous issues that were previously decided by Commissioners have now been delegated to the RGK itself. This change in control required an amendment to the constitution, a process that involved two parliamentary votes (that were separated by a general election).

The SCB has responsibility for compiling the national accounts; the general government statistics are compiled and presented in this context. Thus the general government statistics derivation links are built into the financial information management system used for budgeting and accounting purposes. The ESV works closely with the SCB to provide the necessary information on the central government (based on the RIKS financial information management system.) The SCB collects the other needed information directly from the other government entities.

Perhaps the most important working group on government statistics (Avstämning Staten - ASTA) meets quarterly and is composed of the SCB, ESV, MOF, and the NIER. The working group concentrates on linkages between the budget and the national accounts with respect to central government statistics.

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

Confidentiality is generally not an issues. However, the SCB treats its collection and processing of government statistics in the same manner as other source data. Confidentiality is specified in the Secrecy Act (1980:100).

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

The SCB applies the Official Statistics Act (2001:99) to require local governments and social security funds to report within a reasonable time frame. Central government respondents are required by Statistics Ordinance (2001:100, paragraph 6) to provide data on government agencies for statistical purposes.

0.2 Resources

0.2.1 Staff, financial, and computing resources are commensurate with institutional programs.

The SCB counts on 10 employees to compile the general government statistics on a full-time basis. However, additional human resources would be useful, especially if GFS compilation responsibility (perhaps in the context of EU reporting requirements and following the recommendations of the IMF's *Government Finance Statistics Manual-GFSM 2001*) were added to the work program. Less than fully competitive remuneration of employees weakens the SCB's ability to retain skilled staff and to attract new recruits. A modern computer system exists to collect and process data, maintain databases, receive source data automatically and to disseminate compiled statistics.

The ESV has 10-15 staff working directly on the central government statistics and about 200 employees in total; however, more human resources may be needed if additional requirements follow the implementation of the GFSM 2001 (which possibly will be required by EUROSTAT). The RGK notes that its staff level is currently sufficient. Both the ESV and RGK note that computing resources are adequate.

The NIER has two employees that work on annual fiscal data, placing the national accounts information into an analytical format, and participating in the ASTA working group.

A program of regular training is in place in the SCB to maintain a sufficient number of trained staff. The SCB believes that on-going training is sufficient. It also runs seminars and workshops on concepts and methods for SCB staff and other government agencies. The ESV holds special courses in-house and devotes 20 days per person per year for professional development.

The links between accounting and budgeting source data and central government data used in the national accounts (including bridge and derivation tables) are stored electronically by the

ESV in a form that makes it easy to access and update. However, the budget format changes each year, due to policy decisions, and these derivation tables must be updated each year. The ESV uses the RIKS and FRANGO computer systems to manage data. Computers and electronic reporting and data collection and processing are widespread in the ESV.

0.2.2 Measures to ensure efficient use of resources are implemented.

Generally, the costs associated with compiling general government statistics are not measured. The SCB views the national accounts as a single product and the cost of compiling general government statistics has not been estimated. The RGK notes that its marginal costs for statistics are negligible.

The SCB and ESV are constantly searching for ways to improve the efficient use of resources. They set priorities among their tasks to ensure the most efficient use of their resources.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality, to monitor the quality of the collection, processing, and dissemination of statistics, to acknowledge and deal with tradeoffs within quality, and to guide planning for existing and emerging needs.

Quality is an integral part of the SCB mission statement. The mission of the SCB is to produce and make available official statistics relating to different areas of society, which can serve as a basis for decisions, public debate and research. These statistics are to be objective, reliable, comparable, up-to-date and easily accessible. It has particular responsibility for Official Statistics in certain broad social fields, including the economy, trade and industry, and prices. The SCB follows the same fundamental principles in all its work and aims to deliver products and services that are of a consistent high quality and that are objective and reliable.

The ESV also maintains quality consciousness and this priority is well recognized by management. Data quality work in ESV has been conducted since ESV started operations in 1998, based on the implementation of ISO 9001. ESV has adopted a quality policy, a plan for the quality work, and produced process mapping for about 70 percent of work processes at ESV. The ultimate responsibility for the quality work rests with the Director General. Special support is given by a quality coordinator and two extra coordinators in each department of ESV. At the end of 2002, ESV will probably be ready for certifying. However, its mandate to monitor central government operations emphasizes the timeliness and accuracy aspects of quality.

The RGK examines the central government's balance sheet and prepares a weekly statistical report..

Data checks and validation procedures help ensure high quality output. The SCB data collections from local governments have numerous checks. The pension funds are externally audited and the ESV and RGK central government data are audited independently (see 1.2.2. below).

The ESV recognizes the trade-off between quality statistics and short deadlines required by the government to run its operations. This trade-off has been explicitly recognized in the context of general government statistics produced in the context of the national accounts and the SCB copes with this trade-off by careful selecting work priorities.

Due to quality considerations, the SCB has postponed work on revising historical series prior to 1993 that would focus on the details of the general government sector of the national accounts. In this context, the development of price indices to estimate constant prices for non-market output also has been delayed. Also, detailed work on complete input-output tables has been set aside. None of this work would be a priority from the GFS perspective. On the other hand, no work has been done or is currently contemplated on the analytical framework and presentation of government finance statistics.

The SCB fiscal data are compiled following the European Union standards consistent with the *ESA 95* and the *1993 SNA*. An external audit of ESV and RGK central government data is undertaken by the autonomous National Audit Office (RRV), an independent arm of the executive branch of government, which sends its reports to Parliament. The RRV's mandate emphasizes performance and value for money. An RRV report is attached to the ESV report on central government operations sent to Parliament. RRV reports are publicly available on its web site: (<http://www.rrv.se/>). ESV annual data for 1998 were independently audited by PriceWaterhouseCoopers.

1. Integrity

1.1 Professionalism

The SCB upholds professional standards and behavior in its rules of conduct by staff. The Statistical Law, the Regulation on Official Statistics and the Directive for the SCB (1988:137) guarantee the professional independence of the SCB and protects the SCB from improper external influence on the content or release of statistical information.

1.1.1 Statistics are compiled on an impartial basis.

The SCB has a long historical tradition of independence, which is supported by law. The Official Statistics Act designates the SCB (under the Ministry of Justice) as the organ of Official Statistics, providing the legal basis for inter-agency coordination.

An extensive and systematic program of training and professional development is supported in the SCB for staff working on general government data. These efforts include encouraging the publication of methodological papers, participation in related seminars and conferences,

as well as general professional development in relevant areas, such data quality and fiscal policy. The SCB also provides workshops and lectures for other government agencies on the compilation of general government statistics in the context of the national accounts. The ESV has a research council, research days for outsiders to learn about the practices of the ESV, and exchanges with other countries.

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

The SCB, reports to the Ministry of Justice only on its use of its own budgetary resource allocation. It is an independent agency and has the same degree of autonomy as other agencies. Neither the government nor Parliament can annul or otherwise interfere with decisions made by individual agency concerning the application of a law (such as the Statistical Law) pertaining to that agency.

Certain statistical techniques are mandated by the EU in the context of the *ESA 95*, especially the excessive deficit procedure defined by the Maastricht Treaty (Article 104).

As indicated above, changes to the SCB's statistical processes are an integral part of the actions of that agency and are not subject to influence by political considerations. There is a powerful moral prohibition against "Ministerial Governing" (that is political interference in the technical work of statistical agencies).

1.1.3 The appropriate statistical entity (e.g., GFS compiling unit) is entitled to comment on erroneous interpretation and misuse of statistics.

The SCB and ESV can comment on any erroneous interpretation or misuse of statistics, but this is seldom necessary. Misinterpretations may not be discovered by these agencies. Public agencies can comment on the government statistics without restriction.

1.2 Transparency

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

The Official Statistics Act and the related regulations are available to the public, partly on the SCB web site and in publications on Official Statistics. The Data Act of 1973 (1973:289) and the Secrecy Act of 1980 (1980:100) guarantee confidential treatment of all reported data and restricted public access to these data.

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

The ESV provides monthly central government budget outcomes to the MOF five days prior to its public dissemination (so that measures can be taken if necessary to offset any unfavorable developments). Similarly, the SCB shares working materials with the MOF and

NIER; however, these data are not shared with political level staff. This internal access to the statistics prior to their release is not publicly identified or announced.

All government statistics are released to the public simultaneously, frequently via the web. Except as noted above, neither the government nor the parliament has access to the data before release. Upon release of the data, neither the government nor parliament adds commentary. The ESV coordinates with the SCB and MOF prior to publication.

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

All statistical agencies involved in the collection, processing and dissemination of government finance statistics clearly identify themselves in their public statements and data reports. All statistics are labeled transparently as products of the producing agency.

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

Major changes in methodology are announced to the public in advance. For example, the SCB announced more than one year in advance that the fiscal year was to shift to the calendar year in 1996. Another example was the announcement that the general government sector (in the national accounts) would follow the *ESA 95* beginning in May 1999. Minor changes are explained simultaneously with the dissemination of the data.

Significant breaks in time series are described in the publication containing the data. For example, the SCB report for 2000 noted that the Swedish Church was excluded from the general government (and reclassified as a non-profit institution serving households) beginning in the first quarter of 2000. Consideration is being given to adding more detailed notes to tables to remind users of breaks in time series.

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are clear and publicized.

The ethics policy and insider information instructions for the ESV are universally distributed and agreed by staff. The SCB also has a code of conduct for Official Statistics that all staff members must sign.

2. Methodological soundness

2.1 Concepts and definitions

2.1.1 The overall structure in terms of concepts and definitions follows international standards, guidelines, or agreed practices. The SCB compiles the general government statistics in the context of the national accounts based on the *ESA 95*, which is broadly consistent with the *1993 SNA*. No plans have been developed to compile an analytical

framework following the forthcoming GFSM 2001. The NIER derives annual figures for the general and central government from the information in the national accounts and presents this information in an analytical format. These data are presented quarterly in their publications and on the Internet website: (www.konj.se/Eng/index.htm). In documents that accompany the budget, the MOF presents an analytical framework showing the previous year's general (and central) government aggregates for revenue, expenditure, and net lending/borrowing along with annual forecasts. However, these data are not statistics in the sense that they are not accompanied by full documentation on concepts, sources, and methods. The MOF data are not presented as time series and there is no separate dissemination. There is no assignment of responsibility to any particular agency to produce such statistics. An analytical framework and details supporting the aggregates could be developed further following the recommendations in the GFSM 2001.

2.2 Scope

2.2.1 The scope is broadly consistent with international standards, guidelines, or agreed practices.

General government statistics, including budgetary and extra-budgetary central government, social security funds and local government (local authorities, county councils, statutory joint authorities and non-profit institutions), are compiled and published by the SCB in the context of the national accounts. However, the definition of the central government differs among publications of the ESV (concerning budgetary and extra-budgetary funds) and between the ESV data and the SCB data (concerning the treatment of government-owned corporations). For example, the ESV includes four public enterprises in its definition of "legal central government" (based on at least 20 percent ownership), while the SCB treats these as nonfinancial corporations. On the other hand, some corporations owned by the central government are included in the central government by the SCB but are excluded from the ESV's "legal central government."

Data on economic flows and stocks between general government units to enable consolidated statistics to be produced are available and presented by the SCB in the context of the national accounts. These data are available on an annual basis. Quarterly data are only available for the central government operations and financing (from the ESV), as well as general government financing (from the SCB).

All data prepared by the relevant agencies represent the latest available information -thus preliminary data based on partial coverage of the general government sector would be replaced by data based on full coverage as soon as practicable. Preliminary data are not distinguished; however compilers note that users generally understand that the first publication of an observation may be updated in subsequent periods. ESV data on the central government usually remain unchanged following an audit by the National Audit Office (RRV) (see 3.1.1), which can take up to two years after the reference year.

In general, government activity is carried out by general government units. Extra-budgetary funds are generally incorporated in the presentations on the central government. Similarly, the social security funds (AP and PPM) are included in the general government.

All quasi-fiscal activities are included in the general government statistics.

The ESV compiles and publishes information on the central government operations on a modified cash basis (approximating accrual) and financing on a cash basis. The RGK has data on transactions in liabilities for the central government, broken down by instrument and classified by sector of the counterpart to the financial instrument. The SCB presents data for the general government in the national accounts and this information is rearranged by the NIER. However the rearranged information does not completely cover all flows and stocks within the scope of the general government. The following tables that follow a standard analytical presentation according to the draft *GFSM 2001* are not prepared: b, c, e, g, h, i, j, and k. Tables a, d, and f are produced by the NIER, but do not follow the *GFSM 2001*.

- a) Statement of Government Operations (Table 4.1)
- b) Statement of Sources and Uses of Cash (Table 4.2)
- c) Statement of Other Economic Flows (Table 4.3)
- d) Classification of Revenue (Table 5.1)
- e) Classification of Expense by Function of Government (Table 6.1)
- f) Economic Classification of Expense (Table 6.2)
- g) Balance Sheet and detailed components (Tables 7.1, 7.2, 7.3, and 7.4)
- h) Classification of Transactions in Nonfinancial Assets (Table 8.1)
- i) Transactions in Financial Assets Classified by Financial Instrument (Table 8.2)
- j) Transactions in Liabilities Classified by Financial Instrument (Table 8.3)
- k) Transactions in Financial Assets and Liabilities Classified by Sector of the Counterpart to the Financial Instrument (Table 8.4)

2.3 Classification/sectorization

2.3.1 Classification/ sectorization systems used are broadly consistent with international standards, guidelines, or agreed practices.

The SCB compiles the general government statistics in the context of the national accounts, which are fully consistent with the *ESA 95* and, therefore, the *1993 SNA*. The methodology followed is outlined in the *ESA 95*.

The institutional sector of the general government and its subsectors are compiled in the context of the national accounts by the SCB. In its annual publication, the ESV consolidates the central government agencies with the accounts of the central bank, social security funds, and its definition of government corporations (in which the government owns 20 percent equity). However, neither a consolidated nonfinancial public sector nor an overall public sector (including or excluding the central bank) is compiled by any statistical agency.

2.4 Basis of recording

2.4.1 Market prices are used to value flows and stocks.

The financial assets and liabilities of the central government are based on market prices at acquisition and disposal, but are not regularly revalued (market-to-market), except for the revaluations associated with foreign currency liabilities of the central government, which are revalued at the end of each month—actual or mid-point exchange rates are used to convert transactions to local currency. Central government fixed assets are valued at initial (historical) cost less accumulated depreciation (not consumption of fixed capital) and fixed assets received for free are valued at market prices. Fixed assets include shares in subsidiaries and associated companies (thereby mixing nonfinancial and financial assets). The assets of the social security funds are valued using market prices. Local government assets and liabilities are valued using a mixture of face values, current market prices, and perhaps historical costs.

2.4.2 Recording is done on an accrual basis.

Reporting units are urged to report on an accrual basis for the general government data compiled by the SCB in the context of the national accounts. In practice, many central government transactions are measured on a cash basis and adjustments are made to approximate accrual recording (modified cash). The ESV compiles both cash and accrual based statements. The RGK provides data to the SCB on an accrual basis for central government financing and provides cash basis data to the ESV, which is used to establish the cash based net lending/borrowing of the central government (in the so- called Statement of Financial Position of the Legal Entity “Central Government” in the ESV annual report and consolidated financial statements document).

Efforts are on-going to use accrual accounting, to the extent possible. The authorities state that they have implemented accrual recording, therefore no formal arrangements have been made to convert cash recording to an accrual basis, (see above).

General government statistics are not compiled on a cash basis. The ESV presents annual data compiled on an accrual basis. The ESV has adjustment lines explicitly identified to reconcile the cash based net lending/borrowing with the accrual operations affecting net lending/borrowing. Comprehensive data on cash resources and uses yielding a cash surplus/deficit are not compiled.

2.4.3 Grossing/netting procedures are broadly consistent with international standards, guidelines, or agreed practices.

Consistent with the *ESA 95 (1993 SNA)*, all transactions are shown on a gross basis by the SCB. The ESV nets sales revenues, some payroll taxes, and social security contributions in its statistics on the central government budget operations.

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 ESV collects data covering central government and PPM transactions, except for data regarding central government financing which are collected by the RGK. The SCB collects the data on both flows and stocks for the local authorities (primärkommuner) and the old age pension, while the Swedish Federation of County Councils collects data from all 20 county councils. The SCB consolidates the data in the context of the national accounts, but these data could be used to compile a consolidated general government following the forthcoming *GFSM 2001*.

The individual agencies present data that could allow users to consolidate the various levels of government. However, users would need to exert substantial effort to do this.

The ESV phones agencies that fail to report. Most reporting is automated. Sample surveys (see below) and statistical methods are used to deal with nonresponse.

The SCB uses annual census (and quarterly survey) data to collect information on local authorities. Quarterly surveys apply accepted mathematical surveying techniques. Stratified samples are used to take into account different local authorities (primärkommuner) sizes. Sample data are benchmarked annually to fully enumerated data to ensure that sampling errors remain within acceptable limits.

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

The charts of accounts, covering both budgetary and extra-budgetary accounts, define the items that support the accounting systems. It is sufficiently detailed for government statistical purposes (on a national accounts basis) and could be used to map, albeit with difficulty, from the account codes to general government codes. GFS codes are not included on the chart of accounts, because no government finance statistics are compiled. Certain difficulties are encountered concerning the coding of capital formation on roads and defense.

In the case of functional (COFOG) categories, administrative categories are sufficiently homogeneous and aligned with COFOG categories to allow all expenditures for that category to be assigned to the appropriate functional classification. However, the needs of GFS are not taken into account in defining programs and projects. The new COFOG classification is being implemented through cooperation between the ESV and the SCB.

The ESV monitors and reports on the outcome of the budget in a separate but linkable manner from its compilation of central government statistics reported for national accounts

purposes. The budget outcome reports are monthly and annual. Central government statistics reported for national accounts purposes are reported quarterly. The ESV can map between these two types of data sets.

The budgetary information prepared by the ESV contains derivation tables for government statistical purposes. While this derivation is automatic within a fiscal (calendar) year, it must be redone each year, because the budget changes to adapt to policy needs.

The quarterly budgetary information prepared by the ESV is appropriate for the compilation of central government data in the context of the national accounts concerning the time of recording and valuation of source data. Many items are reported on a modified cash basis. (For example, tax revenue is time adjusted and an expense is recorded when a bill is presented.) The Financial Management Information System used by the ESV is called RIKS and integrates the preparation of central government budget policy data, accounting reports, and data for compiling government data in the national accounts. Source data in the centralized RIKS system covers the full range of economic flows and stocks. Compilation of general government statistics, from accounting reports, is perceived as a secondary exercise for the local governments.

3.1.3 Source data are timely.

The RIKS system feeds into the monthly central government budget report, the quarterly report on net lending/borrowing used for the national accounts, and annual reports on the central government budget outcome and the consolidated financial statements. The process has been upgraded to improve the timeliness of the annual data that are now reported by March 15 of each year—prior to 2001, the annual report was supplied by end-May.

Extra-budgetary agencies and the social security funds can provide data on a monthly basis.

Data on the local governments are provided through quarterly surveys and an annual census. The censuses for the end-of-the-year data are complete by September each year.

3.2 Statistical technique

3.2.1 Data compilation employs sound statistical techniques

Estimation of missing data is based on accepted statistical processes, especially for local government data compilation. Most other records are administrative government records that do not require estimation of missing data, because instances of missing data are rare.

Sample surveys used for local authorities' (primärkommuner) data are based on internationally accepted sampling principles. Surveys of local authorities (primärkommuner) cover all local authorities with a population above 30,000 and are based on accepted mathematical surveying techniques. Stratified samples are used to take into account different

local government sizes. Sample data are benchmarked to fully enumerated data annually to ensure that sampling errors remain within acceptable limits.

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

The use of other statistical procedures is rarely necessary. For the general government, the SCB time adjusts the data on value added taxes to record them on an accrual basis. When necessary, the ESV may estimate total spending using an extrapolation based on data from the previous year or months, in consultation with the agency involved.

3.3 Assessment and validation

3.3.1 Source data—including censuses, sample surveys and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and non-sampling error; the results of the assessments are monitored and made available to guide planning.

There are no material gaps in coverage or completeness for the general government.

The trade-off between timeliness and accuracy is well recognized and balanced. While the most accurate government data would be based on audited data, reporting usually is not delayed until audited data become available. The quarterly general government financing data is reported within 5 months of the end of the reference quarter and work is in progress to reduce this to within 3 months to be consistent with EMU rules. The annual report on central government financial statements is published after auditing, but the extra time lag has been substantially reduced and is now insignificant. The monthly central government budget outcome is used for fiscal policy purposes. The Ministry of Finance (in collaboration with the NIER) produces revenue, expenditure and financing forecasts on the same basis as actual data.

The status of the data for each period, and any major quality reservations that compilers have about the data, are identified when the data are published or disseminated.

For the general government, all data are preliminary in the sense that new information is incorporated as soon as it becomes available and the series are constantly updated. Preliminary data are replaced by final audited data for the central government. The RRV audits the ESV data (by March 1) that appears in the annual financial statements report before it is published (on March 15). While no blanket statement is published with the data, and no marks or footnotes identify preliminary data, the authorities believe that users are generally aware of this revision procedure.

Complete data for fiscal policymaking are released as soon as they become available.

The authorities report revised data at each regular release point. Whenever material differences or large corrections have been made, they are identified and explained.

3.3.2 Main intermediate results are validated against other information where applicable.

The SCB reconciles the major aggregates within the general government statistics, as well as across sectors in the context of the national accounts. The SCB validates the national debt in foreign currency and bonds. The SCB and the ESV check consistency between flows and stocks.

3.3.3 Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated and made available to guide users.

The RGK provides data on the financing of central government operations to the ESV and the SCB. The ESV explicitly identifies adjustment lines in revenue and expenditure to reconcile the cash based net lending/borrowing reported by the RGK with the ESV central government operations accrual (that is, modified cash) basis. At all levels of government, any unexpected values are investigated, discrepancies are identified and revisions are made, when possible.

3.4 Revision studies

3.4.1 Studies and analysis of revisions are carried out routinely and used to inform statistical processes.

No revision studies are conducted; however, if material discrepancies are identified, this may give rise to a special study.

3.4.2 Revisions studies and analyses are made public and used to guide data users.

These specialized studies are not made available to the public. However, if revisions are required to the data as a result of such a study, explanatory notes are provided with the data.

4. Serviceability

4.1 Relevance

4.1.1 Processes to monitor the relevance and practical utility of existing statistics in meeting users' needs are in place.

Processes seem adequate for users to give feedback on the data for the central government (through contacts between the MOF and data compilers). The ASTA working group, that includes the NIER, will have a positive impact by making improvements to central government statistics. The MOF prepares a summary analytical framework for one year of historical data as part of the budgetary preparations and projections. Data used for budget monitoring are limited to the central government budget outcomes statistics compiled by the ESV. The annual general government statistics compiled for the national accounts is released

in time for use in the Spring Budget Bill—however, the discrepancy in net lending/borrowing described below (4.3.2.) limits the usefulness of these data.

Complete general government data are available only annually. The authorities are currently working to develop quarterly data for general government in the context of quarterly national accounts on a more timely basis, in part to fulfill the requirements of EUROSTAT. However, the quality of these data are not yet sufficient and the timeframe for releasing these data has not been set. The production and release of the ESV data on the central government has been adopted to meet the needs of budget preparation.

4.2 Timeliness and periodicity

Timeliness and periodicity meet the SDDS.

4.2.1 Periodicity follows dissemination standards.

The ESV publishes monthly, quarterly and annual central government operations. The RGK disseminates data on central government debt weekly.

General government operations are published by the SCB annually via the internet. The SCB also disseminates quarterly financial accounts data for the general government. A complete set of quarterly general government accounts are not compiled.

4.2.2 Timeliness follows dissemination standards.

The ESV releases the data on monthly central government operations within one month after the end of the reference month, in line with SDDS requirements. The quarterly publication used as an input in the national accounts is released 45 days after the end of the quarter. Its annual publications (on central government budget outcomes and on the central government financial statements) are released 2½ months after the end of the year.

The RGK releases the data on weekly central government debt two-three banking days after the end of the week and monthly data on the seventh business day after the end of the reference month, in line with SDDS requirements.

The SCB releases the annual data on general government operations (on revenue, expenditure, and net lending/borrowing) within three months after the end of the reference year. In addition, the SCB releases the annual data on general government financing within four months after the end of the reference year. In general, the quarterly general government financing data are made available four-five months after the reference quarter. The authorities are working on a project to improve the timeliness of the quarterly financial accounts data to within 3 months after the end of the reference period.

4.3 Consistency

The presentation of the fiscal data follows the *ESA 95*; it does not follow the 1986 GFS manual or the forthcoming *GFSM 2001*.

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

There are no GFS time series that track the implementation of fiscal policies. Non-statistical agencies may explain departures from past trends. For example, in its yearbook the Swedish National Tax Board described significant increases in tax revenue (adjusted for inflation) with reference to changes in tax rates and/or economic conditions which caused the increase. Similarly, in the MOF budget papers, major changes in expenditures are explained in terms of changes to fiscal policies and/or increases in demand for government services or transfers. Unchanged trends in revenue or expenditure, despite known changes to fiscal policies and/or economic conditions, also are explained. The NIER presents annual historical data along with its forecasts, but no explanations relating to underlying fiscal policy or economic developments are included with the data. Moreover, the NIER presentation does not clearly distinguish among forecasts, estimates, and historical series to facilitate consistency checks over time.

For the general government statistics in the context of the national accounts, changes arising due to major methodological improvements or changes in the statistical system are fully explained and the related time-series are revised covering at least the preceding five years.

Breaks in series due to methodological changes or changes in the statistical system are not clearly identified in the data; however, the publications that first reflect such changes contain comprehensive explanations.

4.3.2 *Statistics are internally consistent (e.g., accounting identities observed).*

Internal inconsistencies exist for the general government; discrepancies on net lending/borrowing are significant. For the central government, it is not evident that opening and closing balance sheets can be reconciled by identified economic flows (including revaluations and volume changes in assets). There is no user-friendly map to get an overall picture of fiscal developments. It is difficult for users to reconcile the information disseminated by the NIER on the central government or the general government from available data sources. Statistics vary among the presentations on the scope, basis of recording, sources, and methods, which adds a degree of complication for users wishing to interpret the data.

For general government financial accounts, opening and closing balance sheets for each asset and liability category equal the sum of transactions, net holding gains and losses and other changes to the volume of assets for that category. However, for a user, the means of checking the consistency between the stock and flow data by an analysis of opening and closing balance sheets and economic flows (especially for the central government) is not apparent.

None of the items are derived as a residual in the financial accounts to ensure internal consistency for the general government. For the central government, the annual “Statement of Financial Position of the Legal Entity, Central Government” uses the cash measurement of net borrowing (provided by the RGK) measured by financial flows and derives adjustments to payment operations residually. This residual represents the difference between the change in the cash balance, on one hand, and government operations, and investments on the other. While these adjustments to payments are published, information on the underlying methodology is not published.

There have been large and unresolved discrepancies over a period of several years. The SCB compiles the transactions for revenue, expense and nonfinancial assets separately from its compilation of the financial accounts. These results are reported separately for the financial accounts, using the national accounts framework. A discrepancy results for net lending/borrowing produced in these two ways. For some years, the discrepancy remains significant and unresolved, especially during the banking crisis (around 1992-93). In the mid-1990s, the discrepancies were successfully reduced— however, resources have not yet been made available to undertake a similar exercise for the late 1990s. In 1998, “net lending/borrowing according to the real accounts” was not equal to “net lending/borrowing according to the financial accounts” (SEK 33.2 billion (3½ percent of GDP) versus SEK 47.7 billion (5 percent of GDP), respectively; and in 1999, SEK 29.0 billion (3 percent of GDP) versus SEK 49.0 billion (5 percent of GDP)). While the size of government is large in Sweden (with revenue about 60 percent of GDP), these discrepancies remain significant. Parenthetically, the use of constant revisions gives rise to apparent discrepancies across publications.

The ESV can link central government budget outcomes on a cash basis to their “accrual” accounts. However, there is no statement on the sources and uses of cash for the general government and therefore it is not possible to show consistency between the cash balance and the general government statistics on an accrual basis as presented in the national accounts. On the other hand, in the context of the excess deficit procedure there is a reconciliation of the net lending/borrowing on an accrual basis (as reported by the MOF to the EU) with a cash balance and also with the consolidated gross debt reported for the excess deficit procedure. This reconciliation is shown in an appendix that accompanies the budget documents.

Procedures to benchmark monthly and quarterly data to annual data are conducted in the context of the national accounts. The SCB benchmarks quarterly general government data to the annual data. The ESV (for central government net lending/borrowing “accrual” data) uses income statements received in the second and fourth quarters to revise the first and third quarter data, respectively. As noted above, the quarterly surveys of local governments are benchmarked to an annual census. The SCB and ESV find revisions due to annual benchmarking to be within acceptable limits. The updated data are provided to users, but the details on the benchmarking exercise are not given to users.

The presentation follows the *ESA 95* and the sub-sectors (central government, social security, and local governments) are consolidated correctly in the general government institutional sector. However, it is not possible to add the balancing items across sectors to check for internal consistency in this manner.

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

The SCB compiles the general government statistics in the context of the national accounts, ensures consistency with related national accounts aggregates such as net lending/borrowing, government consumption, and net acquisition of non-financial assets, and can provide any necessary reconciliations to users upon request.

Consistency with banking data and changes in government financial assets and liabilities held by other sectors is attempted through close collaboration by the SCB with the ESV, RGK, and Riksbank, as well as the social security funds and local governments, when compiling the general government data. However, since the financial accounts of the general government are compiled separately from the revenue, expense, and net acquisition of nonfinancial assets, this information may not be fully consistent. On the other hand, there are no material differences that can be identified from the monetary and financial statistics alone.

Consistency with balance of payments data on foreign debt, foreign grants and financing transactions is ensured through close collaboration between the SCB with the Riksbank. Some of the classifications and source data are different, which leads to minor inconsistencies. For example, net lending differs between the general government data in the national accounts and the equivalent in the balance of payments due to the use of direct data collection from nonfinancial corporations and local governments by the SCB and indirect collection through the settlements system currently used by BOP compilers. In this context, the Riksbank, as the BOP compiler, is exploring the future development and outsourcing of a BOP statement for the government to cope with the eventual disappearance of the settlements system data. The Riksbank may obtain information on some of these components via a service contract to compile the data on their behalf using the expertise of the SCB.

4.4 Revision policy and practice

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

The revision policy is one of continuous updating. However, this means that there is no identification of preliminary data. It also makes it more difficult for users to compare data across different publications.

4.4.2 Preliminary data are clearly identified.

Preliminary data are not identified with symbols, footnotes, or blanket statements in the publications. The same format and analytical framework is used to report all the data, including preliminary, revised, and, in relevant cases, forecasts.

4.4.3 Studies and analyses of revisions are carried out routinely and made public.

All data released include the most up-to-date revisions available. No data are withheld unless they are subject to verification (or secrecy under the Data Act (1973) and Secrecy Act (1980)). If major revisions are made, revised data are clearly identified, underlying sources and reasons for the revisions are explained, and the direction and magnitude are explored in notes for users in the publication that first contains the revision.

No revision analyses are 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).

In general, existing data on the general government and central government subsector are presented in a manner that can be understood relatively easily by most users; however, some of the data presentations require some extra effort. The NIER presentations of annual figures on general and central government operations (and major components) are particularly clear and meaningful. The data presented by the NIER, derived from the national accounts, is particularly useful for fiscal policy (especially budget) development and monitoring. Unfortunately, the key variable net lending/borrowing exhibits significant discrepancies for some years when compiled from the financial accounts versus from other economic transactions (see 4.3.2).

The data are not presented as recommended by the 1986 GFS manual or the forthcoming *GFSM 2001*. The data presented by the NIER are adequate in coverage and detail for central and general government operations. However, the other data are not compiled in a manner digestible for users' access.

5.1.2 Dissemination media and formats are adequate.

Almost all the available information is distributed via the web. Several annual publications exist. However, there is not a single publication dedicated to general government statistics. The SCB has publications on the national accounts that contain information on the general government sector (financial account information is published separately). The ESV and the

MOF produce an annual publication for the central government. There is an annual publication on local governments and the old-age pension fund has its own annual publication.

The only quarterly general government publication covers the financial accounts in the national accounts context, issued by the SCB.

All relevant agencies compiling statistics related to government have public websites that contain data, metadata, and, if available, lists of hard copy publications and contact addresses.

5.1.3 Statistics are released on a pre-announced schedule.

Advance release calendars are available on the web for the SCB and ESV. The SCB also publishes a catalog of publications. The actual date of publication meets the pre-announced date.

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

The Official Statistics Act requires that all statistical publications be made available to all users simultaneously and without preferential treatment of selected users. However, the ESV gives the MOF a five-day advance release of the monthly central government budget outcome data so that they can begin planning appropriate fiscal policy measures.

5.1.5 Non-published (but non-confidential) sub-aggregates are made available upon request.

Upon request, and following standard rules on confidentiality, non-published, non-confidential data are made available. There is no charge for official data, but agencies could charge for non-official data. In practice, charges are almost never applied.

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 international standards are annotated.

Complete statements on concepts, sources, and methods do not exist for the general government statistics. The ESV and RGK have summary descriptions of concepts, sources and methods for some of their statistics for the central government.

Compilers may have difficulties providing bridge tables linking source data to government finance statistics.

5.2.2 Different levels of detail are provided depending on intended audience and type of collection.

See 5.2.1. Publications generally have some information on concepts, sources, and methods related to the data in that publication.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized.

All publications have contact email addresses and many provide a list of contact persons. In the view of the compilers and providers of these services, they believe service is prompt and knowledgeable.

The relevant agencies have the right to respond to the misuse of government finance data and to educate users of government finance statistics. However, such instances of misuse first must be detected.

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

These are widely available on various Internet websites..

V. MONETARY STATISTICS

0. Prerequisites of Quality

0.1 Legal and institutional framework

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

The responsibility of the Sveriges Riksbank for disseminating monetary statistics derives from the Sveriges Riksbank Act (1988: 1385) Chapter 6, Article 4 of this Act states that the Sveriges Riksbank shall make public statistical data concerning foreign exchange and credit conditions on a continual basis.

Chapter 6, Article 9 authorizes the Sveriges Riksbank to collect such information as is necessary to follow developments in foreign exchange and credit markets from credit institutions and other companies supervised by the Swedish Financial Supervisory Authority (FI). The coverage of the information reported and the frequency with which it is to be reported are specified in the Code of Statute (1997:5) regarding the reporting of financial market statistics.

The Money and Banking Statistics Division, a division within the Financial Stability Department, is responsible for compiling monetary statistics which form part of the financial market statistics.

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

There are institutionalised procedures within the Sveriges Riksbank for interdepartmental cooperation to provide source data to the Money and Banking Statistics Division. Monthly balance sheet data for the Riksbank are reported by the Accounting Department by automated electronic file to the Money and Banking Statistics Division. There is also close cooperation in sharing data with the Balance of Payments Statistics Division.

The SCB, which is responsible for compiling the national accounts, relies on monetary statistics compiled by the Money and Banking Statistics Division of the Sveriges Riksbank as input for the financial accounts. Data compiled by the SCB on the financial activities of mutual funds and insurance companies, institutions that are not supervised by the FI, are shared with the Money and Banking Statistics Division.

The Money and Banking Statistics Division of the Sveriges Riksbank, the FI, and the SCB have formed a coordination group to collect data, using uniform and coordinated definitions, and to exchange statistical data among agencies.

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

The Sveriges Riksbank does not disclose data of individual institutions or transactions.

Chapter 8, Section 8 and Chapter 9, Section 4 of the Swedish Secrecy Act (1980:100, as amended 1986:618) contain provisions limiting public access to information collected by the Riksbank on the economic conditions (borrowing or commercial lending activities) and official statistics of a personal nature.

Data that are reported to the Sveriges Riksbank by credit institutions, in either electronic or hardcopy form, are saved in a computer database at the level of the institution. Only a few persons in the Riksbank have passwords to access the database. Credit institutions that are reporting electronically only have access to their own data in the database.

The collected data are the property of the Sveriges Riksbank and are subject to secrecy regulations in “Statistiklagen” (Act of Statistics). This regulates the access to and distribution of data to other persons or organizations.

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

Apart from the Code of Statute that requires credit institutions to report balance sheet data to the Sveriges Riksbank, regulations established by Eurostat and the European Central Bank

also require the reporting of balance sheet data to the central bank for compiling monetary statistics.

The following table summarizes the acts and regulations which influences the compilation and reporting of money and banking statistics to different agencies:

Act / Regulation
The Riksbank Code of Statute regarding financial market reporting ("Riksbankens föreskrifter om rapportering av finansmarknadsstatistik" / RBFS 1997:5)
ECB, Regulations
ECB, Guidelines
Eurostat, Regulations
Money and Banking Statistics Compilation Guide
EU-Council. Bank Accounting Directive (BAD)
UCITS-directive for reporting of security funds

0.2 Resources

0.2.1 Staff, financial, and computing resources are commensurate with institutional programs.

The Money and Banking Statistics Division is a unit within the Financial Stability Department which is the main user of the money and banking statistics within the Riksbank. The division is organized into four sections according to function:

- Techniques and methods 1 person
- Production 4-5 persons
- International work 2 persons
- Analysis and interpretation 2 persons

Despite the organizational structure of the division, there are no watertight distinctions separating these groups. The responsibilities of the sections are as follows:

Techniques and methods

- Acquire and implement technical support for
 - Internet based reporting / automatic reporting
 - quality control
 - storage and retrieval of statistical data
- Documentation (systems, methods, routines)

Production

- Forms and instructions to the institutions (for reporting)
- Systems administration (=application system FIDA)
- Control of arrival of reports
- Data entry (partly manual)
- Quality control (minor system support)
- Contacts with reporting institutes according to need
- Storage of collected data
- Report design (=new or changed reports)
- Publish money and banking statistics on the Internet (the Sveriges Riksbank's homepage)
- Distribution of statistical reports—ECB, BIS, OECD, IMF, SCB, FI
- Compiling of statistical information according to internal needs
- Answer questions (concepts, definitions etc.)

International work

- Participate in ECB-groups, BIS-groups, etc.
- Follow and initiate adaptations to legal and regulatory framework
- Initiate adaptations to accounting principles and quality requirements

Analysis and interpretation

- Analysis of interest statistics
- Analysis of households savings
- "Rapid Analysis" comments to the monthly statistics
- SDDS reporting to IMF
- Project "The EURO in the Swedish financial sector"
- External and internal questions of different kinds, figures to support articles etc.
- Periodic analytic materials of different kinds, for internal use.

Despite the number of tasks assigned to the staff of the division, the expertise and experience acquired on the job enable them to perform their routine functions with competence and efficiency. However, they face increasing challenges responding effectively to new demands for data reporting that arise from sources outside of the Riksbank.

The computer system used by the Money and Banking Statistics Division to collect source data and compile and store monetary statistics is known as the Financial Market Data System (FIDA). It is a mainframe-based system that was developed within the bank and was introduced in 1993. The IT production environment is IBM/MVS and the database (DB2) contains statistical data from 1980. The system is flexible and is used to collect data that are reported by electronic means by the monetary financial institutions and to transmit statistical data to the ECB, BIS and Eurostat.

0.2.2 Measures to ensure efficient use of resources are implemented.

The Money and Banking Statistics Division establishes annual goals in the context of work programs with identified budgetary costs. All development projects are assessed against projections of investment costs and available resources. In cases where development projects are undertaken in collaboration with an external agency, a project contract is drawn up which assigns organisational responsibilities and specifies the plan for implementation, expected revenues, and potential risks.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality, to monitor the quality of the collection, processing, and dissemination of statistics, to acknowledge and deal with tradeoffs within quality, and to guide planning for existing and emerging needs.

Within the Riksbank, the Accounting Department is responsible for the quality of the accounting data that are used by the Money and Banking Statistics Division to prepare the monetary statistics. The Money and Banking Statistics Division is at present conducting a development project designed to promote quality control of the statistics through a process of rationalizing the data reported by the credit institutions and through systems support.

The Riksbank, in collaboration with the FI and the SCB, has formed a coordination group to discuss the following issues which have a bearing on the quality of the statistical data:

- Developments arising from the competence and needs of the three agencies.
- The collection of statistical data using uniform and co-ordinated concepts and definitions.
- The delivery and exchange of statistical data between the authorities.
- The avoidance of overlapping or inefficient work.
- The reduction of the burden of reporting on financial institutions and the harmonisation of the procedures for the collection of data.
- The harmonization of data collection according to accounting principles and statistical requirements.
- Ensuring that the publication and storage of statistics meet requirements for continuity and easy of access.

The coordination group meets about four times a year. A data exchange group, subordinate to the coordination group, handles operational questions. The data exchange group meets 4-6 times a year.

In the context of its development projects, the Money and Banking Statistics Division is currently conducting a quality control project. The objective is to improve the quality of the monetary statistics through rationalizing data reporting systems.

Responding to the new reporting requirements established by Eurostat and the ECB, new standardized report forms for the monetary financial institutions have been developed by the Money and Banking Statistics Division for implementation in January 2002. These new report forms will be standardized for all monetary financial operating in Sweden.

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis.

The act of the Riksdag grants broad authority to the Sveriges Riksbank to determine what data are to be compiled and what monetary statistics are to be disseminated in support of economic and financial analysis. Chapter 5, Article 9 of the Sveriges Riksbank Act (1988: 1385) states that upon request of the Riksbank, a credit institution or other company supervised by the Financial Supervisory Authority shall provide the Riksbank with such information as the Sveriges Riksbank consider necessary to follow developments in the foreign exchange and credit markets.

The Money and Banking Statistics Division reports that within these guidelines, the staff are given the freedom to determine the content of the monetary statistics that they compile and disseminate.

While professionalism is promoted by encouraging participation in conferences and training programs that would upgrade technical skills, the ability of the staff to take advantage of such programs is limited given the demands imposed by the routine aspects of the division's work program and new statistical reporting requirements of the ECB and BIS.

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

Statistical considerations are the major factor that determine the choices of sources and statistical techniques. International requirements and rules, such as ECB and *ESA 95*, also influence the collection, compilation, and reporting of monetary statistics. As far as possible concepts and definitions are uniformed and harmonised with accounting rules in order to minimise errors by misinterpretation and to facilitate the reporting from the institutions. Financial costs on reporting institutions are also a factor that are taken into consideration.

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

The staff of the Money and Banking Statistics Division is entitled to comment on erroneous interpretation and misuse of statistics. On a few occasions, the division has had reason to give such comments.

1.2 Transparency

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

Data are collected under the authority of the "Riksbankslagen" (the act of the Central Bank of Sweden). The Sveriges Riksbank Code of Statute regarding financial market reporting (RBFS 1997:5) is distributed to the institutions and is published on the Riksbank's Internet website. Report forms can be obtained from the Sveriges Riksbank. All institutions are requested to prepare their reports according to the Code of Statute and to submit the report forms every month by the 9th banking day at the latest. In case of delay they are reminded immediately.

A guide based on the methodology of *ESA 95* is provided to reporters to assist in adapting the accounting data

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

Data are in principle released simultaneously to all interested parties, both internally and externally. The monetary statistics are published on the Sveriges Riksbank's home page on the nineteenth working day after the end of the reference period. However, reports are sent to ECB every month on the seventeenth working day after the end of the reference period.

The use of the home page for publication guarantees that statistics are made available to all users at the same time. The only deviation from that principle is that summarized version of the data is presented to the Board of Governors and one or two heads of department within the Riksbank in advance, but on the same day.

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

All statistical publications identify the Sveriges Riksbank and the Money and Banking Statistics Division as the sources of the data. Also the names of contact persons within the Sveriges Riksbank are given, along with telephone numbers and e-mail addresses.

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

No advance notice is given of small changes in statistical techniques and methodology. Notification is done simultaneously with the release of new data. However, advance notice and an explanations are given when major changes to the statistical methodology are implemented. This was done at time of the implementation of the methodology of the Fund's Monetary and Financial Statistics Manual.

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are clear and publicized.

The governing board of the Riksbank has recently revised the ethical guidelines applicable to the Sveriges Riksbank's staff. The guidelines cover a range of issues relating to staff behavior. Among those relevant for the collection and compilation of statistics are guidelines governing the misuse of insider information. This refers to information, not publicly available, that could affect the value of financial instruments. The guidelines also cover the issue of public access to documents and the rules of secrecy. In part, the guidelines summarize the current legislation in the area. The guidelines have been circulated to staff.

2. Methodological soundness

2.1 Concepts and definitions

2.1.1 The overall structure in terms of concepts and definitions follows international standards, guidelines, or agreed practices.

The methodological framework used by the Money and Banking Statistics Division of the Riksbank to compile the monetary statistics reflects concepts and principles that are, with one notable exception, consistent with the *Monetary and Financial Statistics Manual (MFSM)*.

Balance sheet data for the Riksbank and the credit institutions are disseminated separately on the Riksbank website: www.riksbank.se. In addition to the these balance sheet data, monetary and credit aggregates are disseminated for the Riksbank and the credit institutions. The main monetary and credit aggregates that are compiled and disseminated are narrow and broad money (M0, M3 and M3 extended), foreign assets and liabilities, and lending to various economic sectors of the economy, disaggregated by type of credit institutions. The aggregate M0 consists of currency in circulation while M3 comprises the monetary liabilities of the Riksbank and the other deposit money banks—currency in circulation, deposits of the nonbank sector, and certificates of deposits. M3 extended includes national savings accounts (until May 1998) and Treasury Bills. Loans are distinguished by economic sector, including the nonresident sector, and the institutional sources of these credits are identified. These institutions are deposit money banks, housing credit institutions, and other credit market companies, which include finance companies.

These aggregates are not, however, consolidated in an analytical framework in which the broad money liabilities of the depository corporations as a group are linked to the claims of these corporations on the resident and nonresident sectors of the economy. While the building blocks exist to construct this consolidated survey in which the respective claims and liabilities within the depository corporations subsector could be netted, the absence of this framework complicates the interpretation of the monetary statistics.

2.2 Scope

2.2.1 The scope is broadly consistent with international standards, guidelines, or agreed practices.

The reporting population consists of the central bank, other depository corporations (deposit money banks) engaged in financial intermediation and that issue liabilities included in the definition of broad money used by the Riksbank, and other monetary financial institutions which comprise housing credit institutions, and other credit market companies which include finance companies. In total, these institutions comprise about 210 institutions. While the monetary statistics cover the assets of the depository corporations and other monetary financial institutions, the liabilities of the nondepository institutions are not included in the monetary statistics since they do not have all of the characteristics of transferable deposits.

The source data for the monetary statistics are reported on a monthly basis on a form consisting of about 8,000 elements or cells and covers all credit institutions that are supervised by the Financial Supervisory Authority.

2.3 Classification/sectorization

2.3.1 Classification/ sectorization systems used are broadly consistent with international standards, guidelines, or agreed practices: see dataset-specific framework.

The principles underlying the classification of financial instruments and the sectorization of institutional units are based on international guidelines and are consistent with the Fund's statistical methodology as described in the *MFSM*.

Financial instruments are classified according to ECB Regulations (ECB/1998/16) and according to 1995 *ESA*. The framework is based on the liquidity of the instrument as well as the underlying legal or contractual characteristics.

Balance sheet assets are classified into the following financial instruments: monetary gold and SDRs, cash, loans, securities other than shares, shares and other equity, fixed assets and other assets. Liabilities are classified as currency in circulation, deposits, money market fund shares, debt securities issued, capital and reserves, and other liabilities. No distinction is made in the term-structure of deposits.

Repo transactions are treated as collateralized loans if there is a firm commitment to reverse the operation and not merely an option to do so.

Gold swaps are treated as repos when monetary gold is exchanged for cash. Gold loans/deposits with no exchange of cash are recorded off balance.

The sectorization system is consistent with ECB regulations (ECB/1998/16) and the *1995 ESA*, which in turn follows the *1993 SNA*. The economic sectors identified in the monetary statistics are:

- Monetary financial institutions (Central bank, Other depository corporations, other monetary financial institutions)
- Other financial institutions (Non monetary equity funds, non monetary stock broking agencies, Insurance companies, Others)
- Non-financial companies
- General government (Central government, State government, Local government, Social security funds)
- Households
- Non-profit institutions serving households

These sectors are identified in the manual provided to the reporting institutions.

2.4 Basis of recording

2.4.1 Market prices are used to value flows and stocks.

The general recommendation of the *MFSM* is that the valuation of financial assets and liabilities should be done on the basis of market prices or market-price equivalents. 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 accrual interest and is referred to as the book value of a loan.

In reporting balance sheet data for the Riksbank to the Money and Banking Statistics Division, the Accounting Department values financial assets and monetary gold at market prices. Loans and other assets and liabilities are valued at book values. Financial transactions are recorded on the basis of the market prices at which assets and liabilities are bought and sold on the date of trade.

In the data reported for the credit institutions, financial assets, which consist mainly of securities other than shares, that are part of the trading portfolio, are valued at market prices that prevail on the date when ownership changes hands. However, financial assets (loans) that are held to maturity are valued at book value or purchase price plus accrued interest. Consistent with the recommendations of the *MSFM*, financial instruments that are liabilities

of the credit institutions (deposits) are recorded at nominal values on the balance sheet, which is comparable to the treatment of capital and reserves.

New report forms that will be introduced for the monetary financial institutions in January 2002 will request information on market values of non-traded financial assets.

The Accounting Department of the Riksbank revalues the foreign-currency denominated assets and liabilities at prevailing market rates in the file reported for the compilation of monetary statistics. Unrealized gains and losses stemming from any valuation adjustments are credited to profit and loss account.

All foreign currency denominated assets and liabilities of the monetary financial institutions are converted to domestic currency for balance sheet recording. The market exchange rate (the mid point between the buying and selling rates) prevailing at the balance sheet date is used for the conversion of stocks. Unrealized gains and losses attributable to any valuation adjustments are recorded in the valuation account. This accounting practice is consistent with the recommendations of the *MFSM*.

2.4.2 Recording is done on an accrual basis.

The accrual accounting guidelines recommended by the *MFSM* require that interest accruing on deposits, loans, and securities other than shares be incorporated in the outstanding amount of the financial asset or liability, rather than being treated as part of other accounts receivable/payable.

The credit institutions that are supervised by the Swedish Supervisory Authority practice accrual accounting, with interest on financial assets and liabilities being treated as accruing continuously during the accounting period. Unlike the accounts of the Riksbank, however, accrued interest is reported as a separate item in the balance sheets of these institutions and not incorporated into the outstanding amount of the financial asset or liability. When interest is overdue, however, it is included in the value of the outstanding obligation. Arrears in the payment of fees or similar charges associated with off balance sheet financial instruments are included in accounts receivable/payable on the balance sheet.

2.4.3 Grossing/netting procedures are broadly consistent with international standards, guidelines, or agreed practices.

The general principle outlined in *MFSM* states that data should be collected and compiled on a gross basis. It is, however, important to distinguish between compilation and presentation of data on a net basis. Some categories of data are presented on a net basis because of the analytical usefulness of the data in such form. It is recommended that whenever data are presented on a net basis, the underlying data on a gross basis should also be shown.

Assets and liabilities of the monetary financial institutions are in principle reported on a gross basis. No netting is made in the process of compilation. However, loans are now reported net of expected loan losses. In the new reporting forms for the credit that are expected to be in

force at the beginning of 2002, loans are to be reported gross of expected loan losses, with provisions for expected losses shown separately.

The monetary and credit aggregates that are presented in the monetary statistics are compiled by aggregating separately the accounts of the central bank and of the other depository corporations. Since there is no consolidated presentation of these aggregates, there is no netting of the underlying data.

3. Accuracy and Reliability

3.1 Source data adequacy

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

Comprehensive balance sheet data for the Riksbank are reported by the Accounting Department to the Money and Banking Statistics Division in an electronic file. The data, which are prepared according to guidelines established by the Money and Banking Statistics Division, provide sufficient details on economic sectors and financial instruments to enable the compilation of appropriately sectorized and classified monetary statistics.

The balance sheet data for the monetary financial institutions are reported on a monthly basis on detailed report forms that are based on guidelines set out in the manual developed by the Sveriges Riksbank for monetary financial institutions. These report forms contain about 8,000 elements or cells. At present, these report forms vary according to type of credit institution. However, the new report form that will be introduced in January 2002, will be standardized across monetary financial institutions.

The report forms from which the monetary statistics are prepared rely exclusively on the accounting records of the Riksbank and the monetary financial institutions. The compilation of statistics does not involve any supplementary data from external sources.

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

The disaggregated source data reported to the Riksbank approximate the definitions, scope, classifications, time of recording, and valuation required for ease of reclassification.

These characteristics of the source data reflect the reporting requirements and guidelines established by the ECB.

3.1.3 Source data are timely

Respondents are obliged to report by the ninth banking day, at the latest, after the end of the reference period. Most of the banks comply with this deadline and the Riksbank completes

processing these data and compiling the monetary statistics within seventeen working days after the end of the reference period.

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques

Source data are collected, stored, processed, checked, and compiled in a mainframe system – FIDA. The system allows for reporting in different formats: on electronic files, via electronic line, or on hard-copy report forms. The FIDA system carries out various checks including summary controls, comparison controls, and interval controls. The system is flexible and can easily be adapted to changing data collection requirements. In an ongoing project, a mechanism for reporting to FIDA via Internet is under development.

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

The FIDA system allows for adjustments of source data and transformation of aggregates at all levels. Transformation made to the data are simple and include nominal and relative changes, weighted averages, and grossing up. Statistical analysis is made in a PC-environment.

3.3 Assessment and validation

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

A regular follow-up is made of the source data from which the monetary statistics are compiled. This follow-up serves as a quality check on the accuracy of the data and on the analysis of the statistics. As a mechanism for verifying the validity, consistency and accuracy of the statistics, a more comprehensive analysis based on sampling is made once or twice a year that covers developments over a longer period of time. At present, sampling has been applied only to finance companies where almost 95 percent of the population is surveyed. In the future, a cut-off point of 95 percent of the population of finance companies (in terms of aggregated balance sheet) will be applied and grossing up will be made for the remaining part of the population. Sources and methods for this are to be developed.

3.3.2 Main intermediate results are validated against other information where applicable.

A verification process is conducted against annual reports of reporting institutions with the aim of crosschecking the reported source data. Furthermore, checks are made against balance of payments statistics and statistics on securities.

3.3.3 Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated and made available to guide users.

Reporting institutions are contacted directly to provide explanations, prior to the dissemination of the statistics, in which there are large unexplained fluctuations in the source data.

3.4 Revision studies

3.4.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes.

There is no mechanism in place to conduct routine revision studies since they are not considered to be relevant for monetary statistics. However, based on the expertise and experience of the staff, deviations, omissions, and other potential indicators of problems in the data are identified and investigated and made available to the users.

3.4.2 Revisions studies and analyses are made public and used to guide data users.

The investigation of statistical problems respond only to evidence of problems in the monetary statistics. Since these problems are not considered to be of a structural nature, the knowledge acquired from investigating data problems are not documented.

4. Serviceability

4.1 Relevance of information

4.1.1 Processes to monitor the relevance and practical utility of existing statistics in meeting users' needs are in place.

The needs of the main users of statistics within the Riksbank, the Financial Stability Department, are constantly reviewed. The staff of the Money and Banking Statistics Division participate in meetings with external users and in international conferences (ECB, BIS, Nordic Statisticians Meetings) in order to assess their statistical needs. The needs of users such as the ECB and the SCB are well documented.

As a result of collaborative projects undertaken with the Swedish Financial Supervisory Authority and the SCB to improve the quality of the statistical data, the Money and Banking Statistics Division is aware of the changing institutional environment and the impact that this process has on the development of new financial instruments. Institutional changes are incorporated into the methodological framework of the monetary statistics.

4.2 Periodicity and timeliness

4.2.1 Periodicity follows dissemination standards.

The monetary statistics are compiled and disseminated on a monthly basis, which is consistent with the SDDS. The balance sheet of the Riksbank is published on a weekly basis.

4.2.2 Timeliness follows dissemination standards

The data are published within one month of the end of the reference period.

4.3 Consistency

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

The staff of the Money and Banking Statistics Division conduct quality control tests to check the consistency of the analytical presentation of the data. The statistics have been found to be reasonably consistent over time.

4.3.2 Statistics are internally consistent (e.g., accounting identities observed)

The internal consistency of the statistics is ensured as a result of the quality control procedures applied to the balance sheet data that are reported. Arithmetic checks of total assets and liabilities are performed as well as selective probability checks.

The claims and liabilities of the depository corporations with respect to those financial institutions that report data to the FI and the SCB are periodically compared with the reported counterpart data for consistency.

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

Intersectoral consistency checks are not conducted on a routine basis. However, as a result of the standardized conceptual definitions of economic sectors and classification of financial instruments that are applied across datasets, net credit to government calculated from the accounts of the depository corporations is consistent with net borrowing requirement of the general government reported in the fiscal accounts. In the external sector, reserve assets positions reported in the International Investment Position are sourced from the Riksbank report on holdings of gold and foreign exchange.

4.4 Revision policy and practice

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

No formal revision policy has been formulated. Revisions are infrequent and are made whenever they are necessary, based on the availability of more accurate data. Notice is not

given of minor changes in the statistics. However an explanation of significant revisions is made at the time the revised data are disseminated.

4.4.2 Preliminary data are clearly identified

Data are considered to be final at time of dissemination and data are not identified as preliminary.

4.4.3 Revisions are routinely carried out and made public.

Revised data are clearly identified for users at a sufficiently detailed level in tables with explanations

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 monetary statistics that are disseminated on a monthly basis on the Riksbank's website (<http://www.riksbank.se>) are supplemented by the dissemination of charts and graphs. Brief comments on current trends are also provided in the monthly reports. The data show trends in the money supply and credit extended to various sectors of the economy by the central bank and the monetary financial institutions. However, no depository corporations survey is prepared.

5.1.2 Dissemination media and formats are adequate

With the exception of the Riksbank *Annual Report*, monetary statistics are now disseminated exclusively on the Riksbank Internet website. Data disseminated in this format are readily accessible to most users.

5.1.3 Statistics are released on a pre-announced schedule.

The schedule for data release is announced on the Riksbank's website for the current year and on the Fund's Data Standards Bulletin Board. Data are released in accordance with the this pre-announced schedule.

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

The use of the Internet website for publication guarantees that statistics are made accessible by all users at the same time. The only deviation from this principle is that some data are presented to the Board of Governors and one or two heads of department within the Riksbank in advance of general posting on the website, but on the same day. This practice is justified

on the grounds that the Governors and other senior Riksbank officials should be prepared to respond to questions from the press.

5.1.5 Non-published (but non-confidential) sub-aggregates are made available upon request.

Such information is made available in response to formal requests and if they do not impose excessive burdens on staff resources.

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 international standards are annotated.

In order to facilitate the understanding of the time series, information is provided on the Riksbank website explaining the definitions, coverage, and methods used to compile the data. The limitations of the data are also described.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized.

Support services are available from the compilers at the Riksbank. The names of contact persons within the Riksbank for each subject field are presented with telephone numbers and e-mail addresses. This information is also available on the Riksbank website.

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

All publications and relevant articles produced in the Riksbank are catalogued on the Riksbank's website. In addition to the statistical report, *Financial Market Statistics*, the main publications are the *Statistical Yearbook*, the *Annual Report*, and an annual review of the Swedish financial market.

Normally, all publications and articles, working papers, and other reports are free of charge. If special arrangements have to be made to respond to requests from the public, charges may be imposed but these charges are quite moderate.

VI. BALANCE OF PAYMENTS STATISTICS

0. Prerequisites of Quality

0.1 Legal and institutional environment

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

The compilation and dissemination of Sweden's balance of payments (BOP) and international investment position (IIP) are the responsibility of the Sveriges Riksbank (hereafter termed the Riksbank), and are governed by the terms and conditions of the Sveriges Riksbank Act (1988:1385). Chapter 6, article 9 of this Act stipulates that "the performer of a currency transaction has an obligation to provide the Riksbank with such information and to present the Riksbank with such documentation concerning the transaction, as are needed as a foundation for the Riksbank's balance of payments statistics." Under Article 4, "the Riksbank shall make public statistical data concerning foreign exchange and credit conditions on a continual basis", implying an obligation to publicly disseminate BOP statistics. Additionally, detailed regulations on data collection are issued in the Riksbank's Statute Book.

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

In compiling the balance of payments, the Riksbank draws on its data collection system which is best described as a direct reporting system supplemented by information on settlements made via Swedish banks using the ITRS, and on data provided by SCB. The latter provides data on goods, transportation, and trade credits as well as estimates of insurance and freight (c.i.f.) margins to facilitate adjustments to merchandise trade data. SCB also supplies enterprise registers that are used for the harmonization of sectoral classifications between the BOP and the National Accounts. In turn, the Riksbank provides disaggregated, but non-confidential, data on services and transfers as inputs into the National Accounts produced by SCB. To promote effective data sharing and coordination, meetings are conducted semi-annually between the Riksbank and SCB, but inter-agency contacts between staff occur on a more frequent basis. The two agencies have worked out formats according to which they report data to each other.

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

Under the direct reporting system, individual data collected for BOP statistics are confidential in accordance with the Secrecy Act (1980:100, as amended 1986:618), Chapter 9, article § 4. However, the confidentiality of settlement (ITRS) data may be broken as regulated in the Sveriges Riksbank Act (Chapter 7, article 8):

Upon request, the Riksbank shall provide the Swedish Customs with information held by the Riksbank which relates to payments to or from another country, if required for the authorities' control of taxes and fees. With respect to information required for taxation purposes, the stipulations contained in Chapter 3, article 16, of the Taxation Act (1990:324) shall apply instead.

Upon request, the Riksbank shall provide customs authorities with information held by the Riksbank, which relates to payments for the import or export of goods.

These exceptions to the confidentiality principle apply only to ITRS data collections. Accordingly, the Riksbank Act will be inapplicable in these regards when the ITRS system is discontinued in 2003.

Under direct reporting, the Riksbank informs respondents of their rights and obligations with regard to the provision of information via the dissemination of hard copies of the Riksbank Statute Book. The Statute is also disseminated on the Riksbank's Internet website, and is included as a preamble to the transaction code manual distributed to respondents. Survey-based data are not subject to the exceptions to the confidentiality principle previously described, and are protected under Chapter 9, Article 4, of the Swedish Secrecy Act; this is indicated in the transaction code manual.

The Riksbank does not publish data for a particular item if the number of respondents is less than three or if an individual respondent is otherwise directly identifiable. No formal aggregation rules exist to prevent indirect disclosure of individual data. Individual data may be disseminated with the approval of the respondent.

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

Chapter 6, article 9 of the Sveriges Riksbank Act grants the Riksbank the right to collect data required for compiling BOP statistics, and authorizes it to issue both regulations on reporting obligations, and directives on penalties for non-compliance.

The Riksbank is aware of the respondent burden associated with its ITRS system, and this has been an important factor in the proposed shift to a survey-based reporting system in 2003 which it is estimated will reduce banks' costs for BOP reporting by 90-95 per cent.

Presently, the publication and distribution of coding manuals, the conduct of staff visits, and the availability of contact persons are mechanisms used by the Riksbank to alleviate reporting burdens, and secure the cooperation of data reporters in submitting accurate and timely responses. Consultations are held with the bankers association, and an organization for enterprises on regulations and statistical reporting (Näringslivets nämnd för regelgranskning), prior to any changes in statistical reporting. Under the direct reporting system, enterprises are allowed the option of submitting their responses in either hard-copy or electronic format.

0.2 Resources

0.2.1 Staff, financial and computing resources are commensurate with institutional programs.

The BOP Division of the Monetary Policy Department (MPD) of the Riksbank has a staffing of 17, and is responsible for source data collection and processing, and BOP/IIP compilation. The Methods and Development Division of the MPD provides support in the areas of BOP statistical methods and information technology (IT), and is also responsible for BOP macro analysis and for publication of the data. Altogether, 23 staff – including 14 professionals – are involved in the production, dissemination and analysis of BOP/IIP data.

Both Divisions are staffed by knowledgeable and experienced professionals who have made, and are making, important contributions in the field of statistics at all levels, including the redrafting and finalization of *BPM5*. Staff training is mainly done internally. Applications for staff attendance at the IMF Institute's courses in BOP methodology have been unsuccessful in the past few years.

The BOP Division's computing resources are commensurate with institutional functions. The last major IT investment occurred in 1997 when Swedish BOP statistics was adapted to *BPM5*. Electronic processing of BOP data is done via mainframe, and statistical outputs are automatically created by a Windows based application (VB Program). Quality checks and analysis are conducted using SAS applications.

0.2.2 Measures to ensure efficient use of resources are implemented.

The Riksbank undertakes an annual review of its resources in the context of budgetary planning for the following year(s).

Presently, studies are being conducted on the feasibility of a data warehouse solution for BOP data dissemination, including the use of the Internet to supply further services to data users. The possibility of using Internet-based reporting systems to access source data is also being examined; a pilot survey is underway, and the testing phase will commence later in 2001. These initiatives would effect resource savings in the Riksbank, and among source-data providers and BOP users.

External assistance in evaluating statistical methodologies and compilation systems has not been called upon.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality, to monitor the quality of the collection, processing, and dissemination of statistics, to acknowledge and deal with tradeoffs within quality, and to guide planning for existing and emerging needs.

A pilot study to develop quality measures was undertaken between December 1998-August 1999 in the former Financial Statistics Department which was responsible for BOP compilation at that time. Using total quality management (TQM) as the underlying structure, the project focused on the working process, customer orientation, and the involvement of management in quality. In focusing on the process, rather than on the product, the project succeeded in mapping, or internally documenting, the entire work process. This resulted in increased recognition of the need for quality inputs as the basis for producing quality statistical outputs. The focus on customer orientation resulted in the evolution of quality reports (declarations) in published surveys, and in experimentation with the Basle Core principles to derive indicators of quality. Following the completion of the study, results were to be used as a basis for effecting a quality based work strategy in other Divisions, but progress was stymied by the unavailability of project leaders. Moreover, the need to develop a new collection system to replace the ITRS-based reporting overshadowed the project. However, there is wide recognition that the development of a new collection system will entail quality dimensions.

However, “accuracy tests” (or cross-validation) are used in the BOP Division, and are considered as the first step in quality awareness. These “tests” underlie the cross-validation of data sourced from direct reporting and settlement reports, and reflect a focus on the quality of inputs into the statistical process. Quality awareness is likely to assume renewed importance in the BOP Division, driven by the need for a new collection system that would respond to a changing environment, and by ECB requirements for assessing the accuracy of line items in the BOP.

The recognition of tradeoffs among the dimensions of data quality may be gauged from the revisions policy which is characterized by frequent revisions premised on users’ needs to have the latest available data.

Periodic user surveys of subscribers to the Riksbank’s statistical publications are used to obtain feedback on the quality of statistics, and to identify any emerging data requirements, particularly among domestic users, including universities, research institutes and market analysts.

Emerging data requirements, occasioned by Sweden’s accession to the EU, have informed continuous review of statistical processes within the Riksbank, and there is active collaboration with Eurostat and the ECB. Although Sweden is not a member of the EMU, it is formally obliged to make preparations in its statistical system that would enable it to meet the requirements upon entry into the EMU. Accordingly the Riksbank has decided to adapt, as closely as possible, to the data requirements of the ECB; the design of a new survey-based

data collection system scheduled to be in place in 2003 will be informed by these emerging data requirements.

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis

The independence of the Riksbank is prescribed by law. Minutes of the Riksbank's Executive Board Meetings are published in electronic and hard copy formats.

Professionalism in the BOP Division is actively promoted by an encouragement to publish methodological papers.³² Professional staff actively participate in regional and international meetings, and are on a number of working groups/task forces including the following:

Eurostat:

- Committee on Monetary, Financial and Balance of Payments Statistics (CMFB)
- Balance of Payments Working Party
- Technical Group – Direct Reporting
- Technical Group – Asymmetries
- Technical Group – Travel

European Central Bank (ECB):

- Statistics Committee
- Working Group on Balance of Payments and Exchange Reserves (WGBP&ER)
- Task Force on Portfolio Investment Collection Systems

OECD:

- Working Party on Financial Statistics

IMF:

- Task Force on the Coordinated Portfolio Investment Survey

³² A new method for market valuation of direct investments used in the calculation of Sweden's IIP was published in 1999. See Gunnar Blomberg and John Ostberg "Market valuation of external position – a new picture of Sweden's international independence" in *Quarterly Review* 2:1999 (Sveriges Riksbank, Stockholm)

1.1.2 Choices of sources and methods are informed solely by statistical considerations

Following the abolition of exchange regulations in 1989, a system of direct reporting was introduced to facilitate the coverage of transactions not captured in the settlement (ITRS) system, and to provide detailed classifications for BOP compilation purposes. Given the high industrial concentration of—and the centralized financial functions of major industrial groups in—the Swedish economy, BOP compilers implemented a system of partial direct reporting for 80 enterprises that accounted for 95 percent of Sweden's total borrowing and lending.

Since the early 1990's, the direct reporting system has developed further, mainly to cover transactions (e.g., cash management operations, securities transactions made without intermediation of domestic banks and brokers) made possible by financial deregulation. The need to improve coverage of transactions in services and financial derivatives, as well as transactions of enterprises not adequately covered under settlement reporting (monetary financial institutions, insurance companies, contractors, and companies with active cash management policies) have led to the introduction of General Direct Reporting (GDR) for a number of companies.

Thus the present BOP data collection system is a combination of partial direct reporting and general direct reporting; while settlement reporting remains important for the line item 'Other Services' in the BOP, its role is largely supplementary, providing a source for updating enterprise registers, and for validation checks.

In shifting to direct reporting, the BOP Division has recognized the importance of assessing resource usage and institutional and technical capacity of both the Riksbank, and reporting agencies, in informing the design of a statistical collection system. Further, the integration of financial markets has rendered ITRS-based reporting as an inadequate tool for coverage of BOP transactions. These factors, along with emerging data needs of Eurostat and the ECB are among important considerations in the design of a survey-based data collection system due to be in place in 2003.

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

The staff of the Riksbank is entitled to comment on erroneous interpretation and misuse of statistics.

1.2 Transparency

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

The terms and conditions under which BOP statistics are collected, processed and disseminated are available to the public in electronic and hard copy formats. Both the

Riksbank's Act ("Lag om Sveriges riksbank"), and the Riksbank's Statute Book are available on the central bank's Internet website, and in hard copy formats.³³

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

As indicated in Sweden's BOP metadata on the Fund's DSBB, no one outside the Riksbank has access to the data before their release to the public.

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

Statistical products of the Riksbank are clearly identified with the logo, and are marked with the name of the department responsible for the product. The SCB is acknowledged as the source of merchandise trade data via footnotes that accompany the relevant tables.

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

In its SDDS metadata posted on the DSBB, Sweden has disclosed the following:

Major changes in methodology are regularly announced in advance. The way this information is disseminated can differ: substantial changes in methodology are announced through press releases, as well in notes in the preceding balance of payments publication.

The authorities explained that decisions on advance notice are usually determined by the impact such methodological changes have on the structure and size of the various accounts of the BOP. At the time Sweden shifted from *BPM4* to *BPM5* in 1997, advance information was disseminated, but subsequent changes have been viewed as minor, and users have been alerted at the time the changes were made.³⁴

³³ "Lag om Sveriges riksbank" (1988:1385) is published by Sveriges Riksbank, and includes an unauthorized English translation.

³⁴ During the Fund's mission's visit to Stockholm, the Riksbank announced a change in the methodological treatment of financial derivatives that results in an improvement to the balance on current account of approximately SEK 40 billion (about 11.4% of the pre-adjusted current account) during the period 1995-2000; the press release announcing this change was issued simultaneously with the revised data series (dating from January 1995) on May 15, 2001.

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are clear and publicized

The Executive Board of the Riksbank has recently decided upon a set of ethical guidelines for staff. These guidelines cover a range of issues in relation to staff behaviour. Among those relevant for the collection and compilation of statistics are guidelines on the prevention of misuse of insider information. This refers to information, not publicly available, that could affect the value of financial instruments. The guidelines also cover the issue of public access to documents and the rules of secrecy. In part the guidelines summarises the current legislation in the area.

These guidelines have been circulated to staff.

2. Methodological soundness

2.1 Concepts and definitions

2.1.1 The overall structure in terms of concepts and definitions follows international standards and guidelines, or agreed practices.

Beginning in October 1997, the compilation of Sweden's BOP statistics followed the broad conceptual framework of the Fund's *BPM5*. Supplementary guidelines issued by Eurostat and the ECB also inform the present structure of BOP statistics. Deviations from the concepts defined therein are identified in metadata available on the Riksbank's Internet website (<http://www.riksbank.com>). The deviations include the criterion on residency underlying "compensation of employees" (see 2.2.1). As evidenced in Swedish BOP presentations, there is no disaggregation of "goods" in the current account (see 5.1.2).

2.2 Scope

2.2.1 Transactions/institutional units are covered in the balance of payments statistics in conformity with international statistical guidelines.

In principle, Sweden's BOP statistics cover all resident-nonresident transactions, and resident institutional units are defined in conformity with *BPM5*'s concepts of economic territory, residence, and center of economic interest.

In compiling data on compensation of employees, the maximum one year criterion prescribed by *BPM5* is not applied to determine the treatment of transactions owing to difficulties in collecting the data, and this is indicated in metadata disseminated on the Riksbank's Internet website.

External transactions by resident households relating to investments in securities, life insurance and pension funds are not fully covered in the monthly BOP, given the limitations

of the ITRS-based reporting. The Riksbank is exploring the possibility of sourcing aggregative data from countries that are major hosts to these accounts. The size, and direction of these flows may have contributed to the magnitude and sign (negative) of net errors and omissions.

2.3 Classification/sectorization

2.3.1 Classification/sectorization systems used are broadly consistent with international standards, guidelines, or agreed practices.

Classification of Sweden's BOP accounts broadly conforms to the requirements of *BPM5*, and BOP compilers have recently addressed the reclassification of financial derivatives in light of modifications to this international guideline. Financial derivatives are treated as assets/liabilities, and transactions in them are recorded in the financial account. Effective from May 2001, income flows from interest-based financial derivatives, formerly included under Investment income ("Other") in the current account, are reclassified under "Financial Derivatives" in the financial account.

Private, nonbusiness real estate investment, is classified under "Direct Investment."

Sectorization of the BOP accounts is done in collaboration with SCB to facilitate harmonization across statistical aggregates. A common enterprise register with sectoral codes assigned to institutional units is used in the compilation of national accounts, balance of payments and monetary statistics.

Effective from October 1997, monetary financial institutions (MFIs) are defined as banks, intermediary financial institutions including housing intermediaries, and certain mutual funds (money market funds).

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

Sweden's balance of payments are compiled in Swedish kronors (SEK), the national currency. Foreign currency transactions are converted into SEK either at the exchange rate prevailing on the day of transaction, or at the monthly weighted-average exchange rates.

Transactions in real resources (goods and services) are recorded on the basis of market prices.

End-month stock data on bonds and money market instruments are reported as market values except for debt instruments denominated in SEK, which are reported at nominal values (as sourced from reporting agents); a method to transform the latter into market values has been developed, but has not yet been implemented. Amounts in foreign currency are recalculated and aggregated to SEK at the end-month exchange rate. Presently, FDI stock data are

collected, and reported, at book value in the IIP. However, a method is being refined for estimating FDI stock at market value, and the results of this exercise are due for publication in Autumn 2001. Initial work on the revaluation of data for 1999 has been published in the Riksbank's *Quarterly Review*.

2.4.2 BOP accounting is done on an accrual basis.

In general, change of ownership as specified in the *BPM5* is the principle governing the recognition of transactions and their time of recording. The shortcomings associated with the use of the ITRS has led to a shift to a direct reporting system, resulting in the compilation of Sweden's BOP on an accrual basis.

Reinvested earnings are calculated as the difference between net operating surplus and dividends (and transfers i.e., taxes on income); and are recorded in the earning year. Since this represents an ex-post revision of the previous year's data, estimates for the current year are derived from forecasting techniques.

2.4.3 Grossing/netting procedures are broadly consistent with international standards, guidelines, or agreed practices.

Grossing/netting procedures are broadly consistent with *BPM5*. Current account transactions are recorded on a gross basis, and financial account transactions are recorded on a net basis, separately for the individual asset and liability components.

3. Accuracy and reliability

3.1 Source data

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

The primary data sources of Sweden's monthly BOP statistics are (1) the monthly direct reporting of MFIs and enterprises; and (2) SCB data on merchandise trade and transportation. Formerly, the ITRS was used as a primary source for BOP compilation, but its reliability has diminished within the last decade, resulting in a shift towards a predominantly partial direct reporting system. While the ITRS remains the main source for compiling the other services component (supplemented by direct reports) of the current account, and for loans under direct investment, the open ITRS is now increasingly used as a secondary source of information, particularly to capture the current and financial account transactions of small and medium enterprises (SMEs), and to identify new transactor units that should be integrated into the direct reporting system. Adjustments are made to ITRS-sourced data in order to cover the loss of data below a reporting threshold of SEK 100,000.

The direct reporting of mainly financial transactions and positions provides a cost-effective and fairly comprehensive data collection system, given the degree of concentration within the

Swedish economy. Using cut-offs adapted to different sectors and BOP items, the number of direct reporting agents is minimized without a consequent loss in transaction coverage and classification, as the ITRS provides a population reference. Partial direct reporting is the basic approach used; general direct reporting occurs when the combined partial reports cover all the BOP transactions of the reporting entity. In practice, general direct reporting cover MFI's, insurance companies under Swedish supervision, and some major enterprises in the manufacturing sector.

Sweden's merchandise trade statistics are based on customs documents for goods cleared through Customs from/to non-EU member countries (Extrastat), and survey-based data collections compiled from companies trading goods with partners in EU member countries (Intrastat).

Extrastat data are transmitted to SCB twice per month, and usually include revisions to transactions previously reported. The special system of trade (i.e., goods classified as imports and exports having cleared the customs frontier) underlies this collection system. Data collection and processing are undertaken by the customs authorities, and SCB makes no additional adjustments to the data reported. Derived from an administrative source, Extrastat data present no coverage issues in the compilation of merchandise trade statistics.

Intrastat data are from a survey-based enterprise reporting system developed by Eurostat. Under this system, mandatory reporting is required of companies with transactions above a certain threshold. According to EU regulations, invoiced values, weight and supplementary quantity are reported according to harmonized commodity codes termed Combined Nomenclature (CN) and partner country classification (minimum requirements). These reports are transmitted directly to SCB which is responsible for data collection and processing. Invoiced values are adjusted to statistical values (f.o.b. for exports and c.i.f. for imports) by the application of conversion factors derived from biannual surveys conducted by SCB. Adjustments are also made for the coverage of the data i.e., to capture both non-responses (companies are required to transmit monthly data no later than 10 working days after the end of the reference month) and transactions that fall below the threshold. These adjustments are based on estimation techniques which track VAT declarations, and are currently estimated at magnitudes of 5 per cent, and 8 percent of total merchandise exports, and imports, respectively.

Following these adjustments, Intrastat and Extrastat data are merged at an aggregate level to derive monthly "global" trade data which are disseminated simultaneously to the Riksbank, and to the public four weeks after the end of the reference month. These initial aggregates do not provide a breakdown of goods for processing and repair. However SCB now provides, on a quarterly basis, a more detailed breakdown of monthly trade statistics into general merchandise, non-monetary gold, goods for processing and/or repair; the latter is not separated as recommended in *BPM5*, owing to present limitations of the Intrastat system.

SCB also provides supplementary data on returned goods, fish sold directly in foreign ports, and goods procured in ports by carriers that facilitates coverage adjustments in the BOP accounts.

Both internal and external data sources assume full coverage of the institutional units, transactions and positions required for BOP compilation.

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

Definitions, scope and classifications used in source data are broadly in line with *BPM5*, and adjustment procedures exist, where applicable, to ensure source data conform to the coverage, classification, valuation and timing conventions of *BPM5*.

Merchandise imports reported on a c.i.f. basis are adjusted to a f.o.b. basis using information on transportation margins estimated by SCB. The direct reporting system is based on accrual accounting, and follows the classification and sectorization required for BOP purposes, and for harmonization with the national accounts.

3.1.3 Source data are timely

Monthly merchandise trade statistics are disseminated by SCB four weeks after the end of the reference month. The direct reporting of MFI's and enterprises is also timely, and the deadline set for reporting – the 15th day of the following month – is stated on the covering page of reporting forms issued by the Riksbank. Respondents have the option of submitting completed forms either in hard copy or electronic format.

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques.

Data management procedures include computerized edit checks to identify coding and other errors in source data, and to minimize processing errors of editing and coding. The Riksbank publishes a transaction coding manual that provides updated transaction classification codes, which are compatible with the requirements of *BPM5*.

Reporting forms are well designed and are appropriate for computer processing. Consultations are held with the Bankers Association, and an organization for enterprises on regulations and statistical reporting (Näringslivets nämnd för regelgranskning) prior to any substantive changes in reporting formats.

3.2.2 Other statistical procedures employ sound statistical techniques.

The time lag in the availability of results of the annual survey on direct investment (assets and income) requires the use of econometric techniques to estimate some line items, e.g.,

reinvested earnings, for monthly BOP statistics (see 2.4.2). These techniques have been developed within the Riksbank, and compilers report that such estimates have compared favorably to ex-post survey generated results.

Adjustments are made to the settlement data in order to cover the loss of data below a reporting threshold of SEK 100,000. Estimation techniques are used in deriving financial services and insurance services; accrued interest on Swedish Kronor-denominated debt securities in foreign ownership is also extrapolated on the basis on information received from custodians.

The Riksbank seasonally adjusts the current and capital account time series using a model based on the SEATS TRAMO software.

3.3 Assessment and validation

3.3.1 Source data are routinely assessed; the results of the assessments are monitored and made available to guide planning.

While the direct reporting system does not utilize a formal threshold instrument, ITRS data are routinely assessed to identify potential respondents for the direct reporting system.

3.3.2 Main intermediate results are validated against other information where available.

Secondary data sources used to supplement and verify data compiled from the direct reporting and ITRS systems are as follows:

- Results of the annual FDI enterprise surveys are used to supplement monthly direct reporting and ITRS-based data, and to obtain detailed classifications of transactions (geographic and economic activity breakdowns).
- Results of the annual Equity Portfolio Survey inform revisions of monthly data series, and provide component details to validate the classifications provided by primary sources.
- Results of the Swedish Coordinated Portfolio Investment Survey (CPIS) conducted in 1997 were published in 1998, making it possible to determine trends in the geographic and instrument composition of foreign portfolio investments in Sweden. Sweden will participate in the Fund's CPIS in 2001; the survey will cover short-term assets, as occurred in 1997.
- Information reported in the financial press is used to verify high-value FDI and other transactions.

3.3.3 Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated and made available to guide users.

While the Riksbank's staff are alert to the scope of the errors and omissions and seek to understand them by crosschecks between current, capital and financial accounts, the process of investigating possible causes appears to be ad hoc, and results that could inform remedial measures are not made available to guide users. The behavior of the BOP statistical time series are routinely assessed against some related series, e.g., data on financial stocks and flows are currently cross-checked for consistency, as is the case for income vis-à-vis financial assets/liabilities. However validations for most items on the current account, against related series, are not undertaken due to the periodicity and timeliness constraints of BOP compilation and dissemination.

An extensive ex-post analysis will be implemented within the next year, in order to analyse time series of line items and developments in different areas of the BOP, and to compare these with developments in related series/near lying areas.

Validations appear to be both routine and ad hoc, and as an internal quality control exercise, results are not available to the public.

3.4 Revision studies

3.4.1 Studies and analyses of revisions are carried out routinely, and used to inform statistical processes.

A revision study was undertaken by the Riksbank in 1998, as part of its pilot project on the development of quality measures. Given the relatively short period covered in the analysis, it was decided that the results could not be used to inform adjustments in statistical processes. However work is underway to develop IT applications that would automatically track and mine revisions; this could inform future changes in statistical processes.

3.4.2 Studies/analyses of revisions are made public to guide data users.

The 1998 revision study is an internal document.

4. Serviceability

4.1 Relevance

4.1.1 Processes to monitor the relevance and practical utility of existing statistics in meeting users' needs are in place.

Emerging data requirements, occasioned by Sweden's accession to the EU, have informed continuous review of existing BOP statistics produced by the Riksbank, and there is active collaboration with Eurostat and the ECB in meeting the data requirements of these two

institutions. The Riksbank is represented on working groups/task forces/committees of Eurostat, ECB and the OECD (see para. 1.1.1). Staff also participate regularly in ad hoc international statistical meetings and seminars including those conducted by the IMF.

The Riksbank conducts a periodic survey of domestic users of statistics—drawn from subscribers to its statistical (hard-copy) publications—and uses the information as a basis for addressing concerns of major groups of users including academia, media and financial markets.

4.2.1 Periodicity follows dissemination standards.

Sweden compiles and disseminates monthly BOP data, thereby exceeding the quarterly periodicity requirement of the SDDS. A shift to quarterly periodicity is planned for 2003.

4.2.2 Timeliness follows dissemination standards.

Monthly BOP data are disseminated 7 weeks after the end of the reference month, thereby exceeding the quarterly timeliness requirement of the SDDS. Annual data represents the aggregate of the monthly data for the calendar year, and are therefore available 7 weeks after the end of the reference year.

4.3 Consistency

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

With the shift to *BPM5* format in 1997, monthly time series dating from 1992 were revised to the level of detail permitted by data availability. Pre-1997 BOP statistics utilize *BPM4* classifications, and the lack of information has rendered it impossible to reclassify some line items into the *BPM5* structure. In May 2001, the Riksbank effected a change in the methodological treatment of financial derivatives, and provided a revised time series dating from March 1995. Breaks in series are identified and explained in metadata available electronically and in hard-copy publications.

Unusual changes in economic trends are explained in the monthly BOP press releases, and in the footnotes of accompanying tables. Notably large transactions in the financial account are identified by company and transaction value (only on approval from the company), and are usually related to company acquisitions, mergers, and major share sales and purchases.

4.3.2 Statistics are internally consistent

Annual BOP statements are generated by the aggregation of monthly data thereby ensuring intertemporal consistency. Errors and omissions, in the monthly data, exhibit volatility (in size and sign) characteristic of short term series. Net errors and omissions in the annual series have been consistently negative since 1994, and the magnitudes were relatively large (in relation to other components of the BOP) in 1997 and 1998. A decline was recorded in 1999.

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

The nature of the revision cycles for, and the differing periodicity and timeliness of, the BOP and other statistical frameworks present challenges in reconciling data across major statistical frameworks at any given time (e.g., a cut-off date, by national accountants, for the collection of merchandise trade data which feeds in to the BOP would mean that at the time the QNA is disseminated, items in the current account of the BOP, particularly goods, would have undergone revisions). However broad harmonization principles such as total net lending/net borrowing (from national accounts) equaling the current account balance plus the capital account balance (from balance of payments) are recognized by compilers, and it is expected that the planned shift to quarterly BOP in 2003 would address practical data reconciliation issues.

While the BOP is broadly consistent with monetary statistics, the sources are different; e.g., the “other account” of the MFI’s for the BOP does not draw on monetary statistics sources. Procedures to effect improved consistency among statistical products of the Riksbank are planned for the future.

4.4 Revision policy and practice

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

According to Sweden’s SDDS metadata posted on the DSBB at the time of the staff visit, “revisions are normally made for the last three months, and earlier periods are normally revised on an annual basis and made when data for a whole new year are released.” However, a continuous revision policy premised on users’ expectations of having the latest available information disseminated without delay appears to be the practice. The absence of a distinction between preliminary and final data may affect the transparency of the policy, but the authorities indicate that there is a predictable revision cycle of which domestic users are aware. Statistical publications do not include a statement about the nature of the revisions policy i.e.; that data are continuously revised. The following information was provided in response to the mission’s request for clarification:³⁵

³⁵ “Revision Policy for the Swedish balance of payments”; note prepared by the Monetary Policy Division, Riksbank May 18, 2001 and subsequently posted on the Riksbank’s Internet ~~Internet~~ website on June 1, 2001.

Regular revisions:

Each month, the preceding five months are revised. At the release of data for December, the whole year is revised. If needed, earlier years are revised at the same time.

Consistency with other official statistics:

To the extent other official statistics that constitute an input to the balance of payments is revised, a corresponding revision is always made within the balance of payments. These revisions might therefore go beyond the five months regular revisions. This applies to the following statistics:

- Merchandise trade
- National Accounts adjustments in trade in goods
- Sea Transportation
- Trade credits
- Income on direct investments (annual survey by Sveriges Riksbank)

The reason is a strong user requirement that BOP should not deviate from other openly available statistical sources.

Ad-hoc revisions of statistics collected by Sveriges Riksbank:

Occasionally when substantial revisions occur in data collected by Sveriges Riksbank, revisions are made in the BOP. Revisions are made when it is felt that the new data give a changed picture of the developments in the BOP. The reason is that users should as soon as possible be provided with statistics that give an accurate picture of the BOP. These ad hoc revisions mainly regard big financial transactions, like direct investments. At rare occasions current account transactions are revised for this reason.

Results of the Annual Survey on Direct Investment are published approximately twelve months after the end of the reference year, and are incorporated into the BOP statistical time series in the following month. Subject to the availability of new information, and to methodological changes, monthly data for a calendar year may be considered final after a 13-month lag.

4.4.2 Preliminary data are clearly identified

Given the continuous revision policy, there is no distinction between preliminary and final data. However, statistical publications do not include a statement about the nature of the revisions policy i.e., that data are continuously revised, and individual data sets are not identified when revised.

5. Accessibility

5.1 Data accessibility

5.1.1 Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons.

BOP statistics are presented in both detailed and aggregative formats facilitating the identification of broad aggregates of the BOP. The current account is presented as both net and gross flows. The financial account show transaction changes in Swedish assets and liabilities abroad, broken down by instruments. Meaningful comparisons are promoted by attempts to revise the historical series as far as possible when methodological changes occur.

5.1.2 Dissemination of media and formats are adequate.

Detailed data on all components of the BOP (current, capital and financial accounts) and the IIP are available, in Swedish and English, on the Riksbank's Internet website in time series format, and are published in the monthly *Balance of Payments and International Investment Position Sweden* (English). The "Monthly Digest of Swedish Statistics" (*Allmän månadsstatistik*) contains time series on balance of payments, with monthly data for the current and the previous year and with annual data for the five preceding years. The Sveriges Riksbank's *Statistical Yearbook (Statistisk Årsbok)* publishes less detailed annual data for the last five years.

Riksbank press releases issued at the time of data dissemination usually contains a brief review of the current period developments, as well as charts and tables commensurate with the needs of journalists and non-technical users. Key BOP items are issued simultaneously via PMI, an electronic publishing system, and on Reuters. The availability of a longer monthly time series in electronic format could enhance user accessibility, and this is likely to be addressed in the Riksbank's plans for enhancing product delivery using Internet-based technologies.

Although Sweden's BOP statistics are published in a format similar to the *BPM5*'s standard presentation, there are some modifications to detail. Swedish publications do not show a breakdown of goods into general merchandise, goods for processing, repairs on goods, goods procured in ports, and non-monetary gold. Annual data for 1999 published in the Fund's *2000 Balance of Payments Yearbook* include entries under goods procured in ports and non-monetary gold. The BOP Division view such a breakdown to be of no interest to users. However, on the request of the Riksbank, SCB now provides, on a quarterly basis, a more detailed breakdown of monthly trade statistics into general merchandise, non-monetary gold, goods for processing and/or repair; this may inform a more detailed reporting of goods to the Fund's Statistics Department, and could be included in future national presentations.

5.1.3 Statistics are released on a pre-announced schedule.

An advance release calendar is disseminated in December of each year indicating the precise dates for the release of data for the next 12 months, and can be obtained from the Information Center at Sveriges Riksbank. Rolling quarter-ahead release dates are disseminated on the Riksbank's Internet website, and on the Fund's DSBB; a notice to this effect is published in the Statistical Annex of the Sveriges Riksbank's *Quarterly Review*.

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

Statistics are released simultaneously to all interested parties by issuing a press release in Swedish and in English; detailed tables are released simultaneously on the Riksbank's Internet website, and the prescribed SDDS components are released on Sweden's National Summary Data page (NSDP) on the day of release.

5.1.5 Nonpublished (but not confidential) sub-aggregates are made available upon request

Nonpublished, nonconfidential, sub-aggregated data are made available upon request. A nominal fee is charged.

5.2 Metadata accessibility

5.2.1 Documentation on concepts, scope, classifications, basis of recording, data sources and statistical techniques is available, and differences in international standards are annotated.

Sweden's BOP summary methodology statement is posted on the DSBB. Detailed documentation on concepts, scope, classifications, basis of recording, data sources, and deviations from internationally accepted standards are disseminated on the Riksbank's Internet website. Publications such as the Fund's *Balance of Payments Statistics Yearbook*, also contain metadata. However, SDDS summary methodology statements and base page metadata appear not to be actively reviewed and updated, as required by SDDS quarterly certification procedures.

5.2.2 Different levels of detail are provided depending on intended audience and type of collection.

Metadata, with varying levels of detail, are presented in hard copy and electronic formats.

5.3.1 Contact person for each subject field is publicized.

A contact person is identified on all BOP publications (hard copy and electronic), and on the DSBB.

5.3.2 Catalogues of publications and other services, along with information on any fees, are widely available.

1. The Internet is the primary dissemination format for BOP data and metadata. All dissemination formats are identified on the DSBB. Catalogues of publications and other services are available on the Riksbank's Internet website.

DATA QUALITY ASSESSMENT FRAMEWORK—GENERIC FRAMEWORK

(March 2001)

Quality Dimensions	Elements	Indicators
0. Prerequisites of quality¹¹	<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 Quality awareness – <i>Quality is recognized as a cornerstone of statistical work.</i></p>	<p>0.1.1 The responsibility for collecting, processing, and disseminating statistics is clearly specified.</p> <p>0.1.2 Data sharing and coordination among data producing agencies are adequate.</p> <p>0.1.3 Respondents' data are to be kept confidential and used for statistical purposes only.</p> <p>0.1.4 Statistical reporting is ensured through legal mandate and/or measures implemented to encourage voluntary response.</p> <p>0.2.1 Staff, financial, and computing resources are commensurate with institutional programs.</p> <p>0.2.2 Measures to ensure efficient use of resources are implemented.</p> <p>0.3.1 Processes are in place to focus on quality, to monitor the quality of the collection, processing, and dissemination of statistics, to acknowledge and deal with tradeoffs within quality, and to guide planning for existing and emerging needs.</p>
<p>1. 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>Professionalism in statistical policies and practices is a guiding principle.</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 compiled on an impartial basis.</p> <p>1.1.2 Choices of sources and statistical techniques are informed solely by statistical considerations.</p> <p>1.1.3 The appropriate statistical entity is entitled to comment on erroneous interpretation and misuse of statistics.</p> <p>1.2.1 The terms and conditions under which statistics are collected, processed, and disseminated are available to the public.</p> <p>1.2.2 Internal governmental access to statistics prior to their release is publicly identified.</p> <p>1.2.3 Products of statistical agencies/units are clearly identified as such.</p> <p>1.2.4 Advance notice is given of major changes in methodology, source data, and statistical techniques.</p> <p>1.3.1 Guidelines for staff behavior are clear and publicized.</p>

DATA QUALITY ASSESSMENT FRAMEWORK—GENERIC FRAMEWORK

(March 2001)

Quality Dimensions	Elements	Indicators
<p>2. Methodological soundness</p> <p><i>The methodological basis for the statistics follows international standards, guidelines, or agreed practices.</i></p>	<p>2.1 Concepts and definitions – <i>Concepts and definitions used are in accord with standard statistical frameworks.</i></p> <p>2.2 Scope – <i>The scope is in accord with internationally accepted standards.</i></p> <p>2.3 Classification/sectorization – <i>Classification and sectorization systems are in accord with internationally accepted standards.</i></p> <p>2.4 Basis for recording – <i>Flows and stocks are valued and recorded according to internationally accepted standards.</i></p>	<p>2.1.1 The overall structure in terms of concepts and definitions follows international standards, guidelines, or agreed practices: see dataset-specific framework.</p> <p>2.2.1 The scope is broadly consistent with international standards, guidelines, or agreed practices: see dataset-specific framework.</p> <p>2.3.1 Classification/ sectorization systems used are broadly consistent with international standards, guidelines, or a agreed practices: see dataset-specific framework.</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 international standards, guidelines, or agreed practices.</p>

DATA QUALITY ASSESSMENT FRAMEWORK—GENERIC FRAMEWORK

(March 2001)

Quality Dimensions	Elements	Indicators
<p>3. Accuracy and reliability</p> <p>Source data and statistical techniques are sound, and output data sufficiently portray reality.</p>	<p>3.1 Source data – <i>Source data available provide an adequate basis to compile statistics.</i></p> <p>3.2 Statistical techniques – <i>Statistical techniques employed conform with sound statistical procedures.</i></p> <p>3.3 Assessment and validation – <i>Source data are regularly assessed and results validated.</i></p> <p>3.4 Revision studies – Revisions, as a gauge of reliability, are tracked and mined for the information they may provide.</p>	<p>3.1.1 Source data are collected from comprehensive data collection programs that take into account country-specific conditions.</p> <p>3.1.2 Source data reasonably approximate the definitions, scope, classifications, valuation, and time of recording required.</p> <p>3.1.3 Source data are timely.</p> <p>3.2.1 Data compilation employs sound statistical techniques.</p> <p>3.2.2 Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques.</p> <p>3.3.1 Source data—including censuses, sample surveys and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and non-sampling error; the results of the assessments are monitored and made available to guide planning.</p> <p>3.3.2 Main intermediate results are validated against other information where applicable.</p> <p>3.3.3 Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated.</p> <p>3.4.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes.</p> <p>3.4.2 Revision studies and analyses are made public and used to guide data users.</p>

DATA QUALITY ASSESSMENT FRAMEWORK—GENERIC FRAMEWORK

(March 2001)

Quality Dimensions	Elements	Indicators
4. Serviceability Statistics are relevant, timely, consistent, and follow a predictable revisions policy.	4.1 Relevance – <i>Statistics cover relevant information on the subject field.</i> 4.2 Timeliness and periodicity – <i>Timeliness and periodicity follow internationally accepted dissemination standards.</i> 4.3 Consistency – <i>Statistics are consistent over time, internally, and with major data systems.</i> 4.4 Revision policy and practice – <i>Data revisions follow a regular and publicized procedure.</i>	4.1.1 Processes to monitor the relevance and practical utility of existing statistics in meeting users' needs are in place. 4.2.1 Periodicity follows dissemination standards. 4.2.2 Timeliness follows dissemination standards. 4.3.1 Statistics are consistent or reconcilable over a reasonable period of time. 4.3.2 Statistics are internally consistent (e.g., accounting identities observed). 4.3.3 Statistics are consistent or reconcilable with those obtained through other data sources and/or statistical frameworks. 4.4.1 Revisions follow a regular, well-established and transparent schedule. 4.4.2 Preliminary data are clearly identified. 4.4.3 Studies and analyses of revisions are carried out routinely and made public.

DATA QUALITY ASSESSMENT FRAMEWORK—GENERIC FRAMEWORK

(March 2001)

Quality Dimensions	Elements	Indicators
5. Accessibility <i>Data and metadata are easily available and assistance to users is adequate.</i>	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> 5.2 Metadata accessibility – <i>Up-to-date and pertinent metadata are made available.</i> 5.3 Assistance to users – <i>Prompt and knowledgeable support service is available.</i>	5.1.1 Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts). 5.1.2 Dissemination media and formats are adequate. 5.1.3 Statistics are released on a pre-announced schedule. 5.1.4 Statistics are made available to all users at the same time. 5.1.5 Non-published (but non-confidential) sub-aggregates are made available upon request. 5.2.1 Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is available, and differences from international standards are annotated. 5.2.2 Different levels of detail are provided depending on intended audience and type of collection. 5.3.1 Contact person for each subject field is publicized. 5.3.2 Catalogues of publications, documents, and other services, including information on any charges, are widely available.

¹ The elements and indicators included here bring together the “pointers to quality” that are applicable across the five identified dimensions of data quality.

OFFICIAL STATISTICS IN SWEDEN

The organization of the production of statistics in Sweden is based on the Official Statistical Act (1992:829) and the Ordinance concerning Official Statistics (1992:1668) and stems from the statistical reform that was implemented beginning in 1994. The statistical legislation has recently been revised and updated in a new Official Statistics Act (2001:99) and a new Ordinance concerning Official Statistics (2001:100); but this has not affected the basic organization of the system.

The two outstanding features of the Swedish statistical system is the explicit definition of the term *Official Statistics*, and the decentralization of the responsibility for Official Statistics to about 25 government agencies, one of those being Statistics Sweden (SCB).

Official Statistics are statistics used for planning, research, and public information purposes, and for international reporting. Official Statistics are intended to be objective and available to the public. As specified under the Secrecy Act (1980:100) and the Data Act (1972:389), they are to be produced and published taking the protection of individuals into consideration. Official Statistics must be produced by the government agency concerned in accordance with the provisions notified by Government and they must be organized in such a way that production of statistics is separated from other tasks of the agency.

The 2001 Ordinance states that Official Statistics should be documented and contain a statement on quality in accordance with the provisions set out by SCB. An appendix to the Ordinance defines the areas covered by Official Statistics which are currently divided into 22 subject areas. All subject areas, except the national accounts, are divided into 104 subgroups. For each subgroup the responsible agency is specified. Only those statistics specifically mentioned can be identified as Official Statistics and published as such.

Several important types of macroeconomic statistics are not defined to be Official Statistics and the agencies that produce them do not belong to the system. Examples include fiscal statistics, produced by the ESV, and monetary and balance of payment statistics, produced by the Central Bank. In the former case, the ESV has not been given the responsibility to produce Official Statistics. In the latter case, the legislation on Official Statistics refers to government agencies only and the Central Bank is directly under the Parliament and thus is not considered to be a government agency.

According to the Official Statistics legislation the SCB is responsible for several intersectoral statistical areas such as population and welfare, housing and building, the labor market, and general economic statistics, including the national accounts, internal and foreign trade, and prices. The SCB is responsible for about 55 percent of Official Statistics (measured by costs), but produces most of the Official Statistics for which other agencies are responsible under commission. The result is that, in total, SCB produces more than 80 percent of Official Statistics.

The Directive for Statistics Sweden (1988:137) states that the SCB is the central management unit for Official Statistics and other government statistics. Thus, the SCB is responsible for the

supervision and coordination of all Official Statistics, and for elaborating statistical nomenclatures and classifications, coordinating the international reporting of statistics and taking an active part in international cooperation. The Director General for Statistics Sweden is appointed by the government, usually for a fixed term, and heads the Council for Statistics Sweden. The Council has a maximum of ten members, who are appointed by the government, normally on the recommendation of the SCB. The budget and the annual report to the government must be approved by the Council, and the Council's approval is also necessary to mandate the data collection from enterprises for statistical purposes.

The Directive states explicitly that the SCB should compile the CPI, and gives authority to the CPI Board and the Board on the construction price index. The CPI Board is given the power to "decide on matters of principle concerning the application of the basic principles of the index." This CPI Board is a professional body whose work is influenced only by statistical considerations. Accordingly, recommendations made by the Board are followed based on their professional merits. The politically sensitive aspects of the CPI calculations have been handled through separate measures of the CPI for policy purposes (the underlying inflation indices for the Central Bank and the Price Basic Amount for the government). In practice, the activity of the Board is considered useful and is highly regarded.

The increased use of electronic systems for the dissemination of data has heightened users' expectations concerning the availability of data via the Internet. This has put pressure on the SCB, particular following the decision to give free access to Sweden's statistical databases from the beginning of 2000. It also has raised the importance of statistical coordination. Users now expect to find all Official Statistics and the associated metadata in (or via) one single and easily assessable electronic source. The website of the SCB is currently being developed to serve this purpose.

DATA QUALITY WORK IN STATISTICS SWEDEN

Data quality work in Statistics Sweden has been conducted in recent years based on the implementation of Total Quality Management (TQM) and Current Best Practices (CBP) approaches in the integrated framework of the Systematic Quality Work. These developments were achieved in phases.

In 1993 the SCB started a major program to improve efficiency and quality in the production process of statistics by using TQM approach. From its inception, it was realized that this approach had to be firmly anchored at the management level and then gradually spread to involve the rest of the organization. This was accomplished by first educating management and other key staff members (around 20 persons) in the quality approach on which TQM is based, and subsequently involving the remaining staff. Early in the process about 100 "TQM pilot" staff were trained to act as support persons in specific quality projects. External consultants supported the initial introduction to the TQM concept as well as the training of the "TQM-pilots."

During 1994-2000 about 100 quality projects were completed; about 30 projects are ongoing. Nearly all the completed projects focused on processes related to production of statistics, administration, and marketing. This orientation was based on the observation that 80 percent of all errors in published statistics were attributed to weaknesses in processes.

After several years, the TQM approach was supplemented with the Current Best Practices (CBPs) approach, designed to minimize unwarranted differences in processes that were used in the production of similar types of statistics. Thus, the main purposes of the CBS are: (1) to standardize processes that are common to many surveys; (2) make use of the latest best practices, and; (3) provide a reference document that can be updated on a regular basis. The SCB is planning to develop CBPs for all major survey processes, and several projects have already been completed (e.g. for non-response, editing, project work, and diagram representations). Seminars and study circles are part of the implementation process.

To increase the flexibility in the approach to quality work, for the last several years, the SCB has begun to use the term *Systematic Quality Work* to cover all aspects of the above mentioned systems. Systematic Quality Work was developed to facilitate the adoption of new methods and to allow features of the newly applied systems to be discontinued if they were found to be of limited utility.

The ultimate responsibility for the quality work rests with the top management of the SCB. A Quality Secretariat, in the Development Department, has been created to support management and other parts of the organization and is headed by a quality coordinator. Connected to it is a reference group headed by the Deputy Director General. The next level in the quality organization consists of the "TQM pilots." These staff devote a smaller fraction of their work-time to this function, and many are currently being replaced as they are

promoted or leave the SCB. At present there are about 70 trained “TQM pilots” in the SCB and about half of staff have participated in quality projects.

The quality concepts for Official Statistics in Sweden are used in the Quality Declarations that must exist for all Official Statistics and must accompany these data. They are also used in the annual Quality Report from SCB. These cover:

Contents

- Statistical target characteristics (with 5 subgroups)
- Comprehensiveness

Accuracy

- Overall accuracy
- Sources of inaccuracy (with 6 subgroups)
- Presentation of accuracy measures

Timeliness

- Frequency
- Production time
- Punctuality
-

Coherence and comparability

- Comparability over time
- Comparability between domains
- Coherence with other statistics

Availability and clarity

- Dissemination form
- Presentation
- Documentation
- Access to micro data
- Information services

In the SCB, quality is also examined from different perspectives: quality as conceived by the customers; the quality characteristics of the processes; and quality of the institution. These three forms are connected in a logical sequence in which the customers’ opinion about the statistics is of decisive importance. How customers perceive quality depends on the product quality that is delivered by the SCB. The perceived quality by customers is influenced by their confidence in the SCB, which is shaped in turn by their attitude towards the institution as a whole.

The Systematic Quality Work in the SCB is analyzed internally in a number of ways and this information is made available to the outside world. The following types of information disseminated:

- Reports on the quality projects
- Annual quality reports
- The users' views on statistics
- The general public's view of the SCB
- The internal staff survey related to the attitude to quality work
- Interviews and surveys of key persons to measure their insight into and awareness of the quality work.

In a report by the SCB ("Results of Systematic Quality Work in the SCB", January 3, 2001) it is acknowledged that it is extremely difficult to give a quantitative measure of the outcome of the quality projects. Only partial measures of costs and benefits can be identified. There has been considerable autonomy given to individual units for follow-up on project reports without any overall guidance. The SCB considers that the outcome of the quality projects has significantly contributed to improving the quality of statistics (including timeliness), despite considerable budget cuts in recent years. In addition, general quality awareness has increased in the SCB, especially the focus on customers, and it is realized that internal customers also are important.

Annual quality reports (where those responsible for the individual statistical products give their assessment of quality developments seen from a user's perspective) have been published for several years. For the most part, the assessments of quality developments have been positive, even if the pace of improvements seems to have slowed somewhat. However, many changes have taken place in sources and methods, and therefore it is difficult to compare products over time.

There is a project of customer satisfaction studies to gather views on the quality and use of statistics, and the services provided by SCB. The program comprises surveys on: public opinion of the SCB; customer satisfaction surveys and consignment follow-ups; and direct contact with priority customers. Public opinion surveys (or image studies) have been carried out since the 1970s and have been done on a comparable basis since 1992. They are conducted every two years and they deal with attitudes to statistics, willingness to supply information, and whether respondents feel comfortable with the confidentiality of data supplied to the SCB. During recent years the image of the SCB has been consistently high. The customer satisfaction index, based on a survey of about 2000 of the SCB's biggest customers and users remains high (at around 7 on a scale from 1 to 10). Replies to some of the questions have helped to identify areas where additional efforts are needed.

The internal staff survey reveals that around 60 percent consider the systematic quality work important, whereas around 15 percent believe that it is not the case. The remaining 25 percent have no opinion on this question. The interviews with the leadership group showed that there was a high satisfaction with the quality projects that had taken place within their units, though there was a relatively big variation in the replies. The results of the

interviews led to a decision to hold repeat courses on the TQM principles for the entire management group, ranging from top management to the heads of units.

In recent years there has been a tendency to attach less weight to the strict TQM, not only in the SCB, but also within the government system as a whole. Nevertheless, the lessons from the earlier application of the system have been introduced in the general approach to quality and led to quality awareness at all levels of the agency. Thus the emphasis that is placed on the personal quality awareness, including customer orientation, and 'self-assessments' is illustrated by the input from staff members to the annual quality report—a process in which practically all the staff are involved.

Based on its early and systematic approach to quality, the SCB has been able to play a significant role internationally in this area. The SCB chairs the Leadership Group (LEG) on quality within the framework of the statistical cooperation in the EU. The final report from the LEG was presented at a major international conference on quality in statistics organized by the SCB, in Stockholm in May 2001. Through seminars Sweden has shared its experience with statistical offices in several other countries. The management of the SCB has found that the systematic quality work—in addition to its specific results—has contributed to improving the general image of the agency at home and abroad.

The establishment in 2000 of the Commission on the Review of Economic Statistics, also can be seen as a consequence of the awareness to adjust statistics to changing economic conditions, including the increased importance attached to coverage, accuracy and timeliness, especially for the national accounts and related statistics. A first report from the Commission, dealing with the perspectives of users in relation to the future of Swedish economic statistics has been published (see the Users' Views section IV of the main report; and SOU 2001:34). At present the Commission is in the process of visiting about ten countries to collect information about their approaches to economic statistics. According to the terms of reference the main report should be presented by the end of 2002 and the main proposals should be implemented no later than January 2004.